

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**SWIFT APPLICATION – JUNE 5, 2015**

**APPLICATION FOR FINANCIAL ASSISTANCE**  
**FOR WATER AND WASTEWATER INFRASTRUCTURE PROJECTS**

This application is comprehensive, covering all loan and grant assistance applications for water and wastewater infrastructure financing through the various Texas Water Development Board (TWDB) programs. The format of the application is intended to expedite the review process for both the applicant and TWDB staff. This application can be used by political subdivisions, including water supply corporations.

Please submit one double-sided original and one indexed, electronic copy, via electronic storage media such as CD or flash drive using MS Word, Excel and/or Adobe Acrobat.

Please submit your application to:

Texas Water Development Board  
Water Supply and Infrastructure-Regional Water Planning and Development  
P O Box 13231  
1700 N. Congress Avenue, 5<sup>th</sup> Floor  
Austin, Texas 78711-3231  
(78701 for courier deliveries)

A complete application consists of all of the applicable information and forms requested in this document. When preparing this application please review the Application and all Guidance and Forms, listed at the end.

For more information, please contact your Regional Project Implementation Team at:

[http://www.twdb.texas.gov/financial/programs/swift/regional\\_project\\_teams.asp](http://www.twdb.texas.gov/financial/programs/swift/regional_project_teams.asp)

Thank you.

**TWDB Use Only**

Name of Applicant: \_\_\_\_\_

Date application received: \_\_\_\_\_

Date administratively complete: \_\_\_\_\_

Please label each attachment with the number of the pertinent application section (i.e. “Part D5”)

## Contents

Part A: General Information.....	3
Part B: Legal Information.....	7
Part C: Financial Information .....	11
Part D: Project Information .....	18
Part E: State Water Implementation Fund for Texas (SWIFT) Applicants Only:.....	23
Part I: Summary of attachments to application .....	24
Part J: Guidance and Forms.....	25

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

**Part A: General Information**

1. The legal authority under which the applicant was created and operates.
  - a)  TYPE A GENERAL-LAW MUNICIPALITY (Texas Local Gov't Code Sec. 5.001)
  - b)  TYPE B GENERAL-LAW MUNICIPALITY (Texas Local Gov't Code Sec. 5.002)
  - c)  TYPE C GENERAL-LAW MUNICIPALITY (Texas Local Gov't Code Sec. 5.003)
  - d)  HOME-RULE MUNICIPALITY (Texas Local Gov't Code Sec. 5.004)
  - e)  SPECIAL-LAW MUNICIPALITY (Texas Local Gov't Code Sec. 5.005)
  - f)  NONPROFIT ORGANIZATION (Business Organization Code Chapter 22)
  - g)  NONPROFIT WATER SUPPLY OR SEWER SERVICE CORP. (Texas Water Code Ch 67)
  - h)  ALL DISTRICTS (Texas Water Code Chapter 49)
  - i)  OTHER (attach)

2. Applicant Name and Contact Information:

<b>Name:</b>	Palo Pinto County Municipal Water District No. 1
<b>County:</b>	Palo Pinto
<b>Physical Address:</b>	211 SW 1 <sup>st</sup> Avenue, Mineral Wells, Texas 76067
<b>Mailing Address:</b>	P. O. Box 387, Mineral Wells, Texas 76068-0387
<b>Phone:</b>	940-328-7712
<b>Fax:</b>	940-328-7725

3. Brief description of the project: Turkey Peak Reservoir Project

The Turkey Peak Dam and Reservoir project is also known as the Lake Palo Pinto Storage Restoration Project as it is effectively an enlargement of Lake Palo Pinto to fully restore its permitted capacity. The project includes the construction of a new dam on Palo Pinto Creek approximately 4 miles downstream of the existing Lake Palo Pinto Dam with both portions of the reservoir having the same conservation pool elevation (867.3 ft-msl). The project is described in more detail in the 2011 Brazos G Regional Water Plan (pages 4B.12-81 to 4B.12-98 - Volume II) and in the May 2015 Initially Prepared 2016 Brazos G Regional Water Plan (pages 4.13-1 to 4.13-18 - Volume II). The project will increase the conservation capacity of Lake Palo Pinto from 27,215 acft (2007 TWDB Volumetric Survey) to 49,792 ac-ft. This phase of the project includes land acquisition, final design, archeology recovery, and initial utility relocations beginning in 2016. The next phase of the project (TWDB funds not currently being requested) includes construction of the following facilities beginning in about 2018: new dam and associated spillways, final utility and road relocations, and a new bridge and roadway across the existing Lake Palo Pinto Dam and Spillway.

4. Applicant's Officers and Members:

<b>Name</b>	<b>Office Held</b>
David R. Turk	President
Wesley Ellis	Vice President
Charles D. Sturdivant	Board Member
Don Crawford	Board Member
James R. Collins	Board Member

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

5. Applicant's **primary contact person** for day-to-day project implementation.

<b>Name:</b>	Scott Blasor
<b>Title:</b>	Secretary/Treasurer
<b>Address:</b>	P. O. Box 387, Mineral Wells, Texas 76068-0387
<b>Phone:</b>	940-328-7712
<b>Fax:</b>	940-328-7725
<b>Email:</b>	scottblasor@gmail.com

6. Applicant's Consultants (Attach copies of all draft and/or executed contracts for consultant services to be used by the Applicant in applying for financial assistance or constructing the proposed project.):

a) Applicant Engineer

<b>Firm Name:</b>	HDR Engineering, Inc.
<b>Contact:</b>	Kenneth Choffel, P.E.
<b>Address:</b>	4401 West Gate Blvd., Suite 400, Austin, Texas 78745
<b>Phone:</b>	512-912-5131
<b>Fax:</b>	512-912-5158
<b>Email:</b>	Ken.choffel@hdrinc.com

b) Bond Counsel

<b>Firm Name:</b>	McCall, Parkhurst & Horton, L.L.P.
<b>Contact:</b>	Leroy Grawunder, Jr.
<b>Address:</b>	717 North Harwood, Suite 900, Dallas, Texas 75201-6587
<b>Phone:</b>	214-754-9201
<b>Fax:</b>	214-754-9250
<b>Email:</b>	lgrawunder@mphlegal.com

c) Financial Advisor

<b>Firm Name:</b>	First Southwest Company
<b>Contact:</b>	Sara Bedford
<b>Address:</b>	325 North St. Paul Street, Suite 800, Dallas, Texas 75201
<b>Phone:</b>	214-953-4031
<b>Fax:</b>	214-953-4050
<b>Email:</b>	sara.bedford@firstsw.com

d) Certified Public Accountant

<b>Firm Name:</b>	George, Morgan & Sneed, P.C.
<b>Contact:</b>	Peter Morgan, CPA
<b>Address:</b>	1849 Wall Street, Weatherford, Texas 76086-6298
<b>Phone:</b>	817-564-5704
<b>Fax:</b>	817-599-7389
<b>Email:</b>	Peter@gms-cpa.com



Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

e) Legal Counsel (if other than Bond Counsel)

<b>Firm Name:</b>	Lloyd Gosselink Rochelle & Townsend, P.C.
<b>Contact:</b>	Martin C. Rochelle
<b>Address:</b>	816 Congress Avenue, Suite 1900, Austin, Texas 78701
<b>Phone:</b>	512-322-5810
<b>Fax:</b>	512-472-0532
<b>Email:</b>	mrochelle@lglawfirm.com

f) Any other consultant representing the Applicant before the Board

<b>Firm Name:</b>	City of Mineral Wells, Texas
<b>Contact:</b>	Lance Howerton
<b>Address:</b>	P.O. Box 460, Mineral Wells, Texas 76068-0460
<b>Phone:</b>	940-328-7703
<b>Fax:</b>	940-328-7704
<b>Email:</b>	citymanager@mineralwellstx.gov

7. List the counties within the Applicant's service area.

Palo Pinto, Parker, Hood, Erath

8. Identify the Applicant's total service area population:

33,589 (Source: District's Utility Profile)

9. Applicant is requesting funding from which programs? Check all that apply.

	PROGRAM	AMOUNT REQUESTED
a) <input type="checkbox"/>	Drinking Water State Revolving Fund (DWSRF)	\$ _____
b) <input type="checkbox"/>	Clean Water State Revolving Fund (CWSRF)	\$ _____
c) <input type="checkbox"/>	Texas Water Development Fund (DFund)	\$ _____
d) <input type="checkbox"/>	State Participation	\$ _____
e) <input type="checkbox"/>	Rural Water Assistance Fund (RWAFF)	\$ _____
f) <input checked="" type="checkbox"/>	State Water Implementation Fund for Texas (SWIFT)	\$ 17,100,000
g) <input type="checkbox"/>	Economically Distressed Areas Program (EDAP)	\$ _____
h) <input type="checkbox"/>	If other please explain: _____	\$ _____

10. Other Funding Sources: Provide a list of any other funding source(s) being utilized to complete the project, including Applicant's local contribution, if any, or commitments applied for and/or received from any other funding agency for this project or any aspect of this project. **Provide commitment letters if available. Additional funding sources must be included within the Project Budget (TWDB-1201).**

N/A

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

11. Applicant is requesting funding for which phase(s)? Check all that apply.

- Planning
- Acquisition
- Design
- Construction

12. Is Applicant requesting funding to refinance existing debt?

- Yes If yes, attach a copy of the document securing the debt to be refinanced.  
 **Attached document**
- No

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

**Part B: Legal Information**

13. Cite the legal authority under which the Applicant can issue the proposed debt including the authority to make a proposed pledge of revenues.

Article XVI, Section 59, Texas Constitution, Article 8280-258 V.A.T.C.S. and Chapter 49, Texas Water Code.

14. What type of pledge will be used to repay the proposed debt?

- Systems Revenue
- Taxes
- Combination of systems revenues and taxes
- Other (Contract Revenue, etc.)

15. Provide the full legal name of the security for the proposed debt issue(s).

Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Series 2015A  
Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Taxable Series 2015B

16. Describe the pledge being offered and any existing rate covenants.

Pledge: A first lien on and pledge of Pledged Revenues, including specifically the payments to be received by the District from the City of Mineral Wells, Texas (the "City"), pursuant to the Water Purchase Contract, dated as of July 10, 1981 (the "Water Purchase Contract"), and the supplements and modifications thereof, between the District and the City.

"Pledged Revenues" means Revenues not used to pay Operations and Maintenance Expenses.

"Revenues" means all tolls, revenues, rates, fees, charges, rents and other income and receipts in each case derived by, or for the account of, the District from the operation of the District, and includes specifically payments received from the City as a Water Charge pursuant to the Water Purchase Contract.

"Operation and Maintenance Expenses" means the reasonable and necessary cost of ordinary maintenance and operation of the District and its facilities and all other properties and works of the District, includes without limiting the generality of the foregoing (1) premiums on any insurance policies of every kind and nature; (2) administrative, legal, and other overhead expenses of the District; and (3) charges and expenses of the Paying Agent/Registrar for the District's Bonds and the District's depository bank.

Rate Covenant: The District covenants that at all times it will maintain a water charge and rates, fees and charges for services furnished by it, and that from time to time as often as it shall appear necessary it will adjust such rates, fees and charges as may be necessary and proper, so that such fees and charges will be fully sufficient to produce revenues during such Fiscal Year which will be adequate to pay all Operation and Maintenance Expenses during such Fiscal Year, and provide revenues necessary to make all payments due for payment of principal and interest on Parity Obligations, and to establish the funds prescribed in the Bond Resolution and the payment of Reserve Fund Obligation Payments, if any. The District further covenants that if at any time the revenues collected for the services furnished by it are inadequate to satisfy this covenant, the District shall adjust the rates, fees and charges in order that such deficiencies shall be made up before the end of the next ensuing Fiscal Year.

17. Attach the resolution from the governing body requesting financial assistance.

TWDB-0201A (<http://www.twdb.texas.gov/financial/instructions/>)

- Attached Resolution**

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

18. Attach the Application Affidavit  
TWDB-0201 (<http://www.twdb.texas.gov/financial/instructions/>)

**Attached Applicant Affidavit**

19. Attach the Certificate of Secretary  
TWDB-201B (<http://www.twdb.texas.gov/financial/instructions/>)

**Attached Certificate of Secretary**

20. Is the applicant a Water Supply Corporation (WSC)?

Yes If yes, attach each of the following:  
 No

21. Is the applicant proposing to issue revenue bonds?

Yes If yes, attach copies of the most recent resolution/ordinance(s) authorizing any outstanding parity debt. This is essential to insure outstanding bond covenants are consistent with covenants that might be required for TWDB financing.

**Attached resolution/ordinance(s)**

[Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bonds, \(Tax Exempt\) Series 2009A \("Series 2009A Bonds"\) \(sold to the Texas Water Development Board.](#)

[Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bonds, \(Taxable\) Series 2009B \("Series 2009B Bonds"\) \(sold to the Texas Water Development Board\)](#)

[Palo Pinto County Municipal Water District No. 1 Revenue Refunding Bonds, Series 2011 \("Series 2011 Bonds"\) \(sold by negotiated sale in the public securities market\)](#)

[Upon the defeasance of the District's Revenue Refunding Bonds, Series 2001, and Revenue Bonds, Series 2002 \(each refunded by the Series 2011 Bonds\), the Series 2009A Bonds and the Series 2009B Bonds became secured by a first lien on the Pledged Revenues. See Section 3.01 of the Bond Resolutions for the Series 2009A Bonds and Series 2009B Bonds.](#)

No

22. Does the applicant possess a Certificate of Convenience and Necessity (CCN)?

Yes If yes, attach a copy of the CCN and service area map showing the areas the applicant is allowed to provide water or wastewater services.

**Attached CCN and service area map**  
(See Figure 2-1 in Engineering Feasibility Report)

No If no, indicate the status of the CCN. \_\_\_\_\_

N/A [Certificate of Adjudication 12-4031 and 12-4031A \(DRAFT\)](#)

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

23. Has the applicant been the subject of any enforcement action by the Texas Commission on Environmental Quality (TCEQ), the Environmental Protection Agency (EPA), or any other entity within the past three years?

- Yes If yes, attach a brief description of every enforcement action within the past three years and action(s) to address requirements.  
 **Attached**
- No

24. Are any facilities to be constructed or the area to be served within the service area of a municipality or other public utility?

- Yes If yes, has the applicant obtained an affidavit stating that the utility does not object to the construction and operation of the services and facilities in its service area?
  - If yes, attach a copy of the affidavit.
  - Attached affidavit** Letter from Santo Special Utility District
  - If no, provide an explanation as to why not. \_\_\_\_\_
- No

25. If the assistance requested is more than \$500,000 a Water Conservation Plan (WCP) is required. The WCP cannot be more than **FIVE** years old and must have been adopted by the applicant. Has the applicant adopted a Board-approved WCP? (Check one and attach requested information, if any.)

- Yes Enter date of Applicant's WCP adoption: [June 27, 2014](#).  
(Included in Appendix A of Engineering Feasibility Report)
- No If no, attach a copy of a draft Water Conservation Plan and Drought Contingency Plan prepared in accordance with the TWDB WCP Checklist (<http://www.twdb.state.tx.us/financial/instructions/doc/TWDB-1968.pdf>)
  - Attached Draft WCP and Drought Contingency Plan**
  - Attached Utility Profile TWDB-1965**  
<http://www.twdb.state.tx.us/financial/instructions/doc/TWDB-1965.pdf>
- N/A (Request is \$500,000 or less per Water Code §§ 15.106(c), 17.125(c), 17.277(c), and 17.857(c))

**Note:** If the applicant will utilize the project financed by the TWDB to furnish services to another entity that in turn will furnish services to the ultimate consumer, the requirements for the WCP may be met through contractual agreements between the applicant and the other entity providing for establishment of a water conservation plan. The provision requiring a WCP shall be included in the contract at the earliest of: the original execution, renewal or substantial amendment of that contract, or by other appropriate measures.

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

26. Does the applicant provide retail water services?

- Yes If yes, has the applicant already submitted to the TWDB the annual water use survey of groundwater and surface water for the last **THREE** years?
- Yes
- No If no, please download survey forms and attach a copy of the completed water use surveys to the application.  
<http://www.twdb.texas.gov/waterplanning/waterusesurvey/index.asp>
- Attached Water Use Survey**
- X No

27. Is the applicant a retail public utility that provides potable water?

- Yes If yes, has the applicant already submitted the most recently required water loss audit to the TWDB?
- Yes
- No If no, and if applying for a water supply project, please complete the online TWDB Water Audit worksheet found at <http://www.twdb.texas.gov/conservation/resources/waterloss-resources.asp> and attach a copy to the application.
- Attached TWDB Water Audit worksheet**
- X No

28. Does the Applicant provide wastewater services?

- Yes
- X No

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

**Part C: Financial Information**

**Regional or wholesale providers, complete questions 29-31.**

**Retail providers, complete questions 32-34.**

29. List top **TEN** customers of the system by annual usage in gallons and percentage of total usage, including whether any are in bankruptcy.

Customer Name	Annual Usage (gal)	Percent of Usage	Bankruptcy (Y/N)
City of Mineral Wells (City)	911,257,400	90.65	N
Brazos Electric Power Cooperative, Inc. (BEPC)	69,145,582	6.88	N
Lake Palo Pinto Area Water Supply Corporation (LPPAWSC)	24,862,000	2.47	N

Comments: Fiscal Year ended 09/30/2014

Technical Review Comment 7/9/2015 – TWDB: Does the District charge the City of Mineral Wells a usage rate for the water it uses, such as a per 1,000 gallons charge?

No. The price charged to the City of Mineral Wells for water is established on the basis of the Palo Pinto County MWD #1 ("Water District") annual budget that reflects the following items: Debt Service - annual debt service requirements to pay principal and interest on outstanding bonds, Reserve Fund requirements, Contingency Fund requirements, and Operations and Maintenance Expenses. The City of Mineral Wells is contractually obligated to pay the Water District's Debt Service, Reserve Fund and Contingency Fund requirements, which are presented to it in the Water District's Annual Budget. The Budget also includes the Operations and Maintenance Expenses which are presented for City of Mineral Wells approval.

Technical Review Comment 7/9/2015 – TWDB: Does the District charge Brazos Electric a per 1,000 gallons usage charge?

No. Brazos Electric pays, on a take or pay basis, \$143,000 for 1,000 acre feet of Base Water Supply, and \$214,500 as a Reservation Option for 3,000 acre feet of water.

Technical Review Comment 7/9/2015 – TWDB: If there are usage charges for either customer, what are the usage charges? In addition, if they are charged in this manner, what revenue category are the revenues from usage charges included within the audited financial statements?

The water charges described above are included in Operating Revenues - Charges for Services.

30. List the top TEN customers of the system by gross revenues and percent of total revenues, including whether any are in bankruptcy

Customer Name	Annual Revenue(\$)	Percent of Revenue	Bankruptcy (Y/N)
City of Mineral Wells	2,358,000	86.37	N
Brazos Electric Power Cooperative, Inc.	357,500	13.10	N
Lake Palo Pinto Area Water Supply Corporation	10,911	00.40	N

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

31. Provide a summary of the wholesale contracts with customers

Contract Type	Minimum annual amount	Usage fee per 1,000 gallons	Annual Operations and Maintenance	Annual Capital Costs	Annual Debt Service	Other
City	\$2,058,000	Varies	\$208,170	Varies	\$1,394,266	\$455,164
BEPC	\$143,000	0.4389				\$143,000
BEPC	\$214,500	0.2194				\$214,500
LPPAWSC	\$0	0.4389				Varies

32. List top **TEN** customers of the water and/or wastewater system by annual revenue with corresponding usage and percentage of total use, including whether any are in bankruptcy.

a. **WATER** (The following are the top water customers of the City of Mineral Wells)

Customer Name	Annual Usage (gal)	Percent of Total Water Revenue	Bankruptcy (Y/N)
Parker County Special Utility District	120,720,000	13.25%	N
Santo Special Utility District	79,440,700	8.72%	N
North Rural Water Supply Corporation	73,171,400	8.03%	N
Sturdivant-Progress Water Supply Corporation	64,932,800	7.13%	N
Palo Pinto Water Supply Corporation	26,008,300	2.85%	N
Millsap Water Supply Corporation	24,545,400	2.69%	N
City of Graford	17,911,500	1.97%	N
Mineral Wells Independent School District	6,844,800	0.75%	N
Palo Pinto General Hospital	4,866,500	0.53%	N
Pioneer Crossing	4,073,100	0.45%	N

b. **WASTEWATER** (The following are the top wastewater customers of the City of Mineral Wells)

Customer Name	Annual Usage (gal)	Percent of Total Water Revenue	Bankruptcy (Y/N)
Mineral Wells Independent School District	5,334,400	1.15%	N
Palo Pinto General Hospital	4,866,500	1.05%	N
The Washhouse	3,798,600	0.82%	N
Pioneer Crossing	3,942,300	0.85%	N
Mineral Wells I Enterprises	2,985,500	0.64%	N
Karl Klement Properties	2,912,600	0.63%	N
Wal-Mart Stores	2,691,100	0.58%	N
Spanish Trace Apartments	2,535,500	0.55%	N
Cedar View Apartments	3,078,900	0.66%	N
Mineral Wells Housing Authority	2,513,300	0.54%	N



Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

33. Current Average Residential Usage and Rate Information

Service	Date of Last Rate Increase	Avg. Monthly Usage (gallons)	Avg. Monthly Bill (\$)	Avg. Monthly Increase Per Customer(\$)	Projected Monthly Increase Necessary (\$)
Water	10/1/2014	5,152	35.07	3.21	0.00
Wastewater	10/1/2014	4,441	35.23	3.18	0.00

34. Provide the number of customers for each of the past five years.

Year	Number of Customers
2011	3
2012	3
2013	3
2014	3
2015	3

All applicants complete questions 35-51 of the financial section, as applicable.

35. Disclose all issues that may affect the project or the applicant's ability to issue and/or repay debt (such as anticipated lawsuits, judgments, bankruptcies, major customer closings, etc.).

A return of drought conditions as experienced in 2014-2015 are PPCMWD No. 1's biggest risk, due to the cost of Brazos River water and the costs associated with its treatment, mainly electricity and temporary ultra-filter and reverse osmosis treatment facilities.

36. Has the applicant ever defaulted on any debt?

- Yes If yes, disclose all circumstances surrounding prior default(s). \_\_\_\_\_  
 No

37. Does the applicant have taxing authority?

- Yes  
 No

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

38. Provide the last five-years of data showing total taxable assessed valuation including net ad valorem taxes levied, corresponding tax rate (detailing debt service and general purposes), and tax collection rate.

Fiscal Year Ending	Net Taxable Assessed Value (\$)	Tax Rate	General Fund	Interest & Sinking Fund	Tax Levy \$	Percentage Current Collections	Percentage Total Collections
2011	666,592,003	0	0	0	0	0	0
2012	631,295,286	0	0	0	0	0	0
2013	638,636,048	0	0	0	0	0	0
2014	652,672,680	0	0	0	0	0	0
2015	695,755,946	0	0	0	0	0	0

Comments: City of Mineral Wells net taxable assessed values. The boundaries of PPCMWD No. 1 overlay the City's boundaries so values would be similar.

39. Attach the last five-years of tax assessed values delineated by Classification (Residential, Commercial and Industrial). **If applicant does not have taxing authority, provide the assessed values of the county.**

SEE ATTACHED

40. Attach the direct and overlapping tax rate table:

SEE ATTACHED

41. Provide the current top **TEN** taxpayers showing percentage of ownership to total assessed valuation. State if any are in bankruptcy and explain anticipated prospective impacts in the Comments blank, below. If any of these have changed in the past three years, please provide information on the changes to the top ten.

Taxpayer Name	Assessed Value	Percent of Total	Bankruptcy (Y/N)
Baker Hughes	\$29,012,300	4.17	N
CanTex Inc.	\$26,403,900	3.79	N
Perry Equipment Corp	\$16,959,830	2.44	N
Wal-Mart SuperCenter	\$14,576,510	2.10	N
Saxon Drilling	\$12,937,500	1.86	N
Southwire Corp	\$9,985,700	1.44	N
Hanson Brick Inc	\$9,801,880	1.41	N
Fiber Glass Systems	\$8,245,280	1.19	N
NSC Properties LP	\$8,228,570	1.18	N
Oncor Electric Delivery Co	\$6,822,170	0.98	N

Comments: Baker Hughes closed its operations in January 2015.

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

42. Provide the maximum tax rate permitted by law per \$100 of property value.

The District does not levy a property tax. The maximum tax rate for the City of Mineral Wells is \$2.50 per \$100.

43. Does the applicant collect sales tax?

Yes Provide the sales tax collection history for the past five years.

No

44. Indicate the tax status of the proposed loan?

58% Tax-Exempt (\$9,915,000)

42% Taxable (\$7,185,000)

45. Proforma (**Select one of the four listed below**) Please be sure the proforma reflects the schedule requested, including multi-phased funding options.

a. System revenues are anticipated to be used to repay the proposed debt. Attach a proforma indicating the following information for each year the debt is outstanding:

SEE ATTACHED

b. Taxes are anticipated to be used to repay the proposed debt. Attach a pro forma indicating the following information for each year the debt is outstanding:

N/A

Combination of system revenues and taxes to be used to repay the proposed debt. Attach a pro forma indicating the following information for each year the debt is outstanding:

N/A

c. Another type of pledge will be used to repay the proposed debt. Attach a pro forma with information for each year the debt is outstanding, which includes projected revenues, annual expenditures, outstanding debt requirements, and revenues available for debt service.

N/A

46. Attach a **FIVE** year comparative system operating statement (not condensed) including audited prior years and an unaudited year-to-date statement. Unaudited year-to-date statement must reflect the financial status for a period not exceeding the latest six months.

SEE ATTACHED

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

47. Attach **ONE** copy of an annual audit of financial statements, including the management letter, for the preceding fiscal year prepared by a certified public accountant or firm of accountants and, if the last annual audit was more than 6 months ago, then, provide interim financial information.

- X Attached Annual Audit
- X Attached Management Letter
- X If applicable, attached interim financial information

48. Does the applicant have any outstanding debt? (Check all that apply)

- Yes, General obligation debt
- X Yes, Revenue debt
- Yes, Authorized but unissued debt
- No

49. Attach a listing of total outstanding debt and identify the debt holder. Segregate by type (General Obligation or Revenue) and present a consolidated schedule for each, showing total annual requirements. Note any authorized but unissued debt.

a. General Obligation Debt:

- X No

b. Revenue:

- X Yes
- X **Attached schedule. The schedule should also identify the debt holder.**

b. Authorized by Unissued Debt:

- X No

50. List the ten largest employers of the Applicant's service area:

Name	Number of Employees
Mineral Wells Independent School District	480
Palo Pinto General Hospital	383
PECO-FACET	310
Wal-Mart Super Center	260
City of Mineral Wells	160
Ventamatic	150
Cobham Avionics Integrated Systems	106
Fiber Glass Systems	100
Palo Pinto Nursing Center	100
CanTex Inc.	100

Comments (example, any anticipated changes to the tax base, employers etc.)  
Source: Mineral Wells Chamber of Commerce 2011.

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

51. Provide any current bond ratings with date received.

	Standard & Poor's	Date Received	Moody's	Date Received	Fitch	Date Received
G.O.						
Revenue	A	05/17/12			AA-	09/25/13

52. Is the project intended to allow the applicant to provide or receive water or sewer services to or from another entity?

- Yes. If yes, the applicant must attach, at a minimum, the proposed agreement, contract, or other documentation establishing the service relationship, with the final and binding agreements provided prior to loan closing.
- Attached**
- X No.

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

## Part D: Project Information

53. Description of Project Need (for example, is the project needed to address a current compliance issue, avoid potential compliance issues, extend service, expand capacity, etc.):

The Project is needed to meet the water supply needs of the Applicant's customers as summarized on page 4 – 23 of the May 2015 Initially Prepared 2016 Brazos G Regional Water Plan – Volume 1 (2016 IPP). The 2016 IPP shows the District's existing supply source (Lake Palo Pinto) will not meet the existing needs of the Applicant's customers and by 2070 the Applicant will have a shortfall in supply of 5,174 acre feet per year. The inability of Lake Palo Pinto to meet the current needs of the Applicant's customers was recently demonstrated with the historic drought that occurred between May 2012 and February 2015. During this drought Lake Palo Pinto reached its historic low of 846.64 ft-msl and held less than nine (9) percent of its full capacity.

54. Description of Project, including a bulleted list of project elements/components, and alternatives considered (including existing facilities): (See Section 5 of Engineering Feasibility Report)

A complete preliminary engineering feasibility data must include:

- a. A description and purpose of the project, including existing facilities.
- Note: CWSRF and DWSRF must address issues scored in Intended Use Plan submittal

X **Attached** "Engineering Feasibility Report and Environmental Information Document for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)"

Technical Review Comment 7/9/2015 – TWDB: Please provide a sealed, stamped engineering report with firm registration number.

Sealed, stamped engineering report with firm registration number is attached as item "D54(a)"

- b. If project is for **Construction only**, then attach the appropriate Engineering Feasibility Report:

a) **Water** (TWDB-0555 at <http://www.twdb.texas.gov/financial/instructions/doc/TWDB-0555.pdf>)

**Attached**

b) **Wastewater** (TWDB-0556 at <http://www.twdb.texas.gov/financial/instructions/doc/TWDB-0556.pdf>)

**Attached**

- c. DWSRF applicants must complete a Projected Draw Schedule (TWDB-1202 at <http://www.twdb.texas.gov/financial/instructions/doc/TWDB-1202.xls>)

55. Water Made Available (For projects requesting a construction component):

- a. *New supply* 6,800 (acre-feet/year) See Section 5 of Engineering Feasibility Report for capital costs.  
Note: construction components (other than utility relocations) are not a part of this application
- o The **increase** in the total annual volume of water supply that will be made available to the recipient(s) by the proposed project.

**Please label each attachment with the number of the pertinent application section (i.e. "Part D5")**

- Water Plan project examples: new groundwater wells, reservoir development, pipelines to sources.

56. Project Location:

[See Figure 1-1 in Engineering Feasibility Report](#)

Attach a map of the service area and drawings as necessary to locate and describe the project. The map should show the project footprint and major project components.

X **Attached** [See Figures 1-1 and 2-1 in Engineering Feasibility Report](#)

57. Attach the Census tract numbers in which the applicant's service area is within. The Census tracts within your area may be found at:

<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>.

**Please follow these steps:**

- Select Advanced Search.
- Select the Geographies button located below Topics (left side of page).
- On the top of the window select the Name tab.
- In the text box, type "All Census Tracts within\_\_\_\_" (Fill in the blank with the name of a County Subdivision or a Place.) Select "Go".
- If your town is a County Subdivision, select the geography labeled "All Census Tracts (or parts) within City, County, State" from the Geography Results. If your town is a place select the geography labeled "All Census Tracts (or parts) full-or-partially within City, State" from the Geography Results.
- Close the Geographies Search window.
- Use the Topics on the left side of the page to further refine your search or to select a table(s) from your search results.

X **Attached Census tracts**

58. Project Schedule:

- a) Requested loan closing date.  
[December 15, 2015](#)
- b) Estimated date to submit environmental planning documents.  
[February 27, 2015 – Section 401/404 Joint Application: Supplemental Documentation and Revised Mitigation Plan submitted to USACE.](#)
- c) Estimated date to submit engineering planning documents.  
[May 2015 - Engineering Feasibility Report and Environmental Information Document for Turkey Peak Reservoir submitted to TWDB.](#)
- d) Estimated date for completion of design.  
[June 2017](#)
- e) Estimated Construction start date for first contract.  
[January 2016 \(Utility Relocations\)](#)

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

- f) Estimated Construction end date for last contract.  
January 2018 (Dam, Spillway, Roads, and Bridge)

59. **Attach** a copy of current and future populations and projected water use or wastewater flows. Include entities to be served.

X **Attached** See Section 2 of Engineering Feasibility Report

60. Attach the most current itemized project cost estimate (include all costs and funding sources). Utilize the budget format provided (TWDB-1201 at <http://www.twdb.texas.gov/financial/instructions/> . If applying for pre-construction costs only (i.e., P, A, D) then itemize only the relevant portions in the attached budget template

X **Attached** See Engineering Report Table 5-2 summarizing Project Costs

Technical Review Comment 7/9/2015 – Please provide a project budget on TWDB 1201 format. Provide an explanation on why contingencies are shown within the land acquisition area and within the general project cost area (see page 5-3 of HDR-00018808-08; Table 5-2).

The project budget is attached on TWDB 1201 format in item "D60(a)". Per discussion between HDR and TWDB, the project budget items were each adjusted to include the "inflation" amounts previously included on Table 5-2 in the Engineering report. Contingencies are now shown under "contingencies" on TWDB 1201 form. Additionally we have split the full \$17,100,000 cost into "Taxable" (\$7,185,000) and "Non-Taxable" (\$9,915,000) portions.

61. Attach the appropriate Project Information Form:

**Wastewater:** Attached a completed Wastewater Project Information Form WRD-253a <http://www.twdb.texas.gov/financial/instructions/index.asp>

X **Water:** Attached a completed Water Project Information Form WRD-253d <http://www.twdb.texas.gov/financial/instructions/index.asp>  
Included in Appendix E of Engineering Feasibility Report

62. If the project is for Construction only, wastewater projects that involve the construction of a new plant or the expansion of an existing plant and/or associated facilities, attach evidence that an application for a new Texas Pollution Discharge Elimination System Permit or amendment to an existing permit related to the proposed project has been filed with the Texas Commission on Environmental Quality (TCEQ). Final permit authorization must be obtained from the TCEQ before funds can be released for construction activities.

**Attached**  
 No. Provide explanation:  
X N/A



Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

63. If this project will result in: (a) an increase by the applicant in the use of groundwater, (b) drilling a new water well, or (c) an increase by the applicant in use of surface water, then the applicant must demonstrate that it has acquired – by contract, ownership or lease – the necessary property rights, groundwater permits, and/or surface water rights sufficient for the project before funds can be released for construction.

a) Does the applicant currently own all the property rights, groundwater permits and surface water rights needed for this project?

- Yes If yes, please attach the completed, appropriate form.
1. WRD 208A (<http://www.twdb.texas.gov/financial/instructions/index.asp>) (Surface Water)  
 **Attached**
  2. WRD 208B (<http://www.twdb.texas.gov/financial/instructions/index.asp>) (Groundwater)  
 **Attached**

X **No** TCEQ has issued a DRAFT Water Rights Permit (CA12-4031A) for the project and this is anticipated to be final in July 2015 – Copy of this Permit is included in Appendix B of Engineering Feasibility Report; List of property the District will need to acquire is included in Appendix E of Engineering Feasibility Report.

b) If all property rights, groundwater permits, and surface water rights, needed for this project have not yet been acquired, identify the rights and/or permits that will need to be acquired and provide the anticipated date by which the applicant expects to have acquired such rights and/or permits.

Type of Permit Water Right	Entity from which the permit or right must be acquired	Acquired by lease or full ownership	Expected acquisition date	Permit / Water Right ID No.
Water Right	TCEQ	Full	July 2015	12-4031A

Technical Review Comment 7/9/2015 - The District's Water Rights Permit (TCEQ) is anticipated to be final in July 2015.

c) List any major permits not identified elsewhere that are necessary for completion of project. Also, list any more necessary minor permits that may involve particular difficulty due to the nature of the proposed project.

Permit	Issuing Entity	Permit Acquired (Y/N)
Section 401/404	USACE	N (expected 12/2015)

See Appendix D of Engineering Feasibility Report for supplemental information on Section 401/404 Permit Application

Technical Review Comment 7/9/2015 - The District's Section 401/404 Permit (USACE) is anticipated to be final in about December 2015.

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

64. Has the applicant obtained all necessary land and easements for the project?

Yes. If yes, attach the site certificate (ED-101 at <http://www.twdb.texas.gov/financial/instructions/index.asp>)  
 **Attached**

No. If no, **fill out the table below** and describe the land or easements that will need to be acquired, provide the anticipated date by which the applicant expects to have the land or easements, and indicate if funding from TWDB is to be used for the acquisition.

Description of Land or Easement Permit	Entity from which the permit or right must be acquired	Acquired by lease or full ownership	Expected acquisition date	To Be Funded by TWDB (Yes/No)
See Appendix E of Engineering Feasibility Report	About 16 Property Owners	Full Ownership With a few Flood Easement	2006 and 2017	Yes

65. Has a Categorical Exclusion (CE), Determination of No Effect (DNE), Finding of No Significant Impact (FONSI), Record of Decision (ROD), or any other environmental determination been issued for this project?

Yes  
 Attach a copy of the finding.  
 No

66. Is the project potentially eligible for a Categorical Exclusion (CE)/ Determination of No Effect (DNE) because it involves only minor rehabilitation or the functional replacement of existing equipment?

Yes  
 No

67. Are there potentially adverse environmental or social impacts that may require mitigation or extensive regulatory agency or public coordination (e.g. known impacts to properties eligible for listing on the National Register of Historic Places; potentially significant public controversy; need for an individual permit from the U.S. Army Corps of Engineers)?

Yes  
If yes, attach additional information.

Section 401/404 permit negotiations are on-going with USACE. See attached Section 401/404 Joint Application: Supplemental Documentation and Revised Mitigation Plan submitted to USACE on February 27, 2015. (included in Appendix D of the Engineering Feasibility Report).

No

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

**Part E: State Water Implementation Fund for Texas (SWIFT) Applicants Only:**

68. Identify the type of SWIFT funding (If more than one funding option is being requested indicate the amount of funding for each):

- |                                     |                     |              |
|-------------------------------------|---------------------|--------------|
| <input checked="" type="checkbox"/> | Deferred            | \$           |
| <input checked="" type="checkbox"/> | Low Interest Loan   | \$17,100,000 |
| <input type="checkbox"/>            | Board Participation | \$           |

69. For multi-year funding request or phased commitments, provide a schedule reflecting the closing dates for each loan requested.

**Attached**

70. **Notice to SWIFT Applicants:** Texas Water Code Sec. 15.435(h) requires all recipients of financial assistance from the SWIFT to acknowledge any applicable legal obligations in federal law, related to contracting with disadvantaged business enterprises, and state law, related to contracting with historically underutilized businesses. Checking the boxes below serves as this acknowledgement.

As an applicant for financial assistance from SWIFT, I acknowledge that this project must comply with any applicable legal obligations in federal law related to contracting with disadvantaged business enterprises.

As an applicant for financial assistance from SWIFT, I acknowledge that this project must comply with applicable legal obligations in state law (Texas Government Code Chapter 2161 and Texas Administrative Code Chapter 20, Subchapter B) related to contracting with historically underutilized businesses.

71. Provide drafts of the following documents:

a. Proposed Bond Ordinance

**Attached**

b. Private Placement Memorandum

**Attached**

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

## Part I: Summary of attachments to application

Following is a list of the documents that may be necessary in order to process this application. While not all of the listed information below may be required for all projects, an applicant should review the application carefully because incomplete applications will not be processed until all of this information has been provided. In addition, please make sure your entity system name appears on every attachment. **Label each attachment with the number of the pertinent application section (i.e. "Part B5").**

Check list for your convenience

### Part A

- No. 6
- No. 12

### General Information

Draft or executed consulting contracts (engineering, financial advisor, bond counsel)  
Existing security document for refinancing

### Part B

- No. 17
- No. 18
- No. 19
- No. 20

### Legal

Resolution (TWDB-0201A)  
Application Affidavit (TWDB-0201)  
Certificate of Secretary (TWDB-201B)  
Water Supply Corporations

- Articles of Incorporation
- Certificate of incorporation from the Texas Secretary of State
- By-laws and any amendments
- Certificate of status from the Texas Secretary of State
- Certificate of account status from Texas Comptroller

- No. 21
- No. 22
- No. 23
- No. 24
- No. 25
- No. 26

Resolution/ordinance authorizing the issuance of parity debt  
Certificate of Convenience & Necessity  
Enforcement Actions  
Affidavit of No Objection  
Two copies of the Water Conservation Plan (TWDB-1968 and TWDB-1965)  
Water use surveys

- No. 27

Water Loss Audit  
<http://www.twdb.texas.gov/waterplanning/waterusesurvey/index.asp>  
<http://www.twdb.texas.gov/conservation/resources/waterloss-resources.asp>

### Part C

- No. 39
- No. 40
- No. 45
- No. 46
- No. 47
- No. 49
- No. 52

### Financial

Assessed Values by Classifications  
Direct and Overlapping Tax Table  
Proforma for each year of debt outstanding  
Five year comparative system operating statement.  
Annual audit and management letter  
Outstanding debt schedule  
Service provider contracts

Please label each attachment with the number of the pertinent application section (i.e. "Part D5")

**Part D**

**Project Information**

- No. 54a Preliminary Engineering Feasibility Data (PEFD)
- No. 54b Engineering Feasibility Report
  - Water (TWDB-0555)
  - Wastewater (TWDB-0556)
- No. 54c Project Draw Schedule (TWDB-1202)
- No. 56 Project Map
- No. 57 Census Tract(s)
- No. 59 Current and future populations and projected water use or wastewater flows
- No. 60 Project Cost Estimate Budget (TWDB-1201)
- No. 61 Wastewater Project Information Form (WRD-253a)  
Water Project Information Form (WRD-253d)
- No. 62 Texas Pollution Discharge Elimination System Permit
- No. 63 If applicant has property rights and permits
  - a. WRD-208A (Surface Water)
  - b. WRD-208B (Groundwater)
- No. 63c Additional Permits
- No. 64 Site certificate, evidencing land ownership for the project. (ED-101)
- No. 65 Categorical Exclusion (CE), Finding of No Significant Impact (FONSI), Record of Decision or any other supporting document
- No. 67 Social or environmental issues

**Part E**

**State Water Implementation Fund for Texas**

- No. 69 Multi-year/phased commitment schedule
- No. 71a Draft Bond Ordinance
- No. 71b Private Placement Memorandum

**Part J: Guidance and Forms**

**Part A**

**General Information**

CWSRF – 31 TAC 375  
DWSRF – 31 TAC 371  
EDAP and SWIFT - 31 TAC 363  
For more information visit, <http://www.twdb.texas.gov/about/rules/index.asp>.

**Part D**

**Project Information**

[State Programs - 31 TAC 363](#)  
[Drinking Water State Revolving Fund - 31 TAC 371](#)  
[Clean Water State Revolving Fund / Equivalency - 31 TAC 375](#)  
[Clean Water State Revolving Fund / Non-Equivalency - 31 TAC 375](#)

Guidelines for Environmental Assessment, Clean Water Non-Equivalency (ED-001A)  
Clean Water EID Instructions (SRF-099)  
Guidelines for Environmental Assessment, State Participation, DFund, RWAf and WIF, (ED-001B)  
Guidelines for Environmental Assessment, EDAP (ED-001C)  
Drinking Water EID Instructions (DW-001)

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law. This Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (No. C-700, 2002 Edition) of the Engineers Joint Contract Documents Committee. Their provisions are interrelated, and a change in one may necessitate a change in the other.

# STANDARD FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES



Issued and Published Jointly by  
**National Society of  
Professional Engineers**  
*Professional Engineers in Private Practice*



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*a practice division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

---

AMERICAN COUNCIL OF ENGINEERING COMPANIES

---

AMERICAN SOCIETY OF CIVIL ENGINEERS

National Society of Professional Engineers  
1420 King Street, Alexandria, VA 22314

American Council of Engineering Companies  
1015 15th Street N.W., Washington, DC 20005

American Society of Civil Engineers  
1801 Alexander Bell Drive, Reston, VA 20191-4400

TABLE OF CONTENTS

	<u>Page</u>
ARTICLE 1 - SERVICES OF ENGINEER .....	1
1.01 Scope.....	1
ARTICLE 2 - OWNER'S RESPONSIBILITIES.....	1
2.01 General.....	1
ARTICLE 3 - SCHEDULE FOR RENDERING SERVICES.....	1
3.01 Commencement .....	1
3.02 Time for Completion.....	1
ARTICLE 4 - INVOICES AND PAYMENTS .....	2
4.01 Invoices.....	2
4.02 Payments.....	2
ARTICLE 5 - OPINIONS OF COST .....	2
5.01 Opinions of Probable Construction Cost .....	2
5.02 Opinions of Total Project Costs.....	2
ARTICLE 6 - GENERAL CONSIDERATIONS.....	2
6.01 Standards of Performance.....	2
6.02 Design without Construction Phase Services .....	3
6.03 Use of Documents.....	3
6.04 Insurance.....	4
6.05 Suspension and Termination.....	4
6.06 Controlling Law .....	5
6.07 Successors, Assigns, and Beneficiaries .....	5
6.08 Dispute Resolution.....	6
6.09 Environmental Condition of Site .....	6
6.10 Indemnification and Mutual Waiver .....	6
6.11 Miscellaneous Provisions .....	7
ARTICLE 7 - DEFINITIONS .....	7
7.01 Defined Terms .....	7
ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS.....	8
8.01 Exhibits Included .....	8
8.02 Total Agreement .....	9
8.03 Designated Representatives .....	9

**STANDARD FORM OF AGREEMENT  
BETWEEN OWNER AND ENGINEER  
FOR  
PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT effective as of May 30 , 2008 ("Effective Date") between  
Palo Pinto County Municipal Water District No. 1 ("Owner") and  
HDR Engineering, Inc. ("Engineer").

Owner intends to obtain permits and land necessary for the construction of Turkey Peak Dam and Reservoir and associated relocations and to construct the Turkey Peak Dam and Reservoir and associated relocations.

Owner and Engineer agree as follows:

**ARTICLE 1 - SERVICES OF ENGINEER**

---

**1.01 Scope**

A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

**ARTICLE 2 - OWNER'S RESPONSIBILITIES**

---

**2.01 General**

A. Owner shall have the responsibilities set forth herein and in Exhibit B.

B. Owner shall pay Engineer as set forth in Exhibit C.

C. Owner shall be responsible for, and Engineer may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by Owner to Engineer pursuant to this Agreement. Engineer may use such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement.

**ARTICLE 3 - SCHEDULE FOR RENDERING SERVICES**

---

**3.01 Commencement**

A. Engineer shall begin rendering services as of the Effective Date of the Agreement.

**3.02 Time for Completion**

A. Engineer shall complete its obligations within a reasonable time. Specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided in Exhibit A, and are hereby agreed to be reasonable.

B. If, through no fault of Engineer, such periods of time or dates are changed, or the orderly and continuous progress of Engineer's services is impaired, or Engineer's services are delayed or suspended, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

C. If Owner authorizes changes in the scope, extent, or character of the Project, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

D. Owner shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Engineer's performance of its services.

E. If Engineer fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted, then Owner shall be entitled to the recovery of direct damages resulting from such failure.



## ARTICLE 4 - INVOICES AND PAYMENTS

---

### 4.01 Invoices

A. *Preparation and Submittal of Invoices.* Engineer shall prepare invoices in accordance with its standard invoicing practices and the terms of Exhibit C. Engineer shall submit its invoices to Owner on a monthly basis. Invoices are due and payable within 30 days of receipt.

### 4.02 Payments

A. *Application to Interest and Principal.* Payment will be credited first to any interest owed to Engineer and then to principal.

B. *Failure to Pay.* If Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, then:

1. amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day; and

2. Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Owner has paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension.

C. *Disputed Invoices.* If Owner contests an invoice, Owner may withhold only that portion so contested, and must pay the undisputed portion. Owner shall promptly notify Engineer of the disputed item and request either clarification or that remedial action be taken. After a disputed item has been settled, Engineer shall include the disputed item on a subsequent regularly scheduled invoice or on a special invoice for the disputed item only.

D. *Legislative Actions.* If after the Effective Date of the Agreement any governmental entity takes a legislative action that imposes taxes, fees, or charges on Engineer's services or compensation under this Agreement, then the Engineer may invoice such new taxes, fees, or charges as a Reimbursable Expense to which a factor of 1.0 shall be applied. Owner shall pay such invoiced new taxes, fees, and charges; such payment shall be in addition to the compensation to which Engineer is entitled under the terms of Exhibit C.

## ARTICLE 5 - OPINIONS OF COST

---

### 5.01 Opinions of Probable Construction Cost

A. Engineer's opinions of probable Construction Cost are to be made on the basis of Engineer's experience and qualifications and represent Engineer's best judgment as an experienced and qualified professional generally familiar with the construction industry. However, since Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer. If Owner wishes greater assurance as to probable Construction Cost, Owner shall employ an independent cost estimator as provided in Exhibit B.

### 5.02 Opinions of Total Project Costs

A. The services, if any, of Engineer with respect to Total Project Costs shall be limited to assisting the Owner in collating the various cost categories which comprise Total Project Costs. Engineer assumes no responsibility for the accuracy of any opinions of Total Project Costs.

## ARTICLE 6 - GENERAL CONSIDERATIONS

---

### 6.01 Standards of Performance

A. The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with Engineer's services.

B. Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct any such deficiencies in technical accuracy without additional compensation except to the extent such corrective action is directly attributable to deficiencies in Owner-furnished information.

C. Engineer may employ such Consultants as Engineer deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objections by Owner.

D. Subject to the standard of care set forth in paragraph 6.01.A, Engineer and its Consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

E. Engineer and Owner shall comply with applicable Laws and Regulations and Owner-mandated standards that Owner has provided to Engineer in writing. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the Effective Date of this Agreement may be the basis for modifications to Owner's responsibilities or to Engineer's scope of services, times of performance, and compensation.

G. Engineer shall not be required to sign any documents, no matter by whom requested, that would result in the Engineer having to certify, guarantee, or warrant the existence of conditions whose existence the Engineer cannot ascertain. Owner agrees not to make resolution of any dispute with the Engineer or payment of any amount due to the Engineer in any way contingent upon the Engineer signing any such documents.

H. The General Conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (No. C-700, 2002 Edition) unless both parties mutually agree to use other General Conditions.

I. Engineer shall not at any time supervise, direct, or have control over Contractor's work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to the Contractor's work in progress, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.

J. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform the Work in accordance with the Contract Documents.

K. Engineer shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any of their agents or employees or of any other persons (except Engineer's own employees and its Consultants) at the Site or otherwise furnishing or performing any Work; or for any decision made on interpretations or

clarifications of the Contract Documents given by Owner without consultation and advice of Engineer.

#### **6.02 Design without Construction Phase Services**

A. If Engineer's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, then (1) Engineer's services under this Agreement shall be deemed complete no later than the end of the Bidding or Negotiating Phase; (2) Engineer shall have no design or shop drawing review obligations during construction; (3) Owner assumes all responsibility for the application and interpretation of the Contract Documents, contract administration, construction observation and review, and all other necessary Construction Phase engineering and professional services; and (4) Owner waives any claims against the Engineer that may be connected in any way thereto.

#### **6.03 Use of Documents**

A. All Documents are instruments of service in respect to this Project, and Engineer shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of the Engineer) whether or not the Project is completed. Owner shall not rely in any way on any Document unless it is in printed form, signed or sealed by the Engineer or one of its Consultants.

B. A party may rely that data or information set forth on paper (also known as hard copies) that the party receives from the other party by mail, hand delivery, or facsimile, are the items that the other party intended to send. Files in electronic media format of text, data, graphics, or other types that are furnished by one party to the other are furnished only for convenience, not reliance by the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

C. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any transmittal errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files.

D. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of such documents resulting from the use of software application

packages, operating systems, or computer hardware differing from those used by the documents' creator.

E. Owner may make and retain copies of Documents for information and reference in connection with use on the Project by Owner. Engineer grants Owner a license to use the Documents on the Project, extensions of the Project, and other projects of Owner, subject to the following limitations: (1) Owner acknowledges that such Documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project or on any other project without written verification or adaptation by Engineer; (2) any such use or reuse, or any modification of the Documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to Engineer's Consultants; (3) Owner shall indemnify and hold harmless Engineer and Engineer's Consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification without written verification, completion, or adaptation by Engineer; (4) such limited license to Owner shall not create any rights in third parties.

F. If Engineer at Owner's request verifies or adapts the Documents for extensions of the Project or for any other project, then Owner shall compensate Engineer at rates or in an amount to be agreed upon by Owner and Engineer.

#### 6.04 Insurance

A. Engineer shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Engineer shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Engineer.

B. Owner shall cause Engineer and Engineer's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by Owner which are applicable to the Project.

C. Owner shall require Contractor to purchase and maintain general liability and other insurance in accordance with the requirements of paragraph 5.04 of the "Standard General Conditions of the Construction Contract," (No. C-700, 2002 Edition) as prepared by the Engineers Joint Contract Documents Committee and to cause Engineer and Engineer's Consultants to be listed as additional insureds with respect to such liability and other insurance purchased and maintained by Contractor for the Project.

D. Owner and Engineer shall each deliver to the other certificates of insurance evidencing the coverages indicated in Exhibit G. Such certificates shall be furnished prior to commencement of Engineer's services and at renewals thereafter during the life of the Agreement.

E. All policies of property insurance relating to the Project shall contain provisions to the effect that Engineer's and Engineer's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against Engineer or its Consultants, or any insureds or additional insureds thereunder.

F. At any time, Owner may request that Engineer or its Consultants, at Owner's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective than those specified in Exhibit G. If so requested by Owner, and if commercially available, Engineer shall obtain and shall require its Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by Owner, and Exhibit G will be supplemented to incorporate these requirements.

#### 6.05 Suspension and Termination

##### A. Suspension.

By Owner: Owner may suspend the Project upon seven days written notice to Engineer.

By Engineer: If Engineer's services are substantially delayed through no fault of Engineer, Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement.

B. *Termination.* The obligation to provide further services under this Agreement may be terminated:

##### 1. For cause,

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

##### b. By Engineer:

1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional;  
or

2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control.

3) Engineer shall have no liability to Owner on account of such termination.

c. Notwithstanding the foregoing, this Agreement will not terminate under paragraph 6.05.B.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience,

a. By Owner effective upon Engineer's receipt of notice from Owner.

C. *Effective Date of Termination.* The terminating party under paragraph 6.05.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files. Upon payment due for services performed prior to the effective date of termination, Engineer shall deliver or otherwise make available to Owner all documents, data, drawings, specifications, reports, estimates, summaries, notes, and other information and materials as may have been produced or accumulated by Engineer in performing this Agreement.

D. *Payments Upon Termination.*

1. In the event of any termination under paragraph 6.05, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination. Upon making such payment, Owner shall have the limited right to the use of Documents, at Owner's sole risk, subject to the provisions of paragraph 6.03.E.

2. In the event of termination by Owner for convenience or by Engineer for cause, Engineer shall be entitled, in addition to invoicing for those items identified in paragraph 6.05.D.1; to invoice Owner and to payment of a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with Engineer's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit C.

## 6.06 Controlling Law

A. This Agreement is to be governed by the law of the state in which the Project is located.

## 6.07 Successors, Assigns, and Beneficiaries

A. Owner and Engineer each is hereby bound and the partners, successors, executors, administrators and legal representatives of Owner and Engineer (and to the extent permitted by paragraph 6.07.B the assigns of Owner and Engineer) are hereby bound to the other party to this Agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.

B. Neither Owner nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, claims arising out of this Agreement or moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

C. Unless expressly provided otherwise in this Agreement:

1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Engineer to any Contractor, Contractor's subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them.

2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party.

3. Owner agrees that the substance of the provisions of this paragraph 6.07.C shall appear in the Contract Documents.

#### 6.08 Dispute Resolution

A. Owner and Engineer agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to invoking the procedures of Exhibit H or other provisions of this Agreement, or exercising their rights under law.

B. If the parties fail to resolve a dispute through negotiation under paragraph 6.08.A, then either or both may invoke the procedures of Exhibit H. If Exhibit H is not included, or if no dispute resolution method is specified in Exhibit H, then the parties may exercise their rights under law.

#### 6.09 Environmental Condition of Site

A. Owner has disclosed to Engineer in writing the existence of all known and suspected Asbestos, PCBs, Petroleum, Hazardous Waste, Radioactive Material, hazardous substances, and other Constituents of Concern located at or near the Site, including type, quantity, and location.

B. Owner represents to Engineer that to the best of its knowledge no Constituents of Concern, other than those disclosed in writing to Engineer, exist at the Site.

C. If Engineer encounters an undisclosed Constituent of Concern, then Engineer shall notify (1) Owner and (2) appropriate governmental officials if Engineer reasonably concludes that doing so is required by applicable Laws or Regulations.

D. It is acknowledged by both parties that Engineer's scope of services does not include any services related to Constituents of Concern. If Engineer or any other party encounters an undisclosed Constituent of Concern, or if investigative or remedial action, or other professional services, are necessary with respect to disclosed or undisclosed Constituents of Concern, then Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until Owner: (1) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Constituents of Concern; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.

E. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Engineer's services under this Agreement, then the

Engineer shall have the option of (1) accepting an equitable adjustment in its compensation or in the time of completion, or both; or (2) terminating this Agreement for cause on 30 days notice.

F. Owner acknowledges that Engineer is performing professional services for Owner and that Engineer is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, which are or may be encountered at or near the Site in connection with Engineer's activities under this Agreement.

#### 6.10 Indemnification and Mutual Waiver

A. *Indemnification by Engineer.* To the fullest extent permitted by law, Engineer shall indemnify and hold harmless Owner, and Owner's officers, directors, partners, agents, consultants, and employees from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Engineer or Engineer's officers, directors, partners, employees, or Consultants. The indemnification provision of the preceding sentence is subject to and limited by the provisions agreed to by Owner and Engineer in Exhibit I, "Allocation of Risks," if any.

B. *Indemnification by Owner.* To the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer, Engineer's officers, directors, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Owner or Owner's officers, directors, partners, agents, consultants, or employees, or others retained by or under contract to the Owner with respect to this Agreement or to the Project.

C. *Environmental Indemnification.* In addition to the indemnity provided under paragraph 6.10.B of this

Agreement, and to the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer and its officers, directors, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals, and all court, arbitration, or other dispute resolution costs) caused by, arising out of, relating to, or resulting from a Constituent of Concern at, on, or under the Site, provided that (i) any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this paragraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.

D. *Percentage Share of Negligence.* To the fullest extent permitted by law, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.

E. *Mutual Waiver.* To the fullest extent permitted by law, Owner and Engineer waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project.

#### 6.11 Miscellaneous Provisions

A. *Notices.* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, by facsimile, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

B. *Survival.* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.

C. *Severability.* Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Engineer, who agree that the Agreement shall be reformed to replace such stricken

provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

D. *Waiver.* A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement. One or more waivers by either party of any provision, term, condition or covenant shall not be constructed as a waiver of a subsequent breach of the same by the other party

E. *Accrual of Claims.* To the fullest extent permitted by law, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of Substantial Completion.

## ARTICLE 7 - DEFINITIONS

---

### 7.01 Defined Terms

A. Wherever used in this Agreement (including the Exhibits hereto) terms (including the singular and plural forms) printed with initial capital letters have the meanings indicated in the text above or in the exhibits; in the following provisions; or in the "Standard General Conditions of the Construction Contract," prepared by the Engineers Joint Contract Documents Committee (No. C-700, 2002 Edition):

1. *Additional Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 2, of this Agreement.

2. *Basic Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 1, of this Agreement.

3. *Construction Cost*--The cost to Owner of those portions of the entire Project designed or specified by Engineer. Construction Cost does not include costs of services of Engineer or other design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, or Owner's costs for legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with the Project, or the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement. Construction Cost is one of the items comprising Total Project Costs.

4. *Constituent of Concern*--Any substance, product, waste, or other material of any nature whatsoever (including, but not limited to, Asbestos, Petroleum, Radioactive Material, and PCBs) which is

or becomes listed, regulated, or addressed pursuant to [a] the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); [b] the Hazardous Materials Transportation Act, 49 U.S.C. §§1801 et seq.; [c] the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); [d] the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; [e] the Clean Water Act, 33 U.S.C. §§1251 et seq.; [f] the Clean Air Act, 42 U.S.C. §§7401 et seq.; and [g] any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

5. *Consultants*--Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer's independent professional associates, consultants, subcontractors, or vendors.

6. *Documents*--Data, reports, Drawings, Specifications, Record Drawings, and other deliverables, whether in printed or electronic media format, provided or furnished in appropriate phases by Engineer to Owner pursuant to this Agreement.

7. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings are not Drawings as so defined.

8. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

9. *Reimbursable Expenses*--The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic and Additional Services for the Project.

10. *Resident Project Representative*--The authorized representative of Engineer, if any, assigned to assist Engineer at the Site during the Construction Phase. The Resident Project Representative will be Engineer's agent or employee and under Engineer's supervision. As used herein, the term Resident Project Representative includes any assistants of Resident Project Representative agreed to by Owner. The duties and responsibilities of the Resident Project Representative, if any, are as set forth in Exhibit D.

11. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

12. *Total Project Costs*--The sum of the Construction Cost, allowances for contingencies, and the total costs of services of Engineer or other design professionals and consultants, together with such other Project-related costs that Owner furnishes for inclusion, including but not limited to cost of land, rights-of-way, compensation for damages to properties, Owner's costs for legal, accounting, insurance counseling and auditing services, interest and financing charges incurred in connection with the Project, and the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement.

## ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS

---

### 8.01 Exhibits Included

A. Exhibit A, "Engineer's Services," consisting of 8 pages.

B. Exhibit B, "Owner's Responsibilities," consisting of 2 pages.

C. Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses," consisting of 3 pages.

D. Exhibit D, "Duties, Responsibilities and Limitations of Authority of Resident Project Representative," consisting of 4 pages.

E. Exhibit E, "Notice of Acceptability of Work," consisting of 2 pages.

F. Exhibit F, Not Used.

G. Exhibit G, "Insurance," consisting of 1 page.

H. Exhibit H, "Dispute Resolution," consisting of 1 page.

I. Exhibit I, "Allocation of Risks," consisting of 1 page.

J. Exhibit J, Not Used.

K. Exhibit K, "Amendment to Standard Form of Agreement," consisting of 2 pages.

## **8.02 Total Agreement**

A. This Agreement (consisting of pages 1 to 10 inclusive, together with the exhibits identified above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument based on the format of Exhibit K to this Agreement.

## **8.03 Designated Representatives**

A. With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of Owner under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of each respective party.



IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

Owner:

Earl Medlin

By: Earl Medlin

Title: President

Date Signed: May 30, 2008

Address for giving notices:

P.O. Box 387

Mineral Wells, TX 76068

Designated Representative (see paragraph 8.03.A):

Scott Blasor

Title: Secretary

Phone Number: 940-328-7712

Facsimile Number: 940-328-7725

E-Mail Address: ppcmwd\_1@yahoo.com

Engineer:

Kelly Kaatz

By: Kelly Kaatz, P.E.

Title: Senior Vice President

Date Signed: 6-9-08

Engineer License or Certificate No. 75421

State of: Texas

Address for giving notices:

4401 West Gate Blvd.

Suite 400

Austin, TX 78745-1469

Designated Representative (see paragraph 8.03.A):

Kenneth Choffel, P.E.

Title: Senior Vice President

Phone Number: 512-912-5131

Facsimile Number: 512-912-5158

E-Mail Address: ken.choffel@hdrinc.com

This is **EXHIBIT A**, consisting of 8 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008

Engineer's Services

---

Article 1 of the Agreement is amended and supplemented to include the following agreement of the parties. Engineer shall provide Basic and Additional Services as set forth below.

**PART 1 – BASIC SERVICES**

**A1.01 Permitting Phase**

**A. Engineer shall:**

1. Consult with Owner to define and clarify Owner's requirements for the Project and available data.
2. Advise Owner of any need for Owner to provide data or services of the types described in Exhibit B.
3. All work under the Permitting Phase will be performed as Additional Services.

**A1.02 Preliminary Design Phase**

A. After acceptance by Owner of the Environmental and Alternatives Reports and any other deliverables as described in Exhibit B, selection by Owner of a recommended solution and indication of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner, and upon written authorization from Owner, Engineer shall:

1. Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, outline specifications, and written descriptions of the Project. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project designed or specified by Engineer.
2. Coordinate the services of subconsultants to perform field surveys, geotechnical investigations and topographic and utility mapping for design purposes. Utility mapping will be based upon information obtained from utility owners.
3. Advise Owner if additional reports, data, information, or services of the types described in Exhibit B are necessary and assist Owner in obtaining such reports, data, information, or services.
4. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost, and assist Owner in collating the various cost categories which comprise Total Project Costs.
5. Furnish 5 review copies of the Preliminary Design Phase documents and any other deliverables to Owner within 9 months of authorization to proceed with this phase, and review them with Owner. Within 30 calendar days of receipt, Owner shall submit to Engineer any comments regarding the Preliminary Design Phase documents and any other deliverables.
6. Revise the Preliminary Design Phase documents and any other deliverables in response to Owner's comments, as appropriate, and furnish to Owner 15 copies of the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables within 60 calendar days after receipt of Owner's comments.

B. Engineer's services under the Preliminary Design Phase will be considered complete on the date when the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables have been delivered to Owner.

#### A1.03 Final Design Phase

A. After acceptance by Owner of the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and any other deliverables subject to any Owner-directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon written authorization from Owner, Engineer shall:

1. Prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor. If appropriate, Specifications shall conform to the 16-division format of the Construction Specifications Institute.
2. Provide technical criteria, written descriptions, and design data for Owner's use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design of the Project; assist Owner in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities.
3. Advise Owner of any adjustments to the opinion of probable Construction Cost known to Engineer.
4. Prepare and furnish Bidding Documents for review by Owner, its legal counsel, and other advisors within 9 months of authorization to proceed with this phase and assist Owner in the preparation of other related documents. Within 30 days of receipt, Owner shall submit to Engineer any comments and, subject to the provisions of paragraph 6.01.G, instructions for revisions.
5. Revise the Bidding Documents in accordance with comments and instructions from the Owner, as appropriate, and submit 15 final copies of the Bidding Documents, a revised opinion of probable Construction Cost, and any other deliverables to Owner within 45 calendar days after receipt of Owner's comments and instructions.

B. Engineer's services under the Final Design Phase will be considered complete on the date when the submittals required by paragraph A1.03.A.5 have been delivered to Owner.

C. In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime contract, or if Engineer's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast-tracking), Owner and Engineer shall, prior to commencement of the Final Design Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding or Negotiating, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts. This schedule is to be prepared and included in or become an amendment to Exhibit A whether or not the work under such contracts is to proceed concurrently.

D. The number of prime contracts for Work designed or specified by Engineer upon which the Engineer's compensation has been established under this Agreement is three (3). If more prime contracts are awarded, Engineer shall be entitled to an equitable increase in its compensation under this Agreement.

#### A1.04 Bidding or Negotiating Phase

A. After acceptance by Owner of the Bidding Documents and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by Owner to proceed, Engineer shall:

1. Assist Owner in advertising for and obtaining bids or proposals for the Work and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend pre-Bid conferences, if any, and receive and process contractor deposits or charges for the Bidding Documents.
2. Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.

3. Provide information or assistance needed by Owner in the course of any negotiations with prospective contractors.

4. Consult with Owner as to the acceptability of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors for those portions of the Work as to which such acceptability is required by the Bidding Documents.

5. Attend the Bid opening, prepare Bid tabulation sheets, and assist Owner in evaluating Bids or proposals and in assembling and awarding contracts for the Work.

B. The Bidding or Negotiating Phase will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective contractors.

#### A1.05 Construction Phase

A. Upon successful completion of the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall:

1. *General Administration of Construction Contract.* Consult with Owner and act as Owner's representative as provided in the General Conditions. The extent and limitations of the duties, responsibilities, and authority of Engineer as assigned in the General Conditions shall not be modified, except as Engineer may otherwise agree in writing. All of Owner's instructions to Contractor will be issued through Engineer, which shall have authority to act on behalf of Owner in dealings with Contractor to the extent provided in this Agreement and the General Conditions except as otherwise provided in writing.

2. *Resident Project Representative (RPR).* Provide the services of an RPR at the Site to assist the Engineer and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit D. The furnishing of such RPR's services will not limit, extend, or modify Engineer's responsibilities or authority except as expressly set forth in Exhibit D.

3. *Selecting Independent Testing Laboratory.* Assist Owner in the selection of an independent testing laboratory to perform the services identified in Exhibit B, paragraph B2.01.0.

4. *Pre-Construction Conference.* Participate in a Pre-Construction Conference prior to commencement of Work at the Site.

5. *Schedules.* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.

6. *Baselines and Benchmarks.* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed.

7. *Visits to Site and Observation of Construction.* In connection with observations of Contractor's Work while it is in progress:

a. Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary, to observe as an experienced and qualified design professional the progress and quality of Contractor's executed Work. Such visits and observations by Engineer, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of Contractor's Work in progress or to involve detailed inspections of Contractor's Work in progress beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and observations, Engineer will determine in general if the Work is proceeding in accordance with the Contract Documents, and Engineer shall keep Owner informed of the progress of the Work.

b. The purpose of Engineer's visits to, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Engineer shall not, during such visits or as a result of such observations of Contractor's Work in progress, supervise, direct, or have control over Contractor's Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety on the Site, for safety precautions and programs incident to Contractor's Work, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work. Accordingly, Engineer neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.

8. *Defective Work.* Engineer will have the authority to reject Contractor's Work while it is in progress if, on the basis of Engineer's observations, Engineer believes that such Work will not produce a completed Project that conforms generally to the Contract Documents or that it will threaten the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. However, neither Engineer's authority to reject Work nor Engineer's decision to exercise or not exercise such authority shall give rise to a duty or responsibility of the Engineer to Contractors, Subcontractors, material and equipment suppliers, their agents or employees, or any other person(s) or entities performing any of the Work, including but not limited to any duty or responsibility for Contractors' or Subcontractors' safety precautions and programs incident to the Work.

9. *Clarifications and Interpretations; Field Orders.* Issue necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of Contractor's work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Engineer may issue Field Orders authorizing minor variations in the Work from the requirements of the Contract Documents.

10. *Change Orders and Work Change Directives.* Recommend Change Orders and Work Change Directives to Owner, as appropriate, and prepare Change Orders and Work Change Directives as required.

11. *Shop Drawings and Samples.* Review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.

12. *Substitutes and "or-equal."* Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor, but subject to the provisions of paragraph A2.02.A.2 of this Exhibit A.

13. *Inspections and Tests.* Require such special inspections or tests of Contractor's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents. Engineer's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. Engineer shall be entitled to rely on the results of such tests.

14. *Disagreements between Owner and Contractor.* Render formal written decisions on all duly submitted issues relating to the acceptability of Contractor's work or the interpretation of the requirements of the Contract Documents pertaining to the execution, performance, or progress of Contractor's Work; review each duly submitted Claim by Owner or Contractor, and in writing either deny such Claim in whole or in part, approve such Claim, or decline to resolve such Claim if Engineer in its discretion concludes that to do so would be inappropriate. In rendering

such decisions, Engineer shall be fair and not show partiality to Owner or Contractor and shall not be liable in connection with any decision rendered in good faith in such capacity.

15. *Applications for Payment.* Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:

a. Determine the amounts that Engineer recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the quality of such Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe Contractor's Work. In the case of unit price work, Engineer's recommendations of payment will include final determinations of quantities and classifications of Contractor's Work (subject to any subsequent adjustments allowed by the Contract Documents).

b. By recommending any payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment including final payment will impose on Engineer responsibility to supervise, direct, or control Contractor's Work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the Work in progress, materials, or equipment has passed to Owner free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid.

16. *Contractor's Completion Documents.* Receive, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Contract Documents, certificates of inspection, tests and approvals, Shop Drawings, Samples and other data approved as provided under paragraph A1.05.A.11, and the annotated record documents which are to be assembled by Contractor in accordance with the Contract Documents to obtain final payment. The extent of such review by Engineer will be limited as provided in paragraph A1.05.A.11.

17. *Substantial Completion.* Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with Owner and Contractor, conduct an inspection to determine if the Work is substantially complete. If after considering any objections of Owner, Engineer considers the Work substantially complete, Engineer shall deliver a certificate of Substantial Completion to Owner and Contractor.

18. *Final Notice of Acceptability of the Work.* Conduct a final inspection to determine if the completed Work of Contractor is acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide a notice in the form attached hereto as Exhibit E (the "Notice of Acceptability of Work") that the Work is acceptable (subject to the provisions of paragraph A1.05.A.15.b) to the best of Engineer's knowledge, information, and belief and based on the extent of the services provided by Engineer under this Agreement.

B. *Duration of Construction Phase.* The Construction Phase will commence with the execution of the first construction Contract for the Project or any part thereof and will terminate upon written recommendation by Engineer for final payment to Contractors. If the Project involves more than one prime contract as indicated in paragraph A1.03.C, Construction Phase services may be rendered at different times in respect to the separate contracts. Subject to the provisions

of Article 3, Engineer shall be entitled to an equitable increase in compensation if Construction-Phase services are required after the original date for final completion of the Work as set forth in the construction Contract.

C. *Limitation of Responsibilities.* Engineer shall not be responsible for the acts or omissions of any Contractor, or of any subcontractors, suppliers, or other individuals or entities performing or furnishing any of the Work. Engineer shall not be responsible for the failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.

#### A1.06 Post-Construction Phase

A. Upon written authorization from Owner, Engineer, during the Post-Construction Phase, shall:

1. Provide assistance in connection with the adjusting of Project equipment and systems.
2. Assist Owner in training Owner's staff to operate and maintain Project equipment and systems.
3. Assist Owner in developing procedures for control of the operation and maintenance of, and record keeping for Project equipment and systems.
4. Together with Owner, visit the Project to observe any apparent defects in the Work, assist Owner in consultations and discussions with Contractor concerning correction of any such defects, and make recommendations as to replacement or correction of Defective Work, if present.
5. Assist Owner with instrumentation readings or obtain services of subconsultant to obtain instrumentation readings.
6. In company with Owner or Owner's representative, provide an inspection of the Project within one month before the end of the Correction Period to ascertain whether any portion of the Work is subject to correction.

B. The Post-Construction Phase services may commence during the Construction Phase and, if not otherwise modified in this Exhibit A, will terminate at the end of the Construction Contract's correction period.

#### PART 2 -- ADDITIONAL SERVICES

A2.01. Engineer shall furnish or obtain from others Additional Services of the types listed below.

1. Preparation of applications and supporting documents for private or governmental grants, loans, or advances in connection with the Project; preparation or review of environmental assessments and impact statements; preparation of applications and supporting documents associated with the State water rights and Federal section 404 permitting; attending meetings and responding to agency requests associated with permitting efforts; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; preparation of Environmental and Alternatives Reports for TxDOT, TCEQ, TWDB, USACE or other agencies, and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
2. Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by Owner or others.
3. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer or its design requirements including, but not limited to, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date of this Agreement or are due to any other causes beyond Engineer's control.

4. Services resulting from Owner's request to evaluate alternative solutions.
5. Services required as a result of Owner's request to assist with property acquisition and negotiations with property owners.
6. Providing renderings or models for Owner's use.
7. Undertaking investigations and studies including, but not limited to, detailed consideration of operations, maintenance, and overhead expenses; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules, and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing, and assisting Owner in obtaining process licensing; detailed quantity surveys of materials, equipment, and labor; and audits or inventories required in connection with construction performed by Owner.
8. Furnishing services of Engineer's Consultants for other than Basic Services.
9. Services attributable to more prime construction contracts than specified in paragraph A1.03.C.
10. Services during out-of-town travel required of Engineer other than for visits to the Site or Owner's office.
11. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructability review requested by Owner; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other Bidding Documents as a result of such review processes.
12. Preparing additional Bidding Documents or Contract Documents for alternate bids or prices requested by Owner for the Work or a portion thereof.
13. Determining the acceptability of substitute materials and equipment proposed during the Bidding or Negotiating Phase when substitution prior to the award of contracts is allowed by the Bidding Documents.
14. Assistance in connection with Bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services.
15. Providing construction surveys and staking to enable Contractor to perform its work other than as required under paragraph A1.05.A.5, and any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys.
16. Providing Construction Phase services beyond the original date for final completion of the Work.
17. Providing assistance in responding to the presence of any Constituent of Concern at the Site, in compliance with current Laws and Regulations.
18. Preparing and furnishing to Owner Record Drawings showing appropriate record information based on Project annotated record documents received from Contractor.
19. Preparation of operation and maintenance manuals.
20. Preparing to serve or serving as a consultant or witness for Owner in any litigation, arbitration, or other dispute resolution process related to the Project.
21. Providing more extensive services required to enable Engineer to issue notices or certifications requested by Owner.
22. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.
23. Services in connection with Work Change Directives and Change Orders to reflect changes requested by Owner.



24. Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or-equal" items; and services after the award of the Construction Contract in evaluating and determining the acceptability of a substitution which is found to be inappropriate for the Project or an excessive number of substitutions.

25. Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of materials, equipment, or energy shortages.

26. Additional or extended services during construction made necessary by (1) emergencies or acts of God endangering the Work, (2) the presence at the Site of any Constituent of Concern, (3) Work damaged by fire or other cause during construction, (4) a significant amount of defective, neglected, or delayed work by Contractor, (5) acceleration of the progress schedule involving services beyond normal working hours, or (6) default by Contractor.

27. Services (other than Basic Services during the Post-Construction Phase) in connection with any partial utilization of any part of the Work by Owner prior to Substantial Completion.

28. Evaluating an unreasonable claim or an excessive number of claims submitted by Contractor or others in connection with the Work.

29. Services during the Construction Phase rendered after the date stated in A1.05.B.

30. Services required as a result of Owner's providing incomplete or incorrect Project information to Engineer.

This is **EXHIBIT B**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Owner's Responsibilities

---

Article 2 of the Agreement is amended and supplemented to include the following agreement of the parties.

B2.01 In addition to other responsibilities of Owner as set forth in this Agreement, Owner shall at its expense:

A. Provide Engineer with all criteria and full information as to Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which Owner will require to be included in the Drawings and Specifications; and furnish copies of Owner's standard forms, conditions, and related documents for Engineer to include in the Bidding Documents, when applicable.

B. Furnish to Engineer any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.

C. Following Engineer's assessment of initially-available Project information and data and upon Engineer's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable Engineer to complete its Basic and Additional Services. Such additional information or data would generally include the following:

1. Property descriptions.
2. Zoning, deed, and other land use restrictions.
3. Property, boundary, easement, right-of-way, topographic, utility, and other special surveys or data, including establishing relevant reference points.
4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
5. Environmental assessments, audits, investigations, and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas except as prepared by Engineer under Exhibit A, Part 2, Additional Services.
6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.

D. Give prompt written notice to Engineer whenever Owner observes or otherwise becomes aware of the presence at the Site of any Constituent of Concern, or of any other development that affects the scope or time of performance of Engineer's services, or any defect or nonconformance in Engineer's services, the Work, or in the performance of any Contractor.

E. Authorize Engineer to provide Additional Services as set forth in Part 2 of Exhibit A of the Agreement as required.

F. Arrange for safe access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services under the Agreement.

G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Engineer (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as Owner deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.

H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by Engineer and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.

I. Provide, as required for the Project:

1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
2. Legal services with regard to issues pertaining to the Project as Owner requires or deems appropriate, Contractor raises, or Engineer reasonably requests, including but not limited to the review of Contract Documents supplied by Engineer.
3. Such auditing services as Owner requires to ascertain how or for what purpose Contractor has used the moneys paid.
4. Placement and payment for advertisement for Bids in appropriate publications.

J. Advise Engineer of the identity and scope of services of any independent consultants employed by Owner to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructability review.

K. Furnish to Engineer data as to Owner's anticipated costs for services to be provided by others (including, but not limited to, accounting, bond and financial, independent cost estimating, insurance counseling, and legal advice) for Owner so that Engineer may assist Owner in collating the various cost categories which comprise Total Project Costs.

L. If Owner designates a construction manager or an individual or entity other than, or in addition to, Engineer to represent Owner at the Site, define and set forth as an attachment to this Exhibit B the duties, responsibilities, and limitations of authority of such other party and the relation thereof to the duties, responsibilities, and authority of Engineer.

M. If more than one prime contract is to be awarded for the Work designed or specified by Engineer, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of Engineer as an attachment to this Exhibit B that is to be mutually agreed upon and made a part of this Agreement before such services begin.

N. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment inspections.

O. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of Samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of Owner, prior to their incorporation into the Work with appropriate professional interpretation thereof.

P. Provide Engineer with the findings and reports generated by the entities providing services to Owner pursuant to this paragraph.

This is **EXHIBIT C**, consisting of 3 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

Payments to Engineer for Services and Reimbursable Expenses

Article 2 of the Agreement is amended and supplemented to include the following agreement of the parties:

ARTICLE 2 -- --Owner's Responsibilities

C2.01 Compensation For Basic Services (other than Resident Project Representative and Post-Construction) -- Percentage of Construction Cost Method of Payment

A. Owner shall pay Engineer for Basic Services set forth in Exhibit A, except for services of Engineer's Resident Project Representative and Post-Construction Phase services, if any, as follows:

1. *General.* An amount equal to 8.0 percent of the Construction Cost for Contract No. 1 for the relocation of Farm to Market Road 4; 13.0 percent of the Construction Cost for Contract No. 2 for the new bridge and roadway relocation at the existing dam; 7.0 percent of the Construction Cost for Contract No. 3 for the Turkey Peak dam and spillways. This amount includes compensation for Engineer's Services including labor, overhead, profit, and Reimbursable Expenses.

2. As a basis for payment to Engineer, Construction Cost will be based on one or more of the following determinations with precedence in the order listed for Work designed or specified by Engineer:

a. For Work designed or specified and incorporated in the completed Project, the actual final cost of the work performed by Contractor and paid by Owner.

b. For Work designed or specified but not constructed, the lowest bona fide Bid received from a qualified bidder for such Work; or, if the Work is not bid, the lowest bona fide negotiated proposal for such Work.

c. For Work designed or specified but not constructed upon which no such Bid or proposal is received, Engineer's most recent opinion of probable Construction Cost.

d. Labor furnished by Owner for the Project will be included in the Construction Cost at current market rates including a reasonable allowance for overhead and profit. Materials and equipment furnished by Owner will be included at current market prices.

e. No deduction is to be made from Engineer's compensation on account of any penalty, liquidated damages, or other amounts withheld from payments to Contractor(s).

3. Progress payments:

a. The portion of the amounts billed for Engineer's services which is on account of the Percentage of Construction Cost will be based upon Engineer's estimate of the proportion of the total services actually completed during the billing period to the Percentage of Construction Cost.

b. Upon conclusion of each phase of Basic Services, Owner shall pay such additional amount, if any, as may be necessary to bring total compensation paid during such phase on account of the percentage of Construction Cost to the following estimated percentages of total compensation payable on account of the percentage of Construction Cost for all phases of Basic Services:

Preliminary Design Phase	40%
Final Design Phase	40%
Bidding or Negotiating Phase	5%
Construction Phase	15%

c. Engineer may alter the distribution of compensation between individual phases of the work noted herein but shall not exceed the total percent fee unless approved in writing by the Owner.

C2.04 Compensation For Resident Project Representative and Post-Construction Basic Services -- Standard Hourly Rates  
Method of Payment

A. Owner shall pay Engineer for Resident Project Representative and Post-Construction Basic Services as follows:

1. *Resident Project Representative Services.* For services of Engineer's Resident Project Representative, if any, under paragraph A1.05A of Exhibit A, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all Resident Project Representative services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any. The total compensation under this paragraph will be negotiated during the Bidding Phase of each Construction Contract.

2. *Post-Construction Phase Services.* For Post-Construction Phase services under paragraph A1.06 of Exhibit A, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.

B. Compensation For Reimbursable Expenses

1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under paragraph C2.01, and are directly related to the provision of Resident Project Representative or Post-Construction Basic Services, Owner shall pay Engineer for all expenses multiplied by a factor of 1.10.

2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; expenses incurred for computer time and the use of other highly specialized equipment, subsistence and transportation of Resident Project Representative and assistants; toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A, and, if authorized in advance by Owner, overtime work requiring higher than regular rates.

3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be those internal expenses related to the Resident Project Representative or Post-Construction Basic Services that are actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to such services, both multiplied by a factor of 1.10.

C. Other Provisions Concerning Payment Under this Paragraph C2.04

1. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 1.05.

2. Factors. The external Reimbursable Expenses and Engineer's Consultant's factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.

3. Estimated Compensation Amounts

a. Engineer's estimate of the amounts that will become payable for specified services are only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.

b. When estimated compensation amounts have been stated herein and it subsequently becomes apparent to Engineer that a compensation amount thus estimated will be exceeded, Engineer shall give Owner written

notice thereof. Promptly thereafter Owner and Engineer shall review the matter of services remaining to be performed and compensation for such services. Owner shall either agree to such compensation exceeding said estimated amount or Owner and Engineer shall agree to a reduction in the remaining services to be rendered by Engineer, so that total compensation for such services will not exceed said estimated amount when such services are completed. If Engineer exceeds the estimated amount before Owner and Engineer have agreed to an increase in the compensation due Engineer or a reduction in the remaining services, the Engineer shall be paid for all services rendered hereunder.

4. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.

#### C2.05 Compensation For Additional Services

A. Owner shall pay Engineer for Additional Services as follows:

1. *General.* For services of Engineer's employees engaged directly on the Project pursuant to paragraph A2.01 or A2.02 of Exhibit A, except for services as a consultant or witness under paragraph A2.01.A.20, an amount equal to the cumulative hours charged to the Project by each Engineer's employees times the Engineer's applicable Salary Costs times a factor of 2.3, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.

B. Compensation For Reimbursable Expenses

1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under paragraph C2.01 and are directly related to the provision of Additional Services, Owner shall pay Engineer for all expenses multiplied by a factor of 1.10.

2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; expenses incurred for computer time and the use of other highly specialized equipment, toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A, and, if authorized in advance by Owner, overtime work requiring higher than regular rates.

3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be the Additional Services-related internal expenses actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to Additional Services, both multiplied by a factor of 1.1.

C. Other Provisions Concerning Payment For Additional Services

1. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 1.05.

2. *Factors.* The external Reimbursable Expenses and Engineer's Consultant's factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.

3. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.

This is **EXHIBIT D**, consisting of 4 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Duties, Responsibilities, and Limitations of Authority of Resident Project Representative

---

Paragraph 1.01.A of the Agreement is amended and supplemented to include the following agreement of the parties:

D1.01 Resident Project Representative

A. Engineer shall furnish a Resident Project Representative ("RPR"), assistants, and other field staff to assist Engineer in observing progress and quality of the Work. The RPR, assistants, and other field staff under this Exhibit D may provide full time representation or may provide representation to a lesser degree.

B. Through such additional observations of Contractor's work in progress and field checks of materials and equipment by the RPR and assistants, Engineer shall endeavor to provide further protection for Owner against defects and deficiencies in the Work. However, Engineer shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct, or have control over the Contractor's Work nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to the Contractor's work in progress, for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's performing and furnishing the Work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Contract Documents. In addition, the specific terms set forth in section A.1.05 of Exhibit A of the Agreement are applicable.

C. The duties and responsibilities of the RPR are as follows:

1. *General:* RPR is Engineer's agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Contractor's work in progress shall in general be with Engineer and Contractor, keeping Owner advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner with the knowledge of and under the direction of Engineer.

2. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.

3. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.

4. *Liaison:*

a. Serve as Engineer's liaison with Contractor, working principally through Contractor's superintendent, assist in providing information regarding the intent of the Contract Documents.

b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.

c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.

5. *Interpretation of Contract Documents:* Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.

6. *Shop Drawings and Samples:*

a. Record date of receipt of Samples and approved Shop Drawings.

b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.

c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.

7. *Modifications:* Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.

8. *Review of Work and Rejection of Defective Work:*

a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.

b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. *Inspections, Tests, and System Startups:*

a. Consult with Engineer in advance of scheduled major inspections, tests, and systems startups of important phases of the Work.

b. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.

c. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to Engineer.

10. *Records:*

a. Maintain at the Site orderly files for correspondence, reports of job conferences, reproductions of original Contract Documents including all Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports, Shop Drawing and Sample submittals received from and delivered to Contractor, and other Project-related documents.

b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.

c. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, subcontractors, and major suppliers of materials and equipment.



- d. Maintain records for use in preparing Project documentation.
- e. Upon completion of the Work, furnish original set of all RPR Project documentation to Engineer.

11. *Reports:*

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Furnish to Engineer and Owner copies of all inspection, test, and system start-up reports.
- d. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Constituent of Concern. .

12. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. *Completion:*

- a. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
- b. Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

D. Resident Project Representative shall not:

- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
- 2. Exceed limitations of Engineer's authority as set forth in the Agreement or the Contract Documents.
- 3. Undertake any of the responsibilities of Contractor, subcontractors, suppliers, or Contractor's superintendent.
- 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.
- 5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.

6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

This is **EXHIBIT E**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

---

NOTICE OF ACCEPTABILITY OF WORK

---

PROJECT:

OWNER:

OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION:

EFFECTIVE DATE OF THE CONSTRUCTION AGREEMENT:

CONSTRUCTION CONTRACT DATE:

ENGINEER:

---

To:

OWNER

And To:

CONTRACTOR

From:

ENGINEER

---

The Engineer hereby gives notice to the above Owner and Contractor that the completed Work furnished and performed by Contractor under the above Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated \_\_\_\_\_, \_\_\_\_\_, and the terms and conditions set forth on the reverse side of this Notice.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

(Reverse side of Notice)  
**CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK**

The Notice of Acceptability of Work ("Notice") on the front side of this sheet is expressly made subject to the following terms and conditions to which all persons who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the professional judgment of Engineer.
3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the date hereof.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner and under the Construction Contract referred to on the front side of this Notice, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement and Construction Contract.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract referred to on the front side of this Notice, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents.

**EXHIBIT F - Not Used**

This is **EXHIBIT G**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Insurance

---

G6.04 Insurance

A. The limits of liability for the insurance required by paragraph 6.04.A and 6.04.B of the Agreement are as follows:

1. By Engineer:

a. Workers' Compensation:	Statutory
b. Employer's Liability --	
1) Each Accident:	<u>\$500,000</u>
2) Disease, Policy Limit:	<u>\$500,000</u>
3) Disease, Each Employee:	<u>\$500,000</u>
c. General Liability --	
1) General Aggregate:	<u>\$1,000,000</u>
2) Each Occurrence (Bodily Injury and Property Damage):	<u>\$1,000,000</u>
d. Excess or Umbrella Liability --	
1) Each Occurrence:	<u>\$1,000,000</u>
2) General Aggregate:	<u>\$1,000,000</u>
e. Automobile Liability --	
1) Bodily Injury:	
a) Each Accident	<u>\$1,000,000</u>
2) Property Damage:	
a) Each Accident	<u>\$1,000,000</u>
f. Professional Liability --	
1) Each Claim Made	<u>\$1,000,000</u>
2) General Aggregate:	<u>\$1,000,000</u>

B. Additional Insureds

1. The Owner shall be listed on Engineer's general liability policy as provided in paragraph 6.04.A.

This is **EXHIBIT H**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Dispute Resolution

---

Paragraph 6.08 of the Agreement is amended and supplemented to include the following agreement of the parties:

H6.09 Dispute Resolution

A. Mediation. Owner and Engineer agree that they shall first submit any and all unsettled claims, counterclaims, disputes, and other matters in question between them arising out of or relating to this Agreement or the breach thereof (“Disputes”) to mediation. If such mediation is unsuccessful in resolving a Dispute, then (a) the parties may mutually agree to a dispute resolution of their choice, or (b) either party may seek to have the Dispute resolved by a court of competent jurisdiction.

This is **EXHIBIT I**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Allocation of Risks

---

Paragraph 6.11 of the Agreement is amended and supplemented to include the following agreement of the parties:

16.11.B Limitation of Engineer's Liability

1. *Exclusion of Special, Incidental, Indirect, and Consequential Damages.* To the fullest extent permitted by law, and notwithstanding any other provision in the Agreement, consistent with the terms of paragraph 6.11.E the Engineer and Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants, or any of them, shall not be liable to Owner or anyone claiming by, through, or under Owner for any special, incidental, indirect, or consequential damages whatsoever arising out of, resulting from, or in any way related to the Project or the Agreement from any cause or causes, including but not limited to any such damages caused by the negligence, professional errors or omissions, strict liability, breach of contract, or warranties, express or implied, of Engineer or Engineer's officers, directors, partners, employees, agents, or Engineer's Consultants, or any of them.



**EXHIBIT J – Not Used**

This is EXHIBIT K, consisting of 1 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT**

1. Background Data:

- a. Effective Date of Owner-Engineer Agreement: \_\_\_\_\_
- b. Owner: \_\_\_\_\_
- c. Engineer: \_\_\_\_\_
- d. Project: \_\_\_\_\_

2. Nature of Amendment *[Check those that are applicable and delete those that are inapplicable.]*

- \_\_\_\_\_ Additional Services to be performed by Engineer
- \_\_\_\_\_ Modifications to Services of Engineer
- \_\_\_\_\_ Modifications to Responsibilities of Owner
- \_\_\_\_\_ Modifications to Payment to Engineer
- \_\_\_\_\_ Modifications to Time(s) for rendering Services
- \_\_\_\_\_ Modifications to other terms and conditions of the Agreement

3. Description of Modifications

Attachment 1, "Modifications"  
[List other Attachments, if any]

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is \_\_\_\_\_.

OWNER:

ENGINEER:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Date Signed: \_\_\_\_\_

This is **Attachment 1**, consisting of 1 pages, to Amendment No. \_\_\_\_\_, dated \_\_\_\_\_.

**Modifications**

[Include the following paragraphs that are appropriate and delete those not applicable to this amendment. Refer to paragraph numbers used in the Agreement or a previous amendment for clarity with respect to the modifications to be made. Use paragraph numbers in this document for ease of reference herein and in future correspondence or amendments.]

1. Engincer shall perform the following Additional Services:
  
2. The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows:
  
3. The responsibilities of Owner are modified as follows:
  
4. For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation:
  
5. The schedule for rendering services is modified as follows:
  
6. Other portions of the Agreement (including previous amendments, if any) are modified as follows:

This is EXHIBIT K, consisting of 2 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

*No. 1*  
**AMENDMENT TO OWNER-ENGINEER AGREEMENT**

1. Background Data:

- a. Effective Date of Owner-Engineer Agreement: May 30, 2008
- b. Owner: Palo Pinto County Municipal Water District No. 1
- c. Engineer: HDR Engineering, Inc
- d. Project: Turkey Peak Dam and Reservoir

2. Nature of Amendment:

- 1) Additional Services to be performed by Engineer
- 2) Modifications to Payment to Engineer

3. Description of Modifications

Attachment 1, Modifications (1 page)  
Attachment 2, HDR Technical Memorandum – Potential Cost Reduction Measures (12/3/2012; 3 pages)

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is December 5, 2014.

OWNER:

ENGINEER:

David R. Turk  
By: DAVID R. TURK  
Title: PRESIDENT  
Date Signed: 12/5/14

Kelly J. Kaatz  
By: Kelly J. Kaatz, P.E.  
Title: Senior Vice President  
Date Signed: 12/1/14

This is Attachment 1, consisting of 1 page, to Amendment No. 1, dated December 5, 2014.

## Modifications

1. Engineer shall perform the following Additional Services:

The Engineer will perform Value Engineering (VE) analyses of the Project generally as described in December 3, 2012 Technical Memorandum (TM) prepared by the Engineer entitled "Potential Cost Reduction Measures". During the Preliminary Design of the Project, the Engineer incorporated many of the cost reduction measures as described in the TM including the development of a physical spillway model by Utah State University that resulted in the dam and spillway being moved downstream and closer to FM 4 (revised dam alignment). For the VE analyses, the Engineer will evaluate the revised dam alignment and other potential cost reduction measures as identified in the TM to determine: 1) if they are feasible; 2) how much, if any, risk they could potentially add to the safe operation of the facilities; and 3) the estimated cost reduction potential of each item, if incorporated in the design of the Project. The Engineer will prepare a TM describing the analyses and will include recommendations as to which design modifications should be incorporated. The Engineer will prepare a new Project construction cost estimate to determine the estimated reduction in costs.

To provide data to support the VE analyses at the new dam site, the Engineer will obtain the services of a Geotechnical firm with drilling and materials testing capabilities to perform a Phase 3 Geotechnical Investigation. The Engineer will provide an on-site representative during the on-site drilling and sampling operations of the Geotechnical firm. The Geotechnical firm will be required to produce a Data Report that will summarize the findings of the Phase 3 Geotechnical Investigation. This Data Report will be used by the Engineer during the VE analyses.

2. For the Additional Services set forth above, Owner shall pay Engineer the following additional compensation:

Owner will pay the Engineer for the above described Additional Services in accordance with the terms of Section C2.05 of this Agreement (Page 3 of Exhibit C "Compensation for Additional Services"). The estimated cost of these services is \$1,400,000 and this amount will not be exceeded without additional authorization from the Owner.

3. The schedule for rendering these services is approximately 12 months.
4. Other portions of the Agreement (including previous amendments, if any) are modified as follows:

Based on the revised dam alignment and the Phase 3 Geotechnical Investigation, the results of the VE analyses are anticipated to result in the modification or removal of project elements that were designed and incorporated in the Preliminary Design of the Project by the Engineer. Because the Engineer has previously performed design work on these project elements, the Engineer's payment for Basic Services for the Preliminary Design Phase will now be fixed based on 40% of the Engineer's Basic Services Fee as computed using the December 2012 Construction Cost estimate without contingencies. This Preliminary Design Phase compensation will not be revised up or down in the future. The Engineer's compensation for Basic Services for the other Phases of the Project will still be based on 60% of the Engineer's Basic Services Fee as computed based on Construction Costs for the remaining Phases of the Project (i.e. Final Design, Bidding or Negotiating, and Construction).

To: Ken Choffel, P.E., Project Manager	
From: Rich Shoemaker, P.E.	Project: Turkey Peak Dam & Reservoir
CC:	
Date: December 3, 2012	Job No: 120507

**RE: Potential Cost Reduction Measures**

Ten potential cost reduction measures were identified and discussed during the second internal Independent Technical Review meeting (May 2-3, 2012) for Turkey Peak Dam. These ideas are listed below along with comments as to how they were addressed during preliminary design of the project.

1. Maximize use of required excavation (downstream random zone, emergency spillway fill along upstream and downstream edges, flatten saddle dam slopes, stability toe berms at maximum section):
  - a. This was addressed and has been incorporated into the embankment configuration, emergency spillway layout, and saddle dam slopes.
2. Lower top of dam by widening emergency spillway:
  - a. This was addressed; the spillway was widened from 800 to 1,100 feet and resulted in the ability to lower the dam crest elevation (see Item 3).
3. Perform detailed wave and freeboard analyses to lower top of dam elevation:
  - a. This analysis was performed and, when combined with the results of widening the emergency spillway, the top of dam was lowered 3.5 feet from 894 to 890.5 ft-msl.
4. Reduce construction risk via design measures:
  - a. This was addressed by examining historic flood flows for Palo Pinto Creek and establishing the size and number of diversion conduits in the RCC dam and providing additional flood storage in Lake Palo Pinto by allowing the use 2-ft high flashboards on top of the spillway crest at Lake Palo Pinto.
5. Reduce length of RCC bulkheads (non-overflow gravity ends of RCC structure):
  - a. No further reduction in length of the originally conceived 200-ft long bulkhead sections was possible in order to maintain 3H:1V vegetated downstream and 2.5H:1V riprap protected upstream slopes for the embankment wrap around at each end of the RCC structure. The required 200-ft length is being dictated by the depth of excavation for the structure and the lowest gate elevation (818 feet) at the intake tower incorporated into the upstream face of the RCC dam to the left (north) of the 500-ft wide spillway.
6. Stilling basin hydraulic criteria:
  - a. The stilling basin length and type for preliminary design was established based on hydraulic computations and empirical relationships. A physical model study is recommended prior to final design to optimize the dimensions and type of stilling basin, as well as the spillway discharge channel.
7. Reduce foundation grouting in non-critical areas:
  - a. In preliminary design phase an exploratory curtain grouting program was developed for the entire dam foundation. Opportunities to reduce this should be explored during the final design.

8. Consider eliminating a drainage gallery in the RCC dam section:
  - a. The drainage gallery was eliminated during preliminary design by increasing the structure's mass with an RCC heel section in front of the dam from the foundation surface up to elevation 820 ft. Curtain grouting will be performed beneath the RCC dam/spillway to reduce seepage and potential uplift pressures. An under-drain system will also be installed in the foundation rock beneath the leveling concrete and stilling basin slab to control seepage and reduce uplift pressures.
9. Slurry cutoff wall versus deep excavated and backfilled cutoff trench:
  - a. After discussions during preliminary design, this type of cutoff wall was not considered because of the potential for settlement in the alluvium beneath the embankments, particularly the soft, loose recent alluvium in the creek area and differential settlement concerns at the steep right (south) abutment contact. Removal and replacement of a substantial amount of the recent and terrace alluvium beneath the dam was deemed necessary to reduce long-term settlement of the embankment(s) and the potential for excessive differential settlement at the maximum section in the creek area and adjacent to the south abutment. (Note: This should be further evaluated during final design.) There are also complications associated with tying the slurry cutoff wall into the ends of the RCC bulkheads, as well as concerns about differential settlement between the embankment and RCC structure at the transition sections. Additionally, the quantity (square feet) of slurry wall cutoff that would be required is fairly small, and the high cost of mobilization for construction would drive up the unit price. Therefore, the relative cost savings compared to excavation and replacement is not likely to be significant.
10. Homogeneous versus zoned embankment:
  - a. It is believed that sufficient quantities of lean and sandy clay materials exist in the proposed borrow areas and required excavations to design and construct a zoned embankment dam with a central clay core.

The above list was not considered to be exhaustive at the time it was developed and additional potential cost reduction measures should be considered during the final design phase. After completing preliminary designs for various project elements and developing the opinions of probable construction cost, there appears to be a limited number of potential design modifications that would have a significant impact on reducing construction costs. The following items should be investigated during final design to determine their potential for reducing the estimated construction cost:

1. Conduct a physical model study of the RCC dam/spillway to examine and optimize: a) the steps on the 0.85H:1V overflow slope for energy dissipation; b) the length and type of stilling basin; c) the height of the stilling basin training walls; and d) the configuration of the spillway discharge channel considering the effects of anticipated high tail water levels. Potential cost reduction: \$100,000 to \$300,000.
2. Reduce the amount of rock excavation currently proposed to achieve an acceptable foundation surface for the RCC dam/spillway. Additional geotechnical investigations will be required to evaluate the continuity of a thin clay seam(s) near the upper portion of the Dobbs Valley sandstone immediately below the Goen limestone, which is currently dictating a substantial amount of rock excavation, followed by replacement of the excavated volume with leveling concrete and RCC. Potential cost reduction: \$1,000,000 to \$1,500,000.
3. Consider less costly alternatives for the upstream and downstream concrete facing elements on the RCC dam/spillway. These two items combined account for approximately \$6,000,000 of the current estimated construction cost of the RCC structure. Potential cost reduction: \$1,000,000 to \$1,500,000.

4. Optimize the dimensions (volume) of the RCC dam/spillway by performing additional detailed (possibly 3-D) stability analyses using shear strength parameters derived from direct shear testing of rock cores at and below the proposed foundation surface. Potential cost reduction unknown; depends on the results of direct shear testing and stability analyses.
5. Perform a detailed thermal (cracking) analysis of the RCC structure to minimize the number of crack inducers required in the dam/spillway. Potential cost reduction: \$250,000.
6. Perform trial RCC mix designs using aggregate from at least three potential sources and various amounts of Portland cement and fly ash to determine the total cementitious content and blend required for each source to produce RCC with the desired compressive strength, unit weight and durability properties. Potential cost reduction unknown; depends strictly on the results of mix design testing (aggregate cost and cementitious material requirements) and how that compares to preliminary design assumptions.
7. Optimize the structural design of the stilling basin retaining walls and their footings. Reduce the stilling basin slab thickness from 3 to 2 feet. Potential cost reduction: \$250,000 to \$400,000.
8. Limit the locations for curtain grouting in the dam foundation to the abutments and beneath the RCC dam/spillway. Potential cost reduction: \$250,000.
9. Perform on-site testing of foundation materials using test-pits to reduce the amount of general excavation beneath the shells of the embankment dams. Also evaluate a combination of excavation and ground improvement such as deep dynamic compaction or vibro-compaction. Potential cost reduction: \$0 to \$2,000,000.
10. Reduce the amount of excavation in the spillway discharge channel by optimizing dimensions of spillway stilling basin and discharge channel during physical model testing. Potential cost reduction: \$250,000 to \$500,000.
11. Reduce thickness of rock riprap slope protection layer from 24 to 21 inches on upstream face of Turkey Peak Dam and downstream slope of Lake Palo Pinto Dam. Also consider adding riprap to upper slope of Lake Palo Pinto Dam to reduce District's maintenance costs. Potential cost reduction: \$50,000 to \$250,000.
12. Reduce amount of rock riprap placed in spillway discharge channel as a result of reduced channel dimensions determined by physical model study: Potential cost reduction: \$250,000.
13. Allow flexibility in construction sequencing to reduce the amount of double handling of material from required excavations. This flexibility would probably be best achieved by having a single construction contract for the entire project. A single contract will also help to reduce the overall risk to the Owner of a contractor not finishing part of the work on-time. Potential cost reduction: \$500,000 to \$1,000,000.
14. As part of the Phase 3 geotechnical investigation, investigate areas near the project to determine if a suitable quantity of quality rock can be located that contractor could process on site for use as: riprap and associated base material; road base material; RCC and /or concrete aggregate; and other potential uses. Potential savings: \$500,000 to \$1,000,000.
15. As part of the Phase 3 geotechnical investigation, evaluate moving the main dam alignment downstream and purchase the old Shirley Henry property. If foundation conditions are determined to be acceptable, this could result in significantly reducing the volume of dam embankment material and foundation preparation necessary to construct the North dam embankment. Potential cost savings: \$1,000,000 to \$3,000,000.
16. As part of the Phase 3 geotechnical investigation, evaluate the use of clay seepage blankets on each abutment in place of the cut-off walls. Potential cost savings: \$400,000 to \$600,000

Summary of Potential Cost Savings during Final Design: \$5,800,000 (sum of above minimums)



LAW OFFICES

**M<sup>C</sup>CALL, PARKHURST & HORTON L.L.P.**

600 CONGRESS AVENUE  
SUITE 1800  
AUSTIN, TEXAS 78701-3248  
TELEPHONE: 512 478-3805  
FACSIMILE: 512 472-0871

717 NORTH HARWOOD  
SUITE 900  
DALLAS, TEXAS 75201-6587  
TELEPHONE: 214 754-9200  
FACSIMILE: 214 754-9250

700 N. ST. MARY'S STREET  
SUITE 1525  
SAN ANTONIO, TEXAS 78205-3503  
TELEPHONE: 210 225-2800  
FACSIMILE: 210 225-2984

Palo Pinto County Municipal Water District No. 1  
211 Southwest 1<sup>ST</sup> Avenue  
Mineral Wells, Texas 76068

Re: Texas Water Development Board SWIFT Loans

President and Members of the Board of Directors:

The purpose of this engagement letter is to set forth certain matters concerning the services we will perform as bond counsel to Palo Pinto County Municipal Water District No. 1 (the "District") in connection with the issuance of bonds or other obligations (the "Obligations") issued in connection with the above-referenced loans.

In general, we will perform all usual and necessary legal services as bond counsel in connection with the authorization, issuance, and delivery of the Obligations. Specifically, we will prepare and direct the legal proceedings and perform the other necessary legal services with reference to the authorization, issuance, and delivery of the Obligations, including the following:

1. Prepare all resolutions, and other instruments pursuant to which the Obligations will be authorized, issued, delivered and secured, in cooperation and upon consultation with the Board of Directors of the District, officials, and legal and financial advisors and consultants of the District.
2. Review applicable law and legal issues relating to the structure of the bond issue.
3. Attend meetings of the Board of Directors with reference to the authorization and issuance of the Obligations to the extent required or requested.
4. Cooperate with the District and all other interested parties in the sale of the Obligations to the Texas Water Development Board ("TWDB").
5. Submission of transcripts of the proceedings authorizing the issuance of the Obligations and the initial Obligation or Obligations to the Attorney General of Texas for approval and registration of the initial Obligation or Obligations by the Comptroller of Public Accounts of the State of Texas.
6. Supervise the execution of the Obligations and the delivery thereof to TWDB.
7. When so delivered, rendering an opinion covering the validity of the Obligations under Texas law and, if applicable, the tax exempt status of the interest thereon under federal income tax laws, and to that end prepare all relevant documents necessary to assure compliance with the federal income tax laws relating to the issuance of tax-exempt obligations. Our Bond Opinion will be delivered by us on the date the Obligations are exchanged for their purchase price (the "Closing"). The District will be entitled to rely on our Bond Opinion.

The Bond Opinion will be based on facts and law existing as of its date. In rendering our Bond Opinion, we will rely upon the certified proceedings and other certifications of public officials and other persons furnished to us without undertaking to verify the same by independent investigation, and we will assume continuing compliance by the District with applicable laws relating to the Obligations. During the course of this engagement, we will rely on you to provide us with complete and timely information on all developments pertaining to any aspect of the Obligations and their security. We understand that you will direct members of your staff and other employees and consultants of the District to cooperate with us in this regard.

Our duties in this engagement are limited to those expressly set forth above. Unless we are separately engaged in writing to perform other services, our duties do not include any other services, including the following:

- (1) Review of procurement requirements, or preparation or review of requests for bids or proposals or preparation or review of construction documents.
- (2) Assisting in the preparation or review of financial disclosure with respect to the Obligations.
- (3) Preparing requests for tax rulings from the Internal Revenue Service, or no action letters from the Securities and Exchange Commission.
- (4) Preparing state securities law memoranda or investment surveys with respect to the Obligations.
- (5) Drafting state constitutional or legislative amendments.
- (6) Pursuing test cases or other litigation.
- (7) Making an investigation or expressing any view as to the creditworthiness of the District or the Obligations.
- (8) Representing the District in Internal Revenue Service examinations or inquiries, or Securities and Exchange Commission investigations.
- (9) After Closing, providing continuing advice to the District or any other party concerning any actions necessary to assure that interest paid on the Obligations will continue to be excludable from gross income for federal income tax purposes (e.g., our engagement does not include rebate calculations for the Obligations).
- (10) Negotiating the terms of, or opining as to, any investment contract.
- (11) Except as hereinafter described, assisting in the preparation or review of a disclosure document with respect to the Obligations, or performing an independent investigation to determine the accuracy, completeness or sufficiency of any such document or rendering advice that the disclosure document does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements contained therein, in light of the circumstances under which they were made, not misleading. We will review those sections of the disclosure document to be disseminated in connection with the sale of the Obligations which describe the Obligations, the resolution of the Board of Directors of the

Issuer authorizing the issuance of the Obligations, and, if applicable, the tax-exempt treatment of the interest on the Obligations for purposes of federal income taxation.

- (12) Addressing any other matter not specifically set forth above that is not required to render our Bond Opinion

Based upon: (i) our current understanding of the terms, structure, size and schedule of the financing represented by the Obligations; (ii) the duties we will undertake pursuant to this engagement letter; (iii) the time we anticipate devoting to the financing; and (iv) the responsibilities we will assume in connection therewith, our fees will be \$42,330 for the Series 2015A Bonds and \$36,870 for the Taxable Series 2015B Bonds, to be paid by the District, which includes bond counsel services and work performed with respect to any grant, loan forgiveness or financing agreements pertaining to the project for which the Obligations are issued for review of the agreements and preparation of documentation related thereto. The District will reimburse us for out-of-pocket expenses incurred in connection with the proposed transaction, such as travel costs, photocopying, deliveries, long distance telephone charges, telecopier charges, filing fees (including the Texas Attorney General filing fee for the Obligations if advanced by the firm). Our statement for payment of our fee and reimbursement for out-of-pocket expenses will be billed after the initial installment delivery of the Obligations.

Our duties in this engagement are limited to those expressly set forth above unless we are separately engaged to perform other services. In our capacity as bond counsel, we will not participate in the preparation of or pass upon any offering documents for the Obligations, except that we will, if requested, assist in preparation and pass upon certain matters therein relating to the description of the Obligations, the security therefor and our approving opinion, to the extent that such information constitutes matters of law or legal conclusions. We will also not participate in the preparation or review (except with respect to matters directly related to the financing documents and issues related to the financing of the proposed transaction) of real estate or construction documents.

Upon execution of this engagement letter, the District will be our client and an attorney-client relationship will exist between you and us. We further assume that all other parties in this transaction understand that we represent only the District in this transaction, we are not counsel to any other party, and we are not acting as an intermediary among the parties. Our services as bond counsel are limited to those contracted for in this letter; the District's execution of this engagement letter will constitute an acknowledgment of those limitations. Our representation of the District will not affect, however, our responsibility to render an objective Bond Opinion. Our representation of the District and the attorney-client relationships created by this engagement letter will be concluded upon issuance of the Obligations.

Our firm represents many political subdivisions and investment banking firms, among others, who do business with political subdivisions. It is possible that during the time that we are representing the District, one or more of our present or future clients will have transactions with the District. It is also possible that we may be asked to represent, in an unrelated matter, one or more of the entities involved in the issuance or purchase of the Obligations. We do not believe such representation, if it occurs, will adversely affect our ability to represent you as provided in this letter, either because such matters will be sufficiently different from the issuance of the Obligations so as to make such representations not adverse to our representation of you, or because the potential for such adversity is remote or minor and outweighed by the consideration that it is unlikely that advice given to the other client will be relevant to any aspect of the issuance of the Obligations. Execution of this letter will signify the District's consent to our representation of others consistent with the circumstances described in this paragraph.

As a consequence of the adoption of Rule 15Ba1-1 pursuant to the Securities Exchange Act of 1934 (the "Municipal Advisor Rule"), which has been promulgated by the Securities and Exchange Commission

as a result of the enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), we hereby inform the District that we are not a "Municipal Advisor" within the meaning of the Municipal Advisor Rule or the Dodd-Frank Act (collectively, the "MA Rule"). The MA Rule pertains to activities of persons and entities that provide financial advice to issuers of municipal securities, such as the Bonds, and establishes a regimen of registration and compliance activities, and also establishes a regulatory fiduciary duty to the issuer of municipal securities, for persons and entities that are subject to the MA Rule.

The MA Rule exempts attorneys from its provisions with respect to the provision of legal advice or services of a traditional legal nature involving the issuance of municipal securities or a municipal financial product. In its release promulgating the MA Rule, the Securities and Exchange Commission noted that it "recognizes that legal advice and services of a traditional legal nature in the area of municipal finance inherently involves a financial advice component." The Securities and Exchange Commission also stated that it "recognizes that analysis, discussion, negotiation, and advice regarding the legal ramifications of the structure, timing, terms, and other provisions of a financial transaction by an attorney to a client are essential to the development of a plan of finance. In turn, these services become, among other things, the basis for a transaction's basic legal documents, the preparation and delivery of the official statement or other disclosure document that describes the material terms and provisions of the transaction, the preparation of the various closing certificates that embody the terms and provisions of the transaction, the preparation and delivery of the attorney's legal opinion." We agree with those statements, and we hereby advise the District that while we have expertise with respect to the legal aspects relating to the issuance of municipal securities, we are not "financial advisors" or "financial experts" in a manner that would subject us to the provisions of the MA Rule. We provide only legal advice, not purely financial advice that is not an inherent in our legal advice to the District as Bond Counsel, as the Securities and Exchange Commission has acknowledged. The District should seek the advice of its financial advisor with respect to the financial aspects of the issuance of the Bonds. By signing this engagement letter, the District acknowledges receipt of this information, and evidences its understanding of the limitations of our role to the District as Bond Counsel with respect to the MA Rule, and, further acknowledges that we are relying on the attorney exclusion provision of the MA Rule.

At your request, papers and property furnished by you will be returned promptly upon receipt of payment for outstanding fees and client charges. Our own files, including lawyer work product, pertaining to the transaction will be retained by us. For various reasons, including the minimization of unnecessary storage expenses, we reserve the right to dispose of any documents or other materials retained by us after the termination of this engagement.

If the foregoing terms are acceptable to you, please so indicate by returning the enclosed copy of this engagement letter dated and signed by an authorized officer, retaining the original for your files. We look forward to working with you.

Respectfully yours,

MCCALL, PARKHURST & HORTON L.L.P.

---

Leroy Grawunder, Jr.

ACCEPTED AND APPROVED

PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1

\_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**FINANCIAL ADVISORY AGREEMENT**

This Financial Advisory Agreement (the "Agreement") is made and entered into by and between Palo Pinto County Municipal Water District No. 1 ("Issuer") and First Southwest Company ("FSC") effective as of the date executed by the Issuer as set forth on the signature page hereof.

**WITNESSETH:**

WHEREAS, the Issuer will have under consideration from time to time the authorization and issuance of indebtedness in amounts and forms which cannot presently be determined and, in connection with the authorization, sale, issuance and delivery of such indebtedness, Issuer desires to retain an independent financial advisor; and

WHEREAS, the Issuer desires to obtain the professional services of FSC to advise the Issuer regarding the issuance and sale of certain evidences of indebtedness or debt obligations that may be authorized and issued or otherwise created or assumed by the Issuer (hereinafter referred to collectively as the "Debt Instruments") from time to time during the period in which this Agreement shall be effective; and

WHEREAS, FSC is willing to provide its professional services and its facilities as financial advisor in connection with all programs of financing as may be considered and authorized by Issuer during the period in which this Agreement shall be effective.

NOW, THEREFORE, the Issuer and FSC, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, do hereby agree as follows:

**SECTION I  
DESCRIPTION OF SERVICES**

Upon the request of an authorized representative of the Issuer, FSC agrees to perform the financial advisory services stated in the following provisions of this Section I; and for having rendered such services, the Issuer agrees to pay to FSC the compensation as provided in Section V hereof.

- A. Financial Planning. At the direction of Issuer, FSC shall:
  - 1. Survey and Analysis. Conduct a survey of the financial resources of the Issuer to determine the extent of its capacity to authorize, issue and service any Debt Instruments contemplated.



This survey will include an analysis of any existing debt structure as compared with the existing and projected sources of revenues which may be pledged to secure payment of debt service and, where appropriate, will include a study of the trend of the assessed valuation, taxing power and present and future taxing requirements of the Issuer. In the event revenues of existing or projected facilities operated by the Issuer are to be pledged to repayment of the Debt Instruments then under consideration, the survey will take into account any outstanding indebtedness payable from the revenues thereof, additional revenues to be available from any proposed rate increases and additional revenues, as projected by consulting engineers employed by the Issuer, resulting from improvements to be financed by the Debt Instruments under consideration.

2. Future Financings. Consider and analyze future financing needs as projected by the Issuer's staff and consulting engineers or other experts, if any, employed by the Issuer.
  3. Recommendations for Debt Instruments. On the basis of the information developed by the survey described above, and other information and experience available, submit to the Issuer recommendations regarding the Debt Instruments under consideration, including such elements as the date of issue, interest payment dates, schedule of principal maturities, options of prior payment, security provisions, and such other provisions as may be appropriate in order to make the issue attractive to investors while achieving the objectives of the Issuer. All recommendations will be consistent with the goal of designing the Debt Instruments to be sold on terms which are advantageous to the Issuer, including the lowest interest cost consistent with all other considerations.
  4. Market Information. Advise the Issuer of our interpretation of current bond market conditions, other related forthcoming bond issues and general information, with economic data, which might normally be expected to influence interest rates or bidding conditions so that the date of sale of the Debt Instruments may be set at a favorable time.
  5. Elections. In the event it is necessary to hold an election to authorize the Debt Instruments then under consideration, FSC will assist in coordinating the assembly of such data as may be required for the preparation of necessary petitions, orders, resolutions, ordinances, notices and certificates in connection with the election, including assistance in the transmission of such data to a firm of municipal bond attorneys ("Bond Counsel") retained by the Issuer.
- B. Debt Management and Financial Implementation. At the direction of Issuer, FSC shall:



1. Method of Sale. Evaluate the particular financing being contemplated, giving consideration to the complexity, market acceptance, rating, size and structure in order to make a recommendation as to an appropriate method of sale, and:

- a. If the Debt Instruments are to be sold by an advertised competitive sale, FSC will:
  - (1) Supervise the sale of the Debt Instruments, reserving the right, alone or in conjunction with others, to submit a bid for any Debt Instruments issued under this Agreement which the Issuer advertises for competitive bids; however, in keeping with the provisions of Rule G-23 of the Municipal Securities Rulemaking Board, FSC will request and obtain written consent to bid prior to submitting a bid, in any instance wherein FSC elects to bid, for any installment of such Debt Instruments;
  - (2) Disseminate information to prospective bidders, organize such informational meetings as may be necessary, and facilitate prospective bidders' efforts in making timely submission of proper bids;
  - (3) Assist the staff of the Issuer in coordinating the receipt of bids, the safekeeping of good faith checks and the tabulation and comparison of submitted bids; and
  - (4) Advise the Issuer regarding the best bid and provide advice regarding acceptance or rejection of the bids.
- b. If the Debt Instruments are to be sold by negotiated sale, FSC will:
  - (1) Recommend for Issuer's final approval and acceptance one or more investment banking firms as managers of an underwriting syndicate for the purpose of negotiating the purchase of the Debt Instruments.
  - (2) Cooperate with and assist any selected managing underwriter and their counsel in connection with their efforts to prepare any Official Statement or Offering Memorandum. FSC will cooperate with and assist the underwriters in the preparation of a bond purchase contract, an underwriters agreement and other related documents. The costs incurred in such efforts, including the printing of the documents, will be paid in accordance with the terms of the Issuer's agreement with the underwriters, but shall not be or become an obligation of FSC, except to the extent specifically provided



otherwise in this Agreement or assumed in writing by FSC.

(3) Assist the staff of the Issuer in the safekeeping of any good faith checks, to the extent there are any such, and provide a cost comparison, for both expenses and interest which are suggested by the underwriters, to the then current market.

(4) Advise the Issuer as to the fairness of the price offered by the underwriters.

2. Offering Documents. Coordinate the preparation of the notice of sale and bidding instructions, official statement, official bid form and such other documents as may be required and submit all such documents to the Issuer for examination, approval and certification. After such examination, approval and certification, FSC shall provide the Issuer with a supply of all such documents sufficient to its needs and distribute by mail sets of the same to prospective purchasers of the Debt Instruments. Also, FSC shall provide copies of the final Official Statement to the purchaser of the Debt Instruments in accordance with the Notice of Sale and Bidding Instructions.
3. Credit Ratings. Make recommendations to the Issuer as to the advisability of obtaining a credit rating, or ratings, for the Debt Instruments and, when directed by the Issuer, coordinate the preparation of such information as may be appropriate for submission to the rating agency, or agencies. In those cases where the advisability of personal presentation of information to the rating agency, or agencies, may be indicated, FSC will arrange for such personal presentations, utilizing such composition of representatives from the Issuer as may be finally approved or directed by the Issuer.
4. Trustee, Paying Agent, Registrar. Upon request, counsel with the Issuer in the selection of a Trustee and/or Paying Agent/Registrar for the Debt Instruments, and assist in the negotiation of agreements pertinent to these services and the fees incident thereto.
5. Financial Publications. When appropriate, advise financial publications of the forthcoming sale of the Debt Instruments and provide them with all pertinent information.
6. Consultants. After consulting with and receiving directions from the Issuer, arrange for such reports and opinions of recognized independent consultants as may be appropriate for the successful marketing of the Debt Instruments.

7. Auditors. In the event formal verification by an independent auditor of any calculations incident to the Debt Instruments is required, make arrangements for such services.
8. Issuer Meetings. Attend meetings of the governing body of the Issuer, its staff, representatives or committees as requested at all times when FSC may be of assistance or service and the subject of financing is to be discussed.
9. Printing. To the extent authorized by the Issuer, coordinate all work incident to printing of the offering documents and the Debt Instruments.
10. Bond Counsel. Maintain liaison with Bond Counsel in the preparation of all legal documents pertaining to the authorization, sale and issuance of the Debt Instruments.
11. Changes in Laws. Provide to the Issuer copies of proposed or enacted changes in federal and state laws, rules and regulations having, or expected to have, a significant effect on the municipal bond market of which FSC becomes aware in the ordinary course of its business, it being understood that FSC does not and may not act as an attorney for, or provide legal advice or services to, the Issuer.
12. Delivery of Debt Instruments. As soon as a bid for the Debt Instruments is accepted by the Issuer, coordinate the efforts of all concerned to the end that the Debt Instruments may be delivered and paid for as expeditiously as possible and assist the Issuer in the preparation or verification of final closing figures incident to the delivery of the Debt Instruments.
13. Debt Service Schedule; Authorizing Resolution. After the closing of the sale and delivery of the Debt Instruments, deliver to the Issuer a schedule of annual debt service requirements for the Debt Instruments and, in coordination with Bond Counsel, assure that the paying agent/registrars and/or trustee has been provided with a copy of the authorizing ordinance, order or resolution.

## SECTION II OTHER AVAILABLE SERVICES

In addition to the services set forth and described in Section I herein above, FSC agrees to make available to Issuer the following services, when so requested by the Issuer and subject to the agreement by Issuer and FSC regarding the compensation, if any, to be paid for such services, it being understood and



agreed that the services set forth in this Section II shall require further agreement as to the compensation to be received by FSC for such services:

1. Investment of Funds. From time to time, as an incident to the other services provided hereunder as financial advisor, FSC may purchase such investments as may be directed and authorized by Issuer to be purchased, it being understood that FSC will be compensated in the normal and customary manner for each such transaction. In any instance wherein FSC may become entitled to receive fees or other compensation in any form from a third party with respect to these investment activities on behalf of Issuer, FSC will disclose to Issuer the nature and, to the extent such is known, the amount of any such compensation so that Issuer may consider the information in making its investment decision. It is understood and agreed that FSC is a duly licensed broker/dealer and is affiliated with First Southwest Asset Management, Inc. (FSAMI), a duly registered investment advisor. Issuer may, from time to time, utilize the broker/dealer and/or investment advisory services of FSC and/or FSAMI with respect to matters which do not involve or affect the investment of bond proceeds or the financial advisory services referenced in this Agreement. The terms and conditions of the engagement of FSC and/or FSAMI to provide such services shall not be affected by the terms of this Agreement.
2. Exercising Calls and Refunding. Provide advice and assistance with regard to exercising any call and/or refunding of any outstanding Debt Instruments.
3. Capital Improvements Programs. Provide advice and assistance in the development of any capital improvements programs of the Issuer.
4. Long-Range Planning. Provide advice and assistance in the development of other long-range financing plans of the Issuer.
5. Post-Sale Services. Subsequent to the sale and delivery of Debt Instruments, review the transaction and transaction documentation with legal counsel for the Issuer, Bond Counsel, auditors and other experts and consultants retained by the Issuer and assist in developing appropriate responses to legal processes, audit procedures, inquiries, internal reviews and similar matters.

### SECTION III TERM OF AGREEMENT

This Agreement shall become effective as of the date executed by the Issuer as set forth on the signature page hereof and, unless terminated by either party pursuant to Section IV of this Agreement, shall



remain in effect thereafter for a period of five (5) years from such date. Unless FSC or Issuer shall notify the other party in writing at least thirty (30) days in advance of the applicable anniversary date that this Agreement will not be renewed, this Agreement will be automatically renewed on the fifth anniversary of the date hereof for an additional one (1) year period and thereafter will be automatically renewed on each anniversary date for successive one (1) year periods.

#### SECTION IV TERMINATION

This Agreement may be terminated with or without cause by the Issuer or FSC upon the giving of at least thirty (30) days' prior written notice to the other party of its intention to terminate, specifying in such notice the effective date of such termination. In the event of such termination, it is understood and agreed that only the amounts due FSC for services provided and expenses incurred to the date of termination will be due and payable. No penalty will be assessed for termination of this Agreement.

#### SECTION V COMPENSATION AND EXPENSE REIMBURSEMENT

The fees due to FSC for the services set forth and described in Section I of this Agreement with respect to each issuance of Debt Instruments during the term of this Agreement shall be calculated in accordance with the schedule set forth on Appendix A attached hereto. Unless specifically provided otherwise on Appendix A or in a separate written agreement between Issuer and FSC, such fees, together with any other fees as may have been mutually agreed upon and all expenses for which FSC is entitled to reimbursement, shall become due and payable concurrently with the delivery of the Debt Instruments to the purchaser.

#### SECTION VI MISCELLANEOUS

1. Choice of Law. This Agreement shall be construed and given effect in accordance with the laws of the State of Texas.
2. Binding Effect; Assignment. This Agreement shall be binding upon and inure to the benefit of the Issuer and FSC, their respective successors and assigns; provided however, neither party hereto may assign or transfer any of its rights or obligations hereunder without the prior written consent of the other party.
3. Entire Agreement. This instrument contains the entire agreement between the parties relating to the

rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this Agreement shall be of no force or effect except for a subsequent modification in writing signed by all parties hereto.

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

**FIRST SOUTHWEST COMPANY**

By: Hill A. Feinberg  
Hill A. Feinberg, Chairman and  
Chief Executive Officer

By: W. Boyd London, Jr.  
W. Boyd London, Jr.  
Senior Vice President

**Palo Pinto County Municipal Water District No. 1**

By: Jess H. Turner  
Title: President  
Date: September 22, 2000

**ATTEST:**

[Signature]  
Secretary



APPENDIX A

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

There is no minimum fee.

The fees due FSC will not exceed those contained in our customary fee schedule as listed below.

\$9,000	for the first	\$ 1,000,000	of bonds issued
plus \$ 4.00 per \$1,000	for the next	\$ 4,000,000	of bonds issued
plus \$ 2.00 per \$1,000	for the next	\$ 5,000,000	of bonds issued
plus \$ 1.00 per \$1,000	for the next	\$ 40,000,000	of bonds issued
plus \$ .75 per \$1,000	thereafter		

The above charges shall be multiplied by 1.25 times for the completion of an application to a federal or state government agency or for the issuance of revenue bonds or refunding bonds, reflecting the additional services required.

The charges for ancillary services, including computer structuring and official statement printing, shall be levied only for those services which are reasonably necessary in completing the transaction and which are reasonable in amount, unless such charges were incurred at the specific direction of the Issuer.

*The payment of charges for financial advisory services described in Section I of the foregoing Agreement shall be contingent upon the delivery of bonds and shall be due at the time that bonds are delivered. The payment of charges for services described in Section II of the foregoing Agreement shall be due and payable in accordance with the mutual agreement therefor between FSC and Issuer.*

The Issuer shall be responsible for the following expenses, if and when applicable, whether they are charged to the Issuer directly as expenses or charged to the Issuer by FSC as reimbursable expenses:

- Bond counsel
- Bond printing
- Bond ratings
- Computer structuring
- Credit enhancement
- CPA fees for refunding
- Official statement preparation and printing
- Paying agent/registrar/trustee
- Travel expenses
- Underwriter and underwriters counsel
- Miscellaneous, including copy, delivery, and phone charges

*The payment of reimbursable expenses that FSC has assumed on behalf of the Issuer shall NOT be contingent upon the delivery of bonds and shall be due at the time that services are rendered and payable upon receipt of an invoice therefor submitted by FSC.*



January 14, 2015

Part A 6d. General Information – Certified Public Accountant Engagement Letter  
Palo Pinto County Municipal Water District No. 1

City of Mineral Wells, Texas  
P.O. Box 460  
Mineral Wells, Texas 76068

We are pleased to confirm our understanding of the services we are to provide for the Palo Pinto County Municipal Water District No. 1 (the “District”) for the year ended September 30, 2015. We will audit the financial statements of the business-type activities, each major fund, and the aggregate remaining fund information, which collectively comprise the basic financial statements, of the Palo Pinto County Municipal Water District No. 1 as of and for the year ended September 30, 2015. Accounting standards generally accepted in the United States of America provide for certain required supplementary information (RSI), such as management’s discussion and analysis (MD&A), to supplement the District’s basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the District’s RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management’s responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by generally accepted accounting principles and will be subjected to limited procedures, but will not be audited:

1. Management’s discussion and analysis.

We have also been engaged to report on supplementary information other than RSI also accompanies the District’s financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America and we will provide an opinion on it in relation to the financial statements as a whole, in a report combined with our auditor’s report on the financial statements:

1. Schedule of expenditures of federal awards, if applicable.

The following additional information accompanying the basic financial statements will not be subjected to the auditing procedures applied in our audit of the financial statements, and our auditor’s report will not provide an opinion or any assurance on that other information.



1. Texas supplementary information.

**Audit Objectives**

The objective of our audit is the expression of opinions as to whether your basic financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles and to report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. The objective also includes reporting on-

- Internal control related to the financial statements and compliance with the provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*.
- Internal control related to major programs and an opinion (or disclaimer of opinion) on compliance with laws, regulations, and the provisions of contracts or grant agreements that could have a direct and material effect on each major program in accordance with the Single Audit Act Amendments of 1996 and OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, if applicable.

The *Government Auditing Standards* report on internal control over financial reporting and on compliance and other matters will include a paragraph that states (1) that the purpose of the report is solely to describe the scope of testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance, and (2) that the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. The OMB Circular A-133 report on internal control over compliance will include a paragraph that states that the purpose of the report on internal control over compliance is solely to describe the scope of testing of internal control over compliance and the results of that testing based on the requirements of OMB Circular A-133. Both reports will state that the report is not suitable for any other purpose.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America; the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; the Single Audit Act Amendments of 1996; and the provisions of OMB Circular A-133, and other procedures we consider necessary to enable us to express such opinions and to render the required reports. We will issue written reports upon completion of our Single Audit. Our reports will be addressed to the Board of Directors of the Palo Pinto County Municipal Water District No. 1. We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions or add emphasis-of-matter or other-matter paragraphs. If our opinions on the financial statements or the Single Audit compliance opinions are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or may withdraw from this engagement.



## **Management Responsibilities**

Management is responsible for the financial statements, schedule of expenditures of federal awards, and all accompanying information as well as all representations contained therein. If applicable, management is also responsible for identifying all federal awards received and understanding and complying with the compliance requirements, and for preparation of the schedule of expenditures of federal awards (including notes and noncash assistance received) in accordance with the requirements of OMB Circular A-133. As part of the audit, we will assist with preparation of your financial statements, schedule of expenditures of federal awards, if applicable, and related notes. These nonaudit services do not constitute an audit under *Government Auditing Standards* and such services will not be conducted in accordance with *Government Auditing Standards*. You agree to assume all management responsibilities relating to the financial statements, schedule of expenditures of federal awards, related notes, and any other nonaudit services we provide. You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements, schedule of expenditures of federal awards, and related notes and that you have reviewed and approved the financial statements, schedule of expenditures of federal awards, and related notes prior to their issuance and have accepted responsibility for them. Further, you agree to oversee the nonaudit services by designating an individual, preferably from senior management, who possesses suitable skill, knowledge, or experience; evaluate the adequacy and results of those services; and accept responsibility for them.

Management is responsible for (a) establishing and maintaining effective internal controls, including internal controls over compliance, and for evaluating and monitoring ongoing activities, to help ensure that appropriate goals and objectives are met; (b) following laws and regulations; (c) ensuring that there is reasonable assurance that government programs are administered in compliance with compliance requirements; and (d) ensuring that management is reliable and financial information is reliable and properly reported. Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles; for the preparation and fair presentation of the financial statements in conformity with U.S. generally accepted accounting principles; and for compliance with applicable laws and regulations and the provisions of contracts and grant agreements.

Management is also responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, (2) additional information that we may request for the purpose of the audit, and (3) unrestricted access to persons within the government from whom we determine it necessary to obtain audit evidence.

Your responsibilities also include identifying significant vendor relationships in which the vendor has responsibility for program compliance and for the accuracy and completeness of that information. Your responsibilities include adjusting the financial statements to correct material misstatements and for confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the



latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the entity complies with applicable laws, regulations, contracts, agreements, and grants. Management is also responsible for taking timely and appropriate steps to remedy fraud and noncompliance with provisions of laws, regulations, contracts, and grant agreements, or abuse that we report. Additionally, as required by OMB Circular A-133, it is management's responsibility to follow up and take corrective action on reported audit findings and to prepare a summary schedule of prior audit findings and a corrective action plan.

You are responsible for preparation of the schedule of expenditures of federal awards (including notes and noncash assistance received) in conformity with OMB Circular A-133. You agree to include our report on the schedule of expenditures of federal awards in any document that contains and indicates that we have reported on the schedule of expenditures of federal awards. You also agree to make the audited financial statements readily available to intended users of the schedule of expenditures of federal awards no later than the date the schedule of expenditures of federal awards is issued with our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the schedule of expenditures of federal awards in accordance with OMB Circular A-133; (2) that you believe the schedule of expenditures of federal awards, including its form and content, is fairly presented in accordance with OMB Circular A-133; (3) that the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the schedule of expenditures of federal awards.

You are also responsible for the preparation of the other supplementary information, which we have been engaged to report on, in conformity with U.S. generally accepted accounting principles. You agree to include our report on the supplementary information in any document that contains and indicates that we have reported on the supplementary information. You also agree to make the audited financial statements readily available to users of the supplementary information no later than the date the supplementary information is issued with our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the supplementary information in accordance with GAAP; (2) that you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) that the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.



Management is responsible for establishing and maintaining of a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying for us previous financial audits, attestation engagements, performance audits, or other studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

With regards to the electronic dissemination of audited financial statements, including financial statements published electronically on your website, you understand that electronic sites are a means to distribute information and, therefore, we are not required to read the information contained in these sites or to consider the consistency of other information in the electronic site with the original document.

#### **Audit Procedures - General**

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable rather than absolute assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the government or to acts by management or employees acting on behalf of the government. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements or noncompliance may exist and not be detected by us, even though the audit is properly planned and performed in accordance with U.S. generally accepted auditing standards and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements or major programs. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that come to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential, and of any material abuse that comes to our attention. We will include such matters in the reports required for a Single Audit. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.



Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include tests of the physical existence of inventories, and direct confirmations of receivables and certain other assets and liabilities by correspondence with selected individuals, funding sources, creditors, and financial institutions. We will request written representations from your attorneys as part of the engagement, and they may bill you for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements; schedule of expenditures of federal awards; federal award programs; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by generally accepted auditing standards.

### **Audit Procedures – Internal Controls**

Our audit will include obtaining an understanding of the government and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

If applicable, as required by OMB Circular A-133, we will perform tests of controls over compliance to evaluate the effectiveness of the design and operation of controls that we consider relevant to preventing or detecting material noncompliance with compliance requirements applicable to each major federal award program. However, our tests will be less in scope than would be necessary to render an opinion on those controls and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to OMB Circular A-133.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards, *Government Auditing Standards*, and OMB Circular A-133.

### **Audit Procedures - Compliance**

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the District's compliance with provisions of applicable laws, regulations, contracts, and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.



If applicable, OMB Circular A-133 requires that we also plan and perform the audit to obtain reasonable assurance about whether the auditee has complied with applicable laws and regulations and the provisions of contracts and grant agreements applicable to major programs. Our procedures will consist of tests of transactions and other applicable procedures described in the *OMB Circular A-133 Compliance Supplement* for the types of compliance requirements that could have a direct and material effect on each of the District's major programs. The purpose of these procedures will be to express an opinion on the Districts' compliance with requirements applicable to each of its major programs in our report on compliance issued pursuant to OMB Circular A-133.

### **Engagement Administration, Fees and Other**

We understand that your employees will prepare all cash, accounts receivable, or other confirmations we request and will locate any documents selected by us for testing.

If a Single Audit is required, at the conclusion of the engagement, we will complete the appropriate sections of the Data Collection Form that summarizes our audit findings. It is management's responsibility to submit the reporting package (including financial statements, schedule of expenditures of federal awards, summary schedule of prior audit findings, auditors' reports, and corrective action plan) along with the Data Collection Form to the federal audit clearinghouse. We will coordinate with you the electronic submission and certification. If applicable, we will provide copies of our report for you to include with the reporting package you will submit to pass-through entities. The Data Collection Form and the reporting package must be submitted within the earlier of 30 days after receipt of the auditors' reports or nine months after the end of the audit period, unless a longer period is agreed to in advance by the cognizant or oversight agency for audits.

We will provide copies of our reports to the District; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

The audit documentation for this engagement is the property of George, Morgan & Sneed, P.C and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to a cognizant or oversight agency for audit or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of George, Morgan & Sneed, P.C. personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by the cognizant agency, oversight agency for audit, or pass-through entity. If we are aware that a federal awarding agency, pass-through entity,



or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation.

We expect to begin our audit at mutually agreeable times in August and December 2015 and to issue our reports for the City Council by March 31, 2015. Peter Morgan is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them.

Our fee for these services will be at our standard hourly rates plus out-of-pocket costs (such as report reproduction, word processing, postage, travel, copies, telephone, etc.) except that we agree that our gross fee, including expenses, will not exceed \$10,750. If a single audit is required, an additional fee of approximately \$3,700 will be added to the estimated fee above. Our standard hourly rates vary according to the degree of responsibility involved and the experience level of the personnel assigned to your audit. Our invoices for these fees will be rendered each month as work progresses and are payable on presentation. In accordance with our firm policies, work may be suspended if your account becomes 45 days or more overdue and may not be resumed until your account is paid in full.

If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed upon written notification of termination, even if we have not completed our report(s). You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket costs through the date of termination. The above fee is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs.

Government Auditing Standards require that we provide you with a copy of our most recent external peer review report and any letter of comment, and any subsequent peer review reports and letters of comment received during the period of the contract. Our June 5, 2014, peer review report accompanies this letter.

All disputes arising under this agreement shall be submitted to mediation. Each party shall designate an executive officer empowered to attempt to resolve the dispute. Should the designated representatives be unable to agree on a resolution, a competent and impartial third party acceptable to both parties shall be appointed to mediate. Each disputing party shall pay an equal percentage of the mediator's fees and expenses. No suit or arbitration proceedings shall be commenced under this agreement until at least 30 days after the mediator's first meeting with the involved parties. In the event that the dispute is required to be litigated, the court shall be authorized to assess litigation costs against any party found by the court not to have participated in the mediation process in good faith.

We appreciate the opportunity to be of service to the City of Mineral Wells and Palo Pinto County Municipal Water District No. 1 and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Very truly yours,

GEORGE, MORGAN & SNEED, P.C.

*Peter H. Morgan*

Peter H. Morgan, CPA

This letter correctly sets forth the understanding of the Palo Pinto County Municipal Water District No. 1.

BY: *David R. Turk*

TITLE: *PRESIDENT*

DATE: *3/4/15*





# BUMGARDNERMORRISON

CPAs • Tax • Audit & Accounting

Part A 6d. General Information – Certified Public Accountant Engagement Letter  
Palo Pinto County Municipal Water District No. 1

June 5, 2014

## System Review Report

To the Shareholders of George, Morgan & Sneed, P.C.  
and the Peer Review Committee of the  
Texas Society of Certified Public Accountants

We have reviewed the system of quality control for the accounting and auditing practice of George, Morgan & Sneed, P.C. (the firm) in effect for the year ended December 31, 2013. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants. As a part of our peer review, we considered reviews by regulatory entities, if applicable, in determining the nature and extent of our procedures. The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review. The nature, objectives, scope, limitations of, and the procedures performed in a System Review are described in the standards at [www.aicpa.org/prsummary](http://www.aicpa.org/prsummary).

As required by the standards, engagements selected for review included engagements performed under the *Government Auditing Standards* and audits of employee benefit plans,

In our opinion, the system of quality control for the accounting and auditing practice of George, Morgan & Sneed, P.C. in effect for the year ended December 31, 2013, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass*, *pass with deficiency (ies)* or *fail*. George, Morgan & Sneed, P.C. has received a peer review rating of *pass*.

*Bumgardner, Morrison & Company, LLP*

Bumgardner, Morrison & Company, LLP  
Certified Public Accountants

Members: American Institute of Certified Public Accountants  
Texas Society of Certified Public Accountants  
AICPA Private Companies Practice Section  
AICPA Employee Benefit Plan Audit Quality Center  
AICPA Government Audit Quality Center

1501 E Mockingbird Lane, Suite 300  
PO Box 3750

Victoria, Texas 77903-3750

Phone: 361.575.0271

Fax: 361.578.0880

Website: [BMCcpa.com](http://BMCcpa.com)



Mr. Rochelle's Direct Line: (512) 322-5810  
[mrochelle@lglawfirm.com](mailto:mrochelle@lglawfirm.com)

Part A 6: General Information – Applicant's Consultants

November 11, 2005

**CONFIDENTIAL**  
**PRIVILEGED ATTORNEY-CLIENT COMMUNICATION**

Mr. John P. Ritchie  
General Counsel  
Palo Pinto County Municipal Water District No. 1  
P.O. Box 98  
Mineral Wells, Texas 76068

Re: Employment Contract; Billing File 2445-0

Dear John:

This will confirm our agreement that the firm of Lloyd Gosselink Blevins Rochelle & Townsend, P.C. will represent the Palo Pinto County Municipal Water District ("District") with respect to assisting the District with new water supply permitting and negotiating with Brazos River Authority over its System Operations permit and the District's proposed permitting. At the present time we will work under your direction.

Our firm utilizes a fee structure based on the cost per chargeable hour for attorneys' services, depending on the individual involved and his or her level of experience and expertise. I will be the account representative and the attorney in charge of our representation. My time will be billed at the rate of \$250 per hour. Brad Castleberry will be working with me and his time will be billed at the rate of \$195 per hour. From time to time other attorneys with the firm may be assigned to some aspect of our representation, as appropriate. It is the policy of our firm to review our fee structure annually. We will notify you in writing prior to implementation of any change in our fee structure.

Additionally, we utilize briefing clerks, paralegals and other support personnel to perform those tasks not requiring the time of an attorney. Briefing clerk and paralegal time is billed at an amount determined by the experience of the individual and file clerk time is billed at \$30.00 per hour. We will submit all out-of-pocket expenses incurred for reimbursement, with a fifteen percent (15%) overhead charge added. Usually we ask the client to pay directly all filing fees, charges for consultants, etc. due to the size of such fees and to avoid the client incurring our overhead charge. We endeavor to have a statement of services rendered and expenses incurred by the 15th of each month. Full payment is due on receipt of the statement.



Upon completion of our work on this matter, it is our firm's policy that your original documents (i.e. deeds, wills, etc.) and other client property be returned within a reasonable period of time. Our own files, including lawyer work product pertaining to the matter, will be retained by the firm. These firm files include firm administrative records, time and expense reports, billing and accounting records, and internal work product. Internal work product includes drafts, notes, internal communications (in both paper and electronic mediums), and legal and factual research prepared for the internal use of our firm's lawyers. All documents retained by the firm will be transferred to the person responsible for administering our records retention program. For various reasons, including the minimization of unnecessary storage expenses, we reserve the right to destroy or otherwise dispose of any such documents or other materials retained by us after the completion of our work.

In keeping with technological advancements and the corresponding demands of clients, it is the practice of the firm to use electronic (email) correspondence from time to time to communicate and to transmit documents. The firm employs several security measures to prevent the interception of electronic transmissions and preserve confidentiality. Still, the possibility exists that electronic transmissions could be intercepted or otherwise received by third parties and lose their privileged nature if the method of communication is ruled to lack sufficient confidentiality. As with any correspondence regarding legal representation, regardless of the manner of transmission, we urge you to use caution in its dissemination in order to protect its confidentiality. By signing below, you agree that we may use email in the scope of our representation of the District.

Periodically, the firm is asked to provide a "Representative Client List" to prospective clients and in various legal directories (e.g., Martindale-Hubbell and the Texas Legal Directory). We would like confirmation that we may disclose to third parties the fact that our firm represents the District. Lloyd Gosselink is not requesting authorization to disclose any privileged information obtained during its representation. By signing below you agree that we may reveal the fact that we represent the District to third parties.

This agreement shall become effective upon our receipt of a counter-signed original of this letter. This agreement may be terminated by you at any time for any reason by written notice to us. This agreement may be terminated by this firm on fifteen (15) days written notice for any reason, including nonpayment of fees and expenses within 30 days of receipt of a statement. Any termination by either party may be subject to, or controlled by, orders of a court.

Mr. John P. Ritchie

Page 3

November 11, 2005

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

If this agreement is acceptable, please sign the duplicate original provided herein, and return it to us for our records. We look forward to working with you.

Sincerely,




Martin C. Rochelle

MCR/ldp

2445\00\tr051111

APPROVED:

PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1



\_\_\_\_\_  
(Client Signature)

PRESIDENT

\_\_\_\_\_  
(Title)

Earl L. Medlin

\_\_\_\_\_  
(Printed Name)



**SCHEDULE OF CHARGES**

As of January 1, 2005

Photocopies	\$ .20/page
Telefax (sending only)	\$ 1.00/page
Messenger/clerical services	\$ 10.00/hour
Scanning	\$ .15/page
CD burning or duplication	\$ 5.00/CD



## Application Filing and Authorized Representative Resolution (WRD-201a)

A RESOLUTION by the Board of Directors of the Palo Pinto County Municipal Water District No. 1 requesting financial assistance from the Texas Water Development Board; authorizing the filing of an application for assistance; and making certain findings in connection therewith.

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1:

SECTION 1: That an application is hereby approved and authorized to be filed with the Texas Water Development Board seeking financial assistance in an amount not to exceed \$17,100,000 to provide for the costs of the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir) including land acquisition, final design, archaeology recovery and initial utility relocations.

SECTION 2: That David R. Turk be and is hereby designated the authorized representative of the Palo Pinto County Municipal Water District No. 1 for purposes of furnishing such information and executing such documents as may be required in connection with the preparation and filing of such application for financial assistance and the rules of the Texas Water Development Board.

SECTION 3: That the following firms and individuals are hereby authorized and directed to aid and assist in the preparation and submission of such application and appear on behalf of and represent the Palo Pinto County Municipal Water District No. 1 before any hearing held by the Texas Water Development Board on such application, to wit:

Financial Advisor:	First Southwest Company 325 North St. Paul Street, Suite 800 Dallas, Texas 75201
Engineer:	HDR Engineering, Inc. 4401 West Gate Boulevard, Suite 400 Austin, Texas 78745-1469
Bond Counsel:	McCall, Parkhurst & Horton, L.L.P. 717 North Harwood, Suite 900 Dallas, Texas 75201-6587

PASSED AND APPROVED, this the 29<sup>th</sup> day of May, 2015.

ATTEST:



By:

David R. Turk

### Application Affidavit (WRD-201)

THE STATE OF TEXAS §  
COUNTY OF Palo Pinto §  
APPLICANT Palo Pinto County Municipal Water District No. 1 §

BEFORE ME, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared David R. Turk as the Authorized Representative of the Palo Pinto County Municipal Water District No. 1, who being by me duly sworn, upon oath says that:

1. the decision by the Palo Pinto County Municipal Water District No. 1 ("District") to request financial assistance from the Texas Water Development Board ("Board") was made in a public meeting held in accordance with the Open Meetings Act (Government Code, §551.001, et seq.) and after providing all such notice as required by such Act as is applicable to the District;

2. the information submitted in the application is true and correct according to my best knowledge and belief;

3. the District has no pending, threatened, or outstanding judgments, orders, fines, penalties, taxes, assessment or other enforcement or compliance issue of any kind or nature by the Environmental Protection Agency, Texas Commission on Environmental Quality, Texas Comptroller, Texas Secretary of State, or any other federal, state or local government, except for the following (if no such outstanding compliance issues, write in "none"):

\_\_\_\_\_ None \_\_\_\_\_.

4. the District warrants compliance with the representations made in the application in the event that the Board provides the financial assistance; and

5. the District will comply with all applicable federal laws, rules, and regulations as well as the laws of this state and the rules and regulations of the Board.

David R. Turk  
Official Representative

Title: President

SWORN TO AND SUBSCRIBED BEFORE ME, by David R. Turk,  
this 29 day of May, 2015.



Karen Glover  
Notary Public, State of Texas



## Application Resolution - Certificate of Secretary (WRD-201b)

THE STATE OF TEXAS  
COUNTY OF PALO PINTO  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1

I, the undersigned, Secretary of the Palo Pinto County Municipal Water District No. 1, Mineral Wells, Texas, DO HEREBY CERTIFY as follows:

1. That on the 29th day of May, 2015, a special meeting of the Palo Pinto County Municipal Water District No. 1 was held at a meeting place within the City; the duly constituted members of the Board of Directors being as follows: David R. Turk, President, Wesley Ellis, Vice President, and Board Members Charles D. Sturdivant, Ronnie Collins, and Don Crawford,

and all of said persons were present at said meeting, except the following: None.

Among other business considered at said meeting, the attached resolution entitled:

"A RESOLUTION by the Board of Directors of the Palo Pinto County Municipal Water District No. 1 requesting financial participation from the Texas Water Development Board; authorizing the filing of an application for financial participation; and making certain findings in connection therewith."

was introduced and submitted to the Board of Directors for passage and adoption. After presentation and due consideration of the resolution, and upon a motion made by Wesley Ellis and seconded by Don Crawford, the resolution was duly passed and adopted by the Board by the following vote:

Five (5) voted "For"

None (0) voted "Against"

None (0) abstained

all as shown in the official Minutes of the Board of Directors for the meeting held on the aforesaid date.

2. That the attached resolution is a true and correct copy of the original on file in the official records of the Palo Pinto County Municipal Water District No. 1; the duly qualified and acting members of the Board of Directors on the date of the aforesaid meeting are those persons shown above and, according to the records of my office, advance notice of the time, place and purpose of said meeting was given to each member of the Board of Directors; and that said meeting, and deliberation of the aforesaid public business, was open to the public and written notice of said meeting, including the subject of the above entitled resolution, was posted and given in advance thereof in compliance with the provisions of Chapter 551 of the Texas Government Code.

IN WITNESS WHEREOF, I have hereunto signed my name officially and affixed the seal of said Palo Pinto County Municipal Water District No. 1, this 29<sup>th</sup> of May, 2015.



  
Secretary

**CERTIFICATE FOR RESOLUTION**

**THE STATE OF TEXAS  
COUNTY OF PALO PINTO**

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

§  
§  
§

We, the undersigned officers of the Board of Directors of said District, hereby certify as follows:

1. The Board of Directors of said District convened in **REGULAR MEETING ON THE 19TH DAY OF MAY, 2009**, at the designated regular meeting place, and the roll was called of the duly constituted officers and members of said Board of Directors, to-wit:

Earl L. Medlin, President  
Leon Groves, Vice President  
Wesley Ellis  
Bob Sturdivant  
David Turk

Scott Blasor, Secretary/Treasurer

and all of said persons were present, except the following absentees: David Turk, thus constituting a quorum. Whereupon, among other business, the following was transacted at said meeting: a written **RESOLUTION AUTHORIZING THE ISSUANCE OF PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 SUBORDINATE REVENUE BONDS, (TAX EXEMPT) SERIES 2009A, IN THE PRINCIPAL AMOUNT OF \$2,400,000, PRESCRIBING THE FORM AND TERMS OF SAID BONDS; PROVIDING FOR THE SECURITY AND PAYMENT THEREOF; AUTHORIZING SALE OF THE BONDS; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT** was duly introduced for the consideration of said Board of Directors and read in full. It was then duly moved and seconded that said Resolution be passed; and, after due discussion, said motion, carrying with it the passage of said Resolution, prevailed and carried by the following vote:

**AYES:** All members of said Board of Directors shown present above voted "Aye".

**NOES:** None.

2. That a true, full and correct copy of the aforesaid Resolution passed at the Meeting described in the above and foregoing paragraph is attached to and follows this Certificate; that said Resolution has been duly recorded in said Board of Directors's minutes of said Meeting; that the above and foregoing paragraph is a true, full and correct excerpt from said Board of Directors's minutes of said Meeting pertaining to the passage of said Resolution; that the persons named in the above and foregoing paragraph are the duly chosen, qualified and acting officers and members of said Board of Directors as indicated therein; that each of the officers and members of said Board of Directors was duly and sufficiently notified officially and personally, in advance, of the time, place and purpose of the aforesaid Meeting, and that said Resolution would be introduced and considered for passage at said Meeting, and each of said officers and members consented, in advance, to the holding of said Meeting for such purpose; that said Meeting was open to the public, and public notice of the time, place and purpose of said Meeting was given, all as required by Chapter 551, Texas Government Code.



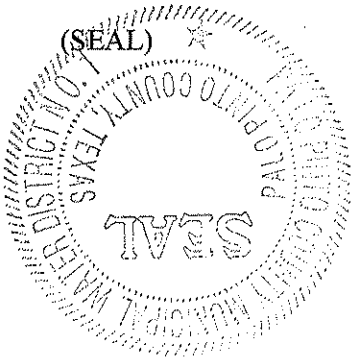
SIGNED AND SEALED the 19th day of May, 2009.

*Scott Blaser*

Secretary, Board of Directors

*Carl M. Smith*

President, Board of Directors



**RESOLUTION AUTHORIZING THE ISSUANCE OF PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 SUBORDINATE REVENUE BONDS, (TAX EXEMPT) SERIES 2009A, IN THE PRINCIPAL AMOUNT OF \$2,400,000, PRESCRIBING THE FORM AND TERMS OF SAID BONDS; PROVIDING FOR THE SECURITY AND PAYMENT THEREOF; AUTHORIZING SALE OF THE BONDS; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT**

**THE STATE OF TEXAS** :  
**COUNTIES OF PALO PINTO AND PARKER** :  
**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1** :

WHEREAS, Palo Pinto County Municipal Water District No. 1 (the "Issuer") was created by Article 8280-258, V.A.T.C.S., as amended, as revised by Chapter 49 of the Texas Water Code ("Act") as a Conservation and Reclamation District, pursuant to Article 16, Section 59 of the Texas Constitution; and

WHEREAS, the Issuer has currently outstanding the following Revenue Bonds, to-wit:

Palo Pinto County Municipal Water District No. 1 Revenue Refunding Bonds, Series 2001, dated November 1, 2001, maturities June 1, 2009 through June 1, 2016, now outstanding in the principal amount of \$3,280,000 ("Series 2001 Bonds" or "Outstanding First Lien Bonds" or "First Lien Bonds");

Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Series 2002, dated October 1, 2002, maturities June 1, 2009 through June 1, 2023, now outstanding in the principal amount of \$5,655,000 ("Series 2002 Bonds" or "Outstanding First Lien Bonds" or "First Lien Bonds");

WHEREAS, the Issuer has determined to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: acquisition of land easements and rights-of-way, together with necessary planning, permitting and preliminary engineering of a Recommended Water Management Strategy for construction of the Turkey Peak Reservoir; and

WHEREAS, it is further deemed advisable by the Board of Directors of the Issuer to issue and deliver to the Texas Water Development Board the Bonds authorized by this Resolution and the Palo Pinto County Municipal Water District No. 1 Subordinate Bonds, (Taxable) Series 2009B, in the principal amount of \$3,200,000, to be authorized by Resolution concurrently herewith pursuant to Article 8280-258 V.A.T.C.S. and Chapter 49 of the Texas Water Code, and the Act; and

WHEREAS, it is hereby officially found and determined that public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

**BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1:**

## ARTICLE I

### DEFINITION OF TERMS

Section 1.01 DEFINITIONS. In each place throughout this Resolution, wherein the following terms, or any of them are used, the same, unless the context shall indicate another or different meaning or intent, shall be construed and are intended to have the meanings as follows:

- (a) "Act" shall mean Article 8280-258, as amended, of V.A.T.C.S., as revised by Chapter 49 of the Texas Water Code.
- (b) "Additional Bonds" shall mean any bonds authorized by Article VIII of this Resolution.
- (c) "Board of Directors" or "Board" shall mean the Board of Directors of the Issuer.
- (d) "Bond" or "Bonds" shall mean any bonds authorized by this Resolution.
- (e) "Bond Insurer" or "Insurer" shall mean any other entity that insures or guarantees the payment of principal and interest on any Bonds or the provider of a Reserve Fund Obligation.
- (f) "Certified Public Accountant" shall mean any certified public accountant of such suitable experience and qualifications, not regularly in the employ of the Issuer, selected by the Issuer.
- (g) "City" shall mean the City of Mineral Wells, Texas.
- (h) "Contract" or "Water Purchase Contract" shall mean the contract with the City for the sale of water to the City, dated as of July 10, 1981, as supplemented, and modified as of December 10, 1992, November 1, 2001, October 1, 2002, and April 1, 2009.
- (i) "Default" or "Event of Default" shall mean the failure by the Issuer to pay the principal of or the interest on any bond herein authorized as the same shall become due; or the failure by the issuer to perform any of the agreements or covenants on its party (other) than its agreement to pay the principal of and interest on the Bonds (which failure shall have continued for a period of thirty days after written notice of such failure has been given to the Issuer by the Paying Agent/Registrar or the owner or holder of any Bond or coupon.
- (j) "Depository" shall mean the bank or banks which the Issuer selects (whether one or more) in accordance with law, as its Depository.
- (k) "Fiscal Year" shall mean each twelve month period, beginning October 1 and ending September 30 of each year.
- (l) "Independent Consulting Engineer" shall mean the engineer or engineering firm at the time employed by the Issuer under the provisions of Section 6.08 of this Resolution.

(m) "Insurance Policy" shall mean the insurance policy issued by the Insurer guaranteeing the scheduled payment of principal of and interest on the Bonds when due.

(n) "Investment" shall mean cash, investments, or any combination of the foregoing.

(o) "Issuer" shall mean Palo Pinto County Municipal Water District No. 1, and any other public body or agency at any time succeeding to the property and principal rights, powers and obligations of said Issuer.

(p) "Operation and Maintenance Expenses" shall mean the reasonable and necessary cost of ordinary maintenance and operation of the Issuer and its facilities and all other properties and works of the Issuer, includes without limiting the generality of the foregoing (1) premiums on any insurance policies of every kind and nature; (2) administrative, legal, and other overhead expenses of the Issuer; and (3) charges and expenses of the Paying Agent/Registrar and the Depository.

(q) "Pledged Revenues" shall mean those Revenues not used to pay Operation and Maintenance Expenses and pledged herein to the payment of the Bonds in the manner as set forth in Section 3.01 of this Resolution.

(r) "Project" shall mean improvements and modifications to the acquisition of land and rights together with necessary planning, permitting and preliminary engineering of a recommended water management for construction of the Turkey Peak Reservoir.

(s) "Rating Agency" shall mean any nationally recognized securities rating agency which has assigned, at the request of the Issuer, a rating to the Bonds.

(t) "Reserve Fund Obligation" shall mean to the extent permitted by law, as evidenced by an opinion of nationally recognized bond counsel, a surety bond or insurance policy (which, under applicable law, shall not entitle the provider thereof to any right of reimbursement or repayment other than a right to subrogation upon payments being made to Holders) deposited in the Reserve Fund to satisfy the Required Reserve Account whereby the issuer is obligated to provide funds up to and including the maximum amount and under the conditions specified in such agreement or instrument.

(u) "Required Reserve Amount" shall mean the average annual debt service requirements on all outstanding Bonds and Additional Bonds, if any.

(v) "Reserve Fund Obligation Payment" shall mean any subrogation payment the Issuer is obligated to make from Pledged Revenues deposited in the Reserve Fund with respect to a Reserve Fund Obligation.

(w) "Resolution" or "Bond Resolution" shall mean this Resolution and any amendments thereof.

(x) "Revenues" shall mean all tolls, revenues, rates, fees, charges, rents and other income and receipts in each case derived by, or for the account of, the Issuer from the operation of the Issuer, and includes specifically payments received by the Issuer from the City as a Water Charge pursuant to the Water Purchase Contract.

(y) "Series 2009A Bonds" shall mean the Palo Pinto County Municipal Water District No. 1 Subordinate Bonds, (Tax Exempt) Series 2009A, in the principal amount of \$2,400,000 authorized by this Resolution dated May 19, 2009.

(z) "Series 2009B Bonds" shall mean the Palo Pinto County Municipal Water District No. 1 Subordinate Bonds, (Taxable) Series 2009B, in the principal amount of \$3,200,000 to be authorized by Resolution adopted concurrently with this Resolution.

(aa) "Surety Bond" shall mean a debt service reserve surety bond by an insurance company.

(bb) "Water Charge" shall mean the monthly charge made to the City for the purchase of the Issuer's water pursuant to the Contract.

## ARTICLE II

### BOND PROVISIONS

Section 2.01. AMOUNT AND PURPOSE OF THE BONDS. The bond or bonds of the Issuer are hereby authorized to be issued and delivered in the aggregate principal amount of \$2,400,000 providing for the purpose to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: acquisition of land easements, and rights-of-way together with necessary planning, permitting and preliminary engineering of a Recommended Water Management Strategy for construction of the Turkey Peak Reservoir, constituting the Project hereinafter defined.

Section 2.02. DESIGNATION OF THE BONDS. Each bond issued pursuant to this Resolution shall be designated: "PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 SUBORDINATE REVENUE BOND, (TAX EXEMPT) SERIES 2009A", and initially there shall be issued, sold, and delivered hereunder a single fully registered bond, without interest coupons, payable in annual installments of principal (the "Initial Bond"), but the Initial Bond may be assigned and transferred and/or converted into and exchanged for a like aggregate principal amount of fully registered bonds, without interest coupons, having serial and annual maturities, and in the denomination or denominations of \$5,000 or any integral multiple of \$5,000, all in the manner hereinafter provided. The term "Bonds" as used in this Resolution shall mean and include collectively the Initial Bond and all substitute bonds exchanged therefor, as well as all other substitute bonds and replacement bonds issued pursuant hereto, and the term "Bond" shall mean any of the Bonds.

Section 2.03. INITIAL DATE, DENOMINATION, NUMBER, MATURITIES, INITIAL REGISTERED OWNER, AND CHARACTERISTICS OF THE INITIAL BOND. (a) The Initial Bond is hereby authorized to be issued, sold, and delivered hereunder as a single fully registered Bond, without interest coupons, dated April 1, 2009, in the denomination and aggregate principal amount of \$2,400,000, numbered R-1, payable in annual installments of principal to the initial registered owner thereof, to-wit: TEXAS WATER DEVELOPMENT BOARD, or to the registered assignee or assignees of said Bond or any portion or portions thereof (in each case, the "registered owner"), with the annual installments of principal of the Initial Bond to be payable on the dates, respectively, and in the principal amounts, respectively, stated in the FORM OF INITIAL BOND set forth in this Resolution.

(b) The Initial Bond (i) may be prepaid or redeemed prior to the respective scheduled due dates of installments of principal thereof, (ii) may be assigned and transferred, (iii) may be converted and exchanged for other Bonds, (iv) shall have the characteristics, and (v) shall be signed and sealed, and the principal of and interest on the Initial Bond shall be payable, all as provided, and in the manner required or indicated, in the FORM OF INITIAL BOND set forth in this Resolution.

Section 2.04. INTEREST. The unpaid principal balance of the Initial Bond shall bear interest from the date of delivery of the Initial Bond and will be calculated on the basis of a 360-day year of twelve 30-day months to the respective scheduled due dates, or to the respective dates of prepayment or redemption, of the installments of principal of the Initial Bond, and said interest shall be payable, all in the manner provided and at the rates and on the dates stated in the FORM OF INITIAL BOND set forth in this Resolution.

Section 2.05. FORM OF INITIAL BOND. The form of the Initial Bond, including the form of Registration Certificate of the Comptroller of Public Accounts of the State of Texas to be endorsed on the Initial Bond, shall be substantially as follows:

**FORM OF INITIAL BOND**

**NO. R-1**

**\$2,400,000**

**Date of Delivery**  
\_\_\_\_\_

**UNITED STATES OF AMERICA  
STATE OF TEXAS  
COUNTIES OF PALO PINTO AND PARKER  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
SUBORDINATE REVENUE BOND, (TAX EXEMPT) SERIES 2009A**

The PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, in PALO PINTO AND PARKER COUNTIES, Texas (the "Issuer"), being a political subdivision of the State of Texas, pursuant to Article 8280-258 V.A.T.C.S, as revised by Chapter 49 of the Texas Water Code, hereby promises to pay to

**TEXAS WATER DEVELOPMENT BOARD**

or to the registered assignee or assignees of this Bond or any portion or portions hereof (in each case, the "registered owner") the aggregate principal amount of

**TWO MILLION FOUR HUNDRED THOUSAND DOLLARS**

in annual installments of principal due and payable on June 1 in each of the years, and in the respective principal amounts, as set forth in the following schedule:

<u>YEARS</u>	<u>AMOUNTS</u>	<u>YEARS</u>	<u>AMOUNTS</u>
2010	\$120,000	2020	\$120,000
2011	120,000	2021	120,000
2012	120,000	2022	120,000
2013	120,000	2023	120,000
2014	120,000	2024	120,000
2015	120,000	2025	120,000
2016	120,000	2026	120,000
2017	120,000	2027	120,000
2018	120,000	2028	120,000
2019	120,000	2029	120,000

and to pay interest, from the date of delivery of this Bond (which date appears above) hereinafter stated, on the balance of each such installment of principal, respectively, from time to time remaining unpaid, at the rates as follows:

maturity 2009, -0-%	maturity 2019, -0-%
maturity 2010, -0-%	maturity 2020, -0-%
maturity 2011, -0-%	maturity 2021, -0-%
maturity 2012, -0-%	maturity 2022, -0-%
maturity 2013, -0-%	maturity 2023, -0-%
maturity 2014, -0-%	maturity 2024, -0-%
maturity 2015, -0-%	maturity 2025, -0-%
maturity 2016, -0-%	maturity 2026, -0-%
maturity 2017, -0-%	maturity 2027, -0-%
maturity 2018, -0-%	maturity 2028, -0-%

with said interest, if any, being payable on December 1, 2009 and semiannually on each June 1 and December 1 thereafter while this Bond or any portion hereof is outstanding and unpaid.

THE INSTALLMENTS OF PRINCIPAL OF AND THE INTEREST ON this Bond are payable in lawful money of the United States of America, without exchange or collection charges. The installments of principal and the interest, if any, on this Bond are payable to the registered owner hereof through the services of U. S. Bank, National Association, Dallas, Texas, which is the "Paying Agent/Registrar" for this Bond. Payment of all principal of and interest on this Bond shall be made by the Paying Agent/Registrar to the registered owner hereof on each principal and/or interest payment date by check or draft, dated as of such date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the Issuer required by the Resolution authorizing the issuance of this Bond (the "Bond Resolution") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check or draft shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such principal and/or interest payment date, to the registered owner hereof, at the address of the registered owner, as it appeared on the 15th day of the month next preceding each such date (the "Record Date") on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described, by electronic or wire transfer, or by such other method acceptable to the Paying Agent/Registrar requested by, and at the risk and expense of, the registered owner; however, if the Bond is owned by the Texas Water Development Board, there will be no charge to the Texas Water Development Board, and payment of principal and interest shall be made by federal funds wire transfer. The Issuer covenants with the registered owner of this Bond that on or before each principal and/or interest

payment date for this Bond it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Bond Resolution, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on this Bond, when due.

IF THE DATE for the pnyment of the principal of or interest on this Bond shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due.

THIS BOND has been authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$2,400,000, for providing for the purpose to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: acquisition of land easements and rights-of-way together with necessary planning, permitting and preliminary engineering of a recommended Water Management Strategy for construction of the Turkey Peak Reservoir, constituting the Project hereinafter defined.

ON JUNE 1, 2019, or any date thereafter, the unpaid installments of principal of this Bond may be prepaid or redeemed prior to their scheduled due dates, at the option of the Issuer, with funds derived from any available source, as a whole, or in part, and, if in part, in inverse annual order, the Issuer shall select and designate the maturity, or maturities, and the amount that is to be redeemed, and if less than a whole maturity is to be called, the Issuer shall direct the Paying Agent/Registrar to call by lot (provided that a portion of this Bond may be redeemed only in an integral multiple of \$5,000), at the redemption price of the principal amount, plus accrued interest to the date fixed for prepayment or redemption.

AT LEAST 30 days prior to the date fixed for any such prepayment or redemption a written notice of such prepayment or redemption shall be mailed by the Paying Agent/Registrar to the registered owner hereof. By the date fixed for any such prepayment or redemption due provision shall be made by the Issuer with the Paying Agent/Registrar for the payment of the required prepayment or redemption price for this Bond or the ponion hereof which is to be so prepaid or redeemed, plus accrued interest thereon to the date fixed for prepayment or redemption. If such written notice of prepayment or redemption is given, and if due provision for such payment is made, all as provided above, this Bond, or the portion thereof which is to be so prepaid or redeemed, thereby automatically shall be treated as prepaid or redeemed prior to its scheduled due date, and shall not bear interest after the date fixed for its prepayment or redemption, and shall not be regarded as being outstanding except for the right of the registered owner to receive the prepayment or redemption price plus accrued interest to the date fixed for prepayment or redemption from the Paying Agent/Registrar out of the funds provided for such payment. The Paying Agent/Registrar shall record in the Registration Books all such prepayments or redemptions of principal of this Bond or any portion hereof.

THIS BOND, to the extent of the unpaid or unredeemed principal balance hereof, or any unpaid and unredeemed portion hereof in any integral multiple of \$5,000, may be assigned by the initial registered owner hereof and shall be transferred only in the Registration Books of the Issuer kept by the Paying Agent/Registrar acting in the capacity of registrar for the Bonds, upon the terms and conditions set forth in the Bond Resolution. Among other requirements for such transfer, this Bond must be presented and surrendered to the Paying Agent/Registrar for cancellation, together with proper instruments of assignment, in form and with guarantee



of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment by the initial registered owner of this Bond, or any portion or portions hereof in any integral multiple of \$5,000, to the assignee or assignees in whose name or names this Bond or any such portion or portions hereof is or are to be transferred and registered. Any instrument or instruments of assignment satisfactory to the Paying Agent/Registrar may be used to evidence the assignment of this Bond or any such portion or portions hereof by the initial registered owner hereof. A new bond or bonds payable to such assignee or assignees (which then will be the new registered owner or owners of such new Bond or Bonds) or to the initial registered owner as to any portion of this Bond which is not being assigned and transferred by the initial registered owner, shall be delivered by the Paying Agent/Registrar in conversion of and exchange for this Bond or any portion or portions hereof, but solely in the form and manner as provided in the next paragraph hereof for the conversion and exchange of this Bond or any portion hereof. The registered owner of this Bond shall be deemed and treated by the Issuer and the Paying Agent/Registrar as the absolute owner hereof for all purposes, including payment and discharge of liability upon this Bond to the extent of such payment, and the Issuer and the Paying Agent/Registrar shall not be affected by any notice to the contrary.

AS PROVIDED above and in the Bond Resolution, this Bond, to the extent of the unpaid or unredeemed principal balance hereof, may be converted into and exchanged for a like aggregate principal amount of fully registered bonds, without interest coupons, payable to the assignee or assignees duly designated in writing by the initial registered owner hereof, or to the initial registered owner as to any portion of this Bond which is not being assigned and transferred by the initial registered owner, in any denomination or denominations in any integral multiple of \$5,000 (subject to the requirement hereinafter stated that each substitute bond issued in exchange for any portion of this Bond shall have a single stated principal maturity date), upon surrender of this Bond to the Paying Agent/Registrar for cancellation, all in accordance with the form and procedures set forth in the Bond Resolution. If this Bond or any portion hereof is assigned and transferred or converted each bond issued in exchange for any portion hereof shall have a single stated principal maturity date corresponding to the due date of the installment of principal of this Bond or portion hereof for which the substitute bond is being exchanged, and shall bear interest at the rate applicable to and borne by such installment of principal or portion thereof. Such bonds, respectively, shall be subject to redemption prior to maturity on the same dates and for the same prices as the corresponding installment of principal of this Bond or portion hereof for which they are being exchanged. No such bond shall be payable in installments, but shall have only one stated principal maturity date. AS PROVIDED IN THE BOND RESOLUTION, THIS BOND IN ITS PRESENT FORM MAY BE ASSIGNED AND TRANSFERRED OR CONVERTED ONCE ONLY, and to one or more assignees, but the bonds issued and delivered in exchange for this Bond or any portion hereof may be assigned and transferred, and converted, subsequently, as provided in the Bond Resolution. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for transferring, converting, and exchanging this Bond or any portion thereof, but the one requesting such transfer, conversion, and exchange shall pay any taxes or governmental charges required to be paid with respect thereto. The Paying Agent/Registrar shall not be required to make any such assignment, conversion, or exchange (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or portion thereof called for prepayment or redemption prior to maturity, within 45 days prior to its prepayment or redemption date.

IN THE EVENT any Paying Agent/Registrar for this Bond is changed by the Issuer, resigns, or otherwise ceases to act as such, the Issuer has covenanted in the Bond Resolution that it promptly will appoint a competent and legally qualified substitute therefor, and promptly will cause written notice thereof to be mailed to the registered owner of this Bond.

THE RESOLUTION PROVIDES that, to the extent and in the manner permitted by the terms of the Resolution, the Resolution may be amended with the consent of the holders of at least three-fourths in principal amount of all outstanding bonds, provided, that no amendment shall:

- (a) make any change in the maturity of any outstanding bonds;
- (b) reduce the rate of interest borne by any of the outstanding bonds;
- (c) reduce the amount of the principal payable on any outstanding bonds;
- (d) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;
- (e) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

UNDER THE TERMS AND CONDITIONS as provided in the Resolution, the Issuer reserves the right to issue Additional Bonds which will be payable from taxes and/or secured by a pledge of revenues constituting a lien on such revenues on a parity with this issue of Bonds and to issue Special Project Bonds to acquire or construct a separate project which is expected to be self-liquidating, however, such bonds may be payable from taxes.

IT IS HEREBY certified, recited, and covenanted that this Bond has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Bond have been performed, existed, and been done in accordance with law; that this Bond is a special obligation of said Issuer, and together with Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bonds, (Taxable) Series 2009B, is secured by and payable from a lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas, pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City of Mineral Wells, Texas, being subordinate to the Outstanding First Lien Bonds.

THE HOLDER HEREOF shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation.

BY BECOMING the registered owner of this Bond, the registered owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each registered owner hereof and the Issuer.

IN WITNESS WHEREOF, the Issuer has caused this Bond to be signed with the manual or facsimile signature of the President of the Board of Directors of the Issuer and countersigned with the manual or facsimile signature of the Secretary of the Board of Directors of the Issuer, and has caused the official seal of the Issuer to be duly impressed, or placed in facsimile, on this Bond, and has caused this Bond to be dated April 1, 2009.

\_\_\_\_\_  
Secretary, Board of Directors

\_\_\_\_\_  
President, Board of Directors

(SEAL)

"This Bond was delivered to and paid for by the Purchaser thereof  
on \_\_\_\_\_".

FORM OF REGISTRATION CERTIFICATE OF THE  
COMPTROLLER OF PUBLIC ACCOUNTS:

COMPTROLLER'S REGISTRATION CERTIFICATE: REGISTER NO.

I hereby certify that this Bond has been examined, certified as to validity, and approved by the Attorney General of the State of Texas, and that this Bond has been registered by the Comptroller of Public Accounts of the State of Texas.

Witness my signature and seal this

\_\_\_\_\_  
Comptroller of Public Accounts of the State of Texas

(COMPTROLLER'S SEAL)

Section 2.06. ADDITIONAL CHARACTERISTICS OF THE BONDS. (a) Registration and Transfer. The Issuer shall keep or cause to be kept at the principal corporate trust office of U. S. Bank, National Association, Dallas, Texas, (the "Paying Agent/Registrar") books or records of the registration and transfer of the Bonds (the "Registration Books"), and the Issuer hereby appoints the Paying Agent/Registrar as its registrar and transfer agent to keep such books or records and make such transfers and registrations under such reasonable regulations as the Issuer and Paying Agent/Registrar may prescribe; and the Paying Agent/Registrar shall make such transfers and registrations as herein provided. The Paying Agent/Registrar shall obtain and record in the Registration Books the address of the registered owner of each Bond to which payments with respect to the Bonds shall be mailed, as herein provided; but it shall be the duty of each registered owner to notify the Paying Agent/Registrar in writing of the address to which payments shall be mailed, and such interest payments shall not be mailed unless such notice has been given. The Issuer shall have the right to inspect the Registration Books during regular business hours of the Paying Agent/Registrar, but otherwise the Paying Agent/Registrar shall keep the Registration Books confidential and, unless otherwise required by law, shall not permit their inspection by any other entity. Registration of each Bond may be transferred in the Registration Books only upon presentation and surrender of such Bond to the Paying Agent/Registrar for transfer of registration and cancellation, together with proper written instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, (i) evidencing the assignment of the Bond, or any portion thereof in any integral multiple of \$5,000, to the assignee or assignees thereof, and (ii) the right of such assignee or assignees to have the Bond or any such portion thereof registered in the name of such assignee or assignees. Upon the assignment and transfer of any Bond or any portion thereof, a new substitute Bond or Bonds shall be issued in conversion and exchange therefor in the manner herein provided. The Initial Bond, to the extent of the unpaid or unredeemed principal balance thereof, may be assigned and transferred by the initial registered owner thereof once only, and to one or more assignees designated in writing by the initial registered owner thereof. All Bonds issued and delivered in conversion of and exchange for the Initial Bond shall be in any denomination or denominations of any integral multiple of \$5,000 (subject to the requirement hereinafter stated that each substitute Bond shall have a single stated

principal maturity date), shall be in the form prescribed in the FORM OF SUBSTITUTE BOND set forth in this Resolution, and shall have the characteristics, and may be assigned, transferred, and converted as hereinafter provided. If the Initial Bond or any portion thereof is assigned and transferred or converted the Initial Bond must be surrendered to the Paying Agent/Registrar for cancellation, and each Bond issued in exchange for any portion of the Initial Bond shall have a single stated principal maturity date, and shall not be payable in installments; and each such Bond shall have a principal maturity date corresponding to the due date of the installment of principal or portion thereof for which the substitute Bond is being exchanged; and each such Bond shall bear interest at the single rate applicable to and borne by such installment of principal or portion thereof for which it is being exchanged. If only a portion of the Initial Bond is assigned and transferred, there shall be delivered to and registered in the name of the initial registered owner substitute Bonds in exchange for the unassigned balance of the Initial Bond in the same manner as if the initial registered owner were the assignee thereof. If any Bond or portion thereof other than the Initial Bond is assigned and transferred or converted each Bond issued in exchange shall have the same principal maturity date and bear interest at the same rate as the Bond for which it is exchanged. A form of assignment shall be printed or endorsed on each Bond, excepting the Initial Bond, which shall be executed by the registered owner or its duly authorized attorney or representative to evidence an assignment thereof. Upon surrender of any Bonds or any portion or portions thereof for transfer of registration, an authorized representative of the Paying Agent/Registrar shall make such transfer in the Registration Books, and shall deliver a new fully registered substitute Bond or Bonds, having the characteristics herein described, payable to such assignee or assignees (which then will be the registered owner or owners of such new Bond or Bonds), or to the previous registered owner in case only a portion of a Bond is being assigned and transferred, all in conversion of and exchange for said assigned Bond or Bonds or any portion or portions thereof, in the same form and manner, and with the same effect, as provided in Section 6(d), below, for the conversion and exchange of Bonds by any registered owner of a Bond. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for making such transfer and delivery of a substitute Bond or Bonds, but the one requesting such transfer shall pay any taxes or other governmental charges required to be paid with respect thereto. The Paying Agent/Registrar shall not be required to make transfers of registration of any Bond or any portion thereof (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

(b) Ownership of Bonds. The entity in whose name any Bond shall be registered in the Registration Books at any time shall be deemed and treated as the absolute owner thereof for all purposes of this Resolution, whether or not such Bond shall be overdue, and the Issuer and the Paying Agent/Registrar shall not be affected by any notice to the contrary; and payment of, or on account of, the principal of, premium, if any, and interest on any such Bond shall be made only to such registered owner. All such payments shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid.

(c) Payment of Bonds and Interest. The Issuer hereby further appoints the Paying Agent/Registrar to act as the paying agent for paying the principal of and interest on the Bonds, and to act as its agent to convert and exchange or replace Bonds, all as provided in this Resolution. The Paying Agent/Registrar shall keep proper records of all payments made by the Issuer and the Paying Agent/Registrar with respect to the Bonds, and of all conversions and exchanges of Bonds, and all replacements of Bonds, as provided in this Resolution. However, in the event of a nonpayment of interest on a scheduled payment date, and for thirty (30) days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which

shall be 15 days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States mail, first class postage prepaid, to the address of each Bondholder appearing on the Security Register at the close of business on the last business day next preceding the date of mailing of such notice.

(d) Conversion and Exchange or Replacement; Authentication. Each Bond issued and delivered pursuant to this Resolution, to the extent of the unpaid or unredeemed principal balance or principal amount thereof, may, upon surrender of such Bond at the principal corporate trust office of the Paying Agent/Registrar, together with a written request therefor duly executed by the registered owner or the assignee or assignees thereof, or its or their duly authorized attorneys or representatives, with guarantee of signatures satisfactory to the Paying Agent/Registrar, may, at the option of the registered owner or such assignee or assignees, as appropriate, be converted into and exchanged for fully registered bonds, without interest coupons, in the form prescribed in the FORM OF SUBSTITUTE BOND set forth in this Resolution, in the denomination of \$5,000, or any integral multiple of \$5,000 (subject to the requirement hereinafter stated that each substitute Bond shall have a single stated maturity date), as requested in writing by such registered owner or such assignee or assignees, in an aggregate principal amount equal to the unpaid or unredeemed principal balance or principal amount of any Bond or Bonds so surrendered, and payable to the appropriate registered owner, assignee, or assignees, as the case may be. If the Initial Bond is assigned and transferred or converted each substitute Bond issued in exchange for any portion of the Initial Bond shall have a single stated principal maturity date, and shall not be payable in installments; and each such Bond shall have a principal maturity date corresponding to the due date of the installment of principal or portion thereof for which the substitute Bond is being exchanged; and each such Bond shall bear interest at the single rate applicable to and borne by such installment of principal or portion thereof for which it is being exchanged. If a portion of any Bond (other than the Initial Bond) shall be redeemed prior to its scheduled maturity as provided herein, a substitute Bond or Bonds having the same maturity date, bearing interest at the same rate, in the denomination or denominations of any integral multiple of \$5,000 at the request of the registered owner, and in aggregate principal amount equal to the unredeemed portion thereof, will be issued to the registered owner upon surrender thereof for cancellation. If any Bond or portion thereof (other than the Initial Bond) is assigned and transferred or converted, each Bond issued in exchange therefor shall have the same principal maturity date and bear interest at the same rate as the Bond for which it is being exchanged. Each substitute Bond shall bear a letter and/or number to distinguish it from each other Bond. The Paying Agent/Registrar shall convert and exchange or replace Bonds as provided herein, and each fully registered bond delivered in conversion of and exchange for or replacement of any Bond or portion thereof as permitted or required by any provision of this Resolution shall constitute one of the Bonds for all purposes of this Resolution, and may again be converted and exchanged or replaced. It is specifically provided that any Bond authenticated in conversion of and exchange for or replacement of another Bond on or prior to the first scheduled Record Date for the Initial Bond shall bear interest from the date of the Initial Bond, but each substitute Bond so authenticated after such first scheduled Record Date shall bear interest from the interest payment date next preceding the date on which such substitute Bond was so authenticated, unless such Bond is authenticated after any Record Date but on or before the next following interest payment date, in which case it shall bear interest from such next following interest payment date; provided, however, that if at the time of delivery of any substitute Bond the interest on the Bond for which it is being exchanged is due but has not been paid, then such Bond shall bear interest from the date to which such interest has been paid in full. THE INITIAL BOND issued and delivered pursuant to this Resolution is not required to be, and shall not be, authenticated by the Paying Agent/ Registrar, but on each substitute Bond issued in conversion of and exchange for or replacement of any Bond or Bonds issued under this Resolution there shall be printed a certificate, in the form substantially as follows:



"PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE

It is hereby certified that this Bond has been issued under the provisions of the Bond Resolution described on the face of this Bond; and that this Bond has been issued in conversion of and exchange for or replacement of a bond, bonds, or a portion of a bond or bonds of an issue which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Paying Agent/Registrar

Dated \_\_\_\_\_

By \_\_\_\_\_  
Authorized Representative"

An authorized representative of the Paying Agent/Registrar shall, before the delivery of any such Bond, date and manually sign the above Certificate, and no such Bond shall be deemed to be issued or outstanding unless such Certificate is so executed. The Paying Agent/Registrar promptly shall cancel all Bonds surrendered for conversion and exchange or replacement. No additional ordinances, orders, or resolutions need be passed or adopted by the governing body of the Issuer or any other body or person so as to accomplish the foregoing conversion and exchange or replacement of any Bond or portion thereof, and the Paying Agent/Registrar shall provide for the printing, execution, and delivery of the substitute Bonds in the manner prescribed herein, and said Bonds shall be of type composition printed on paper with lithographed or steel engraved borders of customary weight and strength. Pursuant to Subchapter D, Chapter 1201 of the Texas Government Code, the duty of conversion and exchange or replacement of Bonds as aforesaid is hereby imposed upon the Paying Agent/Registrar, and, upon the execution of the above Paying Agent/Registrar's Authentication Certificate, the converted and exchanged or replaced Bond shall be valid, incontestable, and enforceable in the same manner and with the same effect as the Initial Bond which originally was issued pursuant to this Resolution, approved by the Attorney General, and registered by the Comptroller of Public Accounts. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for transferring, converting, and exchanging any Bond or any portion thereof, but the one requesting any such transfer, conversion, and exchange shall pay any taxes or governmental charges required to be paid with respect thereto as a condition precedent to the exercise of such privilege of conversion and exchange. The Paying Agent/Registrar shall not be required to make any such conversion and exchange or replacement of Bonds or any portion thereof (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

(e) In General. All Bonds issued in conversion and exchange or replacement of any other Bond or portion thereof, (i) shall be issued in fully registered form, without interest coupons, with the principal of and interest on such Bonds to be payable only to the registered owners thereof, (ii) may be redeemed prior to their scheduled maturities, (iii) may be transferred and assigned, (iv) may be converted and exchanged for other Bonds, (v) shall have the characteristics, (vi) shall be signed and sealed, and (vii) the principal of and interest on the Bonds shall be payable, all as provided, and in the manner required or indicated, in the FORM OF SUBSTITUTE BOND set forth in this Resolution.

(f) Payment of Fees and Charges. The Issuer hereby covenants with the registered owners of the Bonds that it will (i) pay the standard or customary fees and charges of the Paying Agent/Registrar for its services with respect to the payment of the principal of and interest on the Bonds, when due, and (ii) pay the fees and charges of the Paying Agent/Registrar for services with respect to the transfer of registration of Bonds,

and with respect to the conversion and exchange of Bonds solely to the extent above provided in this Resolution.

(g) Substitute Paying Agent/Registrar. The Issuer covenants with the registered owners of the Bonds that at all times while the Bonds are outstanding the Issuer will provide a competent and legally qualified bank, trust company, financial institution, or other agency to act as and perform the services of Paying Agent/Registrar for the Bonds under this Resolution, and that the Paying Agent/Registrar will be one entity. The Issuer reserves the right to, and may, at its option, change the Paying Agent/Registrar upon not less than 120 days written notice to the Paying Agent/ Registrar, to be effective not later than 60 days prior to the next principal or interest payment date after such notice; however, the Issuer must obtain approval of the Texas Water Development Board to such changes if the Texas Water Development Board owns any of the Bonds. In the event that the entity at any time acting as Paying Agent/Registrar (or its successor by merger, acquisition, or other method) should resign or otherwise cease to act as such, the Issuer covenants that promptly it will appoint a competent and legally qualified bank, trust company, financial institution, or other agency to act as Paying Agent/Registrar under this Resolution. Upon any change in the Paying Agent/Registrar, the previous Paying Agent/Registrar promptly shall transfer and deliver the Registration Books (or a copy thereof), along with all other pertinent books and records relating to the Bonds, to the new Paying Agent/Registrar designated and appointed by the Issuer. Upon any change in the Paying Agent/Registrar, the Issuer promptly will cause a written notice thereof to be sent by the new Paying Agent/Registrar to each registered owner of the Bonds, by United States mail, first-class postage prepaid, which notice also shall give the address of the new Paying Agent/Registrar. By accepting the position and performing as such, each Paying Agent/Registrar shall be deemed to have agreed to the provisions of this Resolution, and a certified copy of this Resolution shall be delivered to each Paying Agent/Registrar.

(h) Book-Entry Only System. The Bonds issued in exchange for the Bonds initially issued to the purchaser specified herein shall be initially issued in the form of a separate single fully registered Bond for each of the maturities thereof. Upon initial issuance, the ownership of each such Bond shall be registered in the name of Cede & Co., as nominee of Depository Trust Company of New York ("DTC"), and except as provided in subsection (f) hereof, all of the outstanding Bonds shall be registered in the name of Cede & Co., as nominee of DTC. The Issuer cannot discontinue the "Book-Entry Only System" without prior consent by the Texas Water Development Board.

With respect to Bonds registered in the name of Cede & Co., as nominee of DTC, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation to any DTC Participant or to any person on behalf of whom such a DTC Participant holds an interest on the Bonds. Without limiting the immediately preceding sentence, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, Cede & Co. or any DTC Participant with respect to any ownership interest in the Bonds, (ii) the delivery to any DTC Participant or any other person, other than a Bondholder, as shown on the Registration Books, of any notice with respect to the Bonds, including any notice of redemption, or (iii) the payment to any DTC Participant or any other person, other than a Bondholder, as shown in the Registration Books of any amount with respect to principal of, premium, if any, or interest on, as the case may be, the Bonds. Notwithstanding any other provision of this Resolution to the contrary, the Issuer and the Paying Agent/Registrar shall be entitled to treat and consider the person in whose name each Bond is registered in the Registration Books as the absolute owner of such Bond for the purpose of payment of principal, premium, if any, and interest, as the case may be, with respect to such Bond, for the purpose of giving notices of redemption and other matters with respect to such Bond, for the purpose of registering transfers with respect to such Bond, and for all other purposes whatsoever. The Paying Agent/Registrar shall pay all principal of, premium, if any, and interest on the Bonds only to or upon the order of the respective

owners, as shown in the Registration Books as provided in this Resolution, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the Issuer's obligations with respect to payment of principal of, premium, if any, and interest on, or as the case may be, the Bonds to the extent of the sum or sums so paid. No person other than an owner, as shown in the Registration Books, shall receive a Bond certificate evidencing the obligation of the Issuer to make payments of principal, premium, if any, and interest, as the case may be, pursuant to this Resolution. Upon delivery by DTC to the Paying Agent/Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., and subject to the provisions in this Resolution with respect to interest checks being mailed to the registered owner at the close of business on the Record Date, the word "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

(i) Successor Securities Depository; Transfers Outside Book-Entry Only System. In the event that the Issuer or the Paying Agent/Registrar determines that DTC is incapable of discharging its responsibilities described herein and in the representation letter of the Issuer to DTC and that it is in the best interest of the beneficial owners of the Bonds that they be able to obtain certificated Bonds, the Issuer or the Paying Agent/Registrar shall (i) appoint a successor securities depository, qualified to act as such under Section 17(a) of the Securities and Exchange Act of 1934, as amended, notify DTC and DTC Participants of the appointment of such successor securities depository and transfer one or more separate Bonds to such successor securities depository or (ii) notify DTC and DTC Participants of the availability through DTC of Bonds and transfer one or more separate Bonds to DTC Participants having Bonds credited to their DTC accounts. In such event, the Bonds shall no longer be restricted to being registered in the Registration Books in the name of Cede & Co., as nominee of DTC, but may be registered in the name of the successor securities depository, or its nominee, or in whatever name or names Bondholders transferring or exchanging Bonds shall designate, in accordance with the provisions of this Resolution.

(j) Payments to Cede & Co. Notwithstanding any other provision of this Resolution to the contrary, so long as any Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of, premium, if any, and interest on, or as the case may be, such Bond and all notices with respect to such Bond shall be made and given, respectively, in the manner provided in the representation letter of the Issuer to DTC.

Section 2.07. FORM OF SUBSTITUTE BONDS. The form of all Bonds issued in conversion and exchange or replacement of any other Bond or portion thereof, including the form of Paying Agent/Registrar's Certificate to be printed on each of such Bonds, and the Form of Assignment to be printed on each of the Bonds, shall be, respectively, substantially as follows, with such appropriate variations, omissions, or insertions as are permitted or required by this Resolution.

**FORM OF SUBSTITUTE BOND**

NO. \_\_\_\_\_ PRINCIPAL AMOUNT  
\$ \_\_\_\_\_

**UNITED STATES OF AMERICA  
STATE OF TEXAS  
COUNTIES OF PALO PINTO AND PARKER  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
SUBORDINATE REVENUE BOND, (TAX EXEMPT) SERIES 2009A**

<u>Date of Delivery</u>	<u>Interest Rate</u>	<u>Maturity Date</u>	<u>Date of Original Issue</u>	<u>Cusip No.</u>
	-0-%		April 1, 2009	

ON THE MATURITY DATE specified above the PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, in PALO PINTO AND PARKER COUNTIES, Texas (the "Issuer"), being a political subdivision of the State of Texas, pursuant to Article 8280-258 V.A.T.C.S, as revised by Chapter 49 of the Texas Water Code, hereby promises to pay to

\_\_\_\_\_

or to the registered assignee hereof (either being hereinafter called the "registered owner") the principal amount of

\_\_\_\_\_

and to pay interest thereon from initial date of delivery of the Bonds (which appears above) to the maturity date specified above, or the date of redemption prior to maturity, at the interest rate per annum specified above; with interest, if any, being payable on December 1, 2009 and semiannually thereafter on each June 1 and December 1, except that if the date of authentication of this Bond is later than November 15, 2009, such principal amount shall bear interest from the interest payment date next preceding the date of authentication, unless such date of authentication is after any Record Date (hereinafter defined) but on or before the next following interest payment date, in which case such principal amount shall bear interest from such next following interest payment date.

THE PRINCIPAL OF AND INTEREST ON this Bond are payable in lawful money of the United States of America, without exchange or collection charges. The principal of this Bond shall be paid to the registered owner hereof upon presentation and surrender of this Bond at maturity, at the principal corporate trust office of U. S. Bank, National Association, Dallas, Texas, which is the "Paying Agent/Registrar" for this Bond. The payment of interest, if any, on this Bond shall be made by the Paying Agent/Registrar to the registered owner hereof on each interest payment date by check or draft, dated as of such interest payment date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the Issuer required by the authorizing the issuance of the Bonds (the "Bond ") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check or draft shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such interest payment date, to the registered owner hereof, at the address of the registered owner, as it appeared on the last day next preceding each such date (the "Record Date") on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described, by electronic

or wire transfer, or by such other method acceptable to the Paying Agent/Registrar requested by, and the risk and expense of, the registered owner, however, if the Bond is owned by the Texas Water Development Board, there will be no charge to the Texas Water Development Board, and payment of principal and interest shall be made by federal funds wire transfer. The Issuer covenants with the registered owner of this Bond that on or before each principal payment date and interest payment date for this Bond it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Bond, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on the Bonds, when due.

IF THE DATE for the payment of the principal of or interest on this Bond shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due.

THIS BOND is one of an issue of Bonds initially dated April 1, 2009, authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$2,400,000 for providing for the purpose of to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: acquisition of land easements and rights together with necessary planning, permitting and preliminary engineering of a Recommended Water Management Strategy for construction of the Turkey Peak Reservoir, constituting the Project.

ON JUNE 1, 2019, or any date thereafter, the Bonds of this Series may be redeemed prior to their scheduled maturities, at the option of the Issuer, with funds derived from any available and lawful source, as a whole, or in part, and, if in part, in inverse annual order, the Issuer shall select and designate the maturity or maturities and the amount that is to be redeemed, and if less than a whole maturity is to be called, the Issuer shall direct the Paying Agent/Registrar to call by lot (provided that a portion of a Bond may be redeemed only in an integral multiple of \$5,000), at the redemption price of the principal amount thereof, plus accrued interest to the date fixed for redemption.

AT LEAST 30 days prior to the date fixed for any redemption of Bonds or portions thereof prior to maturity a written notice of such redemption shall be sent by the Paying Agent/Registrar by United States mail, first class postage prepaid, not less than 30 days prior to the date fixed for any such redemption, to the registered owner of each Bond to be redeemed at its address as it appeared on the 45th day prior to such redemption date; provided, however, that the failure to receive such notice, or any defect therein or in the sending or mailing thereof, shall not affect the validity or effectiveness of the proceedings for the redemption of any Bond, and it is hereby specifically provided that the mailing of such notice as required above shall be the only notice actually required in connection with or as a prerequisite to the redemption of any Bonds or portions thereof. By the date fixed for any such redemption due provision shall be made with the Paying Agent/Registrar for the payment of the required redemption price for the Bonds or portions thereof which are to be so redeemed, plus accrued interest thereon to the date fixed for redemption. If such written notice of redemption is mailed and if due provision for such payment is made, all as provided above, the Bonds or portions thereof which are to be so redeemed thereby automatically shall be treated as redeemed prior to their scheduled maturities, and they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the right of the registered owner to receive the redemption price plus accrued interest from the Paying Agent/Registrar out of the funds provided for such payment. If a portion of



any Bond shall be redeemed a substitute Bond or Bonds having the same maturity date, bearing interest at the same rate, in any denomination or denominations in any integral multiple of \$5,000, at the written request of the registered owner, and in aggregate principal amount equal to the unredeemed portion thereof, will be issued to the registered owner upon the surrender thereof for cancellation, at the expense of the Issuer, all as provided in the Bond Resolution.

THIS BOND OR ANY PORTION OR PORTIONS HEREOF IN ANY INTEGRAL MULTIPLE OF \$5,000 may be assigned and shall be transferred only in the Registration Books of the Issuer kept by the Paying Agent/Registrar acting in the capacity of registrar for the Bonds, upon the terms and conditions set forth in the Bond Resolution. Among other requirements for such assignment and transfer, this Bond must be presented and surrendered to the Paying Agent/Registrar, together with proper instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment of this Bond or any portion or portions hereof in any integral multiple of \$5,000 to the assignee or assignees in whose name or names this Bond or any such portion or portions hereof is or are to be transferred and registered. The form of Assignment printed or endorsed on this Bond shall be executed by the registered owner or its duly authorized attorney or representative, to evidence the assignment hereof. A new Bond or Bonds payable to such assignee or assignees (which then will be the new registered owner or owners of such new Bond or Bonds), or to the previous registered owner in the case of the assignment and transfer of only a portion of this Bond, may be delivered by the Paying Agent/Registrar in conversion of and exchange for this Bond, all in the form and manner as provided in the next paragraph hereof for the conversion and exchange of other Bonds. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for making such transfer, but the one requesting such transfer shall pay any taxes or other governmental charges required to be paid with respect thereto. The Paying Agent/Registrar shall not be required to make transfers of registration of this Bond or any portion hereof (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date. The registered owner of this Bond shall be deemed and treated by the Issuer and the Paying Agent/Registrar as the absolute owner hereof for all purposes, including payment and discharge of liability upon this Bond to the extent of such payment, and the Issuer and the Paying Agent/Registrar shall not be affected by any notice to the contrary.

ALL BONDS OF THIS SERIES are issuable solely as fully registered bonds, without interest coupons, in the denomination of any integral multiple of \$5,000. As provided in the Bond Resolution, this Bond, or any unredeemed portion hereof, may, at the request of the registered owner or the assignee or assignees hereof, be converted into and exchanged for a like aggregate principal amount of fully registered bonds, without interest coupons, payable to the appropriate registered owner, assignee, or assignees, as the case may be, having the same maturity date, and bearing interest at the same rate, in any denomination or denominations in any integral multiple of \$5,000 as requested in writing by the appropriate registered owner, assignee, or assignees, as the case may be, upon surrender of this Bond to the Paying Agent/Registrar for cancellation, all in accordance with the form and procedures set forth in the Bond Resolution. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for transferring, converting, and exchanging any Bond or any portion thereof, but the one requesting such transfer, conversion, and exchange shall pay any taxes or governmental charges required to be paid with respect thereto as a condition precedent to the exercise of such privilege of conversion and exchange. The Paying Agent/Registrar shall not be required to make any such conversion and exchange (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

IN THE EVENT any Paying Agent/Registrar for the Bonds is changed by the Issuer, resigns, or otherwise ceases to act as such, the Issuer has covenanted in the Bond Resolution that it promptly will appoint a competent and legally qualified substitute therefor, and promptly will cause written notice thereof to be mailed to the registered owners of the Bonds.

THE RESOLUTION PROVIDES that, to the extent and in the manner permitted by the terms of the Resolution, the Resolution may be amended with the consent of the holders of at least three-fourths in principal amount of all outstanding bonds, provided, that no amendment shall:

- (a) make any change in the maturity of any outstanding bonds;
- (b) reduce the rate of interest borne by any of the outstanding bonds;
- (c) reduce the amount of the principal payable on any outstanding bonds;
- (d) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;
- (e) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

UNDER THE TERMS AND CONDITIONS as provided in the Resolution, the Issuer reserves the right to issue Additional Bonds which will be payable from taxes and/or secured by a pledge of revenues constituting a lien on such revenues on a parity with this issue of Bonds and to issue Special Project Bonds to acquire or construct a separate project which is expected to be self-liquidating, however, such bonds may be payable from taxes.

IT IS HEREBY certified, recited, and covenanted that this Bond has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Bond have been performed, existed, and been done in accordance with law; that this Bond is a special obligation of said Issuer, and together with Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bonds, (Taxable) Series 2009B, is secured by and payable from a lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas, pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City of Mineral Wells, Texas, being subordinate to the Outstanding First Lien Bonds.

THE HOLDER HEREOF shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation.

BY BECOMING the registered owner of this Bond, the registered owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each registered owner hereof and the Issuer.

IN WITNESS WHEREOF, the Issuer has caused this Bond to be signed with the manual or facsimile signature of the President of the Board of Directors of the Issuer and countersigned with the manual or facsimile signature of the Secretary of the Board of Directors of the Issuer, and has caused the official seal of the Issuer to be duly impressed or placed in manual or facsimile on this Bond.

\_\_\_\_\_  
Secretary, Board of Directors

\_\_\_\_\_  
President, Board of Directors

(SEAL)

FORM OF PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE

PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE

(To be executed if this Bond is not accompanied by an executed  
Registration Certificate of the Comptroller of Public Accounts of the State of Texas)

It is hereby certified that this Bond has been issued under the provisions of the Bond Resolution described in the text of this Bond; and that this Bond has been issued in conversion or replacement of, or in exchange for, a bond, bonds, or a portion of a bond or bonds of a Series which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Dated

By \_\_\_\_\_  
Authorized Representative

FORM OF ASSIGNMENT:

ASSIGNMENT

FOR VALUE RECEIVED, the undersigned registered owner of this Bond, or duly authorized representative or attorney thereof, hereby assigns this Bond to

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Assignee's Social Security or Tax  
Payer Identification Number)

\_\_\_\_\_  
(Print or type Assignee's Name and  
Address Including Zip Code)

and hereby irrevocably constitutes and appoints

attorney, to transfer the registration of this Bond on the Paying Agent/Registrar's Registration Books with full power of substitution in the premises.

Dated \_\_\_\_\_

NOTICE: This signature must be guaranteed by a member of the New York Stock Exchange or a commercial bank or trust company.

NOTICE: This signature must correspond with the name of the Registered Owner appearing on the face of this Bond.

### ARTICLE III

#### PLEDGE

Section 3.01. PLEDGE. (a) The Issuer covenants and agrees that the Series 2009A Bonds and Series 2009B Bonds, authorized concurrently, and any Additional Bonds, pursuant to this Resolution, and the interest thereon, are and shall be secured by and payable from a subordinate lien on and pledge of the Pledged Revenues, including specifically the payments to be received by the Issuer from the Water Purchase Contract and the supplement on modification thereof, subordinate only to the Outstanding First Lien Bonds.

(b) The Series 2009A Bonds and the Series 2009B Bonds and any Additional Bonds pursuant to this Resolution, will be secured by a first lien on the Pledged Revenues after the Outstanding First Lien Bonds have been retired or redeemed.

(c) The Issuer covenants not to issue any Additional Bonds pursuant to the provisions of the Bond Resolutions that authorized the Outstanding First Lien Bonds.

### ARTICLE IV

#### REVENUES AND APPLICATION THEREOF

Section 4.01. FUNDS. There have been created the following funds and accounts:

- (1) The "Revenue Fund" to be kept with the Depository.
- (2) The "Debt Service Fund" for the Series 2009A Bonds and Series 2009B Bonds to be kept with the Depository. This Fund shall be used for the payment of interest on and principal of the Series 2009A Bonds and Series 2009B Bonds, and any Additional Bonds issued pursuant to this Resolution.
- (3) The "Reserve Fund" for the Series 2009A Bonds and Series 2009B Bonds to be kept with the Depository. Monies in this Fund shall be used for the payment of interest on and principal of the Series 2009A Bonds and Series 2009B Bonds, and any Additional Bonds issued pursuant to this Resolution, including amounts owed with respect to any Reserve Fund Obligation when money in the Debt Service Fund is inadequate for that purpose.

- (4) The "Contingency Fund" to be kept with the Depository. This Fund may be used to pay for any extraordinary or nonrecurring expenses of operation or maintenance, and for replacements and repairs if such expenses should become necessary. Money in this Fund not encumbered for such purposes shall be used for payment of interest on and principal of the Series 2009A Bonds and Series 2009B Bonds, and Additional Bonds, issued pursuant to this Resolution, when the Debt Service Fund for the Series 2009A Bonds and Series 2009B Bonds are not adequate for that purpose to be only amended after the Outstanding First Lien Bonds have been retired or redeemed.
- (5) The "Surplus Fund" to be kept with the Depository. This Fund shall be used for payment of interest on and principal of the Series 2009A Bonds and Series 2009B Bonds, and Additional Bonds, if any, there are insufficient funds in the Debt Service Fund, Reserve Fund and Contingency Fund for the Series 2009A Bonds and Series 2009B Bonds for that purpose, and if not needed for such purpose the monies in this Fund may be used for any lawful purposes including repairs, replacements and improvements to the Issuer's facilities.

Section 4.02. REVENUE FUND. All gross revenues of every nature including the payments to be received from the Water Purchase Contract, shall be deposited as collected into the Revenue Fund, and the reasonable, necessary, and proper maintenance and operation expenses shall be paid from the Revenue Fund. The revenues not actually required to pay said Operation and Maintenance Expenses shall be deposited from the Revenue Fund first into the Funds created by the Resolutions for the Outstanding First Lien Bonds and then, once the requirements for the Resolution authorizing the Outstanding First Lien Bonds has been satisfied, into the Funds created by this Resolution, and the Resolution authorizing the Series 2009B Bonds, in the manner and amounts hereinafter provided and each of the Funds shall have priority as to such deposits in the order in which they are treated in the following sections.

Section 4.03. DEBT SERVICE FUND FOR THE SERIES 2009A BONDS AND SERIES 2009 B BONDS. There shall be deposited into the Debt Service Fund such amounts as required to be transferred to this Fund established herein; these accounts shall be on absolute parity and equality of lien with the deposits in this Fund and such amounts shall be sufficient to provide transfers to the following accounts, as follows:

- (a) such amounts, in substantially semiannual installments, made on or before the 25<sup>th</sup> of each May and November hereafter, which will be sufficient to pay the interest scheduled to come due on the Series 2009A Bonds and Series 2009B Bonds on the next interest payment date;
- (b) such amounts, in substantially semiannual installments, made on or before the 25<sup>th</sup> day of each May and November hereafter, commencing May 25, 2009, will be sufficient to pay the next maturing principal or mandatory redemption on the Series 2009A Bonds and Series 2009B Bonds.
- (c) Chapter 1208, Government Code, applies to the issuance of the Bonds and the pledge of the revenues granted by the Issuer under this Section, and is therefore valid, effective, and perfected. Should Texas law be amended at any time while the Bonds are outstanding and unpaid, the result of such amendment being that the pledge of the revenues granted by the Issuer under this Section is to be subject to the filing requirements of Chapter 9, Business & Commerce Code, in order to preserve to the registered owners of the Bonds a security interest in said pledge, the Issuer agrees to take such measures as it determines are reasonable and



necessary under Texas law to comply with the applicable provisions of Chapter 9, Business & Commerce Code and enable a filing of a security interest in said pledge to occur.

Section 4.04. RESERVE FUND FOR THE SERIES 2009A BONDS AND SERIES 2009B BONDS. The following provisions shall govern the establishment, maintenance and use of the Issuer's Reserve Fund (the "Reserve Fund"):

There shall be established and maintained a Reserve Fund for the purposes of (i) finally retiring the last of the Series 2009A Bonds and Series 2009B Bonds or Additional Bonds, if any, and (ii) paying principal of and interest on the Series 2009A Bonds and Series 2009B Bonds or Additional Bonds in the event moneys on deposit in the Debt Service Fund are insufficient for such purpose.

(a) The Issuer shall deposit in the Reserve Fund on the 25th day of each month hereafter, commencing July 25, 2009, the amount of \$5,877, until the Fund shall contain \$352,626, which shall equal the average annual principal and interest requirements for the Series 2009A Bonds and Series 2009B Bonds ("Required Reserve Amounts").

In the event money in said Reserve Fund is used for the purpose for which the same is established, the amount required to make up the deficiency so that the Required Reserve Amount is on deposit in such Fund shall be paid into such Fund in not more than 60 months, in equal consecutive monthly installments. The Depository of the Issuer is designated as the custodian of the Reserve Fund and the deposits above prescribed shall be deposited into the Reserve Fund.

Section 4.05. CONTINGENCY FUND. There has been deposited into the Contingency Fund \$200,000 created by the Resolutions authorizing the outstanding First Lien Bonds. In addition, the Issuer has created this Contingency Fund for the benefit of the Series 2009A Bonds and Series 2009B Bonds and shall deposit on the 25<sup>th</sup> day of each month hereafter, commencing July 25, 2009, the amount of \$417 until the Contingency Fund contains \$50,000. No deposits shall be required to be made into the Contingency Fund as long as the Contingency Fund contains said aggregate amount, but if and whenever said Contingency Fund is reduced below said aggregate amount, the monthly deposits on the 25<sup>th</sup> day of each month beginning the month after the withdrawal from this fund in the amount of \$417 shall be deposited into the Contingency Fund until such time as the Contingency Fund has been restored to said aggregate amount. The Depository of the Issuer is designated as the custodian of this Contingency Fund and deposits above prescribed shall be deposited into this Contingency Fund. The Contingency Fund has been established in the Resolutions for the Outstanding First Lien Bonds and will only be available for the Series 2009A Bonds and Series 2009B Bonds after the Outstanding First Lien Bonds have been retired and redeemed.

Section 4.06. SURPLUS FUND. There shall be deposited into the Surplus Fund on the 1<sup>st</sup> day of each October hereafter any surplus monies remaining in the Revenue Fund from the previous completed fiscal year, and maybe used for any lawful purposes of the Issuer.

Section 4.07. DEFICIENCIES IN FUND. If in any month the Issuer shall fail to deposit into any of the aforesaid funds the full amounts required, amounts equivalent to such deficiencies shall be set apart and paid into said Funds from the first available and unallocated funds available for such purposes for the following month or months, and such payments shall be in addition to the amount otherwise required to be paid into said Funds during such month or months.

Section 4.08. SECURITY FOR FUNDS. The Issuer shall cause the Depository to secure and keep secured, in the manner required by law, all funds on deposit with it, including time deposits, and will cause the Paying Agent/Registrar to secure all funds deposited with it, as other trust funds are secured.

Section 4.09. INVESTMENTS. Money in all Funds created pursuant to this Resolution may be invested and reinvested as directed by the Issuer, in direct obligations of, or obligations of the principal of and interest on which are unconditionally guaranteed by, the United States Government, which shall mature, or which shall be subject to redemption by the holder thereof, at the option of such holder, before the next payment is required to be made from such Funds, respectively, pursuant to Public Funds Investment Act Chapter 2256, Texas Government Code. Money in any of said Funds may also be placed in interest bearing deposits in the banks in which deposits are required to be kept. The interest and realized income on such investments shall be deposited into the Fund producing the earning when the Fund does not contain the total amount of required or permitted to be on deposit therein, otherwise the interest and realized income shall be deposited into the Revenue Fund.

## ARTICLE V

### BUDGETS AND ACCOUNTING

Section 5.01. PREPARATION OF BUDGET. The Issuer in advance of each Fiscal Year, and in accordance with the Contract, shall prepare and keep on file an annual budget (herein called "Annual Budget") of Operation and Maintenance Expenses for the ensuing Fiscal Year, and except as otherwise required in Section 5.02 of this Resolution, the total expenditures in any division thereof shall not exceed the total expenditures in the corresponding division of the Annual Budget. The Paying Agent/Registrar shall not be obligated to determine whether funds are expended in an amount in excess of the amounts provided in the Annual Budget.

Section 5.02. AMENDMENT. The Issuer covenants that the current Operation and Maintenance Expenses incurred in any Fiscal Year will not exceed the reasonable and necessary amount of such expense, and that it will not expend any amount, or incur any obligation for maintenance, repair, and operation in excess of the amounts provided for current Maintenance and Operation Expenses in the Annual Budget; provided, however, that if at any time the Board shall determine that it is necessary, due to unforeseen events, to increase the budget in order to pay for unusual operation and maintenance expenses, the Board, by Resolution, may amend the budget with the approval of the City, if the Contract is still in effect, to provide for the increased budget. The Water Charge shall be increased accordingly. The former year's budgeted Operation and Maintenance Expenses shall be extended during the period when a new budget is under consideration.

Section 5.03. ACCOUNTING AND REPORTING. The Issuer covenants that proper books of records and accounts will be kept in which full, true, and correct entries will be made of all income, expenses, and transactions of and in relation to the works, and facilities of the Issuer, and each and every part thereof. The report of the certified public accountant shall include a list of insurance policies then in effect and a record of water sold the Issuer's customers.

Section 5.04. PUBLIC INSPECTION. The Issuer further covenants and agrees that the works and facilities and each and every part thereof, and all books, records, accounts, documents and vouchers relating to the construction, operation, maintenance, repair, improvement and extension thereof, will at all reasonable times be open to inspection of owners of the Bonds and their representatives.

## ARTICLE VI

### GENERAL COVENANTS

Section 6.01. PAYMENT OF BONDS AND INTEREST. The Issuer covenants and agrees that, out of Pledged Revenues, it will duly and punctually pay or cause to be paid the principal of, and interest on the Series 2009A Bonds and Series 2009B Bonds, on the date and at the office of the Paying Agent/Registrar, according to the real intent and meaning thereof, and that it will faithfully do and perform and at all times fully observe any and all covenants, undertakings, and provisions contained herein or in any Bond.

Section 6.02. LEGAL ABILITY. The Issuer represents that it is a conservation and reclamation district, and a governmental agency and body politic and corporate, duly created, organized and existing under the Constitution and laws of the State of Texas and has proper authority from all other public bodies and authorities, if any, having jurisdiction thereof, to pledge its revenues in the manner and form as herein done or intended, and all corporate action on its part to that end has been duly and validly taken. The Issuer covenants and agrees that it will at all times maintain its corporate existence and maintain a lawful Board of Directors, and at all times function and act in the best interest of the Issuer and the bondholders.

Section 6.03. NO OTHER LIENS. The Issuer further covenants that there is not now outstanding and that the Issuer will, not at any time create or allow to exist, any lien upon its works and facilities, or any part thereof, or the Revenues, or any of the Funds herein created, except as authorized by Article VIII of this Resolution, other than to the Outstanding First Lien Bonds and Reserve Fund Obligations, if any, that the security of the Series 2009A Bonds and Series 2009B Bonds will not be impaired in any way as a result of any action or any action on the part of the Issuer, its Board of Directors or officers, or any thereof, and that the Issuer has and will be subject to the provisions hereof, continuously preserve good and indefeasible title to the properties of the Issuer.

Section 6.04. KEEP FRANCHISES AND PERMITS IN EFFECT. The Issuer further covenants that no franchises, permits, contracts privileges, easements, or water rights will, be allowed to lapse or be forfeited so long as the same shall be necessary for the proper operation of the works and facilities of the Issuer.

Section 6.05. GOVERNMENTAL REQUIREMENTS, LIENS, CLAIMS. The Issuer covenants that it will duly observe and comply with all valid requirements of any governmental authority relative to the works and facilities of the Issuer, or any part thereof, and that it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies, or other objects which if unpaid, might by law become a lien upon such work and facilities or any part thereof or the revenues therefrom; provided, however, that nothing contained in this Section shall be required of the Issuer to pay or cause to be discharged, or make provision for any such lien or charge, as long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

Section 6.06. FURTHER ASSURANCE. The Issuer covenants that it will take such further action as may be required to carry out the purposes of this Resolution and to assure its validity.

Section 6.07. SALE AND LEASE OF PROPERTY. (a) The Issuer covenants that so long as any Bonds are outstanding and except as in this Section otherwise permitted, it will not sell, lease or otherwise dispose of or encumber any part of its works and facilities, or any of the Revenues derived therefrom, except

as provided herein. The Issuer may from time to time sell any machinery, fixtures, apparatus, tools, instruments, or other movable property and any materials used in connection therewith, if the Board shall determine that such articles are no longer needed or are no longer useful in connection with the consideration and maintenance of its works and facilities. The Issuer may from time to time sell such real estate that is not needed or serves no useful purpose in connection with the maintenance and operation of the works and facilities of the Issuer. The proceeds of any sale of real or personal property acquired subsequent to the adoption of this Resolution, from the proceeds of Bonds or from Revenues shall be deposited into the Fund or Funds from which money was used for the acquisition of such property if required for such Fund or Funds; otherwise, such proceeds shall be deposited into the Revenue Fund.

(b) The Issuer may lease any of its land for any purpose, if such lease or the use of such lands will not be detrimental to the operation and maintenance of the works and facilities of the Issuer. It may also Lease any of its real property for oil, gas and mineral purposes. No lease shall be made which will result in any damage to or substantial diminution of the value of other property in the Issuer, or which will in any manner divert, endanger, or contaminate the Issuer's water supply or water transportation facilities. All rentals, revenues, receipts and royalties derived by the Issuer from any and all leases so made shall be placed in the Revenue Fund.

(c) It is covenanted and agreed by the Issuer that no such property of any nature shall be sold or leased by the Issuer unless, prior to any act on taken by the Issuer concerning such sale or leasing, the Issuer shall procure the advice and recommendation in writing of the independent, consulting engineer concerning such proposed sale or leasing. The Issuer covenants that it will follow such advice and recommendations.

Section 6.08. INDEPENDENT CONSULTING ENGINEER. (a) The Issuer covenants that, until all Bonds and the interest thereon shall have been paid or provision for such payment shall have been made, it will, for the purpose of performing and carrying out the duties imposed on the Independent Consulting Engineer by this Resolution employ an independent engineering firm of engineering firm or corporation having a favorable repute for skill and experience in such work.

(b) The Issuer covenants that it will at all appropriate times and at least every three years, beginning January 1, 2010, cause the Independent Consulting Engineer to submit in writing, and give all necessary or desirable advice and recommendations concerning renewals, replacements, extensions, betterment, and improvements for the works and facilities of the Issuer, to the end that the works and facilities shall be operated and maintained in the most efficient and satisfactory manner.

(c) The expenses incurred under this Section 6.08 shall constitute Maintenance and Operation Expenses.

Section 6.09. RATES AND CHARGES. The Issuer covenants that at all times it will maintain a water charge and rates, fees and charges for services furnished by it, and that from time to time as often as it shall appear necessary it will adjust such rates, fees and charges as may be necessary or proper, so that such fees and charges will be fully sufficient to produce revenues during such Fiscal Year which will be adequate to pay all Operation and Maintenance Expenses during such Fiscal Year, and provide revenues during such Fiscal Year in an amount at least one times the amount necessary to make all payments due hereunder for payment of principal of and interest on the Series 2009A Bonds and Series 2009B Bonds, and to establish the funds herein prescribed and the payment of Reserve Fund Obligation Payments, if any. The Issuer further covenants that if at any time the revenues collected for the services furnished by it are inadequate to satisfy this covenant, the Issuer shall adjust the rates, fees and charges in order that such deficiencies shall be made up before the end of the next ensuing Fiscal Year.

Section 6.10. WATER SALE CONTRACTS. The Issuer will not make any contract for the sale of water at a price which would require a reduction of charges to be made for water sold under any contract theretofore made.

## ARTICLE VII

### INSURANCE

Section 7.01. INSURANCE COVERAGE. The Issuer covenants that it will at all times keep insured such of its water supply facilities as are usually insured by corporations operating like properties, with a responsible insurance company or companies against risks, accidents, or casualties against which and to the extent insurance is usually carried by corporations operating like properties, including (but only if such insurance can be procured at reasonable cost) insurance against damage by floods, and will also at all times maintain workmen's compensation insurance, in a reasonable amount with responsible insurance companies. Public liability and property damage insurance shall also be carried unless the general counsel for the Issuer or the Attorney General of Texas, issues a written opinion that Issuer would be immune from claims which would be protected by such insurance provided, however, that at any time while any contractor engaged in construction work shall be fully responsible therefor, the Issuer shall not be required to carry such insurance. All such policies shall be open to the inspection of the Bondholders and their representatives at all reasonable times.

Section 7.02. INSURANCE PROCEEDS. In the event of any loss or damage, the Issuer covenants that it will reconstruct or repair the destroyed or damaged portion of the property and will apply the proceeds of the insurance proceeds covering such loss or damage solely for that purpose. The Issuer covenants that it will begin such work or reconstruction or repair promptly after such loss or damage shall occur and will continue and properly complete the same as expeditiously as possible and will pay or cause to be paid all costs and expenses in connection therewith so that the same shall be so completed and the property be free and clear of all mechanics and other liens and claims. The Issuer agrees that it will procure the advise and recommendation in writing of the independent consulting engineer concerning such reconstruction before it is undertaken.

Section 7.03. UNUSED INSURANCE PROCEEDS. Any insurance proceeds remaining after the completion of and payment for any such reconstruction or repair shall be deposited to the credit of the Revenue Fund.

## ARTICLE VIII

### ADDITIONAL BONDS

Section 8.01. DEFINITIONS. For the purpose of this Article VIII, the following definitions shall apply:

- (a) "Completion Bonds" shall mean bonds issued by the Issuer for completion of the construction of the Project upon approval of the Texas Water Development Board.
- (b) "Improvement Bonds" shall mean bonds issued for improvements, betterment, additions to, or extensions and replacements of the work and facilities of the Issuer.



- (c) "Refunding Bonds" shall mean bonds issued to refund all or any part of the Issuer's outstanding Bonds.
- (d) "Special Project Bonds" shall mean bonds issued to acquire or construct a separate project which is expected to be selfliquidating. Such bonds may also be payable from taxes.

Section 8.02. COMPLETION BONDS. The Issuer reserves the right to issue Completion Bonds, payable from and secured by a pledge of the Pledged Revenues, on a parity of lien with the Bonds, whether or not additionally secured by a tax levy. The Completion Bonds may be issued in one or more series of installments, and from time to time as authorized by the Issuer.

Section 8.03. IMPROVEMENT BONDS. The Issuer reserves the right to issue Improvement Bonds, which, when issued and delivered, shall be payable from and secured by Pledged Revenues of the Issuer, and may be additionally secured by a tax levy. The lien on Pledged Revenues for the payment of Improvement Bonds may be on a parity with the lien for the Series 2009A Bonds and Series 2009B Bonds, or inferior to such lien. The Improvement Bonds may be issued in one or more installments or series, provided, however, that no installment or series of Improvement Bonds, if it is on a parity with the lien on the Bonds shall be issued unless:

(a) a certificate is executed by the President and Secretary of the Issuer to the effect that no default exists in connection with any of the covenants or requirements of the Resolution authorizing the issuance of all then outstanding Bonds which are secured by revenues.

(b) a certificate is executed by the President and Secretary of the Issuer to the effect that the Debt Service Fund and the Reserve Fund contain the amounts then required to be on deposit therein.

(c) The then proposed Improvement Bonds are made to mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

(d) A certificate or opinion from a certified public accountant showing that the Pledged Revenues for either (A) the last completed Fiscal Year, or (b) a consecutive twelve-month calendar period ending not more than 90 days preceding the adoption of the Resolution authorizing the issuance of Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Bonds which will be outstanding after giving effect to the issuance of the Additional Bonds then being issued as certified by a certified public accountant, or the Issuer has secured from a certified public accountant or professional engineer a certificate of opinion showing that the Net Revenues for a twelve-month calendar period, based on rates and charges for services and facilities afforded by the System that became effective at least sixty (60) days prior to the month in which the Resolution authorizing the issuance of the Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Bonds which will be outstanding after giving effect to the issuance of the Additional Bonds being issued pursuant to this Resolution.

Section 8.04. SPECIAL PROJECT BONDS. Special Project Bonds payable from and secured by revenues or by both revenues and taxes may be issued by the Issuer for the purposes of providing additional supply lines and facilities, to enable the Issuer to sell water to other users, provided that such Special Project Bonds are not payable from or secured by a pledge of Revenues which were pledged herein to the payment of the Bonds or Completion or Improvement Bonds. All revenues of such project in excess of those required to pay operation and maintenance expenses, and principal and interest as they become due and to create and maintain reserve funds as provided in the Resolution authorizing such Special Project Bonds, and all net revenues of the project after full payment of the Special Project Bonds, or any bonds issued to refund them, shall be deposited into the Revenue Fund.

Section 8.05. REFUNDING BONDS. Refunding Bonds may be authorized by the Issuer to refund all or any part of the Issuer's outstanding Bonds, upon such terms and conditions as the Board of Directors deems to be in the best interest of the Issuer.

Section 8.06. INCREASE IN RESERVE FUND. If Completion Bonds or Improvement Bonds are issued, the maximum amount required to be deposited and maintained in the Reserve Fund shall be increased to an amount equivalent to not less than the average annual debt service requirements for all the outstanding Bonds, Completion Bonds, Improvement Bonds and proposed Bonds, and that such additional amount shall be accumulated within sixty-one (61) months from the date of the Completion or Improvement Bonds, by the deposit in the Reserve Fund of the necessary sums in equal monthly installments; unless a Reserve Fund Obligation is acquired, provided, however, that the aggregate amount to be accumulated in the Reserve Fund shall never be required to exceed the average annual debt service requirements for all then outstanding Bonds, Completion Bonds or Improvement Bonds, and for the installment or series of Completion Bonds or Improvement Bonds then proposed to be issued.

Section 8.07. AUTHORIZATION. Completion Bonds, Improvement Bonds and Refunding Bonds permitted by this Article to be issued shall be authorized by resolutions by the Board of Directors which shall prescribe the form and terms of such Bonds.

Section 8.08. MATURITIES. Bonds issued under this Article shall mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

Section 8.09. TAX BONDS. No provisions in this Resolution shall in any way affect the statutory right of the Issuer to issue bonds supported wholly by ad valorem taxes.

## ARTICLE IX

### AMENDMENTS

Section 9.01. AMENDMENTS. (a) The owners of bonds aggregating in principal amount three-fourths of the aggregate principal amount of bonds at the time outstanding together with the Bond Insurer shall have the right from time to time to approve an amendment of this Resolution which maybe deemed necessary or desirable by the Issuer, provided, however, that nothing herein contained shall permit or be construed to permit the amendment of the terms and conditions contained in this Resolution or in the Bonds, unless consent of all bond owners and the Bond Insurer is obtained so as to:

- (i) make any change in the maturity of any outstanding bonds;
- (ii) reduce the rate of interest borne by any of the outstanding bonds;
- (iii) reduce the amount of the principal payable on any outstanding bonds;
- (iv) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;
- (v) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

(b) The Issuer may from time to time, without the consent of any owner of bond, except as otherwise

required by paragraph (a) above, amend or supplement this Resolution to (i) cure any ambiguity, defect or omission in this Resolution that does not materially adversely affect the interests of the owners, (ii) grant additional rights or security for the benefit of the owners, (iii) add events of default as shall not be inconsistent with the provisions of this Resolution and that shall not materially adversely affect the interests of the owners, (v) qualify this Resolution under the Trust Indenture Act of 1939, as amended, or corresponding provisions of federal laws from time to time in effect, or (iv) make such other provisions in regard to matters or questions arising under this Resolution as shall not be materially inconsistent with the provisions of the Resolution and that shall not, in the opinion of nationally-recognized bond counsel, materially adversely affect the interests of the owners of bonds. Notice of this amendment shall be given to the Bond Insurer.

Section 9.02. NOTICE REQUIRED. If at any time the Issuer shall desire to amend the Resolution under this Article, the Issuer shall cause notice of the proposed amendment to be delivered to the Paying Agent/Registrar to be mailed by first class mail to each Registered Bond Owner. Such notice shall briefly set forth the nature of the proposed amendment and shall state that a copy thereof is on file at the principal offices of the Paying Agent/Registrar for inspection by the owner of the Bonds, a copy of the proposed amendment shall be filed with the Paying Agent/Registrar at the time of the mailing of the notice.. Notice must also be given to the Bond Insurer. Such mailing and the filing of a copy of the proposed amendment are not required, however, if notice in writing is given to each holder of the Bonds.

Section 9.03. ADOPTION OF AMENDMENT. Whenever at any time not less than thirty (30) days and within one year from the date of the mailing of said notice, the Issuer shall receive an instrument or instruments executed by the holders of at least three-fourths in aggregate principal amount of the Bonds, which instrument or instruments shall refer to the proposed amendment described in said notice and which specifically consent to and approve such amendment in substantially the form of the copy thereof on file with the Paying Agent/Registrar, the Issuer may adopt the amendatory resolution in substantially the same form.

Section 9.04. EFFECTIVE UPON ADOPTION. Upon the adoption of any amendatory resolution pursuant to the provisions of this Article, the Resolution shall be deemed to be amended in accordance with such amendatory resolution, and the respective rights, duties and obligations under the Resolution of the Issuer, and all the holders of outstanding Bonds shall thereafter be determined, exercised, and enforced hereunder, subject in all respects to such amendments.

Section 9.05. REVOCAION OF CONSENT. Any consent given by the holder of a bond pursuant to the provisions of this Article shall be irrevocable for a period of six months from the date of the first mailing of the notice provided for in this Article, and shall be conclusive and binding upon all future holders of the same bond during such period. Such consent may be revoked at any time after six months from the date of the first mailing of such notice by the holders of such consent, or by a successor in title, by filing notice thereof with the Paying Agent/Registrar and the Issuer, but such revocation shall not be effective if the holders of the required principal amount of the bonds have, prior to the attempted revocation, consented to and approved the amendment.

## ARTICLE X

### BONDS

Section 10.01. DAMAGED, MUTILATED, LOST, STOLEN, OR DESTROYED BONDS. (a) Replacement Bonds. In the event any outstanding Bond is damaged, mutilated, lost, stolen, or destroyed, the Paying Agent/Registrar shall cause to be printed, executed, and delivered, a new bond of the same principal amount, maturity, and interest rate, as the damaged, mutilated, lost, stolen, or destroyed Bond, in replacement for such Bond in the manner hereinafter provided.

(b) Application for Replacement Bonds. Application for replacement of damaged, mutilated, lost, stolen, or destroyed Bonds shall be made by the registered owner thereof to the Paying Agent/Registrar. In every case of loss, theft, or destruction of a Bond, the registered owner applying for a replacement bond shall furnish to the Issuer and to the Paying Agent/Registrar such security or indemnity as may be required by them to save each of them harmless from any loss or damage with respect thereto. Also, in every case of loss, theft, or destruction of a Bond, the registered owner shall furnish to the Issuer and to the Paying Agent/Registrar evidence to their satisfaction of the loss, theft, or destruction of such Bond, as the case may be. In every case of damage or mutilation of a Bond, the registered owner shall surrender to the Paying Agent/Registrar for cancellation the Bond so damaged or mutilated.

(c) No Default Occurred. Notwithstanding the foregoing provisions of this Section, in the event any such Bond shall have matured, and no default has occurred which is then continuing in the payment of the principal of, redemption premium, if any, or interest on the Bond, the Issuer may authorize the payment of the same (without surrender thereof except in the case of a damaged or mutilated Bond) instead of issuing a replacement Bond, provided security or indemnity is furnished as above provided in this Section.

(d) Charge for Issuing Replacement Bonds. Prior to the issuance of any replacement bond, the Paying Agent/Registrar shall charge the registered owner of such Bond with all legal, printing, and other expenses in connection therewith. Every replacement bond issued pursuant to the provisions of this Section by virtue of the fact that any Bond is lost, stolen, or destroyed shall constitute a contractual obligation of the Issuer whether or not the lost, stolen, or destroyed Bond shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Resolution equally and proportionately with any and all other Bonds duly issued under this Resolution.

(e) Authority for Issuing Replacement Bonds. In accordance with Chapter 1207 of the Texas Government Code, this Section of this Resolution shall constitute authority for the issuance of any such replacement bond without necessity of further action by the governing body of the Issuer or any other body or person, and the duty of the replacement of such bonds is hereby authorized and imposed upon the Paying Agent/Registrar, and the Paying Agent/Registrar shall authenticate and deliver such bonds in the form and manner and with the effect, as provided in Section 2.06(d) of this Resolution for Bonds issued in conversion and exchange for other Bonds.

Section 10.02. CUSTODY, APPROVAL, AND REGISTRATION OF BONDS; BOND COUNSEL'S OPINION; CUSIP NUMBERS; AND CONTINGENT INSURANCE PROVISION, IF OBTAINED. The President of the Board of Directors of the Issuer is hereby authorized to have control of the Initial Bond issued hereunder and all necessary records and proceedings pertaining to the Initial Bond pending its delivery and its investigation, examination, and approval by the Attorney General of the State of Texas, and

its registration by the Comptroller of Public Accounts of the State of Texas. Upon registration of the Initial Bond said Comptroller of Public Accounts (or a deputy designated in writing to act for said Comptroller) shall manually sign the Comptroller's Registration Certificate on the Initial Bond, and the seal of said Comptroller shall be impressed, or placed in facsimile, on the Initial Bond. In addition, if bond insurance is obtained, the Bonds may bear an appropriate legend as provided by the Insurer.

Section 10.03. COVENANTS REGARDING TAX EXEMPTION. (a) Covenants. The Issuer covenants to take any action necessary to assure, or refrain from any action that would adversely affect, the treatment of the Bonds as obligations described in section 103 of the Code, the interest on which is not includable in the "gross income" of the Bond holder for purposes of federal income taxation. In furtherance thereof, the Issuer covenants as follows:

(1) to take any action to assure that no more than 10 percent of the proceeds of the Bonds (less amounts deposited to a reserve fund, if any) are used for any "private business use," as defined in section 141(b)(6) of the Code or, if more than 10 percent of the proceeds or the projects financed therewith are so used, such amounts, whether or not received by the Issuer, with respect to such private business use, do not, under the terms of this Resolution or any underlying arrangement, directly or indirectly, secure or provide for the payment of more than 10 percent of the debt service on the Bonds, in contravention of section 141(b)(2) of the Code;

(2) to take any action to assure that in the event that the "private business use" described in subsection (1) hereof exceeds 5 percent of the proceeds of the Bonds or the projects financed therewith (less amounts deposited into a reserve fund, if any) then the amount in excess of 5 percent is used for a "private business use" that is "related" and not "disproportionate," within the meaning of section 141(b)(3) of the Code, to the governmental use;

(3) to take any action to assure that no amount that is greater than the lesser of \$5,000,000, or 5 percent of the proceeds of the Bonds (less amounts deposited into a reserve fund, if any) is directly or indirectly used to finance loans to persons, other than state or local governmental units, in contravention of section 141(c) of the Code;

(4) to refrain from taking any action that would otherwise result in the Bonds being treated as "private activity bonds" within the meaning of section 141(b) of the Code;

(5) to refrain from taking any action that would result in the Bonds being "federally guaranteed" within the meaning of section 149(b) of the Code;

(6) to refrain from using any portion of the proceeds of the Bonds, directly or indirectly, to acquire or to replace funds that were used, directly or indirectly, to acquire investment property (as defined in section 148(b)(2) of the Code) that produces a materially higher yield over the term of the Bonds, other than investment property acquired with –

(A) proceeds of the Bonds invested for a reasonable temporary period of 3 years or less or, in the case of a refunding Bonds, for a period of 30 days or less until such proceeds are needed for the purpose for which the Bonds are issued,



(B) amounts invested in a bona fide debt service fund, within the meaning of section 1.148-1(b) of the Treasury Regulations, and

(C) amounts deposited in any reasonably required reserve or replacement fund to the extent such amounts do not exceed 10 percent of the proceeds of the Bonds;

(7) to otherwise restrict the use of the proceeds of the Bonds or amounts treated as proceeds of the Bonds, as may be necessary, so that the Bonds do not otherwise contravene the requirements of section 148 of the Code (relating to arbitrage) and, to the extent applicable, section 149(d) of the Code (relating to advance refundings);

(8) to pay to the United States of America at least once during each five-year period (beginning on the date of delivery of the Bonds) an amount that is at least equal to 90 percent of the "Excess Earnings," within the meaning of section 148(f) of the Code and to pay to the United States of America, not later than 60 days after the Bonds have been paid in full, 100 percent of the amount then required to be paid as a result of Excess Earnings under section 148(f) of the Code; and

(9) to assure that the proceeds of the Bonds will be used solely for new money projects.

(b) Rebate Fund. In order to facilitate compliance with the above covenant (a)(8), a "Rebate Fund" is hereby established by the Issuer for the sole benefit of the United States of America, and such Fund shall not be subject to the claim of any other person, including without limitation the Bonds holders. The Rebate Fund is established for the additional purpose of compliance with section 148 of the Code.

(c) Use of Proceeds. For purposes of the foregoing covenants (a)(1) and (a)(2), the Issuer understands that the term "proceeds" includes "disposition proceeds" as defined in the Treasury Regulations and, in the case of refunding Bonds, transferred proceeds (if any) and proceeds of the refunded Bonds expended prior to the date of issuance of the Bonds. It is the understanding of the Issuer that the covenants contained herein are intended to assure compliance with the Code and any regulations or rulings promulgated by the U.S. Department of the Treasury pursuant thereto. In the event that regulations or rulings are hereafter promulgated that modify or expand provisions of the Code, as applicable to the Bonds, the Issuer will not be required to comply with any covenant contained herein to the extent that such failure to comply, in the opinion of nationally recognized Bonds counsel, will not adversely affect the exemption from federal income taxation of interest on the Bonds under section 103 of the Code. In the event that regulations or rulings are hereafter promulgated that impose additional requirements applicable to the Bonds, the Issuer agrees to comply with the additional requirements to the extent necessary, in the opinion of nationally-recognized bond counsel, to preserve the exemption from federal income taxation of interest on the Bonds under section 103 of the Code. In furtherance of such intention, the Issuer hereby authorizes and directs the President of the Board to execute any documents, certificates or reports required by the Code and to make such elections, on behalf of the Issuer, that may be permitted by the Code as are consistent with the purpose for the issuance of the Bonds.

Section 10.04. DESIGNATION AS QUALIFIED TAX-EXEMPT BONDS. The Issuer hereby designates the Bonds as "qualified tax-exempt Bonds" as defined in section 265(b)(3) of the Code. In furtherance of such designation, the Issuer represents, covenants and warrants the following: (a) that during the calendar year in which the Bonds are issued, the Issuer (including any subordinate entities) has not designated nor will designate Bonds, which when aggregated with the Bonds, will result in more than \$10,000,000 (\$30,000,000 for taxable years beginning after December 31, 2008 and ending prior to January

1, 2011) of "qualified tax-exempt Bonds" being issued; (b) that the Issuer reasonably anticipates that the amount of tax-exempt obligations issued, during the calendar year in which the Bonds are issued, by the Issuer (or any subordinate entities) will not exceed \$10,000,000 (\$30,000,000 for taxable years beginning after December 31, 2008 and ending prior to January 1, 2011); and, (c) that the Issuer will take such action or refrain from such action as necessary, and as more particularly set forth in this Section, in order that the Bonds will not be considered "private activity Bonds" within the meaning of section 141 of the Code.

Section 10.05. DISPOSITION OF PROJECT. The Issuer covenants that the property constituting the Project financed by the Bonds authorized herein will not be sold or otherwise disposed in a transaction resulting in the receipt by the Issuer of cash or other compensation, unless the Issuer obtains an opinion of nationally-recognized bond counsel that such sale or other disposition will not adversely affect the tax-exempt status of the Bonds. For purposes of the foregoing, the portion of the property comprising personal property and disposed in the ordinary course shall not be treated as a transaction resulting in the receipt of cash or other compensation. For purposes hereof, the Issuer shall not be obligated to comply with this covenant if it obtains an opinion that such failure to comply will not adversely affect the excludability for federal income tax purposes from gross income of the interest.

Section 10.06. CONTINUING DISCLOSURE. (a) Annual Reports. (i) The Issuer shall provide annually to each NRMSIR and any SID, within six months after the end of each fiscal year ending in or after 2009, financial information and operating data with respect to the Issuer of the general type, being the information described in Exhibit A. Any financial statements so to be provided shall be prepared in accordance with the accounting principles described in Exhibit A thereto, or such other accounting principles as the Issuer may be required to employ from time to time pursuant to state law or regulation, and audited, if the Issuer commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within such period, then the Issuer shall provide audited financial statements for the applicable fiscal year to each NRMSIR and any SID, when and if the audit report on such statements become available.

(ii) If the Issuer changes its fiscal year, it will notify each NRMSIR and any SID of the change (and of the date of the new fiscal year end) prior to the next date by which the Issuer otherwise would be required to provide financial information and operating data pursuant to this Section. The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document (including an official statement or other offering document, if it is available from the MSRB) that theretofore has been provided to each NRMSIR and any SID or filed with the SEC.

(b) Material Event Notices. The Issuer shall notify any SID and either each NRMSIR or the MSRB, in a timely manner, of any of the following events with respect to the Bonds, if such event is material within the meaning of the federal securities laws:

1. Principal and interest payment delinquencies;
2. Non-payment related defaults;
3. Unscheduled draws on debt service reserves reflecting financial difficulties;
4. Unscheduled draws on credit enhancements reflecting financial difficulties;
5. Substitution of credit or liquidity providers, or their failure to perform;
6. Adverse tax opinions or events affecting the tax-exempt status of the Bonds;
7. Modifications to rights of holders of the Bonds;

8. Bond calls;
9. Defeasances;
10. Release, substitution, or sale of property securing repayment of the Bonds; and
11. Rating changes.

The Issuer shall notify any SID and either each NRMSIR or the MSRB, in a timely manner, of any failure by the Issuer to provide financial information or operating data in accordance with subsection (a) of this Section by the time required by such subsection.

(c) Limitations, Disclaimers, and Amendments. (i) The Issuer shall be obligated to observe and perform the covenants specified in this Section for so long as, but only for so long as, the Issuer remains an "obligated person" with respect to the Bonds within the meaning of the Rule, except that the Issuer in any event will give notice of any deposit made in accordance with this Resolution or applicable law that causes Bonds no longer to be outstanding.

(ii) The provisions of this Section are for the sole benefit of the holders and beneficial owners of the Bonds, and nothing in this Section, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The Issuer undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Section and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the Issuer's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Section or otherwise, except as expressly provided herein. The Issuer does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Bonds at any future date.

(iii) UNDER NO CIRCUMSTANCES SHALL THE ISSUER BE LIABLE TO THE HOLDER OR BENEFICIAL OWNER OF ANY BOND OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE ISSUER, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS SECTION, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

(iv) No default by the Issuer in observing or performing its obligations under this Section shall comprise a breach of or default under the Resolution for purposes of any other provision of this Resolution. Nothing in this Section is intended or shall act to disclaim, waive, or otherwise limit the duties of the Issuer under federal and state securities laws.

(v) The provisions of this Section may be amended by the Issuer from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the Issuer, but only if (1) the provisions of this Section, as so amended, would have permitted an underwriter to purchase or sell Bonds in the primary offering of the Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule since such offering as well as such changed circumstances and (2) either (a) the holders of a majority in aggregate principal amount (or any greater amount required by any other provision of this Resolution that authorizes such an amendment) of the outstanding Bonds consent to such amendment or (b) a person that is unaffiliated with the Issuer (such as bond counsel) determined that such amendment will not materially impair the interest of the

holders and beneficial owners of the Bonds. If the Issuer so amends the provisions of this Section, it shall include with any amended financial information or operating data next provided in accordance with subsection (a) of this Section an explanation, in narrative form, of the reason for the amendment and of the impact of any change in the type of financial information or operating data so provided.

(d) Definitions. As used in this Section, the following terms have the meanings ascribed to such terms below:

"*MSRB*" means the Municipal Securities Rulemaking Board.

"*NRMSIR*" means each person whom the SEC or its staff has determined to be a nationally recognized municipal securities information repository within the meaning of the Rule from time to time.

"*Rule*" means SEC Rule 15c2-12, as amended from time to time.

"*SEC*" means the United States Securities and Exchange Commission.

"*SID*" means any person designated by the State of Texas or an authorized department, officer, or agency thereof as, and determined by the SEC or its staff to be, a state information depository within the meaning of the Rule from time to time.

Section 10.07. SALE OF BONDS. The Bonds are hereby sold and shall be delivered to the TEXAS WATER DEVELOPMENT BOARD for cash for the principal amount thereof.

Section 10.08. APPROVAL OF BOND. The Bonds have been purchased by the Texas Water Development Board ("Board") pursuant to its Resolution No. 0909, adopted on January 15, 2009, which provides that the Bonds are being purchased pursuant to the Texas Water Development Fund, pre-design commitment option Water Infrastructure Fund, and that in accordance thereto the Executive Administrator of the Texas Water Development Board will purchase the Bonds on a pre-design funding option basis with the proceeds in the amount of \$2,400,000 to be deposited in the Construction Fund herein created for the initial delivery.

Section 10.09. APPROVAL OF ESCROW AGREEMENT. The President of the Board of Directors of the Issuer is hereby authorized and directed to execute and deliver and the Secretary of the Board of Directors of the Issuer is hereby authorized and directed to attest an Escrow Agreement in substantially the form attached hereto as Exhibit B, with the Escrow Agent to hold the Bonds pending delivery to the Texas Water Development Board. **(The Texas Water Development Board advised the Issuer that no escrow is needed for the Bonds).**

Section 10.10. CONSTRUCTION FUND. There shall be established a Construction Fund with the Issuer's depository bank and upon the delivery of the purchase price for such Bonds, the proceeds from the sale of the Bonds shall be deposited into this Construction Fund. The cost of issuance of the Bonds, being legal, fiscal and engineering fees, may be paid from this Fund. The cost of the construction of the Water System improvements for the Project will be paid from this Construction Fund upon directions of the Issuer. All interest and profits from investments made with moneys in the Construction Fund shall remain on deposit in the Construction Fund as a part thereof. After completion of the payment of all costs of the Water System improvements, any residue remaining in the Construction Fund shall be applied in accordance with Section 36

Section 10.11. FINAL ACCOUNTING. The Issuer shall render a final accounting to the Texas Water Development Board in reference to the total cost incurred by the Issuer for Water System improvements together with a copy of "as built" plans of the project upon completion.

Section 10.12. INVESTMENTS. That money in any Fund established pursuant to this Order may, at the option of the Issuer, be invested in eligible investments described in the Texas Public Funds Investment Act, Chapter 2256, Texas Government Code, consistent with the investment policy approved by the Board of Directors. All investments shall be made in such manner as will, in the opinion of the Issuer, permit the money required to be expended from any Fund to be available at the proper time or times as expected to be needed.

Section 10.13. SURPLUS PROCEEDS. That the Issuer shall use any surplus proceeds from the Bonds remaining after completion of the Water System improvements, to redeem, in inverse annual order, the Bonds owned by the Texas Water Development Board.

Section 10.14. ANNUAL AND MONTHLY REPORTS. That monthly operating statements and annual audits of the Issuer shall be delivered to the Texas Water Development Board as long as the State of Texas owns any of the Bonds, and that the monthly operating statements shall be in such detail as requested by the Development Fund Manager of the Texas Water Development Board until this requirement is waived by the Development Fund Manager. The annual audit shall be furnished to the Texas Water Development Board within 120 days of the close of each fiscal year.

Section 10.15. COMPLIANCE WITH THE TEXAS WATER DEVELOPMENT BOARD'S RULES AND REGULATIONS. That the Issuer covenants to comply with the rules and regulations of the Texas Water Development Board, and to maintain insurance on the Issuer's Water System in an amount sufficient to protect the interest of the Texas Water Development Board.

Section 10.16. PUBLIC NOTICE. It is hereby officially found and determined that public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

-----



**EXHIBIT A**

**DESCRIPTION OF ANNUAL FINANCIAL INFORMATION**

The following information is referred to in Section 10.06 of this Resolution.

**I. Annual Financial Statements and Operating Data**

The financial information and operating data with respect to the Issuer to be provided annually in accordance with such Section are as specified below:

Annual Audit

**Accounting Principles**

The accounting principles referred to in such Section are the accounting principles described in the notes to the financial statements referred to in paragraph 1 above.

**EXHIBIT B**

**ESCROW AGREEMENT**

**The Escrow Agreement is omitted at this point as it appears elsewhere in this transcript.**

**CERTIFICATE FOR RESOLUTION**

**THE STATE OF TEXAS  
COUNTY OF PALO PINTO  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

§  
§  
§

We, the undersigned officers of the Board of Directors of said District, hereby certify as follows:

1. The Board of Directors of said District convened in **REGULAR MEETING ON THE 19TH DAY OF MAY, 2009**, at the designated regular meeting place, and the roll was called of the duly constituted officers and members of said Board of Directors, to-wit:

Earl L. Medlin, President  
Leon Groves, Vice President  
Wesley Ellis  
Bob Sturdivant  
David Turk

Scott Blasor, Secretary/Treasurer

and all of said persons were present, except the following absentees: David Turk, thus constituting a quorum. Whereupon, among other business, the following was transacted at said meeting: a written **RESOLUTION AUTHORIZING THE ISSUANCE OF PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 SUBORDINATE REVENUE BONDS, (TAXABLE) SERIES 2009B, IN THE PRINCIPAL AMOUNT OF \$3,200,000, PRESCRIBING THE FORM AND TERMS OF SAID BONDS; PROVIDING FOR THE SECURITY AND PAYMENT THEREOF; AUTHORIZING SALE OF THE BONDS; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT** was duly introduced for the consideration of said Board of Directors and read in full. It was then duly moved and seconded that said Resolution be passed; and, after due discussion, said motion, carrying with it the passage of said Resolution, prevailed and carried by the following vote:

AYES: All members of said Board of Directors shown present above voted "Aye".

NOES: None.

2. That a true, full and correct copy of the aforesaid Resolution passed at the Meeting described in the above and foregoing paragraph is attached to and follows this Certificate; that said Resolution has been duly recorded in said Board of Directors's minutes of said Meeting; that the above and foregoing paragraph is a true, full and correct excerpt from said Board of Directors's minutes of said Meeting pertaining to the passage of said Resolution; that the persons named in the above and foregoing paragraph are the duly chosen, qualified and acting officers and members of said Board of Directors as indicated therein; that each of the officers and members of said Board of Directors was duly and sufficiently notified officially and personally, in advance, of the time, place and purpose of the aforesaid Meeting, and that said Resolution would be introduced and considered for passage at said Meeting, and each of said officers and members consented, in advance, to the holding of said Meeting for such purpose; that said Meeting was open to the public, and public notice of the time, place and purpose of said Meeting was given, all as required by Chapter 551, Texas Government Code.

SIGNED AND SEALED the 19th day of May, 2009.

*Scott Raso*

Secretary, Board of Directors

*Earl Z. Medli*

President, Board of Directors



**RESOLUTION AUTHORIZING THE ISSUANCE OF PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 SUBORDINATE REVENUE BONDS, (TAXABLE) SERIES 2009B, IN THE PRINCIPAL AMOUNT OF \$3,200,000, PRESCRIBING THE FORM AND TERMS OF SAID BONDS; PROVIDING FOR THE SECURITY AND PAYMENT THEREOF; AUTHORIZING SALE OF THE BONDS; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT**

**THE STATE OF TEXAS** :  
**COUNTIES OF PALO PINTO AND PARKER** :  
**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1** :

**WHEREAS**, Palo Pinto County Municipal Water District No. 1 (the "Issuer") was created by Article 8280-258, V.A.T.C.S., as amended, as revised by Chapter 49 of the Texas Water Code ("Act") as a Conservation and Reclamation District, pursuant to Article 16, Section 59 of the Texas Constitution; and

**WHEREAS**, the Issuer has currently outstanding the following Revenue Bonds, to-wit:

Palo Pinto County Municipal Water District No. 1 Revenue Refunding Bonds, Series 2001, dated November 1, 2001, maturities June 1, 2009 through June 1, 2016, now outstanding in the principal amount of \$3,280,000 ("Series 2001 Bonds" or "Outstanding First Lien Bonds" or "First Lien Bonds");

Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Series 2002, dated October 1, 2002, maturities June 1, 2009 through June 1, 2023, now outstanding in the principal amount of \$5,655,000 ("Series 2002 Bonds" or "Outstanding First Lien Bonds" or "First Lien Bonds");

**WHEREAS**, the Issuer has determined to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: acquisition of land easements and rights-of-way, together with necessary planning, permitting and preliminary engineering of a Recommended Water Management Strategy for construction of the Turkey Peak Reservoir; and

**WHEREAS**, it is further deemed advisable by the Board of Directors of the Issuer to issue and deliver to the Texas Water Development Board the Bonds and the Palo Pinto County Municipal Water District No. 1 Subordinate Bonds, (Tax Exempt) Series 2009A, in the principal amount of \$2,400,000, to be authorized by Resolution concurrently herewith pursuant to Article 8280-258 V.A.T.C.S. and Chapter 49 of the Texas Water Code, and the Act; and

**WHEREAS**, it is hereby officially found and determined that public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

**BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1:**



## ARTICLE I

### DEFINITION OF TERMS

Section 1.01 DEFINITIONS. In each place throughout this Resolution, wherein the following terms, or any of them are used, the same, unless the context shall indicate another or different meaning or intent, shall be construed and are intended to have the meanings as follows:

- (a) "Act" shall mean Article 8280-258, as amended, of V.A.T.C.S., as revised by Chapter 49 of the Texas Water Code.
- (b) "Additional Bonds" shall mean any bonds authorized by Article VIII of this Resolution.
- (c) "Board of Directors" or "Board" shall mean the Board of Directors of the Issuer.
- (d) "Bond" or "Bonds" shall mean any bonds authorized by this Resolution.
- (e) "Bond Insurer" or "Insurer" shall mean any other entity that insures or guarantees the payment of principal and interest on any Bonds or the provider of a Reserve Fund Obligation.
- (f) "Certified Public Accountant" shall mean any certified public accountant of such suitable experience and qualifications, not regularly in the employ of the Issuer, selected by the Issuer.
- (g) "City" shall mean the City of Mineral Wells, Texas.
- (h) "Contract" or "Water Purchase Contract" shall mean the contract with the City for the sale of water to the City, dated as of July 10, 1981, as supplemented, and modified as of December 10, 1992, November 1, 2001, October 1, 2002, and April 1, 2009.
- (i) "Default" or "Event of Default" shall mean the failure by the Issuer to pay the principal of or the interest on any bond herein authorized as the same shall become due; or the failure by the issuer to perform any of the agreements or covenants on its party (other) than its agreement to pay the principal of and interest on the Bonds (which failure shall have continued for a period of thirty days after written notice of such failure has been given to the Issuer by the Paying Agent/Registrar or the owner or holder of any Bond or coupon.
- (j) "Depository" shall mean the bank or banks which the Issuer selects (whether one or more) in accordance with law, as its Depository.
- (k) "Fiscal Year" shall mean each twelve month period, beginning October 1 and ending September 30 of each year.
- (l) "Independent Consulting Engineer" shall mean the engineer or engineering firm at the time employed by the Issuer under the provisions of Section 6.08 of this Resolution.

(m) "Insurance Policy" shall mean the insurance policy issued by the Insurer guaranteeing the scheduled payment of principal of and interest on the Bonds when due.

(n) "Investment" shall mean cash, investments, or any combination of the foregoing.

(o) "Issuer" shall mean Palo Pinto County Municipal Water District No. 1, and any other public body or agency at any time succeeding to the property and principal rights, powers and obligations of said Issuer.

(p) "Operation and Maintenance Expenses" shall mean the reasonable and necessary cost of ordinary maintenance and operation of the Issuer and its facilities and all other properties and works of the Issuer, includes without limiting the generality of the foregoing (1) premiums on any insurance policies of every kind and nature; (2) administrative, legal, and other overhead expenses of the Issuer; and (3) charges and expenses of the Paying Agent/Registrar and the Depository.

(q) "Pledged Revenues" shall mean those Revenues not used to pay Operation and Maintenance Expenses and pledged herein to the payment of the Bonds in the manner as set forth in Section 3.01 of this Resolution.

(r) "Project" shall mean improvements and modifications to the acquisition of land and rights together with necessary planning, permitting and preliminary engineering of a Recommended Water Management Strategy for construction of the Turkey Peak Reservoir.

(s) "Rating Agency" shall mean any nationally recognized securities rating agency which has assigned, at the request of the Issuer, a rating to the Bonds.

(t) "Reserve Fund Obligation" shall mean to the extent permitted by law, as evidenced by an opinion of nationally recognized bond counsel, a surety bond or insurance policy (which, under applicable law, shall not entitle the provider thereof to any right of reimbursement or repayment other than a right to subrogation upon payments being made to Holders) deposited in the Reserve Fund to satisfy the Required Reserve Account whereby the issuer is obligated to provide funds up to and including the maximum amount and under the conditions specified in such agreement or instrument.

(u) "Required Reserve Amount" shall mean the average annual debt service requirements on all outstanding Bonds and Additional Bonds, if any.

(v) "Reserve Fund Obligation Payment" shall mean any subrogation payment the Issuer is obligated to make from Pledged Revenues deposited in the Reserve Fund with respect to a Reserve Fund Obligation.

(w) "Resolution" or "Bond Resolution" shall mean this Resolution and any amendments thereof.

(x) "Revenues" shall mean all tolls, revenues, rates, fees, charges, rents and other income and receipts in each case derived by, or for the account of, the Issuer from the operation of the Issuer, and includes specifically payments received by the Issuer from the City as a Water Charge pursuant to the Water Purchase Contract.

(y) "Series 2009A Bonds" shall mean the Palo Pinto County Municipal Water District No. 1 Subordinate Bonds, (Tax Exempt) Series 2009A, in the principal amount of \$2,400,000 to be authorized by Resolution adopted concurrently with this Resolution.

(z) "Series 2009B Bonds" shall mean the Palo Pinto County Municipal Water District No. 1 Subordinate Bonds, (Taxable) Series 2009B, in the principal amount of \$3,200,000 authorized by this Resolution dated April 1, 2009.

(aa) "Surety Bond" shall mean a debt service reserve surety bond by an insurance company.

(bb) "Water Charge" shall mean the monthly charge made to the City for the purchase of the Issuer's water pursuant to the Contract.

## ARTICLE II

### BOND PROVISIONS

Section 2.01. AMOUNT AND PURPOSE OF THE BONDS. The bond or bonds of the Issuer are hereby authorized to be issued and delivered in the aggregate principal amount of \$3,200,000 providing for the purpose to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: acquisition of land easements, and rights-of-way together with necessary planning, permitting and preliminary engineering of a Recommended Water Management Strategy for construction of the Turkey Peak Reservoir, constituting the Project hereinafter defined.

Section 2.02. DESIGNATION OF THE BONDS. Each bond issued pursuant to this Resolution shall be designated: "PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 SUBORDINATE REVENUE BOND, (TAXABLE) SERIES 2009B", and initially there shall be issued, sold, and delivered hereunder a single fully registered bond, without interest coupons, payable in annual installments of principal (the "Initial Bond"), but the Initial Bond may be assigned and transferred and/or converted into and exchanged for a like aggregate principal amount of fully registered bonds, without interest coupons, having serial and annual maturities, and in the denomination or denominations of \$5,000 or any integral multiple of \$5,000, all in the manner hereinafter provided. The term "Bonds" as used in this Resolution shall mean and include collectively the Initial Bond and all substitute bonds exchanged therefor, as well as all other substitute bonds and replacement bonds issued pursuant hereto, and the term "Bond" shall mean any of the Bonds.

Section 2.03. INITIAL DATE, DENOMINATION, NUMBER, MATURITIES, INITIAL REGISTERED OWNER, AND CHARACTERISTICS OF THE INITIAL BOND. (a) The Initial Bond is hereby authorized to be issued, sold, and delivered hereunder as a single fully registered Bond, without interest coupons, dated April 1, 2009, in the denomination and aggregate principal amount of \$3,200,000, numbered R-1, payable in annual installments of principal to the initial registered owner thereof, to-wit: TEXAS WATER DEVELOPMENT BOARD, or to the registered assignee or assignees of said Bond or any portion or portions thereof (in each case, the "registered owner"), with the annual installments of principal of the Initial Bond to be payable on the dates, respectively, and in the principal amounts, respectively, stated in the FORM OF INITIAL BOND set forth in this Resolution.

(b) The Initial Bond (i) may be prepaid or redeemed prior to the respective scheduled due dates of installments of principal thereof, (ii) may be assigned and transferred, (iii) may be converted and exchanged for other Bonds, (iv) shall have the characteristics, and (v) shall be signed and sealed, and the principal of and interest on the Initial Bond shall be payable, all as provided, and in the manner required or indicated, in the FORM OF INITIAL BOND set forth in this Resolution.

Section 2.04. INTEREST. The unpaid principal balance of the Initial Bond shall bear interest from the date of the Initial Bond and will be calculated on the basis of a 360-day year of twelve 30-day months to the respective scheduled due dates, or to the respective dates of prepayment or redemption, of the installments of principal of the Initial Bond, and said interest shall be payable, all in the manner provided and at the rates and on the dates stated in the FORM OF INITIAL BOND set forth in this Resolution.

Section 2.05. FORM OF INITIAL BOND. The form of the Initial Bond, including the form of Registration Certificate of the Comptroller of Public Accounts of the State of Texas to be endorsed on the Initial Bond, shall be substantially as follows:

**FORM OF INITIAL BOND**

NO. R-1

\$3,200,000

**UNITED STATES OF AMERICA  
STATE OF TEXAS  
COUNTIES OF PALO PINTO AND PARKER  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
SUBORDINATE REVENUE BOND, (TAXABLE) SERIES 2009B**

The PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, in PALO PINTO AND PARKER COUNTIES, Texas (the "Issuer"), being a political subdivision of the State of Texas, pursuant to Article 8280-258 V.A.T.C.S, as revised by Chapter 49 of the Texas Water Code, hereby promises to pay to

**TEXAS WATER DEVELOPMENT BOARD**

or to the registered assignee or assignees of this Bond or any portion or portions hereof (in each case, the "registered owner") the aggregate principal amount of

**THREE MILLION TWO HUNDRED THOUSAND DOLLARS**

in annual installments of principal due and payable on June 1 in each of the years, and in the respective principal amounts, as set forth in the following schedule:

<u>YEARS</u>	<u>AMOUNTS</u>	<u>YEARS</u>	<u>AMOUNTS</u>
2010	\$115,000	2020	\$170,000
2011	120,000	2021	180,000
2012	125,000	2022	185,000
2013	130,000	2023	195,000
2014	135,000	2024	200,000
2015	140,000	2025	210,000
2016	145,000	2026	215,000
2017	150,000	2027	225,000
2018	160,000	2028	235,000
2019	165,000		

and to pay interest, from the date of this Bond hereinafter stated, on the balance of each such installment of principal, respectively, from time to time remaining unpaid, at the rates as follows:

maturity 2010, 2.63%	maturity 2020, 3.38%
maturity 2011, 2.68%	maturity 2021, 3.43%
maturity 2012, 2.73%	maturity 2022, 3.43%
maturity 2013, 2.83%	maturity 2023, 3.48%
maturity 2014, 2.93%	maturity 2024, 3.53%
maturity 2015, 2.98%	maturity 2025, 3.58%
maturity 2016, 3.03%	maturity 2026, 3.63%
maturity 2017, 3.13%	maturity 2027, 3.63%
maturity 2018, 3.23%	maturity 2028, 3.68%
maturity 2019, 3.33%	

with said interest being payable on June 1, 2010 and semiannually on each December 1 and June 1 thereafter while this Bond or any portion hereof is outstanding and unpaid.

THE INSTALLMENTS OF PRINCIPAL OF AND THE INTEREST ON this Bond are payable in lawful money of the United States of America, without exchange or collection charges. The installments of principal and the interest on this Bond are payable to the registered owner hereof through the services of U. S. Bank, National Association, Dallas, Texas, which is the "Paying Agent/Registrar" for this Bond. Payment of all principal of and interest on this Bond shall be made by the Paying Agent/Registrar to the registered owner hereof on each principal and/or interest payment date by check or draft, dated as of such date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the Issuer required by the Resolution authorizing the issuance of this Bond (the "Bond Resolution") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check or draft shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such principal and/or interest payment date, to the registered owner hereof, at the address of the registered owner, as it appeared on the 15th day of the month next preceding each such date (the "Record Date") on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described, by electronic or wire transfer, or by such other method acceptable to the Paying Agent/Registrar requested by, and at the risk and expense of, the registered owner; however, if the Bond is owned by the Texas Water Development Board, there will be no charge to the Texas Water Development Board, and payment of principal and interest shall be made by federal funds wire transfer. The Issuer covenants with the registered owner of this Bond that on or before each principal and/or interest payment date

for this Bond it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Bond Resolution, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on this Bond, when due.

IF THE DATE for the payment of the principal of or interest on this Bond shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due.

THIS BOND has been authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$3,200,000, for providing for the purpose to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: acquisition of land easements and rights-of-way together with necessary planning, permitting and preliminary engineering of a recommended Water Management Strategy for construction of the Turkey Peak Reservoir, constituting the Project hereinafter defined.

ON JUNE 1, 2019, or any date thereafter, the unpaid installments of principal of this Bond may be prepaid or redeemed prior to their scheduled due dates, at the option of the Issuer, with funds derived from any available source, as a whole, or in part, and, if in part, in inverse annual order, the Issuer shall select and designate the maturity, or maturities, and the amount that is to be redeemed, and if less than a whole maturity is to be called, the Issuer shall direct the Paying Agent/Registrar to call by lot (provided that a portion of this Bond may be redeemed only in an integral multiple of \$5,000), at the redemption price of the principal amount, plus accrued interest to the date fixed for prepayment or redemption.

AT LEAST 30 days prior to the date fixed for any such prepayment or redemption a written notice of such prepayment or redemption shall be mailed by the Paying Agent/Registrar to the registered owner hereof. By the date fixed for any such prepayment or redemption due provision shall be made by the Issuer with the Paying Agent/Registrar for the payment of the required prepayment or redemption price for this Bond or the portion hereof which is to be so prepaid or redeemed, plus accrued interest thereon to the date fixed for prepayment or redemption. If such written notice of prepayment or redemption is given, and if due provision for such payment is made, all as provided above, this Bond, or the portion thereof which is to be so prepaid or redeemed, thereby automatically shall be treated as prepaid or redeemed prior to its scheduled due date, and shall not bear interest after the date fixed for its prepayment or redemption, and shall not be regarded as being outstanding except for the right of the registered owner to receive the prepayment or redemption price plus accrued interest to the date fixed for prepayment or redemption from the Paying Agent/Registrar out of the funds provided for such payment. The Paying Agent/Registrar shall record in the Registration Books all such prepayments or redemptions of principal of this Bond or any portion hereof.

THIS BOND, to the extent of the unpaid or unredeemed principal balance hereof, or any unpaid and unredeemed portion hereof in any integral multiple of \$5,000, may be assigned by the initial registered owner hereof and shall be transferred only in the Registration Books of the Issuer kept by the Paying Agent/Registrar acting in the capacity of registrar for the Bonds, upon the terms and conditions set forth in the Bond Resolution. Among other requirements for such transfer, this Bond must be presented and surrendered to the Paying Agent/Registrar for cancellation, together with proper instruments of assignment, in form and with guarantee



of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment by the initial registered owner of this Bond, or any portion or portions hereof in any integral multiple of \$5,000, to the assignee or assignees in whose name or names this Bond or any such portion or portions hereof is or are to be transferred and registered. Any instrument or instruments of assignment satisfactory to the Paying Agent/Registrar may be used to evidence the assignment of this Bond or any such portion or portions hereof by the initial registered owner hereof. A new bond or bonds payable to such assignee or assignees (which then will be the new registered owner or owners of such new Bond or Bonds) or to the initial registered owner as to any portion of this Bond which is not being assigned and transferred by the initial registered owner, shall be delivered by the Paying Agent/Registrar in conversion of and exchange for this Bond or any portion or portions hereof, but solely in the form and manner as provided in the next paragraph hereof for the conversion and exchange of this Bond or any portion hereof. The registered owner of this Bond shall be deemed and treated by the Issuer and the Paying Agent/Registrar as the absolute owner hereof for all purposes, including payment and discharge of liability upon this Bond to the extent of such payment, and the Issuer and the Paying Agent/Registrar shall not be affected by any notice to the contrary.

AS PROVIDED above and in the Bond Resolution, this Bond, to the extent of the unpaid or unredeemed principal balance hereof, may be converted into and exchanged for a like aggregate principal amount of fully registered bonds, without interest coupons, payable to the assignee or assignees duly designated in writing by the initial registered owner hereof, or to the initial registered owner as to any portion of this Bond which is not being assigned and transferred by the initial registered owner, in any denomination or denominations in any integral multiple of \$5,000 (subject to the requirement hereinafter stated that each substitute bond issued in exchange for any portion of this Bond shall have a single stated principal maturity date), upon surrender of this Bond to the Paying Agent/Registrar for cancellation, all in accordance with the form and procedures set forth in the Bond Resolution. If this Bond or any portion hereof is assigned and transferred or converted each bond issued in exchange for any portion hereof shall have a single stated principal maturity date corresponding to the due date of the installment of principal of this Bond or portion hereof for which the substitute bond is being exchanged, and shall bear interest at the rate applicable to and borne by such installment of principal or portion thereof. Such bonds, respectively, shall be subject to redemption prior to maturity on the same dates and for the same prices as the corresponding installment of principal of this Bond or portion hereof for which they are being exchanged. No such bond shall be payable in installments, but shall have only one stated principal maturity date. AS PROVIDED IN THE BOND RESOLUTION, THIS BOND IN ITS PRESENT FORM MAY BE ASSIGNED AND TRANSFERRED OR CONVERTED ONCE ONLY, and to one or more assignees, but the bonds issued and delivered in exchange for this Bond or any portion hereof may be assigned and transferred, and converted, subsequently, as provided in the Bond Resolution. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for transferring, converting, and exchanging this Bond or any portion thereof, but the one requesting such transfer, conversion, and exchange shall pay any taxes or governmental charges required to be paid with respect thereto. The Paying Agent/Registrar shall not be required to make any such assignment, conversion, or exchange (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or portion thereof called for prepayment or redemption prior to maturity, within 45 days prior to its prepayment or redemption date.

IN THE EVENT any Paying Agent/Registrar for this Bond is changed by the Issuer, resigns, or otherwise ceases to act as such, the Issuer has covenanted in the Bond Resolution that it promptly will appoint a competent and legally qualified substitute therefor, and promptly will cause written notice thereof to be mailed to the registered owner of this Bond.

THE RESOLUTION PROVIDES that, to the extent and in the manner permitted by the terms of the Resolution, the Resolution may be amended with the consent of the holders of at least three-fourths in principal amount of all outstanding bonds, provided, that no amendment shall:

- (a) make any change in the maturity of any outstanding bonds;
- (b) reduce the rate of interest borne by any of the outstanding bonds;
- (c) reduce the amount of the principal payable on any outstanding bonds;
- (d) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;
- (e) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

UNDER THE TERMS AND CONDITIONS as provided in the Resolution, the Issuer reserves the right to issue Additional Bonds which will be payable from taxes and/or secured by a pledge of revenues constituting a lien on such revenues on a parity with this issue of Bonds and to issue Special Project Bonds to acquire or construct a separate project which is expected to be self-liquidating, however, such bonds may be payable from taxes.

IT IS HEREBY certified, recited, and covenanted that this Bond has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Bond have been performed, existed, and been done in accordance with law; that this Bond is a special obligation of said Issuer, and together with Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bonds, (Tax Exempt) Series 2009A, is secured by and payable from a lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas, pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City of Mineral Wells, Texas, being subordinate to the outstanding First Lien Bonds.

THE HOLDER HEREOF shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation.

BY BECOMING the registered owner of this Bond, the registered owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each registered owner hereof and the Issuer.

IN WITNESS WHEREOF, the Issuer has caused this Bond to be signed with the manual or facsimile signature of the President of the Board of Directors of the Issuer and countersigned with the manual or facsimile signature of the Secretary of the Board of Directors of the Issuer, and has caused the official seal of the Issuer to be duly impressed, or placed in facsimile, on this Bond, and has caused this Bond to be dated April 1, 2009.

\_\_\_\_\_  
Secretary, Board of Directors  
(SEAL)

\_\_\_\_\_  
President, Board of Directors

FORM OF REGISTRATION CERTIFICATE OF THE  
COMPTROLLER OF PUBLIC ACCOUNTS:

COMPTROLLER'S REGISTRATION CERTIFICATE: REGISTER NO.

I hereby certify that this Bond has been examined, certified as to validity, and approved by the Attorney General of the State of Texas, and that this Bond has been registered by the Comptroller of Public Accounts of the State of Texas.

Witness my signature and seal this

\_\_\_\_\_  
Comptroller of Public Accounts of the State of Texas

(COMPTROLLER'S SEAL)

Section 2.06. ADDITIONAL CHARACTERISTICS OF THE BONDS. (a) Registration and Transfer. The Issuer shall keep or cause to be kept at the principal corporate trust office of U. S. Bank, National Association, Dallas, Texas, (the "Paying Agent/Registrar") books or records of the registration and transfer of the Bonds (the "Registration Books"), and the Issuer hereby appoints the Paying Agent/Registrar as its registrar and transfer agent to keep such books or records and make such transfers and registrations under such reasonable regulations as the Issuer and Paying Agent/Registrar may prescribe; and the Paying Agent/Registrar shall make such transfers and registrations as herein provided. The Paying Agent/Registrar shall obtain and record in the Registration Books the address of the registered owner of each Bond to which payments with respect to the Bonds shall be mailed, as herein provided; but it shall be the duty of each registered owner to notify the Paying Agent/Registrar in writing of the address to which payments shall be mailed, and such interest payments shall not be mailed unless such notice has been given. The Issuer shall have the right to inspect the Registration Books during regular business hours of the Paying Agent/Registrar, but otherwise the Paying Agent/Registrar shall keep the Registration Books confidential and, unless otherwise required by law, shall not permit their inspection by any other entity. Registration of each Bond may be transferred in the Registration Books only upon presentation and surrender of such Bond to the Paying Agent/Registrar for transfer of registration and cancellation, together with proper written instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, (i) evidencing the assignment of the Bond, or any portion thereof in any integral multiple of \$5,000, to the assignee or assignees thereof, and (ii) the right of such assignee or assignees to have the Bond or any such portion thereof registered in the name of such assignee or assignees. Upon the assignment and transfer of any Bond or any portion thereof, a new substitute Bond or Bonds shall be issued in conversion and exchange therefor in the manner herein provided. The Initial Bond, to the extent of the unpaid or unredeemed principal balance thereof, may be assigned and transferred by the initial registered owner thereof once only, and to one or more assignees designated in writing by the initial registered owner thereof. All Bonds issued and delivered in conversion of and exchange for the Initial Bond shall be in any denomination or denominations of any integral multiple of \$5,000 (subject to the requirement hereinafter stated that each substitute Bond shall have a single stated principal maturity date), shall be in the form prescribed in the FORM OF SUBSTITUTE BOND set forth in this Resolution, and shall have the characteristics, and may be assigned, transferred, and converted as

hereinafter provided. If the Initial Bond or any portion thereof is assigned and transferred or converted the Initial Bond must be surrendered to the Paying Agent/Registrar for cancellation, and each Bond issued in exchange for any portion of the Initial Bond shall have a single stated principal maturity date, and shall not be payable in installments; and each such Bond shall have a principal maturity date corresponding to the due date of the installment of principal or portion thereof for which the substitute Bond is being exchanged; and each such Bond shall bear interest at the single rate applicable to and borne by such installment of principal or portion thereof for which it is being exchanged. If only a portion of the Initial Bond is assigned and transferred, there shall be delivered to and registered in the name of the initial registered owner substitute Bonds in exchange for the unassigned balance of the Initial Bond in the same manner as if the initial registered owner were the assignee thereof. If any Bond or portion thereof other than the Initial Bond is assigned and transferred or converted each Bond issued in exchange shall have the same principal maturity date and bear interest at the same rate as the Bond for which it is exchanged. A form of assignment shall be printed or endorsed on each Bond, excepting the Initial Bond, which shall be executed by the registered owner or its duly authorized attorney or representative to evidence an assignment thereof. Upon surrender of any Bonds or any portion or portions thereof for transfer of registration, an authorized representative of the Paying Agent/Registrar shall make such transfer in the Registration Books, and shall deliver a new fully registered substitute Bond or Bonds, having the characteristics herein described, payable to such assignee or assignees (which then will be the registered owner or owners of such new Bond or Bonds), or to the previous registered owner in case only a portion of a Bond is being assigned and transferred, all in conversion of and exchange for said assigned Bond or Bonds or any portion or portions thereof, in the same form and manner, and with the same effect, as provided in Section 6(d), below, for the conversion and exchange of Bonds by any registered owner of a Bond. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for making such transfer and delivery of a substitute Bond or Bonds, but the one requesting such transfer shall pay any taxes or other governmental charges required to be paid with respect thereto. The Paying Agent/Registrar shall not be required to make transfers of registration of any Bond or any portion thereof (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date. To the extent required by the Code and the Regulations, since the Bonds are deemed taxable, it shall be the duty of the Paying Agent/Registrar, on behalf of the Issuer, to report to the owners of the Bonds and the Internal Revenue Service (i) the amount of "reportable payments", if any, subject to backup withholding during each year and the amount of tax withheld, if any, with respect to payments of the Bonds and (ii) the amount of interest or amount treated as interest on the Bonds and required to be included in gross income of the owner thereof.

(b) Ownership of Bonds. The entity in whose name any Bond shall be registered in the Registration Books at any time shall be deemed and treated as the absolute owner thereof for all purposes of this Resolution, whether or not such Bond shall be overdue, and the Issuer and the Paying Agent/Registrar shall not be affected by any notice to the contrary; and payment of, or on account of, the principal of, premium, if any, and interest on any such Bond shall be made only to such registered owner. All such payments shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid.

(c) Payment of Bonds and Interest. The Issuer hereby further appoints the Paying Agent/Registrar to act as the paying agent for paying the principal of and interest on the Bonds, and to act as its agent to convert and exchange or replace Bonds, all as provided in this Resolution. The Paying Agent/Registrar shall keep proper records of all payments made by the Issuer and the Paying Agent/Registrar with respect to the Bonds, and of all conversions and exchanges of Bonds, and all replacements of Bonds, as provided in this Resolution. However, in the event of a nonpayment of interest on a scheduled payment date, and for thirty (30)

days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States mail, first class postage prepaid, to the address of each Bondholder appearing on the Security Register at the close of business on the last business day next preceding the date of mailing of such notice.

(d) Conversion and Exchange or Replacement; Authentication. Each Bond issued and delivered pursuant to this Resolution, to the extent of the unpaid or unredeemed principal balance or principal amount thereof, may, upon surrender of such Bond at the principal corporate trust office of the Paying Agent/Registrar, together with a written request therefor duly executed by the registered owner or the assignee or assignees thereof, or its or their duly authorized attorneys or representatives, with guarantee of signatures satisfactory to the Paying Agent/Registrar, may, at the option of the registered owner or such assignee or assignees, as appropriate, be converted into and exchanged for fully registered bonds, without interest coupons, in the form prescribed in the FORM OF SUBSTITUTE BOND set forth in this Resolution, in the denomination of \$5,000, or any integral multiple of \$5,000 (subject to the requirement hereinafter stated that each substitute Bond shall have a single stated maturity date), as requested in writing by such registered owner or such assignee or assignees, in an aggregate principal amount equal to the unpaid or unredeemed principal balance or principal amount of any Bond or Bonds so surrendered, and payable to the appropriate registered owner, assignee, or assignees, as the case may be. If the Initial Bond is assigned and transferred or converted each substitute Bond issued in exchange for any portion of the Initial Bond shall have a single stated principal maturity date, and shall not be payable in installments; and each such Bond shall have a principal maturity date corresponding to the due date of the installment of principal or portion thereof for which the substitute Bond is being exchanged; and each such Bond shall bear interest at the single rate applicable to and borne by such installment of principal or portion thereof for which it is being exchanged. If a portion of any Bond (other than the Initial Bond) shall be redeemed prior to its scheduled maturity as provided herein, a substitute Bond or Bonds having the same maturity date, bearing interest at the same rate, in the denomination or denominations of any integral multiple of \$5,000 at the request of the registered owner, and in aggregate principal amount equal to the unredeemed portion thereof, will be issued to the registered owner upon surrender thereof for cancellation. If any Bond or portion thereof (other than the Initial Bond) is assigned and transferred or converted, each Bond issued in exchange therefor shall have the same principal maturity date and bear interest at the same rate as the Bond for which it is being exchanged. Each substitute Bond shall bear a letter and/or number to distinguish it from each other Bond. The Paying Agent/Registrar shall convert and exchange or replace Bonds as provided herein, and each fully registered bond delivered in conversion of and exchange for or replacement of any Bond or portion thereof as permitted or required by any provision of this Resolution shall constitute one of the Bonds for all purposes of this Resolution, and may again be converted and exchanged or replaced. It is specifically provided that any Bond authenticated in conversion of and exchange for or replacement of another Bond on or prior to the first scheduled Record Date for the Initial Bond shall bear interest from the date of the Initial Bond, but each substitute Bond so authenticated after such first scheduled Record Date shall bear interest from the interest payment date next preceding the date on which such substitute Bond was so authenticated, unless such Bond is authenticated after any Record Date but on or before the next following interest payment date, in which case it shall bear interest from such next following interest payment date; provided, however, that if at the time of delivery of any substitute Bond the interest on the Bond for which it is being exchanged is due but has not been paid, then such Bond shall bear interest from the date to which such interest has been paid in full. THE INITIAL BOND issued and delivered pursuant to this Resolution is not required to be, and shall not be, authenticated by the Paying Agent/ Registrar, but on each substitute Bond issued in conversion of and exchange for or replacement of any Bond or Bonds issued under this Resolution there shall be printed a certificate, in the form substantially as follows:

"PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE

It is hereby certified that this Bond has been issued under the provisions of the Bond Resolution described on the face of this Bond; and that this Bond has been issued in conversion of and exchange for or replacement of a bond, bonds, or a portion of a bond or bonds of an issue which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Paying Agent/Registrar

Dated \_\_\_\_\_

By \_\_\_\_\_  
Authorized Representative"

An authorized representative of the Paying Agent/Registrar shall, before the delivery of any such Bond, date and manually sign the above Certificate, and no such Bond shall be deemed to be issued or outstanding unless such Certificate is so executed. The Paying Agent/Registrar promptly shall cancel all Bonds surrendered for conversion and exchange or replacement. No additional ordinances, orders, or resolutions need be passed or adopted by the governing body of the Issuer or any other body or person so as to accomplish the foregoing conversion and exchange or replacement of any Bond or portion thereof, and the Paying Agent/Registrar shall provide for the printing, execution, and delivery of the substitute Bonds in the manner prescribed herein, and said Bonds shall be of type composition printed on paper with lithographed or steel engraved borders of customary weight and strength. Pursuant to Subchapter D, Chapter 1201 of the Texas Government Code, the duty of conversion and exchange or replacement of Bonds as aforesaid is hereby imposed upon the Paying Agent/Registrar, and, upon the execution of the above Paying Agent/Registrar's Authentication Certificate, the converted and exchanged or replaced Bond shall be valid, incontestable, and enforceable in the same manner and with the same effect as the Initial Bond which originally was issued pursuant to this Resolution, approved by the Attorney General, and registered by the Comptroller of Public Accounts. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for transferring, converting, and exchanging any Bond or any portion thereof, but the one requesting any such transfer, conversion, and exchange shall pay any taxes or governmental charges required to be paid with respect thereto as a condition precedent to the exercise of such privilege of conversion and exchange. The Paying Agent/Registrar shall not be required to make any such conversion and exchange or replacement of Bonds or any portion thereof (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

(e) In General. All Bonds issued in conversion and exchange or replacement of any other Bond or portion thereof, (i) shall be issued in fully registered form, without interest coupons, with the principal of and interest on such Bonds to be payable only to the registered owners thereof, (ii) may be redeemed prior to their scheduled maturities, (iii) may be transferred and assigned, (iv) may be converted and exchanged for other Bonds, (v) shall have the characteristics, (vi) shall be signed and sealed, and (vii) the principal of and interest on the Bonds shall be payable, all as provided, and in the manner required or indicated, in the FORM OF SUBSTITUTE BOND set forth in this Resolution.

(f) Payment of Fees and Charges. The Issuer hereby covenants with the registered owners of the Bonds that it will (i) pay the standard or customary fees and charges of the Paying Agent/Registrar for its services with respect to the payment of the principal of and interest on the Bonds, when due, and (ii) pay the fees and charges of the Paying Agent/Registrar for services with respect to the transfer of registration of Bonds,



and with respect to the conversion and exchange of Bonds solely to the extent above provided in this Resolution.

(g) Substitute Paying Agent/Registrar. The Issuer covenants with the registered owners of the Bonds that at all times while the Bonds are outstanding the Issuer will provide a competent and legally qualified bank, trust company, financial institution, or other agency to act as and perform the services of Paying Agent/Registrar for the Bonds under this Resolution, and that the Paying Agent/Registrar will be one entity. The Issuer reserves the right to, and may, at its option, change the Paying Agent/Registrar upon not less than 120 days written notice to the Paying Agent/ Registrar, to be effective not later than 60 days prior to the next principal or interest payment date after such notice; however, the Issuer must obtain approval of the Texas Water Development Board to such changes if the Texas Water Development Board owns any of the Bonds. In the event that the entity at any time acting as Paying Agent/Registrar (or its successor by merger, acquisition, or other method) should resign or otherwise cease to act as such, the Issuer covenants that promptly it will appoint a competent and legally qualified bank, trust company, financial institution, or other agency to act as Paying Agent/Registrar under this Resolution. Upon any change in the Paying Agent/Registrar, the previous Paying Agent/Registrar promptly shall transfer and deliver the Registration Books (or a copy thereof), along with all other pertinent books and records relating to the Bonds, to the new Paying Agent/Registrar designated and appointed by the Issuer. Upon any change in the Paying Agent/Registrar, the Issuer promptly will cause a written notice thereof to be sent by the new Paying Agent/Registrar to each registered owner of the Bonds, by United States mail, first-class postage prepaid, which notice also shall give the address of the new Paying Agent/Registrar. By accepting the position and performing as such, each Paying Agent/Registrar shall be deemed to have agreed to the provisions of this Resolution, and a certified copy of this Resolution shall be delivered to each Paying Agent/Registrar.

(h) Book-Entry Only System. The Bonds issued in exchange for the Bonds initially issued to the purchaser specified herein shall be initially issued in the form of a separate single fully registered Bond for each of the maturities thereof. Upon initial issuance, the ownership of each such Bond shall be registered in the name of Cede & Co., as nominee of Depository Trust Company of New York ("DTC"), and except as provided in subsection (f) hereof, all of the outstanding Bonds shall be registered in the name of Cede & Co., as nominee of DTC. The Issuer cannot discontinue the "Book-Entry Only System" without prior consent by the Texas Water Development Board.

With respect to Bonds registered in the name of Cede & Co., as nominee of DTC, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation to any DTC Participant or to any person on behalf of whom such a DTC Participant holds an interest on the Bonds. Without limiting the immediately preceding sentence, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, Cede & Co. or any DTC Participant with respect to any ownership interest in the Bonds, (ii) the delivery to any DTC Participant or any other person, other than a Bondholder, as shown on the Registration Books, of any notice with respect to the Bonds, including any notice of redemption, or (iii) the payment to any DTC Participant or any other person, other than a Bondholder, as shown in the Registration Books of any amount with respect to principal of, premium, if any, or interest on, as the case may be, the Bonds. Notwithstanding any other provision of this Resolution to the contrary, the Issuer and the Paying Agent/Registrar shall be entitled to treat and consider the person in whose name each Bond is registered in the Registration Books as the absolute owner of such Bond for the purpose of payment of principal, premium, if any, and interest, as the case may be, with respect to such Bond, for the purpose of giving notices of redemption and other matters with respect to such Bond, for the purpose of registering transfers with respect to such Bond, and for all other purposes whatsoever. The Paying Agent/Registrar shall pay all principal of, premium, if any, and interest on the Bonds only to or upon the order of the respective

owners, as shown in the Registration Books as provided in this Resolution, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the Issuer's obligations with respect to payment of principal of, premium, if any, and interest on, or as the case may be, the Bonds to the extent of the sum or sums so paid. No person other than an owner, as shown in the Registration Books, shall receive a Bond certificate evidencing the obligation of the Issuer to make payments of principal, premium, if any, and interest, as the case may be, pursuant to this Resolution. Upon delivery by DTC to the Paying Agent/Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., and subject to the provisions in this Resolution with respect to interest checks being mailed to the registered owner at the close of business on the Record Date, the word "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

(i) Successor Securities Depository; Transfers Outside Book-Entry Only System. In the event that the Issuer or the Paying Agent/Registrar determines that DTC is incapable of discharging its responsibilities described herein and in the representation letter of the Issuer to DTC and that it is in the best interest of the beneficial owners of the Bonds that they be able to obtain certificated Bonds, the Issuer or the Paying Agent/Registrar shall (i) appoint a successor securities depository, qualified to act as such under Section 17(a) of the Securities and Exchange Act of 1934, as amended, notify DTC and DTC Participants of the appointment of such successor securities depository and transfer one or more separate Bonds to such successor securities depository or (ii) notify DTC and DTC Participants of the availability through DTC of Bonds and transfer one or more separate Bonds to DTC Participants having Bonds credited to their DTC accounts. In such event, the Bonds shall no longer be restricted to being registered in the Registration Books in the name of Cede & Co., as nominee of DTC, but may be registered in the name of the successor securities depository, or its nominee, or in whatever name or names Bondholders transferring or exchanging Bonds shall designate, in accordance with the provisions of this Resolution.

(j) Payments to Cede & Co. Notwithstanding any other provision of this Resolution to the contrary, so long as any Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of, premium, if any, and interest on, or as the case may be, such Bond and all notices with respect to such Bond shall be made and given, respectively, in the manner provided in the representation letter of the Issuer to DTC.

Section 2.07. FORM OF SUBSTITUTE BONDS. The form of all Bonds issued in conversion and exchange or replacement of any other Bond or portion thereof, including the form of Paying Agent/Registrar's Certificate to be printed on each of such Bonds, and the Form of Assignment to be printed on each of the Bonds, shall be, respectively, substantially as follows, with such appropriate variations, omissions, or insertions as are permitted or required by this Resolution.

**FORM OF SUBSTITUTE BOND**

NO. \_\_\_\_\_

PRINCIPAL AMOUNT  
\$ \_\_\_\_\_

**UNITED STATES OF AMERICA  
STATE OF TEXAS  
COUNTIES OF PALO PINTO AND PARKER  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
SUBORDINATE REVENUE BOND, (TAXABLE) SERIES 2009B**

<u>Date of Delivery</u>	<u>Interest Rate</u>	<u>Maturity Date</u>	<u>Date of Original Issue</u>	<u>Cusip No.</u>
-----------------------------	----------------------	----------------------	-----------------------------------	------------------

April 1, 2009

ON THE MATURITY DATE specified above the PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, in PALO PINTO AND PARKER COUNTIES, Texas (the "Issuer"), being a political subdivision of the State of Texas, pursuant to Article 8280-258 V.A.T.C.S, as revised by Chapter 49 of the Texas Water Code, hereby promises to pay to

\_\_\_\_\_

or to the registered assignee hereof (either being hereinafter called the "registered owner") the principal amount of

\_\_\_\_\_

and to pay interest thereon from initial date of delivery of the Bonds (which appears above) to the maturity date specified above, or the date of redemption prior to maturity, at the interest rate per annum specified above; with interest being payable on June 1, 2010 and semiannually thereafter on each December 1 and June 1, except that if the date of authentication of this Bond is later than May 15, 2010, such principal amount shall bear interest from the interest payment date next preceding the date of authentication, unless such date of authentication is after any Record Date (hereinafter defined) but on or before the next following interest payment date, in which case such principal amount shall bear interest from such next following interest payment date.

THE PRINCIPAL OF AND INTEREST ON this Bond are payable in lawful money of the United States of America, without exchange or collection charges. The principal of this Bond shall be paid to the registered owner hereof upon presentation and surrender of this Bond at maturity, at the principal corporate trust office of U. S. Bank, National Association, Dallas, Texas, which is the "Paying Agent/Registrar" for this Bond. The payment of interest on this Bond shall be made by the Paying Agent/Registrar to the registered owner hereof on each interest payment date by check or draft, dated as of such interest payment date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the Issuer required by the authorizing the issuance of the Bonds (the "Bond ") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check or draft shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such interest payment date, to the registered owner hereof, at the address of the registered owner, as it appeared on the last day next preceding each such date (the "Record Date") on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described, by electronic or wire transfer, or by such other method acceptable to the Paying Agent/Registrar requested by, and the risk and

expense of, the registered owner, however, if the Bond is owned by the Texas Water Development Board, there will be no charge to the Texas Water Development Board, and payment of principal and interest shall be made by federal funds wire transfer. The Issuer covenants with the registered owner of this Bond that on or before each principal payment date and interest payment date for this Bond it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Bond, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on the Bonds, when due.

IF THE DATE for the payment of the principal of or interest on this Bond shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due.

THIS BOND is one of an issue of Bonds initially dated April 1, 2009, authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$3,200,000 for providing for the purpose of to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: acquisition of land easements and rights together with necessary planning, permitting and preliminary engineering of a Recommended Water Management Strategy for construction of the Turkey Peak Reservoir, constituting the Project.

ON JUNE 1, 2019, or any date thereafter, the Bonds of this Series may be redeemed prior to their scheduled maturities, at the option of the Issuer, with funds derived from any available and lawful source, as a whole, or in part, and, if in part, in inverse annual order, the Issuer shall select and designate the maturity or maturities and the amount that is to be redeemed, and if less than a whole maturity is to be called, the Issuer shall direct the Paying Agent/Registrar to call by lot (provided that a portion of a Bond may be redeemed only in an integral multiple of \$5,000), at the redemption price of the principal amount thereof, plus accrued interest to the date fixed for redemption.

AT LEAST 30 days prior to the date fixed for any redemption of Bonds or portions thereof prior to maturity a written notice of such redemption shall be sent by the Paying Agent/Registrar by United States mail, first class postage prepaid, not less than 30 days prior to the date fixed for any such redemption, to the registered owner of each Bond to be redeemed at its address as it appeared on the 45th day prior to such redemption date; provided, however, that the failure to receive such notice, or any defect therein or in the sending or mailing thereof, shall not affect the validity or effectiveness of the proceedings for the redemption of any Bond, and it is hereby specifically provided that the mailing of such notice as required above shall be the only notice actually required in connection with or as a prerequisite to the redemption of any Bonds or portions thereof. By the date fixed for any such redemption due provision shall be made with the Paying Agent/Registrar for the payment of the required redemption price for the Bonds or portions thereof which are to be so redeemed, plus accrued interest thereon to the date fixed for redemption. If such written notice of redemption is mailed and if due provision for such payment is made, all as provided above, the Bonds or portions thereof which are to be so redeemed thereby automatically shall be treated as redeemed prior to their scheduled maturities, and they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the right of the registered owner to receive the redemption price plus accrued interest from the Paying Agent/Registrar out of the funds provided for such payment. If a portion of any Bond shall be redeemed a substitute Bond or Bonds having the same maturity date, bearing interest at the

same rate, in any denomination or denominations in any integral multiple of \$5,000, at the written request of the registered owner, and in aggregate principal amount equal to the unredeemed portion thereof, will be issued to the registered owner upon the surrender thereof for cancellation, at the expense of the Issuer, all as provided in the Bond Resolution.

THIS BOND OR ANY PORTION OR PORTIONS HEREOF IN ANY INTEGRAL MULTIPLE OF \$5,000 may be assigned and shall be transferred only in the Registration Books of the Issuer kept by the Paying Agent/Registrar acting in the capacity of registrar for the Bonds, upon the terms and conditions set forth in the Bond Resolution. Among other requirements for such assignment and transfer, this Bond must be presented and surrendered to the Paying Agent/Registrar, together with proper instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment of this Bond or any portion or portions hereof in any integral multiple of \$5,000 to the assignee or assignees in whose name or names this Bond or any such portion or portions hereof is or are to be transferred and registered. The form of Assignment printed or endorsed on this Bond shall be executed by the registered owner or its duly authorized attorney or representative, to evidence the assignment hereof. A new Bond or Bonds payable to such assignee or assignees (which then will be the new registered owner or owners of such new Bond or Bonds), or to the previous registered owner in the case of the assignment and transfer of only a portion of this Bond, may be delivered by the Paying Agent/Registrar in conversion of and exchange for this Bond, all in the form and manner as provided in the next paragraph hereof for the conversion and exchange of other Bonds. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for making such transfer, but the one requesting such transfer shall pay any taxes or other governmental charges required to be paid with respect thereto. The Paying Agent/Registrar shall not be required to make transfers of registration of this Bond or any portion hereof (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date. The registered owner of this Bond shall be deemed and treated by the Issuer and the Paying Agent/Registrar as the absolute owner hereof for all purposes, including payment and discharge of liability upon this Bond to the extent of such payment, and the Issuer and the Paying Agent/Registrar shall not be affected by any notice to the contrary.

ALL BONDS OF THIS SERIES are issuable solely as fully registered bonds, without interest coupons, in the denomination of any integral multiple of \$5,000. As provided in the Bond Resolution, this Bond, or any unredeemed portion hereof, may, at the request of the registered owner or the assignee or assignees hereof, be converted into and exchanged for a like aggregate principal amount of fully registered bonds, without interest coupons, payable to the appropriate registered owner, assignee, or assignees, as the case may be, having the same maturity date, and bearing interest at the same rate, in any denomination or denominations in any integral multiple of \$5,000 as requested in writing by the appropriate registered owner, assignee, or assignees, as the case may be, upon surrender of this Bond to the Paying Agent/Registrar for cancellation, all in accordance with the form and procedures set forth in the Bond Resolution. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for transferring, converting, and exchanging any Bond or any portion thereof, but the one requesting such transfer, conversion, and exchange shall pay any taxes or governmental charges required to be paid with respect thereto as a condition precedent to the exercise of such privilege of conversion and exchange. The Paying Agent/Registrar shall not be required to make any such conversion and exchange (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or, (ii) with respect to any Bond or portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

IN THE EVENT any Paying Agent/Registrar for the Bonds is changed by the Issuer, resigns, or otherwise ceases to act as such, the Issuer has covenanted in the Bond Resolution that it promptly will appoint a competent and legally qualified substitute therefor, and promptly will cause written notice thereof to be mailed to the registered owners of the Bonds.

THE RESOLUTION PROVIDES that, to the extent and in the manner permitted by the terms of the Resolution, the Resolution may be amended with the consent of the holders of at least three-fourths in principal amount of all outstanding bonds, provided, that no amendment shall:

- (a) make any change in the maturity of any outstanding bonds;
- (b) reduce the rate of interest borne by any of the outstanding bonds;
- (c) reduce the amount of the principal payable on any outstanding bonds;
- (d) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;
- (e) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

UNDER THE TERMS AND CONDITIONS as provided in the Resolution, the Issuer reserves the right to issue Additional Bonds which will be payable from taxes and/or secured by a pledge of revenues constituting a lien on such revenues on a parity with this issue of Bonds and to issue Special Project Bonds to acquire or construct a separate project which is expected to be self-liquidating, however, such bonds may be payable from taxes.

IT IS HEREBY certified, recited, and covenanted that this Bond has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Bond have been performed, existed, and been done in accordance with law; that this Bond is a special obligation of said Issuer, and together with Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bonds, (Tax Exempt) Series 2009A, is secured by and payable from a lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas, pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City of Mineral Wells, Texas, being subordinate to the outstanding First Lien Bonds.

THE HOLDER HEREOF shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation.

BY BECOMING the registered owner of this Bond, the registered owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each registered owner hereof and the Issuer.



IN WITNESS WHEREOF, the Issuer has caused this Bond to be signed with the manual or facsimile signature of the President of the Board of Directors of the Issuer and countersigned with the manual or facsimile signature of the Secretary of the Board of Directors of the Issuer, and has caused the official seal of the Issuer to be duly impressed or placed in manual or facsimile on this Bond.

\_\_\_\_\_  
Secretary, Board of Directors

\_\_\_\_\_  
President, Board of Directors

(SEAL)

FORM OF PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE

PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE

(To be executed if this Bond is not accompanied by an executed  
Registration Certificate of the Comptroller of Public Accounts of the State of Texas)

It is hereby certified that this Bond has been issued under the provisions of the Bond Resolution described in the text of this Bond; and that this Bond has been issued in conversion or replacement of, or in exchange for, a bond, bonds, or a portion of a bond or bonds of a Series which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Dated

By \_\_\_\_\_  
Authorized Representative

FORM OF ASSIGNMENT:

ASSIGNMENT

FOR VALUE RECEIVED, the undersigned registered owner of this Bond, or duly authorized representative or attorney thereof, hereby assigns this Bond to

\_\_\_\_\_  
\_\_\_\_\_

(Assignee's Social Security or Tax  
Payer Identification Number)

(Print or type Assignee's Name and  
Address Including Zip Code)

and hereby irrevocably constitutes and appoints

attorney, to transfer the registration of this Bond on the Paying Agent/Registrar's Registration Books with full power of substitution in the premises.

Dated \_\_\_\_\_

NOTICE: This signature must be guaranteed by a member of the New York Stock Exchange or a commercial bank or trust company.

NOTICE: This signature must correspond with the name of the Registered Owner appearing on the face of this Bond.

### ARTICLE III

#### PLEDGE

Section 3.01. PLEDGE. (a) The Issuer covenants and agrees that the Series 2009A Bonds and Series 2009B Bonds, authorized concurrently, and any Additional Bonds, pursuant to this Resolution, and the interest thereon, are and shall be secured by and payable from a subordinate lien on and pledge of the Pledged Revenues, including specifically the payments to be received by the Issuer from the Water Purchase Contract and the supplement on modification thereof, subordinate only to the outstanding First Lien Bonds.

(b) The Series 2009A Bonds and the Series 2009B Bonds and any Additional Bonds pursuant to this Resolution, will be secured by a first lien on the Pledged Revenues after the Outstanding First Lien Bonds have been retired or redeemed.

(c) The Issuer covenants not to issue any Additional Bonds pursuant to the provisions of the Bond Resolutions that authorized the Outstanding First Lien Bonds.

### ARTICLE IV

#### REVENUES AND APPLICATION THEREOF

Section 4.01. FUNDS. There have been created the following funds and accounts:

- (1) The "Revenue Fund" to be kept with the Depository.
- (2) The "Debt Service Fund" for the Series 2009A Bonds and Series 2009B Bonds to be kept with the Depository. This Fund shall be used for the payment of interest on and principal of the Series 2009A Bonds and Series 2009B Bonds, and any Additional Bonds issued pursuant to this Resolution.
- (3) The "Reserve Fund" for the Series 2009A Bonds and Series 2009B Bonds to be kept with the Depository. Monies in this Fund shall be used for the payment of interest on and principal of the Series 2009A Bonds and Series 2009B Bonds, and any Additional Bonds issued pursuant to this Resolution, including amounts owed with respect to any Reserve Fund Obligation when money in the Debt Service Fund is inadequate for that purpose.

- (4) The "Contingency Fund" to be kept with the Depository. This Fund may be used to pay for any extraordinary or nonrecurring expenses of operation or maintenance, and for replacements and repairs if such expenses should become necessary. Money in this Fund not encumbered for such purposes shall be used for payment of interest on and principal of the Series 2009A Bonds and Series 2009B Bonds, and Additional Bonds, issued pursuant to this Resolution, when the Debt Service Fund for the Series 2009A Bonds and Series 2009B Bonds are not adequate for that purpose to be only amended after the Outstanding First Lien Bonds have been retired or redeemed.
- (5) The "Surplus Fund" to be kept with the Depository. This Fund shall be used for payment of interest on and principal of the Series 2009A Bonds and Series 2009B Bonds, and Additional Bonds, if any, there are insufficient funds in the Debt Service Fund, Reserve Fund and Contingency Fund for the Series 2009A Bonds and Series 2009B Bonds for that purpose, and if not needed for such purpose the monies in this Fund may be used for any lawful purposes including repairs, replacements and improvements to the Issuer's facilities.

Section 4.02. REVENUE FUND. All gross revenues of every nature including the payments to be received from the Water Purchase Contract, shall be deposited as collected into the Revenue Fund, and the reasonable, necessary, and proper maintenance and operation expenses shall be paid from the Revenue Fund. The revenues not actually required to pay said Operation and Maintenance Expenses shall be deposited from the Revenue Fund first into the Funds created by the Resolutions for the Outstanding First Lien Bonds and then, once the requirements for the Resolution authorizing the Outstanding First Lien Bonds has been satisfied, into the Funds created by this Resolution, and the Resolution authorizing the Series 2009B Bonds, in the manner and amounts hereinafter provided and each of the Funds shall have priority as to such deposits in the order in which they are treated in the following sections.

Section 4.03. DEBT SERVICE FUND FOR THE SERIES 2009A BONDS AND SERIES 2009 B BONDS. There shall be deposited into the Debt Service Fund such amounts as required to be transferred to this Fund established herein; these accounts shall be on absolute parity and equality of lien with the deposits in this Fund and such amounts shall be sufficient to provide transfers to the following accounts, as follows:

- (a) such amounts, in substantially semiannual installments, made on or before the 25<sup>th</sup> of each May and November hereafter, which will be sufficient to pay the interest scheduled to come due on the Series 2009A Bonds and Series 2009B Bonds on the next interest payment date;
- (b) such amounts, in substantially semiannual installments, made on or before the 25<sup>th</sup> day of each May and November hereafter, commencing May 25, 2009, will be sufficient to pay the next maturing principal or mandatory redemption on the Series 2009A Bonds and Series 2009B Bonds.
- (c) Chapter 1208, Government Code, applies to the issuance of the Bonds and the pledge of the revenues granted by the Issuer under this Section, and is therefore valid, effective, and perfected. Should Texas law be amended at any time while the Bonds are outstanding and unpaid, the result of such amendment being that the pledge of the revenues granted by the Issuer under this Section is to be subject to the filing requirements of Chapter 9, Business & Commerce Code, in order to preserve to the registered owners of the Bonds a security interest in said pledge, the Issuer agrees to take such measures as it determines are reasonable and

necessary under Texas law to comply with the applicable provisions of Chapter 9, Business & Commerce Code and enable a filing of a security interest in said pledge to occur.

Section 4.04. RESERVE FUND FOR THE SERIES 2009A BONDS AND SERIES 2009B BONDS. The following provisions shall govern the establishment, maintenance and use of the Issuer's Reserve Fund (the "Reserve Fund"):

There shall be established and maintained a Reserve Fund for the purposes of (i) finally retiring the last of the Series 2009A Bonds and Series 2009B Bonds or Additional Bonds, if any, and (ii) paying principal of and interest on the Series 2009A Bonds and Series 2009B Bonds or Additional Bonds in the event moneys on deposit in the Debt Service Fund are insufficient for such purpose.

(a) The Issuer shall deposit in the Reserve Fund on the 25th day of each month hereafter, commencing July 25, 2009, the amount of \$5,877, until the Fund shall contain \$352,626, which shall equal the average annual principal and interest requirements for the Series 2009A Bonds and Series 2009B Bonds ("Required Reserve Amounts").

In the event money in said Reserve Fund is used for the purpose for which the same is established, the amount required to make up the deficiency so that the Required Reserve Amount is on deposit in such Fund shall be paid into such Fund in not more than 60 months, in equal consecutive monthly installments. The Depository of the Issuer is designated as the custodian of the Reserve Fund and the deposits above prescribed shall be deposited into the Reserve Fund.

Section 4.05. CONTINGENCY FUND. There has been deposited into the Contingency Fund \$200,000 created by the Resolutions authorizing the outstanding First Lien Bonds. In addition, the Issuer has created this Contingency Fund for the benefit of the Series 2009A Bonds and Series 2009B Bonds and shall deposit on the 25<sup>th</sup> day of each month hereafter, commencing July 25, 2009, the amount of \$417 until the Contingency Fund contains \$50,000. No deposits shall be required to be made into the Contingency Fund as long as the Contingency Fund contains said aggregate amount, but if and whenever said Contingency Fund is reduced below said aggregate amount, the monthly deposits on the 25<sup>th</sup> day of each month beginning the month after the withdrawal from this fund in the amount of \$417 shall be deposited into the Contingency Fund until such time as the Contingency Fund has been restored to said aggregate amount. The Depository of the Issuer is designated as the custodian of this Contingency Fund and deposits above prescribed shall be deposited into this Contingency Fund. The Contingency Fund has been established in the Resolutions for the Outstanding First Lien Bonds and will only be available for the Series 2009A Bonds and Series 2009B Bonds after the Outstanding First Lien Bonds have been retired and redeemed.

Section 4.06. SURPLUS FUND. There shall be deposited into the Surplus Fund on the 1<sup>st</sup> day of each October hereafter any surplus monies remaining in the Revenue Fund from the previous completed fiscal year, and maybe used for any lawful purposes of the Issuer.

Section 4.07. DEFICIENCIES IN FUND. If in any month the Issuer shall fail to deposit into any of the aforesaid funds the full amounts required, amounts equivalent to such deficiencies shall be set apart and paid into said Funds from the first available and unallocated funds available for such purposes for the following month or months, and such payments shall be in addition to the amount otherwise required to be paid into said Funds during such month or months.

Section 4.08. SECURITY FOR FUNDS. The Issuer shall cause the Depository to secure and keep secured, in the manner required by law, all funds on deposit with it, including time deposits, and will cause the Paying Agent/Registrar to secure all funds deposited with it, as other trust funds are secured.

Section 4.09. INVESTMENTS. Money in all Funds created pursuant to this Resolution may be invested and reinvested as directed by the Issuer, in direct obligations of, or obligations of the principal of and interest on which are unconditionally guaranteed by, the United States Government, which shall mature, or which shall be subject to redemption by the holder thereof, at the option of such holder, before the next payment is required to be made from such Funds, respectively, pursuant to Public Funds Investment Act Chapter 2256, Texas Government Code. Money in any of said Funds may also be placed in interest bearing deposits in the banks in which deposits are required to be kept. The interest and realized income on such investments shall be deposited into the Fund producing the earning when the Fund does not contain the total amount of required or permitted to be on deposit therein, otherwise the interest and realized income shall be deposited into the Revenue Fund.

## ARTICLE V

### BUDGETS AND ACCOUNTING

Section 5.01. PREPARATION OF BUDGET. The Issuer in advance of each Fiscal Year, and in accordance with the Contract, shall prepare and keep on file an annual budget (herein called "Annual Budget") of Operation and Maintenance Expenses for the ensuing Fiscal Year, and except as otherwise required in Section 5.02 of this Resolution, the total expenditures in any division thereof shall not exceed the total expenditures in the corresponding division of the Annual Budget. The Paying Agent/Registrar shall not be obligated to determine whether funds are expended in an amount in excess of the amounts provided in the Annual Budget.

Section 5.02. AMENDMENT. The Issuer covenants that the current Operation and Maintenance Expenses incurred in any Fiscal Year will not exceed the reasonable and necessary amount of such expense, and that it will not expend any amount, or incur any obligation for maintenance, repair, and operation in excess of the amounts provided for current Maintenance and Operation Expenses in the Annual Budget; provided, however, that if at any time the Board shall determine that it is necessary, due to unforeseen events, to increase the budget in order to pay for unusual operation and maintenance expenses, the Board, by Resolution, may amend the budget with the approval of the City, if the Contract is still in effect, to provide for the increased budget. The Water Charge shall be increased accordingly. The former year's budgeted Operation and Maintenance Expenses shall be extended during the period when a new budget is under consideration.

Section 5.03. ACCOUNTING AND REPORTING. The Issuer covenants that proper books of records and accounts will be kept in which full, true, and correct entries will be made of all income, expenses, and transactions of and in relation to the works, and facilities of the Issuer, and each and every part thereof. The report of the certified public accountant shall include a list of insurance policies then in effect and a record of water sold the Issuer's customers.

Section 5.04. PUBLIC INSPECTION. The Issuer further covenants and agrees that the works and facilities and each and every part thereof, and all books, records, accounts, documents and vouchers relating to the construction, operation, maintenance, repair, improvement and extension thereof, will at all reasonable times be open to inspection of owners of the Bonds and their representatives.

## ARTICLE VI

### GENERAL COVENANTS

Section 6.01. PAYMENT OF BONDS AND INTEREST. The Issuer covenants and agrees that, out of Pledged Revenues, it will duly and punctually pay or cause to be paid the principal of, and interest on the Series 2009A Bonds and Series 2009B Bonds, on the date and at the office of the Paying Agent/Registrar, according to the real intent and meaning thereof, and that it will faithfully do and perform and at all times fully observe any and all covenants, undertakings, and provisions contained herein or in any Bond.

Section 6.02. LEGAL ABILITY. The Issuer represents that it is a conservation and reclamation district, and a governmental agency and body politic and corporate, duly created, organized and existing under the Constitution and laws of the State of Texas and has proper authority from all other public bodies and authorities, if any, having jurisdiction thereof, to pledge its revenues in the manner and form as herein done or intended, and all corporate action on its part to that end has been duly and validly taken. The Issuer covenants and agrees that it will at all times maintain its corporate existence and maintain a lawful Board of Directors, and at all times function and act in the best interest of the Issuer and the bondholders.

Section 6.03. NO OTHER LIENS. The Issuer further covenants that there is not now outstanding and that the Issuer will, not at any time create or allow to exist, any lien upon its works and facilities, or any part thereof, or the Revenues, or any of the Funds herein created, except as authorized by Article VIII of this Resolution, other than to the Outstanding First Lien Bonds and Reserve Fund Obligations, if any, that the security of the Series 2009A Bonds and Series 2009B Bonds will not be impaired in any way as a result of any action or any action on the part of the Issuer, its Board of Directors or officers, or any thereof, and that the Issuer has and will be subject to the provisions hereof, continuously preserve good and indefeasible title to the properties of the Issuer.

Section 6.04. KEEP FRANCHISES AND PERMITS IN EFFECT. The Issuer further covenants that no franchises, permits, contracts privileges, easements, or water rights will, be allowed to lapse or be forfeited so long as the same shall be necessary for the proper operation of the works and facilities of the Issuer.

Section 6.05. GOVERNMENTAL REQUIREMENTS, LIENS, CLAIMS. The Issuer covenants that it will duly observe and comply with all valid requirements of any governmental authority relative to the works and facilities of the Issuer, or any part thereof, and that it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies, or other objects which if unpaid, might by law become a lien upon such work and facilities or any part thereof or the revenues therefrom; provided, however, that nothing contained in this Section shall be required of the Issuer to pay or cause to be discharged, or make provision for any such lien or charge, as long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

Section 6.06. FURTHER ASSURANCE. The Issuer covenants that it will take such further action as may be required to carry out the purposes of this Resolution and to assure its validity.

Section 6.07. SALE AND LEASE OF PROPERTY. (a) The Issuer covenants that so long as any Bonds are outstanding and except as in this Section otherwise permitted, it will not sell, lease or otherwise dispose of or encumber any part of its works and facilities, or any of the Revenues derived therefrom, except



as provided herein. The Issuer may from time to time sell any machinery, fixtures, apparatus, tools, instruments, or other movable property and any materials used in connection therewith, if the Board shall determine that such articles are no longer needed or are no longer useful in connection with the consideration and maintenance of its works and facilities. The Issuer may from time to time sell such real estate that is not needed or serves no useful purpose in connection with the maintenance and operation of the works and facilities of the Issuer. The proceeds of any sale of real or personal property acquired subsequent to the adoption of this Resolution, from the proceeds of Bonds or from Revenues shall be deposited into the Fund or Funds from which money was used for the acquisition of such property if required for such Fund or Funds; otherwise, such proceeds shall be deposited into the Revenue Fund.

(b) The Issuer may lease any of its land for any purpose, if such lease or the use of such lands will not be detrimental to the operation and maintenance of the works and facilities of the Issuer. It may also Lease any of its real property for oil, gas and mineral purposes. No lease shall be made which will result in any damage to or substantial diminution of the value of other property in the Issuer, or which will in any manner divert, endanger, or contaminate the Issuer's water supply or water transportation facilities. All rentals, revenues, receipts and royalties derived by the Issuer from any and all leases so made shall be placed in the Revenue Fund.

(c) It is covenanted and agreed by the Issuer that no such property of any nature shall be sold or leased by the Issuer unless, prior to any act on taken by the Issuer concerning such sale or leasing, the Issuer shall procure the advice and recommendation in writing of the independent, consulting engineer concerning such proposed sale or leasing. The Issuer covenants that it will follow such advice and recommendations.

Section 6.08. INDEPENDENT CONSULTING ENGINEER. (a) The Issuer covenants that, until all Bonds and the interest thereon shall have been paid or provision for such payment shall have been made, it will, for the purpose of performing and carrying out the duties imposed on the Independent Consulting Engineer by this Resolution employ an independent engineering firm of engineering firm or corporation having a favorable repute for skill and experience in such work.

(b) The Issuer covenants that it will at all appropriate times and at least every three years, beginning January 1, 2004, cause the Independent Consulting Engineer to submit in writing, and give all necessary or desirable advice and recommendations concerning renewals, replacements, extensions, betterment, and improvements for the works and facilities of the Issuer, to the end that the works and facilities shall be operated and maintained in the most efficient and satisfactory manner.

(c) The expenses incurred under this Section 6.08 shall constitute Maintenance and Operation Expenses.

Section 6.09. RATES AND CHARGES. The Issuer covenants that at all times it will maintain a water charge and rates, fees and charges for services furnished by it, and that from time to time as often as it shall appear necessary it will adjust such rates, fees and charges as may be necessary or proper, so that such fees and charges will be fully sufficient to produce revenues during such Fiscal Year which will be adequate to pay all Operation and Maintenance Expenses during such Fiscal Year, and provide revenues during such Fiscal Year in an amount at least one times the amount necessary to make all payments due hereunder for payment of principal of and interest on the Series 2009A Bonds and Series 2009B Bonds, and to establish the funds herein prescribed and the payment of Reserve Fund Obligation Payments, if any. The Issuer further covenants that if at any time the revenues collected for the services furnished by it are inadequate to satisfy this

covenant, the Issuer shall adjust the rates, fees and charges in order that such deficiencies shall be made up before the end of the next ensuing Fiscal Year.

Section 6.10. WATER SALE CONTRACTS. The Issuer will not make any contract for the sale of water at a price which would require a reduction of charges to be made for water sold under any contract theretofore made.

ARTICLE VII

INSURANCE

Section 7.01. INSURANCE COVERAGE. The Issuer covenants that it will at all times keep insured such of its water supply facilities as are usually insured by corporations operating like properties, with a responsible insurance company or companies against risks, accidents, or casualties against which and to the extent insurance is usually carried by corporations operating like properties, including (but only if such insurance can be procured at reasonable cost) insurance against damage by floods, and will also at all times maintain workmen's compensation insurance, in a reasonable amount with responsible insurance companies. Public liability and property damage insurance shall also be carried unless the general counsel for the Issuer or the Attorney General of Texas, issues a written opinion that Issuer would be immune from claims which would be protected by such insurance provided, however, that at any time while any contractor engaged in construction work shall be fully responsible therefor, the Issuer shall not be required to carry such insurance. All such policies shall be open to the inspection of the Bondholders and their representatives at all reasonable times.

Section 7.02. INSURANCE PROCEEDS. In the event of any loss or damage, the Issuer covenants that it will reconstruct or repair the destroyed or damaged portion of the property and will apply the proceeds of the insurance proceeds covering such loss or damage solely for that purpose. The Issuer covenants that it will begin such work or reconstruction or repair promptly after such loss or damage shall occur and will continue and properly complete the same as expeditiously as possible and will pay or cause to be paid all costs and expenses in connection therewith so that the same shall be so completed and the property be free and clear of all mechanics and other liens and claims. The Issuer agrees that it will procure the advise and recommendation in writing of the independent consulting engineer concerning such reconstruction before it is undertaken.

Section 7.03. UNUSED INSURANCE PROCEEDS. Any insurance proceeds remaining after the completion of and payment for any such reconstruction or repair shall be deposited to the credit of the Revenue Fund.

ARTICLE VIII

ADDITIONAL BONDS

Section 8.01. DEFINITIONS. For the purpose of this Article VIII, the following definitions shall apply:

- (a) "Completion Bonds" shall mean bonds issued by the Issuer for completion of the construction of the Project upon approval by the Texas Water Development Board.

- (b) "Improvement Bonds" shall mean bonds issued for improvements, betterment, additions to, or extensions and replacements of the work and facilities of the Issuer.
- (c) "Refunding Bonds" shall mean bonds issued to refund all or any part of the Issuer's outstanding Bonds.
- (d) "Special Project Bonds" shall mean bonds issued to acquire or construct a separate project which is expected to be selfliquidating. Such bonds may also be payable from taxes.

Section 8.02. COMPLETION BONDS. The Issuer reserves the right to issue Completion Bonds, payable from and secured by a pledge of the Pledged Revenues, on a parity of lien with the Bonds, whether or not additionally secured by a tax levy. The Completion Bonds may be issued in one or more series of installments, and from time to time as authorized by the Issuer.

Section 8.03. IMPROVEMENT BONDS. The Issuer reserves the right to issue Improvement Bonds, which, when issued and delivered, shall be payable from and secured by Pledged Revenues of the Issuer, and may be additionally secured by a tax levy. The lien on Pledged Revenues for the payment of Improvement Bonds may be on a parity with the lien for the Series 2009A Bonds and Series 2009B Bonds or inferior to such lien. The Improvement Bonds may be issued in one or more installments or series, provided, however, that no installment or series of Improvement Bonds, if it is on a parity with the lien on the Bonds shall be issued unless:

(a) a certificate is executed by the President and Secretary of the Issuer to the effect that no default exists in connection with any of the covenants or requirements of the Resolution authorizing the issuance of all then outstanding Bonds which are secured by revenues.

(b) a certificate is executed by the President and Secretary of the Issuer to the effect that the Debt Service Fund and the Reserve Fund contain the amounts then required to be on deposit therein.

(c) The then proposed Improvement Bonds are made to mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

(d) A certificate or opinion from a certified public accountant showing that the Pledged Revenues for either (A) the last completed Fiscal Year, or (b) a consecutive twelve-month calendar period ending not more than 90 days preceding the adoption of the Resolution authorizing the issuance of Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Bonds which will be outstanding after giving effect to the issuance of the Additional Bonds then being issued as certified by a certified public accountant, or the Issuer has secured from a certified public accountant or professional engineer a certificate of opinion showing that the Net Revenues for a twelve-month calendar period, based on rates and charges for services and facilities afforded by the System that became effective at least sixty (60) days prior to the month in which the Resolution authorizing the issuance of the Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Bonds which will be outstanding after giving effect to the issuance of the Additional Bonds being issued pursuant to this Resolution.

Section 8.04. SPECIAL PROJECT BONDS. Special Project Bonds payable from and secured by revenues or by both revenues and taxes may be issued by the Issuer for the purposes of providing additional supply lines and facilities, to enable the Issuer to sell water to other users, provided that such Special Project

Bonds are not payable from or secured by a pledge of Revenues which were pledged herein to the payment of the Bonds or Completion or Improvement Bonds. All revenues of such project in excess of those required to pay operation and maintenance expenses, and principal and interest as they become due and to create and maintain reserve funds as provided in the Resolution authorizing such Special Project Bonds, and all net revenues of the project after full payment of the Special Project Bonds, or any bonds issued to refund them, shall be deposited into the Revenue Fund.

Section 8.05. REFUNDING BONDS. Refunding Bonds maybe authorized by the Issuer to refund all or any part of the Issuer's outstanding Bonds, upon such terms and conditions as the Board of Directors deems to be in the best interest of the Issuer.

Section 8.06. INCREASE IN RESERVE FUND. If Completion Bonds or Improvement Bonds are issued, the maximum amount required to be deposited and maintained in the Reserve Fund shall be increased to an amount equivalent to not less than the average annual debt service requirements for all the outstanding Bonds, Completion Bonds, Improvement Bonds and proposed Bonds, and that such additional amount shall be accumulated within sixty-one (61) months from the date of the Completion or Improvement Bonds, by the deposit in the Reserve Fund of the necessary sums in equal monthly installments; unless a Reserve Fund Obligation is acquired, provided, however, that the aggregate amount to be accumulated in the Reserve Fund shall never be required to exceed the average annual debt service requirements for all then outstanding Bonds, Completion Bonds or Improvement Bonds, and for the installment or series of Completion Bonds or Improvement Bonds then proposed to be issued.

Section 8.07. AUTHORIZATION. Completion Bonds, Improvement Bonds and Refunding Bonds permitted by this Article to be issued shall be authorized by resolutions by the Board of Directors which shall prescribe the form and terms of such Bonds.

Section 8.08. MATURITIES. Bonds issued under this Article shall mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

Section 8.09. TAX BONDS. No provisions in this Resolution shall in any way affect the statutory right of the Issuer to issue bonds supported wholly by ad valorem taxes.

## ARTICLE IX

### AMENDMENTS

Section 9.01. AMENDMENTS. (a) The owners of bonds aggregating in principal amount three-fourths of the aggregate principal amount of bonds at the time outstanding together with the Bond Insurer shall have the right from time to time to approve an amendment of this Resolution which maybe deemed necessary or desirable by the Issuer, provided, however, that nothing herein contained shall permit or be construed to permit the amendment of the terms and conditions contained in this Resolution or in the Bonds, unless consent of all bond owners and the Bond Insurer is obtained so as to:

- (i) make any change in the maturity of any outstanding bonds;
- (ii) reduce the rate of interest borne by any of the outstanding bonds;
- (iii) reduce the amount of the principal payable on any outstanding bonds;

- (iv) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;
- (v) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

(b) The Issuer may from time to time, without the consent of any owner of bond, except as otherwise required by paragraph (a) above, amend or supplement this Resolution to (i) cure any ambiguity, defect or omission in this Resolution that does not materially adversely affect the interests of the owners, (ii) grant additional rights or security for the benefit of the owners, (iii) add events of default as shall not be inconsistent with the provisions of this Resolution and that shall not materially adversely affect the interests of the owners, (v) qualify this Resolution under the Trust Indenture Act of 1939, as amended, or corresponding provisions of federal laws from time to time in effect, or (iv) make such other provisions in regard to matters or questions arising under this Resolution as shall not be materially inconsistent with the provisions of the Resolution and that shall not, in the opinion of nationally-recognized bond counsel, materially adversely affect the interests of the owners of bonds. Notice of this amendment shall be given to the Bond Insurer.

Section 9.02. NOTICE REQUIRED. If at any time the Issuer shall desire to amend the Resolution under this Article, the Issuer shall cause notice of the proposed amendment to be delivered to the Paying Agent/Registrar to be mailed by first class mail to each Registered Bond Owner. Such notice shall briefly set forth the nature of the proposed amendment and shall state that a copy thereof is on file at the principal offices of the Paying Agent/Registrar for inspection by the owner of the Bonds, a copy of the proposed amendment shall be filed with the Paying Agent/Registrar at the time of the mailing of the notice. Notice must also be given to the Bond Insurer. Such mailing and the filing of a copy of the proposed amendment are not required, however, if notice in writing is given to each holder of the Bonds.

Section 9.03. ADOPTION OF AMENDMENT. Whenever at any time not less than thirty (30) days and within one year from the date of the mailing of said notice, the Issuer shall receive an instrument or instruments executed by the holders of at least three-fourths in aggregate principal amount of the Bonds, which instrument or instruments shall refer to the proposed amendment described in said notice and which specifically consent to and approve such amendment in substantially the form of the copy thereof on file with the Paying Agent/Registrar, the Issuer may adopt the amendatory resolution in substantially the same form.

Section 9.04. EFFECTIVE UPON ADOPTION. Upon the adoption of any amendatory resolution pursuant to the provisions of this Article, the Resolution shall be deemed to be amended in accordance with such amendatory resolution, and the respective rights, duties and obligations under the Resolution of the Issuer, and all the holders of outstanding Bonds shall thereafter be determined, exercised, and enforced hereunder, subject in all respects to such amendments.

Section 9.05. REVOCATION OF CONSENT. Any consent given by the holder of a bond pursuant to the provisions of this Article shall be irrevocable for a period of six months from the date of the first mailing of the notice provided for in this Article, and shall be conclusive and binding upon all future holders of the same bond during such period. Such consent may be revoked at any time after six months from the date of the first mailing of such notice by the holders of such consent, or by a successor in title, by filing notice thereof with the Paying Agent/Registrar and the Issuer, but such revocation shall not be effective if the holders of the required principal amount of the bonds have, prior to the attempted revocation, consented to and approved the amendment.

ARTICLE X

BONDS

Section 10.01. DAMAGED, MUTILATED, LOST, STOLEN, OR DESTROYED BONDS. (a) Replacement Bonds. In the event any outstanding Bond is damaged, mutilated, lost, stolen, or destroyed, the Paying Agent/Registrar shall cause to be printed, executed, and delivered, a new bond of the same principal amount, maturity, and interest rate, as the damaged, mutilated, lost, stolen, or destroyed Bond, in replacement for such Bond in the manner hereinafter provided.

(b) Application for Replacement Bonds. Application for replacement of damaged, mutilated, lost, stolen, or destroyed Bonds shall be made by the registered owner thereof to the Paying Agent/Registrar. In every case of loss, theft, or destruction of a Bond, the registered owner applying for a replacement bond shall furnish to the Issuer and to the Paying Agent/Registrar such security or indemnity as may be required by them to save each of them harmless from any loss or damage with respect thereto. Also, in every case of loss, theft, or destruction of a Bond, the registered owner shall furnish to the Issuer and to the Paying Agent/Registrar evidence to their satisfaction of the loss, theft, or destruction of such Bond, as the case may be. In every case of damage or mutilation of a Bond, the registered owner shall surrender to the Paying Agent/Registrar for cancellation the Bond so damaged or mutilated.

(c) No Default Occurred. Notwithstanding the foregoing provisions of this Section, in the event any such Bond shall have matured, and no default has occurred which is then continuing in the payment of the principal of, redemption premium, if any, or interest on the Bond, the Issuer may authorize the payment of the same (without surrender thereof except in the case of a damaged or mutilated Bond) instead of issuing a replacement Bond, provided security or indemnity is furnished as above provided in this Section.

(d) Charge for Issuing Replacement Bonds. Prior to the issuance of any replacement bond, the Paying Agent/Registrar shall charge the registered owner of such Bond with all legal, printing, and other expenses in connection therewith. Every replacement bond issued pursuant to the provisions of this Section by virtue of the fact that any Bond is lost, stolen, or destroyed shall constitute a contractual obligation of the Issuer whether or not the lost, stolen, or destroyed Bond shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Resolution equally and proportionately with any and all other Bonds duly issued under this Resolution.

(e) Authority for Issuing Replacement Bonds. In accordance with Chapter 1207 of the Texas Government Code, this Section of this Resolution shall constitute authority for the issuance of any such replacement bond without necessity of further action by the governing body of the Issuer or any other body or person, and the duty of the replacement of such bonds is hereby authorized and imposed upon the Paying Agent/Registrar, and the Paying Agent/Registrar shall authenticate and deliver such bonds in the form and manner and with the effect, as provided in Section 2.06(d) of this Resolution for Bonds issued in conversion and exchange for other Bonds.

Section 10.02. CUSTODY, APPROVAL, AND REGISTRATION OF BONDS; BOND COUNSEL'S OPINION; CUSIP NUMBERS; AND CONTINGENT INSURANCE PROVISION, IF OBTAINED. The President of the Board of Directors of the Issuer is hereby authorized to have control of the Initial Bond issued hereunder and all necessary records and proceedings pertaining to the Initial Bond pending its delivery and its investigation, examination, and approval by the Attorney General of the State of Texas, and its registration by the Comptroller of Public Accounts of the State of Texas. Upon registration of the Initial



Bond said Comptroller of Public Accounts (or a deputy designated in writing to act for said Comptroller) shall manually sign the Comptroller's Registration Certificate on the Initial Bond, and the seal of said Comptroller shall be impressed, or placed in facsimile, on the Initial Bond. In addition, if bond insurance is obtained, the Bonds may bear an appropriate legend as provided by the Insurer.

Section 10.03. TAX EXEMPTION. The Issuer does not intend to issue the Bonds in a manner such that the Bonds would constitute an obligation described in Section 103(a) of the Internal Revenue Code of 1986 (the "Code") and all applicable temporary, proposed and final regulations and procedures promulgated thereunder or promulgated under the Internal Revenue Code of 1954, to the extent applicable to the Code (the "Regulations").

Section 10.04. CONTINUING DISCLOSURE. (a) Annual Reports. (i) The Issuer shall provide annually to each NRMSIR and any SID, within six months after the end of each fiscal year ending in or after 2009, financial information and operating data with respect to the Issuer of the general type, being the information described in Exhibit A. Any financial statements so to be provided shall be prepared in accordance with the accounting principles described in Exhibit A thereto, or such other accounting principles as the Issuer may be required to employ from time to time pursuant to state law or regulation, and audited, if the Issuer commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within such period, then the Issuer shall provide audited financial statements for the applicable fiscal year to each NRMSIR and any SID, when and if the audit report on such statements become available.

(ii) If the Issuer changes its fiscal year, it will notify each NRMSIR and any SID of the change (and of the date of the new fiscal year end) prior to the next date by which the Issuer otherwise would be required to provide financial information and operating data pursuant to this Section. The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document (including an official statement or other offering document, if it is available from the MSRB) that theretofore has been provided to each NRMSIR and any SID or filed with the SEC.

(b) Material Event Notices. The Issuer shall notify any SID and either each NRMSIR or the MSRB, in a timely manner, of any of the following events with respect to the Bonds, if such event is material within the meaning of the federal securities laws:

1. Principal and interest payment delinquencies;
2. Non-payment related defaults;
3. Unscheduled draws on debt service reserves reflecting financial difficulties;
4. Unscheduled draws on credit enhancements reflecting financial difficulties;
5. Substitution of credit or liquidity providers, or their failure to perform;
6. Adverse tax opinions or events affecting the tax-exempt status of the Bonds;
7. Modifications to rights of holders of the Bonds;
8. Bond calls;
9. Defeasances;
10. Release, substitution, or sale of property securing repayment of the Bonds; and
11. Rating changes.

The Issuer shall notify any SID and either each NRMSIR or the MSRB, in a timely manner, of any failure by the Issuer to provide financial information or operating data in accordance with subsection (a) of this Section by the time required by such subsection.

(e) Limitations, Disclaimers, and Amendments. (i) The Issuer shall be obligated to observe and perform the covenants specified in this Section for so long as, but only for so long as, the Issuer remains an "obligated person" with respect to the Bonds within the meaning of the Rule, except that the Issuer in any event will give notice of any deposit made in accordance with this Resolution or applicable law that causes Bonds no longer to be outstanding.

(ii) The provisions of this Section are for the sole benefit of the holders and beneficial owners of the Bonds, and nothing in this Section, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The Issuer undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Section and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the Issuer's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Section or otherwise, except as expressly provided herein. The Issuer does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Bonds at any future date.

(iii) UNDER NO CIRCUMSTANCES SHALL THE ISSUER BE LIABLE TO THE HOLDER OR BENEFICIAL OWNER OF ANY BOND OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE ISSUER, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS SECTION, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

(iv) No default by the Issuer in observing or performing its obligations under this Section shall comprise a breach of or default under the Resolution for purposes of any other provision of this Resolution. Nothing in this Section is intended or shall act to disclaim, waive, or otherwise limit the duties of the Issuer under federal and state securities laws.

(v) The provisions of this Section may be amended by the Issuer from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the Issuer, but only if (1) the provisions of this Section, as so amended, would have permitted an underwriter to purchase or sell Bonds in the primary offering of the Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule since such offering as well as such changed circumstances and (2) either (a) the holders of a majority in aggregate principal amount (or any greater amount required by any other provision of this Resolution that authorizes such an amendment) of the outstanding Bonds consent to such amendment or (b) a person that is unaffiliated with the Issuer (such as bond counsel) determined that such amendment will not materially impair the interest of the holders and beneficial owners of the Bonds. If the Issuer so amends the provisions of this Section, it shall include with any amended financial information or operating data next provided in accordance with subsection (a) of this Section an explanation, in narrative form, of the reason for the amendment and of the impact of any change in the type of financial information or operating data so provided.

(d) Definitions. As used in this Section, the following terms have the meanings ascribed to such terms below:

"MSRB" means the Municipal Securities Rulemaking Board.

"*NRMSIR*" means each person whom the SEC or its staff has determined to be a nationally recognized municipal securities information repository within the meaning of the Rule from time to time.

"*Rule*" means SEC Rule 15c2-12, as amended from time to time.

"*SEC*" means the United States Securities and Exchange Commission.

"*SID*" means any person designated by the State of Texas or an authorized department, officer, or agency thereof as, and determined by the SEC or its staff to be, a state information depository within the meaning of the Rule from time to time.

Section 10.05. SALE OF BONDS. The Bonds are hereby sold and shall be delivered to the TEXAS WATER DEVELOPMENT BOARD for cash for the principal amount thereof.

Section 10.06. APPROVAL OF BOND. The Bonds have been purchased by the Texas Water Development Board ("Board") pursuant to its Resolution No. 0909, adopted on January 15, 2009, which provides that the Bonds are being purchased pursuant to the Texas Water Development Fund, pre-design commitment option Water Infrastructure Fund, and that in accordance thereto the Executive Administrator of the Texas Water Development Board will purchase the Bonds on a pre-design funding option basis with the proceeds in the amount of \$3,200,000 to be deposited in the Construction Fund herein created for the initial delivery.

Section 10.07. APPROVAL OF ESCROW AGREEMENT. The President of the Board of Directors of the Issuer is hereby authorized and directed to execute and deliver and the Secretary of the Board of Directors of the Issuer is hereby authorized and directed to attest an Escrow Agreement in substantially the form attached hereto as Exhibit B, with the Escrow Agent to hold the Bonds pending delivery to the Texas Water Development Board. **(The Texas Water Development Board advised the Issuer that no escrow is needed for the Bonds).**

Section 10.8. CONSTRUCTION FUND. There shall be established a Construction Fund with the Issuer's depository bank and upon the delivery of the purchase price for such Bonds, the proceeds from the sale of the Bonds shall be deposited into this Construction Fund. The cost of issuance of the Bonds, being legal, fiscal and engineering fees, may be paid from this Fund. The cost of the construction of the Water System improvements for the Project will be paid from this Construction Fund upon directions of the Issuer. All interest and profits from investments made with moneys in the Construction Fund shall remain on deposit in the Construction Fund as a part thereof. After completion of the payment of all costs of the Water System improvements, any residue remaining in the Construction Fund shall be applied in accordance with Section 36 hereof.

Section 10.9. FINAL ACCOUNTING. The Issuer shall render a final accounting to the Texas Water Development Board in reference to the total cost incurred by the Issuer for Water System improvements together with a copy of "as built" plans of the project upon completion.

Section 10.10. INVESTMENTS. That money in any Fund established pursuant to this Order may, at the option of the Issuer, be invested in eligible investments described in the Texas Public Funds Investment Act, Chapter 2256, Texas Government Code, consistent with the investment policy approved by the Board of Directors. All investments shall be made in such manner as will, in the opinion of the Issuer, permit the money required to be expended from any Fund to be available at the proper time or times as expected to be needed.

Section 10.11. SURPLUS PROCEEDS. That the Issuer shall use any surplus proceeds from the Bonds remaining after completion of the Water System improvements, to redeem, in inverse annual order, the Bonds owned by the Texas Water Development Board.

Section 10.12. ANNUAL AND MONTHLY REPORTS. That monthly operating statements and annual audits of the Issuer shall be delivered to the Texas Water Development Board as long as the State of Texas owns any of the Bonds, and that the monthly operating statements shall be in such detail as requested by the Development Fund Manager of the Texas Water Development Board until this requirement is waived by the Development Fund Manager. The annual audit shall be furnished to the Texas Water Development Board within 120 days of the close of each fiscal year.

Section 10.13. COMPLIANCE WITH THE TEXAS WATER DEVELOPMENT BOARD'S RULES AND REGULATIONS. That the Issuer covenants to comply with the rules and regulations of the Texas Water Development Board, and to maintain insurance on the Issuer's Water System in an amount sufficient to protect the interest of the Texas Water Development Board.

Section 10.14. PUBLIC NOTICE. It is hereby officially found and determined that public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

-----

## **EXHIBIT A**

### **DESCRIPTION OF ANNUAL FINANCIAL INFORMATION**

The following information is referred to in Section 10.04 of this Resolution.

#### **I. Annual Financial Statements and Operating Data**

The financial information and operating data with respect to the Issuer to be provided annually in accordance with such Section are as specified below:

Annual Audit

#### **Accounting Principles**

The accounting principles referred to in such Section are the accounting principles described in the notes to the financial statements referred to in paragraph 1 above.

**EXHIBIT B**  
**ESCROW AGREEMENT**



**CERTIFICATE FOR RESOLUTION**

THE STATE OF TEXAS §  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 §

We, the undersigned officers of Palo Pinto County Municipal Water District No. 1, hereby certify as follows:

1. The Board of Directors of said District convened in Regular Meeting on September 16, 2011, at the regular meeting place, and the roll was called of the duly constituted officers and members of said Board of Directors, to-wit:

- Earl L. Medlin, President
- Leon Groves, Vice President
- Wesley Ellis, Member
- Bob Sturdivant, Member
- David Turk, Member

and all of said persons were present, thus constituting a quorum. Whereupon, among other business, the following was transacted at said Meeting: a written Resolution entitled

RESOLUTION AUTHORIZING THE ISSUANCE OF PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 REVENUE REFUNDING BONDS, SERIES 2011; ESTABLISHING PROCEDURES FOR THE SALE AND DELIVERY OF THE BONDS; PROVIDING FOR THE SECURITY AND PAYMENT THEREOF; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT

was duly introduced for the consideration of said Board of Directors and read in full. It was then duly moved and seconded that said Resolution be passed, and, after due discussion, said motion carrying with it the passage of said Resolution, prevailed and carried by the following vote:

AYES: 5

NOES: 0

2. That a true, full and correct copy of the aforesaid Resolution passed at the Meeting described in the above and foregoing paragraph is attached to and follows this Certificate; that said Resolution has been duly recorded in said Board of Director's minutes of said Meeting; that the above and foregoing paragraph is a true, full and correct excerpt from said Board of Director's minutes of said Meeting pertaining to the passage of said Resolution; that the persons named in the above and foregoing paragraph are the duly chosen, qualified and acting officers and members of said Board of Directors as indicated therein; that each of the officers and members of said Board of Directors was duly and sufficiently notified officially and personally, in advance, of the time, place and purpose of the aforesaid Meeting, and that said Resolution would be introduced and considered for passage at said Meeting, and each of said officers and members consented, in advance, to the holding of said Meeting for such purpose, and that said Meeting was open to the public and public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

SIGNED AND SEALED the September 16, 2011.

*Earl Z. Medli*

\_\_\_\_\_  
President, Board of Directors  
Palo Pinto County Municipal Water District No. 1

*Scott Blaser*

\_\_\_\_\_  
Secretary, Board of Directors  
Palo Pinto County Municipal Water District No. 1



RESOLUTION AUTHORIZING THE ISSUANCE OF PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 REVENUE REFUNDING BONDS, SERIES 2011; ESTABLISHING PROCEDURES FOR THE SALE AND DELIVERY OF THE BONDS; PROVIDING FOR THE SECURITY AND PAYMENT THEREOF; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT

THE STATE OF TEXAS §  
COUNTIES OF PALO PINTO AND PARKER §  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 §

WHEREAS, Palo Pinto County Municipal Water District No. 1 (the "Issuer") was created by Article 8280-258, V.A.T.C.S., as amended, as revised by Chapter 49 of the Texas Water Code ("Act") as a Conservation and Reclamation District, pursuant to Article 16, Section 59 of the Texas Constitution; and

WHEREAS, the Issuer has currently outstanding the following revenue bonds, to-wit:

Palo Pinto County Municipal Water District No. 1 Revenue Refunding Bonds, Series 2001, dated November 1, 2001 ("Series 2001 Bonds");

Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Series 2002, dated October 1, 2002 ("Series 2002 Bonds");

Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bond, (Tax Exempt) Series 2009A, dated April 1, 2009 ("Series 2009A Bonds"); and

Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bond, (Taxable) Series 2009B", dated April 1, 2009 ("Series 2009B Bonds");

WHEREAS, the Issuer now desires to refund all of the Series 2001 Bonds and the Series 2002 Bonds described in Schedule I attached hereto (the "Refunded Obligations");

WHEREAS, Chapter 1207, Texas Government Code, authorizes the Issuer to issue refunding bonds and to deposit the proceeds from the sale thereof together with any other available funds or resources directly with a paying agent for the Refunded Obligations or a trust company or commercial bank that does not act as a depository for the Issuer and such deposit, if made before the payment dates of the Refunded Obligations, shall constitute the making of firm banking and financial arrangements for the discharge and final payment of the Refunded Obligations;

WHEREAS, this Board of Directors of the Issuer hereby finds and determines that it is a public purpose and in the best interests of the Issuer to refund the Refunded Obligations in order to achieve a present value debt service savings of not less than 3.00% percent with such savings, among other information and terms to be included in a pricing certificate (the "Pricing Certificate") to be executed by the Pricing Officer (hereinafter designated), all in accordance with the provisions of Section 1207.007, Texas Government Code;

WHEREAS, this Board of Directors hereby further finds and determines that the manner in which the refunding is being executed, in that the pricing and terms of the bonds hereinafter authorized are to be determined at a future date pursuant to the provisions of this Resolution, does not make it practicable to determine the amount of debt service savings that will result from the refunding of the Refunded Obligations;

WHEREAS, all the Refunded Obligations mature or are subject to redemption prior to maturity within 20 years of the date of the bonds hereinafter authorized;

WHEREAS, the bonds hereafter authorized are being issued and delivered pursuant to said Chapter 1207; and

WHEREAS, it is hereby officially found and determined that public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1:

## ARTICLE I

### DEFINITION OF TERMS

Section 1.01. DEFINITIONS. In each place throughout this Resolution, wherein the following terms, or any of them are used, the same, unless the context shall indicate another or different meaning or intent, shall be construed and are intended to have the meanings as follows:

(a) "Act" shall mean Article 8280-258, as amended, of V.A.T.C.S., as revised by Chapter 49 of the Texas Water Code.

(b) "Additional Bonds" shall mean any bonds authorized by Article VIII of this Resolution.

(c) "Board of Directors" or "Board" shall mean the Board of Directors of the Issuer.

(d) "Bond" or "Bonds" shall mean any bonds authorized by this Resolution.

(e) "Certified Public Accountant" shall mean any certified public accountant of such suitable experience and qualifications, not regularly in the employ of the Issuer, selected by the Issuer.

(f) "City" shall mean the City of Mineral Wells, Texas.

(g) "Contract" or "Water Purchase Contract" shall mean the contract with the City for the sale of water to the City, dated as of July 10, 1981, as supplemented, and modified as of December 10, 1992, November 1, 2001, October 1, 2002, April 1, 2009, and in connection with the issuance of the Bonds.

(h) "Default" or "Event of Default" shall mean the failure by the Issuer to pay the principal of or the interest on any bond herein authorized as the same shall become due; or the failure by the issuer to perform any of the agreements or covenants on its party (other) than its agreement to pay the principal of and interest on the Bonds (which failure shall have continued for a period of thirty days after written notice of such failure has been given to the Issuer by the Paying Agent/Registrar or the owner or holder of any Bond).

(i) "Depository" shall mean the bank or banks which the Issuer selects (whether one or more) in accordance with law, as its Depository.

(j) "Fiscal Year" shall mean each twelve month period, beginning October 1 and ending September 30 of each year.

(k) "Independent Consulting Engineer" shall mean the engineer or engineering firm at the time employed by the Issuer under the provisions of Section 6.08 of this Resolution.

(l) "Investment" shall mean cash, investments, or any combination of the foregoing.

(m) "Issuer" shall mean Palo Pinto County Municipal Water District No. 1, and any other public body or agency at any time succeeding to the property and principal rights, powers and obligations of said Issuer.

(n) "Operation and Maintenance Expenses" shall mean the reasonable and necessary cost of ordinary maintenance and operation of the Issuer and its facilities and all other properties and works of the Issuer, includes without limiting the generality of the foregoing (1) premiums on any insurance policies of every kind and nature; (2) administrative, legal, and other overhead expenses of the Issuer; and (3) charges and expenses of the Paying Agent/Registrar and the Depository.

(o) "Outstanding" when used with respect to Parity Obligations shall mean, as of the date of determination, all Parity Obligations theretofore delivered, except:

(1) Parity Obligations theretofore canceled and delivered to the Board or delivered to the Paying Agent or the Registrar for cancellation;

(2) Parity Obligations deemed paid pursuant to the provisions of any resolution authorizing the issuance of Parity Obligations;

(3) Parity Obligations upon transfer of or in exchange for and in lieu of which other Parity Obligations have been authenticated and delivered pursuant to this Resolution; and

(4) Parity Obligations under which the obligations of the Board have been released, discharged, or extinguished in accordance with the terms thereof;

(p) "Parity Obligations" shall mean the Outstanding Series 2009A Bonds, the Outstanding Series 2009B Bonds, the Bonds and Additional Bonds.

(q) "Pledged Revenues" shall mean those Revenues not used to pay Operation and Maintenance Expenses and pledged herein to the payment of the Bonds in the manner as set forth in Section 3.01 of this Resolution.

(r) "Rating Agency" shall mean any nationally recognized securities rating agency which has assigned, at the request of the Issuer, a rating to the Bonds.

(s) "Reserve Fund Obligation" shall mean to the extent permitted by law, as evidenced by an opinion of nationally recognized bond counsel, a surety bond or insurance policy (which, under applicable law, shall not entitle the provider thereof to any right of reimbursement or repayment other than a right to subrogation upon payments being made to Holders) deposited in the Reserve Fund to satisfy the Required Reserve Account whereby the issuer is obligated to provide funds up to and including the maximum amount and under the conditions specified in such agreement or instrument.

(t) "Required Reserve Amount" shall mean the average annual debt service requirements on all outstanding Bonds and Additional Bonds, if any.

(u) "Reserve Fund Obligation Payment" shall mean any subrogation payment the Issuer is obligated to make from Pledged Revenues deposited in the Reserve Fund with respect to a Reserve Fund Obligation.

(v) "Resolution" or "Bond Resolution" shall mean this Resolution and any amendments thereof.

(w) "Revenues" shall mean all tolls, revenues, rates, fees, charges, rents and other income and receipts in each case derived by, or for the account of, the Issuer from the operation of the Issuer, and includes specifically payments received by the Issuer from the City as a Water Charge pursuant to the Water Purchase Contract.

(x) "Series 2009A Bonds" shall mean the Palo Pinto County Municipal Water District No. 1 Subordinate Bonds, (Tax Exempt) Series 2009A, dated April 1, 2009.

(y) "Series 2009B Bonds" shall mean the Palo Pinto County Municipal Water District No. 1 Subordinate Bonds, (Taxable) Series 2009B, dated April 1, 2009.

(z) "Water Charge" shall mean the monthly charge made to the City for the purchase of the Issuer's water pursuant to the Contract.

## ARTICLE II

### BOND PROVISIONS

#### Section 2.01. RECITALS, AMOUNT, PURPOSE AND DESIGNATION OF THE BONDS.

(a) The recitals set forth in the preamble hereof are incorporated herein and shall have the same force and effect as if set forth in this Section.

(b) The bonds of Palo Pinto County Municipal Water District No. 1 (the "Issuer") are hereby authorized to be issued and delivered in the maximum aggregate principal amount hereinafter set forth for the public purpose of providing funds to refund a portion of the Issuer's outstanding indebtedness payable from Net Revenues and to pay the costs incurred in connection with the issuance of the Bonds.

(c) Each bond issued pursuant to this Resolution shall be designated: "PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 REVENUE REFUNDING BOND, SERIES 2011," and initially there shall be issued, sold, and delivered hereunder fully registered Bonds, without interest coupons, payable to the respective registered owners thereof (with the initial bonds being made payable to the initial purchaser or purchasers as described in Section 10.07 hereof), or to the registered assignee or assignees of said bonds or any portion or portions thereof (in each case, the "Registered Owner"). The Bonds shall be in the respective denominations and principal amounts, shall be numbered, shall mature and be payable on the date or dates in each of the years and in the principal amounts or amounts due at maturity, as applicable, and shall bear interest to their respective dates of maturity or redemption prior to maturity at the rates per annum, as set forth in the Pricing Certificate.

#### Section 2.02. DELEGATION TO PRICING OFFICER.

(a) As authorized by Section 1207.007, Texas Government Code, as amended, the President or Vice President of the Board and the Secretary/Treasurer of the Issuer (the "Pricing Officer") are each hereby



authorized to act on behalf of the Issuer in selling and delivering the Bonds, carrying out the other procedures specified in this Resolution, including, determining the date of the Certificates, any additional or different designation or title by which the Bonds shall be known, whether the Bond shall be sold and delivered in one or more series and the date and sale and delivery of each such series, the amount of Bonds to be sold as Tax-Exempt Bonds or Taxable Bonds and the authorized purposes set forth in Section 1 for which such Bonds are issued, the price at which the Bonds will be sold, the years in which the Bonds will mature, the principal amount to mature in each of such years, the rate of interest to be borne by each such maturity, the interest payment and record dates, the price and terms upon and at which the Bonds shall be subject to redemption prior to maturity at the option of the Issuer, as well as any mandatory sinking fund redemption provisions, and all other matters relating to the issuance, sale, and delivery of the Bonds and obtaining municipal bond insurance for all or any portion of the Bonds and providing for the terms and provisions thereof applicable to the Bonds, all of which shall be specified in the Pricing Bond; provided that:

(i) the aggregate original principal amount of the Bonds shall not exceed \$7,500,000;

(ii) the true interest cost of the Bonds shall not exceed 5.00% per annum and the net effective interest rate (as defined in Chapter 1204, Texas Government Code, as amended) for the Bonds shall not exceed 15.00%;

(iii) the refunding must produce a present value debt service savings of at least 3.00%;

(iv) the final maturity of the Bonds shall not be longer than June 1, 2023;

(v) the price to be paid for the Bonds shall not be less than 97% of the aggregate original principal amount of the Bonds; and

(iv) the delegation made hereby shall expire if not exercised by the Pricing Officer on or prior to March 16, 2012.

(b) The Pricing Officer shall determine whether the Bonds will be sold by private placement or negotiated or competitive sale. The term "Bonds" as used in this Resolution shall mean and include collectively the bond initially issued and delivered pursuant to this Resolution and all definitive or substitute bonds exchanged therefor, as well as all other substitute bonds and replacement bonds issued pursuant hereto, and the term "Bond" shall mean any of the Bonds, unless the context clearly indicates otherwise.

(c) In establishing the aggregate principal amount of the Bonds, the Pricing Officer shall establish an amount not exceeding the amount authorized in Subsection (a) above, which shall be sufficient in amount to provide for the purposes for which the Bonds are authorized and to pay costs of issuing the Bonds. The Bonds shall be sold with and subject to such terms as set forth in the Pricing Certificate.

(d) In recognition that a portion of the Bonds may have to be issued as Taxable Bonds with respect to certain of the Projects in order for the Issuer to issue Tax-Exempt Bonds, at a lower interest and comply with Section 10.03 hereof, the Bonds may be issued as Tax-Exempt Bonds or Taxable Bonds, or a combination thereof, as set forth in the Pricing Certificate.

Section 2.03. CHARACTERISTICS OF THE BONDS.

(a) Registration, Transfer, Conversion and Exchange. The selection and appointment of the paying agent/registrars for the Bonds (the "Paying Agent/Registrar") shall be as provided in the Pricing Certificate. The Issuer shall keep or cause to be kept at the corporate trust office of the Paying Agent/Registrar books or records for the registration of the transfer, conversion and exchange of the Bonds (the "Registration Books"), and the Issuer hereby appoints the Paying Agent/Registrar as its registrar and transfer agent to keep such books or records and make such registrations of transfers, conversions and exchanges under such reasonable regulations as the Issuer and Paying Agent/Registrar may prescribe; and the Paying Agent/Registrar shall make such registrations, transfers, conversions and exchanges as herein provided within 3 days of presentation in due and proper form. The Paying Agent/Registrar shall obtain and record in the Registration Books the address of the Registered Owner of each Bond to which payments with respect to the Bonds shall be mailed, as herein provided; but it shall be the duty of each Registered Owner to notify the Paying Agent/Registrar in writing of the address to which payments shall be mailed, and such interest payments shall not be mailed unless such notice has been given. The Issuer shall have the right to inspect the Registration Books during regular business hours of the Paying Agent/Registrar, but otherwise the Paying Agent/Registrar shall keep the Registration Books confidential and, unless otherwise required by law, shall not permit their inspection by any other entity. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for making such registration, transfer, conversion, exchange and delivery of a substitute Bond or Bonds. Registration of assignments, transfers, conversions and exchanges of Bonds shall be made in the manner provided and with the effect stated in the FORM OF BOND set forth in this Resolution. Each substitute Bond shall bear a letter and/or number to distinguish it from each other Bond.

(b) Authentication. Except as provided in Section 4(e) hereof, an authorized representative of the Paying Agent/Registrar shall, before the delivery of any such Bond, date and manually sign said Bond, and no such Bond shall be deemed to be issued or outstanding unless such Bond is so executed. The Paying Agent/Registrar promptly shall cancel all paid Bonds and Bonds surrendered for conversion and exchange. No additional ordinances, orders or resolutions need be passed or adopted by the governing body of the Issuer or any other body or person so as to accomplish the foregoing conversion and exchange of any Bond or portion thereof, and the Paying Agent/Registrar shall provide for the printing, execution and delivery of the substitute Bonds in the manner prescribed herein. Pursuant to Subchapter D, Chapter 1201, Texas Government Code, the duty of conversion and exchange of Bonds as aforesaid is hereby imposed upon the Paying Agent/Registrar, and, upon the execution of said Bond, the converted and exchanged Bond shall be valid, incontestable, and enforceable in the same manner and with the same effect as the Bonds which initially were issued and delivered pursuant to this Resolution, approved by the Attorney General, and registered by the Comptroller of Public Accounts.

(c) Payment of Bonds and Interest. The Issuer hereby further appoints the Paying Agent/Registrar to act as the paying agent for paying the principal of and interest on the Bonds, all as provided in this Resolution. The Paying Agent/Registrar shall keep proper records of all payments made by the Issuer and the Paying Agent/Registrar with respect to the Bonds, and of all conversions and exchanges of Bonds, and all replacements of Bonds, as provided in this Resolution. However, in the event of a nonpayment of interest on a scheduled payment date, and for 30 days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least 5 business days prior to the Special Record Date by United States mail, firstclass postage prepaid, to the address

of each Registered Owner appearing on the Registration Books at the close of business on the last business day next preceding the date of mailing of such notice.

(d) Substitute Paying Agent/Registrar. The Issuer covenants with the Registered Owners of the Bonds that at all times while the Bonds are outstanding the Issuer will provide a competent and legally qualified bank, trust company, financial institution or other agency to act as and perform the services of Paying Agent/Registrar for the Bonds under this Resolution, and that the Paying Agent/Registrar will be one entity. The Issuer reserves the right to, and may, at its option, change the Paying Agent/Registrar upon not less than 120 days written notice to the Paying Agent/Registrar, to be effective not later than 60 days prior to the next principal or interest payment date after such notice. In the event that the entity at any time acting as Paying Agent/Registrar (or its successor by merger, acquisition, or other method) should resign or otherwise cease to act as such, the Issuer covenants that promptly it will appoint a competent and legally qualified bank, trust company, financial institution, or other agency to act as Paying Agent/Registrar under this Resolution. Upon any change in the Paying Agent/Registrar, the previous Paying Agent/Registrar promptly shall transfer and deliver the Registration Books (or a copy thereof), along with all other pertinent books and records relating to the Bonds, to the new Paying Agent/Registrar designated and appointed by the Issuer. Upon any change in the Paying Agent/Registrar, the Issuer promptly will cause a written notice thereof to be sent by the new Paying Agent/Registrar to each Registered Owner of the Bonds, by United States mail, first-class postage prepaid, which notice also shall give the address of the new Paying Agent/Registrar. By accepting the position and performing as such, each Paying Agent/Registrar shall be deemed to have agreed to the provisions of this Resolution, and a certified copy of this Resolution shall be delivered to each Paying Agent/Registrar.

(e) General Characteristics of the Bonds. The Bonds (i) shall be issued in fully registered form, without interest coupons, with the principal of and interest on such Bonds to be payable only to the Registered Owners thereof, (ii) may and shall be redeemed prior to their scheduled maturities, (iii) may be transferred and assigned, (iv) may be converted and exchanged for other Bonds, (v) shall have the characteristics, (vi) shall be signed, sealed, executed and authenticated, (vii) the principal of and interest on the Bonds shall be payable, and (viii) shall be administered and the Paying Agent/Registrar and the Issuer shall have certain duties and responsibilities with respect to the Bonds, all as provided, and in the manner and to the effect as required or indicated, in the FORM OF BOND set forth in this Resolution. The Bonds initially issued and delivered pursuant to this Resolution is not required to be, and shall not be, authenticated by the Paying Agent/Registrar, but on each substitute Bond issued in conversion of and exchange for any Bond or Bonds issued under this Resolution the Paying Agent/Registrar shall execute the Paying Agent/Registrar's Authentication Certificate, in the FORM OF BOND set forth in this Resolution.

(f) Book-Entry Only System. Upon initial issuance, the ownership of the definitive Bonds may, if so designated by the Pricing Officer, be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), pursuant to the Book-Entry Only System hereinafter described, and except as provided in subsection (g) hereof, all of the outstanding Bonds shall be registered in the name of Cede & Co., as nominee of DTC.

With respect to Bonds registered in the name of Cede & Co., as nominee of DTC, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation to any securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations on whose behalf DTC was created ("DTC Participant") to hold securities to facilitate the clearance and settlement of securities transactions among DTC Participants or to any person on behalf of whom such a DTC Participant holds an interest in the Bonds. Without limiting the immediately preceding sentence, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, Cede & Co. or any DTC

Participant with respect to any ownership interest in the Bonds, (ii) the delivery to any DTC Participant or any other person, other than a Registered Owner of Bonds, as shown on the Registration Books, of any notice with respect to the Bonds, or (iii) the payment to any DTC Participant or any other person, other than a Registered Owner of Bonds, as shown in the Registration Books of any amount with respect to principal of or interest on the Bonds. Notwithstanding any other provision of this Resolution to the contrary, the Issuer and the Paying Agent/Registrar shall be entitled to treat and consider the person in whose name each Bond is registered in the Registration Books as the absolute owner of such Bond for the purpose of payment of principal and interest with respect to such Bond, for the purpose of registering transfers with respect to such Bond, and for all other purposes whatsoever. The Paying Agent/Registrar shall pay all principal of and interest on the Bonds only to or upon the order of the Registered Owners, as shown in the Registration Books as provided in this Resolution, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the Issuer's obligations with respect to payment of principal of and interest on the Bonds to the extent of the sum or sums so paid. No person other than a Registered Owner, as shown in the Registration Books, shall receive a Bond certificate evidencing the obligation of the Issuer to make payments of principal and interest pursuant to this Resolution. Upon delivery by DTC to the Paying Agent/Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., and subject to the provisions in this Resolution with respect to interest checks being mailed to the Registered Owner at the close of business on the Record date, the words "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

The previous execution and delivery of the Blanket Letter of Representations with respect to obligations of the Issuer is hereby ratified and confirmed; and the provisions thereof shall be fully applicable to the Bonds.

(g) Successor Securities Depository; Transfers Outside Book-Entry Only System. In the event that the Issuer determines that DTC is incapable of discharging its responsibilities described herein and in the representation letter of the Issuer to DTC or that it is in the best interest of the beneficial owners of the Bonds that they be able to obtain certificated Bonds, the Issuer shall (i) appoint a successor securities depository, qualified to act as such under Section 17A of the Securities and Exchange Act of 1934, as amended, notify DTC and DTC Participants of the appointment of such successor securities depository and transfer one or more separate Bonds to such successor securities depository or (ii) notify DTC and DTC Participants of the availability through DTC of Bonds and transfer one or more separate Bonds to DTC Participants having Bonds credited to their DTC accounts. In such event, the Bonds shall no longer be restricted to being registered in the Registration Books in the name of Cede & Co., as nominee of DTC, but may be registered in the name of the successor securities depository, or its nominee, or in whatever name or names Registered Owners transferring or exchanging Bonds shall designate, in accordance with the provisions of this Resolution.

(h) Payments to Cede & Co. Notwithstanding any other provision of this Resolution to the contrary, so long as any Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of and interest on such Bond and all notices with respect to such Bond shall be made and given, respectively, in the manner provided in the representation letter of the Issuer to DTC.

(i) Cancellation of Initial Bonds. On the closing date, one initial Bond representing the entire principal amount of the Bonds, payable in stated installments to the order of the initial purchaser of the Bonds or its designee, executed by manual or facsimile signature of the President and Secretary of the Board, approved by the Attorney General of Texas, and registered and manually signed by the Comptroller of Public Accounts of the State of Texas, will be delivered to such purchaser or its designee. Upon payment for the initial Bonds, the Paying Agent/Registrar shall: (i) if the Bonds are sold by private placement, insert the delivery date on the

initial Bond and deliver the initial Bond to the Purchaser, or (ii) if the Bonds are sold by negotiated or competitive sale, cancel the initial Bond and deliver to the Depository Trust Company on behalf of such purchaser one registered definitive Bond for each year of maturity of the Bonds, in the aggregate principal amount of all of the Bonds for such maturity. To the extent that the Paying Agent/Registrar is eligible to participate in DTC's FAST System, pursuant to an agreement between the Paying Agent/Registrar and DTC, the Paying Agent/Registrar shall hold the definitive Bonds in safekeeping for DTC.

Section 2.04. FORM OF BONDS. The form of the Bonds, including forms of the initial Bond, the form of Paying Agent/Registrar's Authentication Certificate, the form of Assignment and the form of Registration Certificate of the Comptroller of Public Accounts of the State of Texas to be attached to the Bonds initially issued and delivered pursuant to this Resolution, shall be, respectively, substantially as follows, with such appropriate variations, omissions, or insertions as are permitted or required by this Resolution, and with the Bonds to be completed with information set forth in the Pricing Certificate.

(a) Form of Bond.

UNITED STATES OF AMERICA  
STATE OF TEXAS  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
REVENUE REFUNDING BOND  
SERIES 2011

NO. R- PRINCIPAL  
AMOUNT  
\$ \_\_\_\_\_

INTEREST RATE	DELIVERY/ DATED DATE	MATURITY DATE	CUSIP NO.
---------------	-------------------------	---------------	-----------

REGISTERED OWNER:

PRINCIPAL AMOUNT: DOLLARS

ON THE MATURITY DATE specified above, PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, in Palo Pinto County, Texas (the "Issuer"), being a political subdivision of the State of Texas, hereby promises to pay to the Registered Owner set forth above, or registered assigns (hereinafter called the "Registered Owner") the principal amount set forth above, and to pay interest thereon from the \_\_\_\_\_ set forth above, on \_\_\_\_\_ and on each \_\_\_\_\_ and \_\_\_\_\_ thereafter to the maturity date specified above, or the date of redemption prior to maturity, at the interest rate per annum specified above; except that if this Bond is required to be authenticated and the date of its authentication is later than the first Record Date (hereinafter defined), such principal amount shall bear interest from the interest payment date next preceding the date of authentication, unless such date of authentication is after any Record Date but on or before the next following interest payment date, in which case such principal amount shall bear interest from such next following interest payment date; provided, however, that if on the date of authentication hereof the interest on the Bond or Bonds, if any, for which this Bond is being exchanged or converted from is

due but has not been paid, then this Bond shall bear interest from the date to which such interest has been paid in full.

THE PRINCIPAL OF AND INTEREST ON this Bond are payable in lawful money of the United States of America, without exchange or collection charges. The principal of this Bond shall be paid to the Registered Owner hereof upon presentation and surrender of this Bond at maturity, or upon the date fixed for its redemption prior to maturity, at the corporate trust office of \_\_\_\_\_, \_\_\_\_\_, which is the "Paying Agent/Registrar" for this Bond. The payment of interest on this Bond shall be made by the Paying Agent/Registrar to the Registered Owner hereof on each interest payment date by check or draft, dated as of such interest payment date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the Issuer required by the resolution authorizing the issuance of the Bonds (the "Bond Resolution") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check or draft shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such interest payment date, to the Registered Owner hereof, at its address as it appeared on the \_\_\_\_\_ day of the month next preceding each such date (the "Record Date"), on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described. In addition, interest may be paid by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the Registered Owner. In the event of a non-payment of interest on a scheduled payment date, and for 30 days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least 5 business days prior to the Special Record Date by United States mail, first-class postage prepaid, to the address of each owner of a Bond appearing on the Registration Books at the close of business on the last business day next preceding the date of mailing of such notice.

ANY ACCRUED INTEREST due at maturity or upon the redemption of this Bond prior to maturity as provided herein shall be paid to the Registered Owner upon presentation and surrender of this Bond for payment at the principal corporate trust office of the Paying Agent/Registrar. The Issuer covenants with the Registered Owner of this Bond that on or before each principal payment date and interest payment date for this Bond it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Bond Resolution, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on the Bonds, when due.

IF THE DATE for any payment due on this Bond shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the principal corporate trust office of the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close, and payment on such date shall have the same force and effect as if made on the original date payment was due.

THIS BOND is one of a series of Bonds dated as of \_\_\_\_\_, authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$ \_\_\_\_\_ for the purpose of providing funds to refund the Issuer's outstanding revenue bonds.

\*ON \_\_\_\_\_, or on any date thereafter, the Bonds of this series may be redeemed prior to their scheduled maturities, at the option of the Issuer, with funds derived from any available and lawful source, as a whole, or in part, and, if in part, the particular Bonds, or portions thereof, to be redeemed shall be selected



and designated by the Issuer (provided that a portion of a Bond may be redeemed only in an integral multiple of \$5,000), at a redemption price equal to the principal amount to be redeemed plus accrued interest to the date fixed for redemption.

\*THE BONDS SCHEDULED TO MATURE ON \_\_\_\_\_ in the years \_\_\_\_ and \_\_\_\_ ( the "Term Bonds") are subject to scheduled mandatory redemption by the Paying Agent/Registrar by lot, or by any other customary method that results in a random selection, at a price equal to the principal amount thereof, plus accrued interest to the redemption date, out of moneys available for such purpose in the interest and sinking fund for the Bonds, on the dates and in the respective principal amounts, set forth in the following schedule:

Term Bond		Term Bond	
Maturity: _____, ____		Maturity: _____, ____	
Mandatory Redemption Date	Principal Amount	Mandatory Redemption Date	Principal Amount
_____, ____	\$ _____	_____, ____	\$ _____
_____, ____	_____	_____, ____	_____
_____, ____ (maturity)	_____	_____, ____ (maturity)	_____

The principal amount of Term Bonds of a stated maturity required to be redeemed on any mandatory redemption date pursuant to the operation of the mandatory sinking fund redemption provisions shall be reduced, at the option of the Issuer, by the principal amount of any Term Bonds of the same maturity which, at least 45 days prior to a mandatory redemption date (1) shall have been acquired by the Issuer at a price not exceeding the principal amount of such Term Bonds plus accrued interest to the date of purchase thereof, and delivered to the Paying Agent/Registrar for cancellation, (2) shall have been purchased and canceled by the Paying Agent/Registrar at the request of the Issuer at a price not exceeding the principal amount of such Term Bonds plus accrued interest to the date of purchase, or (3) shall have been redeemed pursuant to the optional redemption provisions and not theretofore credited against a mandatory redemption requirement.

\*AT LEAST 30 DAYS prior to the date fixed for any redemption of Bonds or portions thereof prior to maturity a written notice of such redemption shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, to the Registered Owner of each Bond to be redeemed at its address as it appeared on the day such notice of redemption is mailed and to major securities depositories, national bond rating agencies and bond information services; provided, however, that the failure of the Registered Owner to receive such notice, or any defect therein or in the sending or mailing thereof, shall not affect the validity or effectiveness of the proceedings for the redemption of any Bond. By the date fixed for any such redemption, due provision shall be made with the Paying Agent/Registrar for the payment of the required redemption price for the Bonds or portions thereof which are to be so redeemed. If such written notice of redemption is sent and if due provision for such payment is made, all as provided above, the Bonds or portions thereof which are to be so redeemed thereby automatically shall be treated as redeemed prior to their scheduled maturities, and they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the right of the Registered Owner to receive the redemption price from the Paying Agent/Registrar out of the funds provided for such payment. If a portion of any Bond shall be redeemed a substitute Bond or Bonds having the same maturity date, bearing interest at the same rate, in any denomination or denominations in any integral multiple of \$5,000, at the written request of the Registered Owner, and in aggregate amount equal to the unredeemed portion thereof, will be issued to the Registered Owner upon the surrender thereof for cancellation, at the expense of the Issuer, all as provided in the Bond Resolution.

\*IF AT THE TIME OF MAILING of notice of optional redemption there shall not have either been deposited with the Paying Agent/Registrar or legally authorized escrow agent immediately available funds sufficient to redeem all the Bonds called for redemption, such notice may state that it is conditional, and is subject to the deposit of the redemption moneys with the Paying Agent/Registrar or legally authorized escrow agent at or prior to the redemption date. If such redemption is not effectuated, the Paying Agent/Registrar shall, within 5 days thereafter, give notice in the manner in which the notice of redemption was given that such moneys were not so received and shall rescind the redemption.

ALL BONDS OF THIS SERIES are issuable solely as fully registered Bonds, without interest coupons, with respect to Bonds, in the denomination of any integral multiple of \$5,000 or any integral multiple thereof. As provided in the Bond Resolution, this Bond may, at the request of the Registered Owner or the assignee or assignees hereof, be assigned, transferred, converted into and exchanged for a like aggregate amount of fully registered Bonds, without interest coupons, payable to the appropriate Registered Owner, assignee or assignees, as the case may be, having any authorized denomination or denominations as requested in writing by the appropriate Registered Owner, assignee or assignees, as the case may be, upon surrender of this Bond to the Paying Agent/Registrar for cancellation, all in accordance with the form and procedures set forth in the Bond Resolution. Among other requirements for such assignment and transfer, this Bond must be presented and surrendered to the Paying Agent/Registrar, together with proper instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment of this Bond or any portion or portions hereof in any authorized denomination to the assignee or assignees in whose name or names this Bond or any such portion or portions hereof is or are to be registered. The form of Assignment printed or endorsed on this Bond may be executed by the Registered Owner to evidence the assignment hereof, but such method is not exclusive, and other instruments of assignment satisfactory to the Paying Agent/Registrar may be used to evidence the assignment of this Bond or any portion or portions hereof from time to time by the Registered Owner. The Paying Agent/Registrar's reasonable standard or customary fees and charges for assigning, transferring, converting and exchanging any Bond or portion thereof will be paid by the Issuer. In any circumstance, any taxes or governmental charges required to be paid with respect thereto shall be paid by the one requesting such assignment, transfer, conversion or exchange, as a condition precedent to the exercise of such privilege. The Paying Agent/Registrar shall not be required to make any such transfer or exchange with respect to Bonds (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

IN THE EVENT any Paying Agent/Registrar for the Bonds is changed by the Issuer, resigns, or otherwise ceases to act as such, the Issuer has covenanted in the Bond Resolution that it promptly will appoint a competent and legally qualified substitute therefor, and cause written notice thereof to be mailed to the Registered Owners of the Bonds.

THE RESOLUTION PROVIDES that, to the extent and in the manner permitted by the terms of the Resolution, the Resolution may be amended with the consent of the holders of at least three-fourths in principal amount of all outstanding bonds, provided, that no amendment shall:

- (a) make any change in the maturity of any outstanding bonds;
- (b) reduce the rate of interest borne by any of the outstanding bonds;
- (c) reduce the amount of the principal payable on any outstanding bonds;

(d) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;

(e) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

IT IS HEREBY certified, recited, and covenanted that this Bond has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Bond have been performed, existed, and been done in accordance with law; that this Bond is a special obligation of said Issuer, and together with the Outstanding Parity Obligations described in the Resolution, is secured by and payable from a first lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas, pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City of Mineral Wells, Texas.

THE HOLDER HEREOF shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation.

UNDER THE TERMS AND CONDITIONS as provided in the Resolution, the Issuer reserves the right to issue Additional Bonds which will be payable from taxes and/or secured by a pledge of revenues constituting a lien on such revenues on a parity with this issue of Bonds and to issue Special Project Bonds to acquire or construct a separate project which is expected to be self-liquidating, however, such bonds may be payable from taxes.

BY BECOMING the registered owner of this Bond, the registered owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each registered owner hereof and the Issuer.

THE ISSUER ALSO HAS RESERVED THE RIGHT to amend the Bond Resolution as provided therein, and under some (but not all) circumstances amendments thereto must be approved by the Registered Owners of a majority in aggregate principal amount of the outstanding Bonds.

BY BECOMING the Registered Owner of this Bond, the Registered Owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each Registered Owner hereof and the Issuer.

IN WITNESS WHEREOF, the Issuer has caused this Bond to be signed with the manual or facsimile signature of the President of the Board of Directors of the Issuer and countersigned with the manual or facsimile signature of the Secretary of the Board of Directors of the Issuer, and has caused the official seal of the Issuer to be duly impressed, or placed in facsimile, on this Bond.

\_\_\_\_\_  
(Signature)  
Secretary, Board of Directors

\_\_\_\_\_  
(Signature)  
President, Board of Directors

(SEAL)

\*These paragraphs to be included to the extent applicable.

(b) Form of Paying Agent/Registrar's Authentication Certificate.

PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE  
(To be executed if this Bond is not accompanied by an Executed Registration  
Certificate of the Comptroller of Public Accounts of the State of Texas)

It is hereby certified that this Bond has been issued under the provisions of the Bond Resolution described in the text of this Bond; and that this Bond has been issued in conversion or replacement of, or in exchange for, a bond, bonds, or a portion of a bond or bonds of a Series which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Date of authentication: \_\_\_\_\_

\_\_\_\_\_  
Paying Agent/Registrar

By: \_\_\_\_\_  
Authorized Signatory

(c) Form of Assignment.

ASSIGNMENT  
(Please print or type clearly)

For value received, the undersigned hereby sells, assigns and transfers unto: \_\_\_\_\_

Transferee's Social Security or Taxpayer Identification Number: \_\_\_\_\_

Transferee's name and address, including zip code: \_\_\_\_\_

\_\_\_\_\_ the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints \_\_\_\_\_, attorney, to register the transfer of the within Bond on the books kept for registration thereof, with full power of substitution in the premises.

Dated: \_\_\_\_\_

Signature Guaranteed:

\_\_\_\_\_  
NOTICE: Signature(s) must be guaranteed by an eligible guarantor institution participating in a securities transfer association recognized signature guarantee program.

\_\_\_\_\_  
NOTICE: The signature above must correspond with the name of the Registered Owner as it appears upon the front of this Bond in every particular, without alteration or enlargement or any change whatsoever.

(d) Form of Registration Certificate of the Comptroller of Public Accounts.

REGISTRATION CERTIFICATE OF  
COMPTROLLER OF PUBLIC ACCOUNTS

OFFICE OF THE COMPTROLLER  
OF PUBLIC ACCOUNTS  
OF THE STATE OF TEXAS

§  
§  
§

REGISTER NO. \_\_\_\_\_

I HEREBY CERTIFY that there is on file and of record in my office a certificate of the Attorney General of the State of Texas to the effect that this Bond has been examined by him as required by law, that he finds that it has been issued in conformity with the Constitution and laws of the State of Texas, and that it is a valid and binding obligation of Palo Pinto County Municipal Water District No. 1, and that this Bond has this day been registered by me.

WITNESS MY SIGNATURE AND SEAL this \_\_\_\_\_.

\_\_\_\_\_  
Comptroller of Public Accounts of the State of Texas

(COMPTROLLER'S SEAL)

(e) Insertions for the initial Bond.

(i) The initial Bond shall be in the form set forth in paragraph (a) of this Section, except that:

(A) immediately under the name of the Bond, the headings "INTEREST RATE" and "MATURITY DATE" shall both be completed with the words "As shown below" and "CUSIP NO. \_\_\_\_\_" shall be deleted.

(B) the first paragraph shall be deleted and the following will be inserted:

"Palo Pinto County Municipal Water District No. 1 (the "Issuer"), being a political subdivision located in Palo Pinto, Texas, hereby promises to pay to the Registered Owner specified above, or registered assigns (hereinafter called the "Registered Owner"), on the dates, in the principal installments and hearing interest at the per annum rates set forth in the following schedule:

\_\_\_\_\_  
Maturity Dates      Principal Installments      Interest Rates

(Information for the Bonds from Section 3 to be inserted)

The Issuer promises to pay interest on the unpaid principal amount hereof (calculated on the basis of a 360-day year of twelve 30-day months) from \_\_\_\_\_ at the respective Interest Rate per annum specified above. Interest is payable on \_\_\_\_\_, and on each \_\_\_\_\_ and \_\_\_\_\_ thereafter to the date of payment of the principal installment specified above, or the date of redemption prior to maturity; except, that if this Bond is required to be authenticated and the date of its authentication is later than the first Record Date (hereinafter defined), such principal amount shall bear interest from the interest payment date next preceding

the date of authentication, unless such date of authentication is after any Record Date but on or before the next following interest payment date, in which case such principal amount shall bear interest from such next following interest payment date; provided, however, that if on the date of authentication thereof the interest on the Bond or Bonds, if any, for which this Bond is being exchanged is due but has not been paid, then this Bond shall bear interest from the date to which such interest has been paid in full."

(C) The initial Bond shall be numbered "T-1."

### ARTICLE III

#### PLEDGE

Section 3.01. PLEDGE. The Issuer covenants and agrees that the Parity Obligations, and the interest thereon, are and shall be secured by and payable from a first lien on and pledge of the Pledged Revenues, including specifically the payments to be received by the Issuer from the Water Purchase Contract and the supplement on modification thereof.

### ARTICLE IV

#### REVENUES AND APPLICATION THEREOF

Section 4.01. FUNDS. There have been created the following funds and accounts:

- (1) The "Revenue Fund" to be kept with the Depository.
- (2) The "Debt Service Fund" for the Parity Obligations to be kept with the Depository. This Fund shall be used for the payment of interest on and principal of the Parity Obligations, and any Additional Bonds issued pursuant to this Resolution.
- (3) The "Reserve Fund" for the Parity Obligations to be kept with the Depository. Monies in this Fund shall be used for the payment of interest on and principal of the Parity Obligations, including amounts owed with respect to any Reserve Fund Obligation when money in the Debt Service Fund is inadequate for that purpose.
- (4) The "Contingency Fund" to be kept with the Depository. This Fund may be used to pay for any extraordinary or nonrecurring expenses of operation or maintenance, and for replacements and repairs if such expenses should become necessary. Money in this Fund not encumbered for such purposes shall be used for payment of interest on and principal of Parity Obligations, when the Debt Service Fund is not adequate for that purpose.
- (5) The "Surplus Fund" to be kept with the Depository. This Fund shall be used for payment of interest on and principal of Parity Obligations, if there are insufficient funds in the Debt Service Fund, Reserve Fund and Contingency Fund for the Parity Obligations for that purpose, and if not needed for such purpose the monies in this Fund may be used for any lawful purposes including repairs, replacements and improvements to the Issuer's facilities.

Section 4.02. REVENUE FUND. All gross revenues of every nature including the payments to be received from the Water Purchase Contract, shall be deposited as collected into the Revenue Fund, and the



reasonable, necessary, and proper maintenance and operation expenses shall be paid from the Revenue Fund. The revenues not actually required to pay said Operation and Maintenance Expenses shall be deposited from the Revenue Fund first into the funds created by the Resolutions for the Parity Obligations, in the manner and amounts hereinafter provided and each of the Funds shall have priority as to such deposits in the order in which they are treated in the following sections.

Section 4.03. DEBT SERVICE FUND FOR THE PARITY OBLIGATIONS. There shall be deposited into the Debt Service Fund such amounts as required to be transferred to this Fund established herein; these accounts shall be on absolute parity and equality of lien with the deposits in this Fund and such amounts shall be sufficient to provide transfers to the following accounts, as follows:

(a) such amounts, in substantially semiannual installments, made on or before the 25<sup>th</sup> of each May and November hereafter, which will be sufficient to pay the interest scheduled to come due on the Parity Obligations on the next interest payment date;

(b) such amounts, in substantially semiannual installments, made on or before the 25<sup>th</sup> day of each May and November hereafter, commencing on May 25 of the month subsequent to the delivery date of the Bonds, will be sufficient to pay the next maturing principal or mandatory redemption on the Parity Obligations.

(c) Chapter 1208, Government Code, applies to the issuance of the Bonds and the pledge of the revenues granted by the Issuer under this Section, and is therefore valid, effective, and perfected. Should Texas law be amended at any time while the Bonds are outstanding and unpaid, the result of such amendment being that the pledge of the revenues granted by the Issuer under this Section is to be subject to the filing requirements of Chapter 9, Business & Commerce Code, in order to preserve to the registered owners of the Bonds a security interest in said pledge, the Issuer agrees to take such measures as it determines are reasonable and necessary under Texas law to comply with the applicable provisions of Chapter 9, Business & Commerce Code and enable a filing of a security interest in said pledge to occur.

Section 4.04. RESERVE FUND FOR THE PARITY OBLIGATIONS. The following provisions shall govern the establishment, maintenance and use of the Issuer's Reserve Fund (the "Reserve Fund"):

There shall be established and maintained a Reserve Fund for the purposes of (i) finally retiring the last of the Parity Obligations, and (ii) paying principal of and interest on the Parity Obligations in the event moneys on deposit in the Debt Service Fund are insufficient for such purpose.

(a) The Issuer shall deposit in the Reserve Fund on the 25<sup>th</sup> day of each month, commencing July 25 of the month subsequent to the delivery of the Bonds, in substantially equal monthly deposits, an amount which will accumulate, in not more than 60 months, the increase in the Required Reserve Amount resulting from the issuance of the Bonds.

In the event money in said Reserve Fund is used for the purpose for which the same is established, the amount required to make up the deficiency so that the Required Reserve Amount is on deposit in such Fund shall be paid into such Fund in not more than 60 months, in equal consecutive monthly installments. The Depository of the Issuer is designated as the custodian of the Reserve Fund and the deposits above prescribed shall be deposited into the Reserve Fund.

Section 4.05. CONTINGENCY FUND. There has been deposited into the Contingency Fund \$200,000 created by the Resolutions authorizing the outstanding Series 2001 Bonds and the Series 2002 Bonds.

In addition, the Issuer has agreed for the benefit of the Series 2009A Bonds and Series 2009B Bonds to deposit on the 25<sup>th</sup> day of each month the amount of \$417 until the Contingency Fund contains an additional \$50,000. No deposits shall be required to be made into the Contingency Fund as long as the Contingency Fund contains said aggregate amount, but if and whenever said Contingency Fund is reduced below said aggregate amount, the monthly deposits on the 25<sup>th</sup> day of each month beginning the month after the withdrawal from this fund in the amount of \$2,084 shall be deposited into the Contingency Fund until such time as the Contingency Fund has been restored to said aggregate amount. The Depository of the Issuer is designated as the custodian of this Contingency Fund and deposits above prescribed shall be deposited into this Contingency Fund.

Section 4.06. SURPLUS FUND. There shall be deposited into the Surplus Fund on the 1<sup>st</sup> day of each October hereafter any surplus monies remaining in the Revenue Fund from the previous completed fiscal year, and maybe used for any lawful purposes of the Issuer.

Section 4.07. DEFICIENCIES IN FUND. If in any month the Issuer shall fail to deposit into any of the aforesaid funds the full amounts required, amounts equivalent to such deficiencies shall be set apart and paid into said Funds from the first available and unallocated funds available for such purposes for the following month or months, and such payments shall be in addition to the amount otherwise required to be paid into said Funds during such month or months.

Section 4.08. SECURITY FOR FUNDS. The Issuer shall cause the Depository to secure and keep secured, in the manner required by law, all funds on deposit with it, including time deposits, and will cause the Paying Agent/Registrar to secure all funds deposited with it, as other trust funds are secured.

Section 4.09. INVESTMENTS. Money in all Funds created pursuant to this Resolution may be invested and reinvested as directed by the Issuer, in direct obligations of, or obligations of the principal of and interest on which are unconditionally guaranteed by, the United States Government, which shall mature, or which shall be subject to redemption by the holder thereof, at the option of such holder, before the next payment is required to be made from such Funds, respectively, pursuant to Public Funds Investment Act Chapter 2256, Texas Government Code. Money in any of said Funds may also be placed in interest bearing deposits in the banks in which deposits are required to be kept. The interest and realized income on such investments shall be deposited into the Fund producing the earning when the Fund does not contain the total amount of required or permitted to be on deposit therein, otherwise the interest and realized income shall be deposited into the Revenue Fund.

## ARTICLE V

### BUDGETS AND ACCOUNTING

Section 5.01. PREPARATION OF BUDGET. The Issuer in advance of each Fiscal Year, and in accordance with the Contract, shall prepare and keep on file an annual budget (herein called "Annual Budget") of Operation and Maintenance Expenses for the ensuing Fiscal Year, and except as otherwise required in Section 5.02 of this Resolution, the total expenditures in any division thereof shall not exceed the total expenditures in the corresponding division of the Annual Budget. The Paying Agent/Registrar shall not be obligated to determine whether funds are expended in an amount in excess of the amounts provided in the Annual Budget.

Section 5.02. AMENDMENT. The Issuer covenants that the current Operation and Maintenance Expenses incurred in any Fiscal Year will not exceed the reasonable and necessary amount of such expense,

and that it will not expend any amount, or incur any obligation for maintenance, repair, and operation in excess of the amounts provided for current Maintenance and Operation Expenses in the Annual Budget; provided, however, that if at any time the Board shall determine that it is necessary, due to unforeseen events, to increase the budget in order to pay for unusual operation and maintenance expenses, the Board, by Resolution, may amend the budget with the approval of the City, if the Contract is still in effect, to provide for the increased budget. The Water Charge shall be increased accordingly. The former year's budgeted Operation and Maintenance Expenses shall be extended during the period when a new budget is under consideration.

Section 5.03. ACCOUNTING AND REPORTING. The Issuer covenants that proper books of records and accounts will be kept in which full, true, and correct entries will be made of all income, expenses, and transactions of and in relation to the works, and facilities of the Issuer, and each and every part thereof. The report of the certified public accountant shall include a list of insurance policies then in effect and a record of water sold to the Issuer's customers.

Section 5.04. PUBLIC INSPECTION. The Issuer further covenants and agrees that the works and facilities and each and every part thereof, and all hooks, records, accounts, documents and vouchers relating to the construction, operation, maintenance, repair, improvement and extension thereof, will at all reasonable times be open to inspection of owners of the Bonds and their representatives.

## ARTICLE VI

### GENERAL COVENANTS

Section 6.01. PAYMENT OF BONDS AND INTEREST. The Issuer covenants and agrees that, out of Pledged Revenues, it will duly and punctually pay or cause to be paid the principal of, and interest on the Parity Obligations, on the date and at the office of the Paying Agent/Registrar, according to the real intent and meaning thereof, and that it will faithfully do and perform and at all times fully observe any and all covenants, undertakings, and provisions contained herein or in any Bond.

Section 6.02. LEGAL ABILITY. The Issuer represents that it is a conservation and reclamation district, and a governmental agency and body politic and corporate, duly created, organized and existing under the Constitution and laws of the State of Texas and has proper authority from all other public bodies and authorities, if any, having jurisdiction thereof, to pledge its revenues in the manner and form as herein done or intended, and all corporate action on its part to that end has been duly and validly taken. The Issuer covenants and agrees that it will at all times maintain its corporate existence and maintain a lawful Board of Directors, and at all times function and act in the best interest of the Issuer and the bondholders.

Section 6.03. NO OTHER LIENS. The Issuer further covenants that there is not now outstanding and that the Issuer will, not at any time create or allow to exist, any lien upon its works and facilities, or any part thereof, or the Revenues, or any of the Funds herein created, except as authorized by Article VIII of this Resolution, other than Reserve Fund Obligations, if any, that the security of the Parity Obligations will not be impaired in any way as a result of any action or any action on the part of the Issuer, its Board of Directors or officers, or any thereof, and that the Issuer has and will be subject to the provisions hereof, continuously preserve good and indefeasible title to the properties of the Issuer.

Section 6.04. KEEP FRANCHISES AND PERMITS IN EFFECT. The Issuer further covenants that no franchises, permits, contracts privileges, easements, or water rights will, be allowed to lapse or be forfeited so long as the same shall be necessary for the proper operation of the works and facilities of the Issuer.

Section 6.05. GOVERNMENTAL REQUIREMENTS, LIENS, CLAIMS. The Issuer covenants that it will duly observe and comply with all valid requirements of any governmental authority relative to the works and facilities of the Issuer, or any part thereof, and that it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies, or other objects which if unpaid, might by law become a lien upon such work and facilities or any part thereof or the revenues therefrom; provided, however, that nothing contained in this Section shall be required of the Issuer to pay or cause to be discharged, or make provision for any such lien or charge, as long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

Section 6.06. FURTHER ASSURANCE. The Issuer covenants that it will take such further action as may be required to carry out the purposes of this Resolution and to assure its validity.

Section 6.07. SALE AND LEASE OF PROPERTY.

(a) The Issuer covenants that so long as any Bonds are outstanding and except as in this Section otherwise permitted, it will not sell, lease or otherwise dispose of or encumber any part of its works and facilities, or any of the Revenues derived therefrom, except as provided herein. The Issuer may from time to time sell any machinery, fixtures, apparatus, tools, instruments, or other movable property and any materials used in connection therewith, if the Board shall determine that such articles are no longer needed or are no longer useful in connection with the consideration and maintenance of its works and facilities. The Issuer may from time to time sell such real estate that is not needed or serves no useful purpose in connection with the maintenance and operation of the works and facilities of the Issuer. The proceeds of any sale of real or personal property acquired subsequent to the adoption of this Resolution, from the proceeds of Bonds or from Revenues shall be deposited into the Fund or Funds from which money was used for the acquisition of such property if required for such Fund or Funds; otherwise, such proceeds shall be deposited into the Revenue Fund.

(b) The Issuer may lease any of its land for any purpose, if such lease or the use of such lands will not be detrimental to the operation and maintenance of the works and facilities of the Issuer. It may also Lease any of its real property for oil, gas and mineral purposes. No lease shall be made which will result in any damage to or substantial diminution of the value of other property in the Issuer, or which will in any manner divert, endanger, or contaminate the Issuer's water supply or water transportation facilities. All rentals, revenues, receipts and royalties derived by the Issuer from any and all leases so made shall be placed in the Revenue Fund.

(c) It is covenanted and agreed by the Issuer that no such property of any nature shall be sold or leased by the Issuer unless, prior to any act on taken by the Issuer concerning such sale or leasing, the Issuer shall procure the advice and recommendation in writing of the independent, consulting engineer concerning such proposed sale or leasing. The Issuer covenants that it will follow such advice and recommendations.

Section 6.08. INDEPENDENT CONSULTING ENGINEER.

(a) The Issuer covenants that, until all Bonds and the interest thereon shall have been paid or provision for such payment shall have been made, it will, for the purpose of performing and carrying out the duties imposed on the Independent Consulting Engineer by this Resolution employ an independent engineering firm of engineering firm or corporation having a favorable repute for skill and experience in such work.

(b) The Issuer covenants that it will at all appropriate times and at least every three years, beginning January 1, 2010, cause the Independent Consulting Engineer to submit in writing, and give all necessary or desirable advice and recommendations concerning renewals, replacements, extensions, betterment, and improvements for the works and facilities of the Issuer, to the end that the works and facilities shall be operated and maintained in the most efficient and satisfactory manner.

(c) The expenses incurred under this Section 6.08 shall constitute Maintenance and Operation Expenses.

Section 6.09. RATES AND CHARGES. The Issuer covenants that at all times it will maintain a water charge and rates, fees and charges for services furnished by it, and that from time to time as often as it shall appear necessary it will adjust such rates, fees and charges as may be necessary or proper, so that such fees and charges will be fully sufficient to produce revenues during such Fiscal Year which will be adequate to pay all Operation and Maintenance Expenses during such Fiscal Year, and provide revenues during such Fiscal Year in an amount at least one times the amount necessary to make all payments due hereunder for payment of principal of and interest on the Parity Obligations, and to establish the funds herein prescribed and the payment of Reserve Fund Obligation Payments, if any. The Issuer further covenants that if at any time the revenues collected for the services furnished by it are inadequate to satisfy this covenant, the Issuer shall adjust the rates, fees and charges in order that such deficiencies shall be made up before the end of the next ensuing Fiscal Year.

Section 6.10. WATER SALE CONTRACTS. The Issuer will not make any contract for the sale of water at a price which would require a reduction of charges to be made for water sold under any contract theretofore made.

## ARTICLE VII

### INSURANCE

Section 7.01. INSURANCE COVERAGE. The Issuer covenants that it will at all times keep insured such of its water supply facilities as are usually insured by corporations operating like properties, with a responsible insurance company or companies against risks, accidents, or casualties against which and to the extent insurance is usually carried by corporations operating like properties, including (but only if such insurance can be procured at reasonable cost) insurance against damage by floods, and will also at all times maintain workmen's compensation insurance, in a reasonable amount with responsible insurance companies. Public liability and property damage insurance shall also be carried unless the general counsel for the Issuer or the Attorney General of Texas, issues a written opinion that Issuer would be immune from claims which would be protected by such insurance provided, however, that at any time while any contractor engaged in construction work shall be fully responsible therefor, the Issuer shall not be required to carry such insurance. All such policies shall be open to the inspection of the Bondholders and their representatives at all reasonable times.

Section 7.02. INSURANCE PROCEEDS. In the event of any loss or damage, the Issuer covenants that it will reconstruct or repair the destroyed or damaged portion of the property and will apply the proceeds of the insurance proceeds covering such loss or damage solely for that purpose. The Issuer covenants that it will begin such work or reconstruction or repair promptly after such loss or damage shall occur and will continue and properly complete the same as expeditiously as possible and will pay or cause to be paid all costs and expenses in connection therewith so that the same shall be so completed and the property be free and clear

of all mechanics and other liens and claims. The Issuer agrees that it will procure the advise and recommendation in writing of the independent consulting engineer concerning such reconstruction before it is undertaken.

Section 7.03. UNUSED INSURANCE PROCEEDS. Any insurance proceeds remaining after the completion of and payment for any such reconstruction or repair shall be deposited to the credit of the Revenue Fund.

## ARTICLE VIII

### ADDITIONAL BONDS

Section 8.01. DEFINITIONS. For the purpose of this Article VIII, the following definitions shall apply:

(a) "Completion Bonds" shall mean bonds issued by the Issuer for completion of the construction of the Project upon approval of the Texas Water Development Board.

(b) "Improvement Bonds" shall mean bonds issued for improvements, betterment, additions to, or extensions and replacements of the work and facilities of the Issuer.

(c) "Refunding Bonds" shall mean bonds issued to refund all or any part of the Issuer's outstanding Bonds.

(d) "Special Project Bonds" shall mean bonds issued to acquire or construct a separate project which is expected to be selfliquidating. Such bonds may also be payable from taxes.

Section 8.02. COMPLETION BONDS. The Issuer reserves the right to issue Completion Bonds, payable from and secured by a pledge of the Pledged Revenues, on a parity of lien with the Bonds, whether or not additionally secured by a tax levy. The Completion Bonds may be issued in one or more series of installments, and from time to time as authorized by the Issuer.

Section 8.03. IMPROVEMENT BONDS. The Issuer reserves the right to issue Improvement Bonds, which, when issued and delivered, shall be payable from and secured by Pledged Revenues of the Issuer, and may be additionally secured by a tax levy. The lien on Pledged Revenues for the payment of Improvement Bonds may be on a parity with the lien for the Parity Obligations, or inferior to such lien. The Improvement Bonds may be issued in one or more installments or series, provided, however, that no installment or series of Improvement Bonds, if it is on a parity with the lien on the Parity Obligations shall be issued unless:

(a) a certificate is executed by the President and Secretary of the Issuer to the effect that no default exists in connection with any of the covenants or requirements of the Resolution authorizing the issuance of all then outstanding Bonds which are secured by revenues.

(b) a certificate is executed by the President and Secretary of the Issuer to the effect that the Debt Service Fund and the Reserve Fund contain the amounts then required to be on deposit therein.

(c) The then proposed Improvement Bonds are made to mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.



(d) A certificate or opinion from a certified public accountant showing that the Pledged Revenues for either (A) the last completed Fiscal Year, or (b) a consecutive twelve-month calendar period ending not more than 90 days preceding the adoption of the Resolution authorizing the issuance of Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Parity Obligations which will be outstanding after giving effect to the issuance of the Additional Bonds then being issued as certified by a certified public accountant, or the Issuer has secured from a certified public accountant or professional engineer a certificate of opinion showing that the Net Revenues for a twelve-month calendar period, based on rates and charges for services and facilities afforded by the System that became effective at least sixty (60) days prior to the month in which the Resolution authorizing the issuance of the Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Parity Obligations which will be outstanding after giving effect to the issuance of the Additional Bonds being issued pursuant to this Resolution.

Section 8.04. SPECIAL PROJECT BONDS. Special Project Bonds payable from and secured by revenues or by both revenues and taxes may be issued by the Issuer for the purposes of providing additional supply lines and facilities, to enable the Issuer to sell water to other users, provided that such Special Project Bonds are not payable from or secured by a pledge of Revenues which were pledged herein to the payment of the Bonds or Completion or Improvement Bonds. All revenues of such project in excess of those required to pay operation and maintenance expenses, and principal and interest as they become due and to create and maintain reserve funds as provided in the Resolution authorizing such Special Project Bonds, and all net revenues of the project after full payment of the Special Project Bonds, or any bonds issued to refund them, shall be deposited into the Revenue Fund.

Section 8.05. REFUNDING BONDS. Refunding Bonds may be authorized by the Issuer to refund all or any part of the Issuer's outstanding Bonds, upon such terms and conditions as the Board of Directors deems to be in the best interest of the Issuer.

Section 8.06. INCREASE IN RESERVE FUND. If Completion Bonds or Improvement Bonds are issued, the maximum amount required to be deposited and maintained in the Reserve Fund shall be increased to an amount equivalent to not less than the average annual debt service requirements for all the Outstanding Parity Obligations, Completion Bonds, Improvement Bonds and proposed Parity Obligations, and that such additional amount shall be accumulated within sixty-one (61) months from the date of the Completion or Improvement Bonds, by the deposit in the Reserve Fund of the necessary sums in equal monthly installments; unless a Reserve Fund Obligation is acquired, provided, however, that the aggregate amount to be accumulated in the Reserve Fund shall never be required to exceed the average annual debt service requirements for all then outstanding Bonds, Completion Bonds or Improvement Bonds, and for the installment or series of Completion Bonds or Improvement Bonds then proposed to be issued.

Section 8.07. AUTHORIZATION. Completion Bonds, Improvement Bonds and Refunding Bonds permitted by this Article to be issued shall be authorized by resolutions by the Board of Directors which shall prescribe the form and terms of such Bonds.

Section 8.08. MATURITIES. Bonds issued under this Article shall mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

Section 8.09. TAX BONDS. No provisions in this Resolution shall in any way affect the statutory right of the Issuer to issue bonds supported wholly by ad valorem taxes.

## ARTICLE IX

### AMENDMENTS

#### Section 9.01. AMENDMENTS.

(a) The owners of Bonds aggregating in principal amount three-fourths of the aggregate principal amount of Bonds at the time Outstanding shall have the right from time to time to approve an amendment of this Resolution which may be deemed necessary or desirable by the Issuer, provided, however, that nothing herein contained shall permit or be construed to permit the amendment of the terms and conditions contained in this Resolution or in the Bonds, unless consent of all Bond owners is obtained so as to:

- (i) make any change in the maturity of any outstanding Bonds;
- (ii) reduce the rate of interest borne by any of the outstanding Bonds;
- (iii) reduce the amount of the principal payable on any Outstanding Bonds;
- (iv) modify the terms of payment of principal or interest on the outstanding Bonds or any of them or impose any conditions with respect to such payment;
- (v) change the minimum percentage of the principal or interest on the outstanding Bonds or any of them, or impose any conditions with respect to such payment.

(h) The Issuer may from time to time, without the consent of any owner of Bond, except as otherwise required by paragraph (a) above, amend or supplement this Resolution to (i) cure any ambiguity, defect or omission in this Resolution that does not materially adversely affect the interests of the owners, (ii) grant additional rights or security for the benefit of the owners, (iii) add events of default as shall not be inconsistent with the provisions of this Resolution and that shall not materially adversely affect the interests of the owners, (v) qualify this Resolution under the Trust Indenture Act of 1939, as amended, or corresponding provisions of federal laws from time to time in effect, or (iv) make such other provisions in regard to matters or questions arising under this Resolution as shall not be materially inconsistent with the provisions of the Resolution and that shall not, in the opinion of nationally-recognized bond counsel, materially adversely affect the interests of the owners of bonds. Notice of this amendment shall be given to the Bond Insurer.

Section 9.02. NOTICE REQUIRED. If at any time the Issuer shall desire to amend the Resolution under this Article, the Issuer shall cause notice of the proposed amendment to be delivered to the Paying Agent/Registrar to be mailed by first class mail to each registered Bond owner. Such notice shall briefly set forth the nature of the proposed amendment and shall state that a copy thereof is on file at the principal offices of the Paying Agent/Registrar for inspection by the owner of the Bonds, a copy of the proposed amendment shall be filed with the Paying Agent/Registrar at the time of the mailing of the notice. Notice must also be given to the Bond Insurer. Such mailing and the filing of a copy of the proposed amendment are not required, however, if notice in writing is given to each holder of the Bonds.

Section 9.03. ADOPTION OF AMENDMENT. Whenever at any time not less than thirty (30) days and within one year from the date of the mailing of said notice, the Issuer shall receive an instrument or instruments executed by the holders of at least three-fourths in aggregate principal amount of the Bonds, which instrument or instruments shall refer to the proposed amendment described in said notice and which specifically

consent to and approve such amendment in substantially the form of the copy thereof on file with the Paying Agent/Registrar, the Issuer may adopt the amendatory resolution in substantially the same form.

Section 9.04. EFFECTIVE UPON ADOPTION. Upon the adoption of any amendatory resolution pursuant to the provisions of this Article, the Resolution shall be deemed to be amended in accordance with such amendatory resolution, and the respective rights, duties and obligations under the Resolution of the Issuer, and all the holders of outstanding Bonds shall thereafter be determined, exercised, and enforced hereunder, subject in all respects to such amendments.

Section 9.05. REVOCAION OF CONSENT. Any consent given by the holder of a bond pursuant to the provisions of this Article shall be irrevocable for a period of six months from the date of the first mailing of the notice provided for in this Article, and shall be conclusive and binding upon all future holders of the same bond during such period. Such consent may be revoked at any time after six months from the date of the first mailing of such notice by the holders of such consent, or by a successor in title, by filing notice thereof with the Paying Agent/Registrar and the Issuer, but such revocation shall not be effective if the holders of the required principal amount of the bonds have, prior to the attempted revocation, consented to and approved the amendment.

## ARTICLE X

### BONDS

#### Section 10.01. DAMAGED, MUTILATED, LOST, STOLEN, OR DESTROYED BONDS.

(a) Replacement Bonds. In the event any outstanding Bond is damaged, mutilated, lost, stolen, or destroyed, the Paying Agent/Registrar shall cause to be printed, executed, and delivered, a new bond of the same principal amount, maturity, and interest rate, as the damaged, mutilated, lost, stolen, or destroyed Bond, in replacement for such Bond in the manner hereinafter provided.

(b) Application for Replacement Bonds. Application for replacement of damaged, mutilated, lost, stolen, or destroyed Bonds shall be made by the registered owner thereof to the Paying Agent/Registrar. In every case of loss, theft, or destruction of a Bond, the registered owner applying for a replacement bond shall furnish to the Issuer and to the Paying Agent/Registrar such security or indemnity as may be required by them to save each of them harmless from any loss or damage with respect thereto. Also, in every case of loss, theft, or destruction of a Bond, the registered owner shall furnish to the Issuer and to the Paying Agent/Registrar evidence to their satisfaction of the loss, theft, or destruction of such Bond, as the case may be. In every case of damage or mutilation of a Bond, the registered owner shall surrender to the Paying Agent/Registrar for cancellation the Bond so damaged or mutilated.

(c) No Default Occurred. Notwithstanding the foregoing provisions of this Section, in the event any such Bond shall have matured, and no default has occurred which is then continuing in the payment of the principal of, redemption premium, if any, or interest on the Bond, the Issuer may authorize the payment of the same (without surrender thereof except in the case of a damaged or mutilated Bond) instead of issuing a replacement Bond, provided security or indemnity is furnished as above provided in this Section.

(d) Charge for Issuing Replacement Bonds. Prior to the issuance of any replacement bond, the Paying Agent/Registrar shall charge the registered owner of such Bond with all legal, printing, and other expenses in connection therewith. Every replacement bond issued pursuant to the provisions of this Section by virtue of

the fact that any Bond is lost, stolen, or destroyed shall constitute a contractual obligation of the Issuer whether or not the lost, stolen, or destroyed Bond shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Resolution equally and proportionately with any and all other Bonds duly issued under this Resolution.

(e) Authority for Issuing Replacement Bonds. In accordance with Chapter 1207 of the Texas Government Code, this Section of this Resolution shall constitute authority for the issuance of any such replacement bond without necessity of further action by the governing body of the Issuer or any other body or person, and the duty of the replacement of such bonds is hereby authorized and imposed upon the Paying Agent/Registrar, and the Paying Agent/Registrar shall authenticate and deliver such bonds in the form and manner and with the effect, as provided in Section 2.06(d) of this Resolution for Bonds issued in conversion and exchange for other Bonds.

Section 10.02. CUSTODY, APPROVAL, AND REGISTRATION OF BONDS; BOND COUNSEL'S OPINION; CUSIP NUMBERS; AND CONTINGENT INSURANCE PROVISION, IF OBTAINED. The President of the Board of Directors of the Issuer is hereby authorized to have control of the Initial Bond issued hereunder and all necessary records and proceedings pertaining to the Initial Bond pending its delivery and its investigation, examination, and approval by the Attorney General of the State of Texas, and its registration by the Comptroller of Public Accounts of the State of Texas. Upon registration of the Initial Bond said Comptroller of Public Accounts (or a deputy designated in writing to act for said Comptroller) shall manually sign the Comptroller's Registration Certificate on the Initial Bond, and the seal of said Comptroller shall be impressed, or placed in facsimile, on the Initial Bond. In addition, if bond insurance is obtained, the Bonds may bear an appropriate legend as provided by the Insurer.

Section 10.03. COVENANTS REGARDING TAX EXEMPTION.

(a) Covenants. The Issuer covenants to take any action necessary to assure, or refrain from any action that would adversely affect, the treatment of the Bonds as obligations described in section 103 of the Code, the interest on which is not includable in the "gross income" of the Bond holder for purposes of federal income taxation. In furtherance thereof, the Issuer covenants as follows:

(1) to take any action to assure that no more than 10 percent of the proceeds of the Bonds (less amounts deposited to a reserve fund, if any) are used for any "private business use," as defined in section 141(b)(6) of the Code or, if more than 10 percent of the proceeds or the projects financed therewith are so used, such amounts, whether or not received by the Issuer, with respect to such private business use, do not, under the terms of this Resolution or any underlying arrangement, directly or indirectly, secure or provide for the payment of more than 10 percent of the debt service on the Bonds, in contravention of section 141(h)(2) of the Code;

(2) to take any action to assure that in the event that the "private business use" described in subsection (1) hereof exceeds 5 percent of the proceeds of the Bonds or the projects financed therewith (less amounts deposited into a reserve fund, if any) then the amount in excess of 5 percent is used for a "private business use" that is "related" and not "disproportionate," within the meaning of section 141(h)(3) of the Code, to the governmental use;

(3) to take any action to assure that no amount that is greater than the lesser of \$5,000,000, or 5 percent of the proceeds of the Bonds (less amounts deposited into a reserve fund, if any) is directly

or indirectly used to finance loans to persons, other than state or local governmental units, in contravention of section 141(c) of the Code;

(4) to refrain from taking any action that would otherwise result in the Bonds being treated as "private activity bonds" within the meaning of section 141(b) of the Code;

(5) to refrain from taking any action that would result in the Bonds being "federally guaranteed" within the meaning of section 149(b) of the Code;

(6) to refrain from using any portion of the proceeds of the Bonds, directly or indirectly, to acquire or to replace funds that were used, directly or indirectly, to acquire investment property (as defined in section 148(b)(2) of the Code) that produces a materially higher yield over the term of the Bonds, other than investment property acquired with –

(A) proceeds of the Bonds invested for a reasonable temporary period of 3 years or less or, in the case of a refunding Bonds, for a period of 30 days or less until such proceeds are needed for the purpose for which the Bonds are issued,

(B) amounts invested in a bona fide debt service fund, within the meaning of section 1.148-1(b) of the Treasury Regulations, and

(C) amounts deposited in any reasonably required reserve or replacement fund to the extent such amounts do not exceed 10 percent of the proceeds of the Bonds;

(7) to otherwise restrict the use of the proceeds of the Bonds or amounts treated as proceeds of the Bonds, as may be necessary, so that the Bonds do not otherwise contravene the requirements of section 148 of the Code (relating to arbitrage) and, to the extent applicable, section 149(d) of the Code (relating to advance refundings); and

(8) to pay to the United States of America at least once during each five-year period (beginning on the date of delivery of the Bonds) an amount that is at least equal to 90 percent of the "Excess Earnings," within the meaning of section 148(f) of the Code and to pay to the United States of America, not later than 60 days after the Bonds have been paid in full, 100 percent of the amount then required to be paid as a result of Excess Earnings under section 148(f) of the Code.

(b) Rebate Fund. In order to facilitate compliance with the above covenant (a)(8), a "Rebate Fund" is hereby established by the Issuer for the sole benefit of the United States of America, and such Fund shall not be subject to the claim of any other person, including without limitation the Bonds holders. The Rebate Fund is established for the additional purpose of compliance with section 148 of the Code.

(c) Use of Proceeds. For purposes of the foregoing covenants (a)(1) and (a)(2), the Issuer understands that the term "proceeds" includes "disposition proceeds" as defined in the Treasury Regulations and, in the case of refunding Bonds, transferred proceeds (if any) and proceeds of the refunded Bonds expended prior to the date of issuance of the Bonds. It is the understanding of the Issuer that the covenants contained herein are intended to assure compliance with the Code and any regulations or rulings promulgated by the U.S. Department of the Treasury pursuant thereto. In the event that regulations or rulings are hereafter promulgated that modify or expand provisions of the Code, as applicable to the Bonds, the Issuer will not be required to comply with any covenant contained herein to the extent that such failure to comply, in the opinion of nationally

recognized Bonds counsel, will not adversely affect the exemption from federal income taxation of interest on the Bonds under section 103 of the Code. In the event that regulations or rulings are hereafter promulgated that impose additional requirements applicable to the Bonds, the Issuer agrees to comply with the additional requirements to the extent necessary, in the opinion of nationally-recognized bond counsel, to preserve the exemption from federal income taxation of interest on the Bonds under section 103 of the Code. In furtherance of such intention, the Issuer hereby authorizes and directs the Pricing Officer to execute any documents, certificates or reports required by the Code and to make such elections, on behalf of the Issuer, that may be permitted by the Code as are consistent with the purpose for the issuance of the Bonds.

Section 10.04. DESIGNATION AS QUALIFIED TAX-EXEMPT BONDS. The Issuer hereby designates the Bonds as "qualified tax-exempt Bonds" as defined in section 265(b)(3) of the Code. In furtherance of such designation, the Issuer represents, covenants and warrants the following: (a) that during the calendar year in which the Bonds are issued, the Issuer (including any subordinate entities) has not designated nor will designate Bonds, which when aggregated with the Bonds, will result in more than \$10,000,000 of "qualified tax-exempt Bonds" being issued; (b) that the Issuer reasonably anticipates that the amount of tax-exempt obligations issued, during the calendar year in which the Bonds are issued, by the Issuer (or any subordinate entities) will not exceed \$10,000,000; and, (c) that the Issuer will take such action or refrain from such action as necessary, and as more particularly set forth in this Section, in order that the Bonds will not be considered "private activity Bonds" within the meaning of section 141 of the Code.

Section 10.05. DISPOSITION OF PROJECT. The Issuer covenants that the property constituting the Project financed by the Refunded Obligations authorized herein will not be sold or otherwise disposed in a transaction resulting in the receipt by the Issuer of cash or other compensation, unless the Issuer obtains an opinion of nationally-recognized bond counsel that such sale or other disposition will not adversely affect the tax-exempt status of the Refunded Obligations. For purposes of the foregoing, the portion of the property comprising personal property and disposed in the ordinary course shall not be treated as a transaction resulting in the receipt of cash or other compensation. For purposes hereof, the Issuer shall not be obligated to comply with this covenant if it obtains an opinion that such failure to comply will not adversely affect the excludability for federal income tax purposes from gross income of the interest.

Section 10.06. CONTINUING DISCLOSURE.

(a) Applicability of this Section. This Section shall apply only if the terms of sale of the Bonds require that the Issuer enter into a continuing disclosure agreement with the Underwriters of the Bonds pursuant to the Rule (as hereinafter defined).

(b) Definitions. As used in this Section, the following terms have the meanings ascribed to such terms below:

"MSRB" means the Municipal Securities Rulemaking Board.

"Rule" means SEC Rule 15c2-12, as amended from time to time.

"SEC" means the United States Securities and Exchange Commission.

(c) Annual Reports.

(i) The Issuer shall provide annually to the MSRB, in an electronic format as prescribed by the MSRB, within 6 months after the end of each fiscal year ending, financial information and operating data with respect to the Issuer of the general type provided in the Pricing Certificate. Any financial statements so to be provided shall be (1) prepared in accordance with the accounting principles described in the Pricing Certificate, or such other accounting principles as the Issuer may be required to employ from time to time pursuant to state law or regulation, and (2) audited, if the Issuer commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within such period, then the Issuer shall provide unaudited financial information by the required time, and shall provide audited financial statements for the applicable fiscal year to the MSRB, when and if the audit report on such statements become available.

(ii) If the Issuer changes its fiscal year, it will notify the MSRB of the change (and of the date of the new fiscal year end) prior to the next date by which the Issuer otherwise would be required to provide financial information and operating data pursuant to this Section. The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document that is available to the public on the MSRB's internet website or filed with the SEC. All documents provided to the MSRB pursuant to this Section shall be accompanied by identifying information as prescribed by the MSRB.

(d) Event Notices.

(i) The Issuer shall notify the MSRB in an electronic format as prescribed by the MSRB, in a timely manner (but not in excess of ten business days after the occurrence of the event) of any of the following events with respect to the Bonds, if such event is material within the meaning of the federal securities laws:

1. Non-payment related defaults;
2. Modifications to rights of Bondholders;
3. Bond calls;
4. Release, substitution, or sale of property securing repayment of the Bonds;
5. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; and
6. Appointment of a successor or additional trustee or the change of name of a trustee.

(ii) The Issuer shall notify the MSRB in an electronic format as prescribed by the MSRB, in a timely manner (but not in excess of ten business days after the occurrence of the event) of any of the



following events with respect to the Bonds, without regard to whether such event is considered material within the meaning of the federal securities laws:

1. Principal and interest payment delinquencies;
2. Unscheduled draws on debt service reserves reflecting financial difficulties;
3. Unscheduled draws on credit enhancements reflecting financial difficulties;
4. Substitution of credit or liquidity providers, or their failure to perform;
5. Adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax-exempt status of the Bonds, or other events affecting the tax-exempt status of the Bonds;
6. Tender offers;
7. Defeasances;
8. Rating changes; and
9. Bankruptcy, insolvency, receivership or similar event of an obligated person.

(iii) The Issuer shall notify the MSRB, in a timely manner, of any failure by the Issuer to provide financial information or operating data in accordance with subsection (b) of this Section by the time required by such subsection.

(e) Limitations, Disclaimers, and Amendments.

(i) The Issuer shall be obligated to observe and perform the covenants specified in this Section for so long as, but only for so long as, the Issuer remains an "obligated person" with respect to the Bonds within the meaning of the Rule, except that the Issuer in any event will give notice of any deposit made in accordance with this Resolution or applicable law that causes Bonds no longer to be outstanding.

(ii) The provisions of this Section are for the sole benefit of the Registered Owners and beneficial owners of the Bonds, and nothing in this Section, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The Issuer undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Section and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the Issuer's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Section or otherwise, except as expressly provided herein. The Issuer does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Bonds at any future date.

(iii) UNDER NO CIRCUMSTANCES SHALL THE ISSUER BE LIABLE TO THE REGISTERED OWNER OR BENEFICIAL OWNER OF ANY BOND OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE ISSUER, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS SECTION, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

(iv) No default by the Issuer in observing or performing its obligations under this Section shall comprise a breach of or default under this Resolution for purposes of any other provision of this Resolution. Nothing in this Section is intended or shall act to disclaim, waive, or otherwise limit the duties of the Issuer under federal and state securities laws.

(v) Should the Rule be amended to obligate the Issuer to make filings with or provide notices to entities other than the MSRB, the Issuer hereby agrees to undertake such obligation with respect to the Bonds in accordance with the Rule as amended. The provisions of this Section may be amended by the Issuer from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the Issuer, but only if (1) the provisions of this Section, as so amended, would have permitted an underwriter to purchase or sell Bonds in the primary offering of the Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule since such offering as well as such changed circumstances and (2) either (a) the Registered Owners of a majority in aggregate principal amount (or any greater amount required by any other provision of this Resolution that authorizes such an amendment) of the outstanding Bonds consent to such amendment or (b) a person that is unaffiliated with the Issuer (such as nationally recognized bond counsel) determined that such amendment will not materially impair the interest of the Registered Owners and beneficial owners of the Bonds. The Issuer may also amend or repeal the provisions of this continuing disclosure agreement if the SEC amends or repeals the applicable provision of the Rule or a court of final jurisdiction enters judgment that such provisions of the Rule are invalid, but only if and to the extent that the provisions of this sentence would not prevent an underwriter from lawfully purchasing or selling Bonds in the primary offering of the Bonds. If the Issuer so amends the provisions of this Section, it shall include with any amended financial information or operating data next provided in accordance with subsection (b) of this Section an explanation, in narrative form, of the reason for the amendment and of the impact of any change in the type of financial information or operating data so provided.

#### Section 10.07. SALE OF BONDS; OFFICIAL STATEMENT.

(a) The Bonds shall be sold and delivered subject to the provisions of Section 2.01 and Section 2.03 and pursuant to the terms and provisions of a bond purchase agreement or purchase letter (the "Purchase Agreement") which the Pricing Officer is hereby authorized to execute and deliver and in which the purchaser or purchasers (the "Purchaser") of the Bonds shall be designated. The Bonds shall initially be registered in the name set forth in the Pricing Certificate.

(b) The Pricing Officer is hereby authorized, in the name and on behalf of the Issuer, to approve, distribute, and deliver a preliminary official statement and a final official statement relating to the Bonds to be used by the Purchaser in the marketing of the Bonds.

(c) The Pricing Officer is authorized, in connection with effecting the sale of the Bonds, to obtain from a municipal bond insurance company so designated in the Pricing Certificate (the "Insurer") a municipal bond insurance policy (the "Insurance Policy") in support of the Bonds. To that end, should the Pricing Officer exercise such authority and commit the Issuer to obtain a municipal bond insurance policy, for so long as the Insurance Policy is in effect, the requirements of the Insurer relating to the issuance of the Insurance Policy as set forth in the Pricing Certificate are incorporated by reference into this Resolution and made a part hereof for all purposes, notwithstanding any other provision of this Resolution to the contrary. The Pricing Officer shall have the authority to execute any documents to effect the issuance of the Insurance Policy by the Insurer.

Section 10.08. FURTHER PROCEDURES.

(a) Each Pricing Officer shall he and they are hereby expressly authorized, empowered and directed from time to time and at any time to do and perform all such acts and things and to execute, acknowledge and deliver in the name and under the corporate seal and on behalf of the Issuer a Paying Agent/Registrar Agreement with the Paying Agent/Registrar and all other instruments, whether or not herein mentioned, as may be necessary or desirable in order to carry out the terms and provisions of this Resolution, the Pricing Certificate, the Letter of Representations, the Bonds, the sale of the Bonds and the Official Statement. Notwithstanding anything to the contrary contained herein, while the Bonds are subject to DTC's Book-Entry Only System and to the extent permitted by law, the Letter of Representations is hereby incorporated herein and its provisions shall prevail over any other provisions of this Resolution in the event of conflict. In case any officer whose signature shall appear on any Bond shall cease to be such officer before the delivery of such Bond, such signature shall nevertheless be valid and sufficient for all purposes the same as if such officer had remained in office until such delivery.

(b) The obligation of the initial Underwriters to accept delivery of the Bonds is subject to the initial Underwriters being furnished with the final, approving opinion of McCall, Parkhurst & Horton L.L.P., bond counsel to the Issuer, which opinion shall be dated as of and delivered on the date of initial delivery of the Bonds to the initial Underwriters. The engagement of such firm as bond counsel to the Issuer in connection with issuance, sale and delivery of the Bonds is hereby approved and confirmed. The execution and delivery of an engagement letter between the Issuer and such firm, with respect to such services as bond counsel, is hereby authorized in such form as may be approved by the President of the Board of Directors or the Superintendent and the President or Superintendent are hereby authorized to execute such engagement letter.

Section 10.09. APPROVAL OF ESCROW AGREEMENT AND TRANSFER OF FUNDS. In furtherance of authority granted by Section 1207.007(b), Texas Government Code, the Pricing Officer or the President of the Board are further authorized to enter into and execute on behalf of the Issuer with the escrow agent named therein, an escrow or similar agreement, in the form and substance as shall be approved by the Pricing Officer, which agreement will provide for the payment in full of the Refunded Obligations. In addition, the President of the Board or the Pricing Officer is authorized to purchase such securities, to execute such subscriptions for the purchase of the Escrowed Securities (as defined in the agreement), if any, and to authorize such contributions for the escrow fund as provided in the agreement.

Section 10.10. REDEMPTION OF REFUNDED OBLIGATIONS.

(a) Subject to execution and delivery of the Purchase Agreement with the Underwriters, the Issuer hereby directs that the Refunded Obligations be called for redemption on the dates and at the prices set forth in the Pricing Certificate. The Pricing Officer is hereby authorized and directed to issue or cause to be issued the Notices of Redemption of the Refunded Obligations in substantially the forms set forth in Exhibit A

attached hereto, completed with information from the Pricing Certificate, to the paying agent for the Refunded Obligations.

(b) The paying agent/registrar for the Refunded Obligations is hereby directed to provide the appropriate notice of redemption as required by the Refunded Obligations and is hereby directed to make appropriate arrangements so that the Refunded Obligations may be redeemed on the redemption dates.

(c) If the redemption of the Refunded Obligations results in the partial refunding of any maturity of the Refunded Obligations, the Pricing Officer shall direct the paying agent/registrar for the Refunded Obligations to designate at random and by lot which of the Refunded Obligations will be payable from and secured solely from revenues of the Issuer pursuant to the resolution of the Issuer authorizing the issuance of such Refunded Obligations (the "Refunded Obligations Resolution"). For purposes of such determination and designation, all Refunded Obligations registered in denominations greater than \$5,000 shall be considered to be registered in separate \$5,000 denominations. The paying agent/registrar shall notify by first-class mail all Registered Owners of all affected bonds of such maturities that: (i) a portion of such bonds have been refunded and are secured until final maturity solely with cash and investments maintained by the Escrow Agent in the Escrow Fund, (ii) the principal amount of all affected bonds of such maturities registered in the name of such Registered Owner that have been refunded and are payable solely from cash and investments in the Escrow Fund and the remaining principal amount of all affected bonds of such maturities registered in the name of such Registered Owner, if any, have not been refunded and are payable and secured solely from revenues of the Issuer described in the Refunded Obligation Resolution, (iii) the Registered Owner is required to submit his or her Refunded Obligations to the paying agent/registrar, for the purposes of re-registering such Registered Owner's bonds and assigning new CUSIP numbers in order to distinguish the source of payment for the principal and interest on such bonds, and (iv) payment of principal of and interest on such bonds may, in some circumstances, be delayed until such bonds have been re-registered and new CUSIP numbers have been assigned as required by (iii) above.

(d) The source of funds for payment of the principal of and interest on the Refunded Obligations on their respective maturity or redemption dates shall be from the funds deposited with the Escrow Agent, pursuant to the Escrow Agreement approved in Section 10.09 of this Resolution.

Section 10.11. GOVERNING LAW. This Resolution shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

Section 10.12. SEVERABILITY. If any provision of this Resolution or the application thereof to any circumstance shall be held to be invalid, the remainder of this Resolution and the application thereof to other circumstances shall nevertheless be valid, and this governing body hereby declares that this Resolution would have been enacted without such invalid provision.

Section 10.13. PUBLIC NOTICE. It is hereby officially found and determined that public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

-----

## SCHEDULE I

### SCHEDULE OF REFUNDED OBLIGATIONS

Palo Pinto County Municipal Water District No. 1 Revenue Refunding Bonds, Series 2001, dated November 1, 2001, maturities June 1, 2012 through June 1, 2016.

Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Series 2002, dated October 1, 2002, maturities June 1, 2012 through June 1, 2023.

**EXHIBIT A**

NOTICE OF REDEMPTION

PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
\_\_\_\_\_ BONDS, SERIES \_\_\_\_\_

CUSIP PREFIX \_\_\_\_\_

NOTICE IS HEREBY GIVEN that Palo Pinto County Municipal Water District No. 1 (the "District") has called for redemption the outstanding bonds of the District (the "Refunded Bonds") described as follows:

**Palo Pinto County Municipal Water District No.** \_\_\_\_\_ **Bonds, Series** \_\_\_\_\_, dated \_\_\_\_\_, Bonds maturing June 1 in the years \_\_\_\_\_ through \_\_\_\_\_, in the aggregate principal amount of \$ \_\_\_\_\_, as follows:

<u>Original</u> <u>Maturity Date</u>	<u>Principal</u> <u>Amount</u> <u>Outstanding</u>	<u>Principal</u> <u>Amount</u> <u>Redeemed</u>	<u>Maturity</u> <u>Amount</u> <u>Outstanding</u>	<u>Maturity</u> <u>Amount</u> <u>Redeemed</u>	<u>CUSIP</u> <u>Suffix</u>
---	---	--	--	---	-------------------------------

Redemption date: \_\_\_\_\_.

On \_\_\_\_\_, interest on the Refunded Bonds shall cease to accrue and be payable.

THE REFUNDED BONDS shall be redeemed at \_\_\_\_\_, as the Paying Agent/Registrar for said Refunded Bonds. Upon presentation of the Refunded Bonds at the Paying Agent/Registrar on the aforementioned redemption date, the holder thereof shall be entitled to receive the redemption price equal to the accreted value thereof on the redemption date.

NOTICE IS GIVEN that due and proper arrangements have been made for providing the place of payment of said Refunded Bonds called for redemption with funds sufficient to pay the principal amount of said Refunded Bonds and the interest thereon to the redemption date. In the event said Refunded Bonds, or any of them are not presented for redemption by the date fixed for their redemption, they shall not thereafter bear interest.

UNDER THE PROVISIONS of Section 3406 of the Internal Revenue Code of 1986, as amended, paying agents making payments of interest and principal on municipal securities may be obligated to withhold a tax from remittance to individuals who have failed to furnish the paying agent with a valid taxpayer

identification number. Registered holders who wish to avoid the imposition of the tax should submit certified taxpayer identification numbers (via form W-9) when presenting the Refunded Bonds for payment.

THIS NOTICE is issued and given pursuant to the redemption provisions in the proceedings authorizing the issuance of the aforementioned Refunded Bonds and in accordance with the recitals and provisions of said Refunded Bonds.

NOTICE IS FURTHER GIVEN that the Refunded Bonds should be submitted to either of the following addresses:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. I



**Santo Special Utility District**  
**P.O. Box 248**  
**Santo, Texas 76472**  
**Ph. # (940)769-4594**  
**santowsc@yahoo.com**

---

May 19, 2015

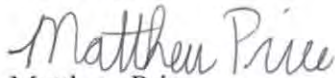
Texas Water Development Board  
State Water Implementation Fund for Texas  
P.O. Box 13231  
Austin, Texas 78711-3231

Re: Turkey Peak Reservoir Project TWDB PIF# 11063

Santo Special Utility District, PWS 1820010, CCN 11388, does not object to the construction and operation of services and facilities of the Turkey Peak Reservoir Project by the Palo Pinto County Municipal Water District No. 1.

If you have any questions or need more information please call me at (940)769-4594.

Sincerely,



Matthew Price  
President, Santo SUD

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

HISTORICAL TAXABLE APPRAISED VALUATION

Category	Taxable Appraised Value for Fiscal Year Ended September 30,					
	2015		2014		2013	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
Real, Residential, Single-Family	\$ 314,913,820	40.88%	\$ 296,386,830	41.50%	\$ 290,942,520	41.60%
Real, Residential, Multi-Family	13,702,020	1.78%	13,512,300	1.89%	12,927,400	1.85%
Real, Vacant Lots/Tracts	11,502,890	1.49%	10,788,220	1.51%	10,351,340	1.48%
Real, Acreage (Land Only)	10,543,290	1.37%	7,282,340	1.02%	10,254,070	1.47%
Real, Farm and Ranch Improvements	12,816,635	1.66%	8,183,610	1.15%	5,044,050	0.72%
Real, Commercial	127,792,690	16.59%	114,234,030	16.00%	110,236,980	15.76%
Real, Industrial	37,005,260	4.80%	32,092,360	4.49%	31,967,450	4.57%
Real, Oil, Gas and Other Mineral Reserves	2,550	0.00%	5,310	0.00%	4,780	0.00%
Real and Tangible Personal, Utilities	14,547,410	1.89%	13,874,100	1.94%	13,415,740	1.92%
Tangible Personal, Commercial	50,612,450	6.57%	47,248,560	6.62%	52,905,750	7.56%
Tangible Personal, Industrial	173,937,350	22.58%	168,101,590	23.54%	158,698,200	22.69%
Tangible Personal, Mobile Homes	1,645,020	0.21%	1,602,830	0.22%	1,092,260	0.16%
Other	1,356,119	0.18%	833,910	0.12%	1,527,510	0.22%
Total Appraised Value Before Exemptions	\$ 770,377,504	100.00%	\$ 714,145,990	100.00%	\$ 699,368,050	100.00%
Less: Total Exemptions/Reductions	74,621,558		61,473,310		61,005,002	
Adjustments	-		-		-	
Taxable Assessed Value	\$ 695,755,946		\$ 652,672,680		\$ 638,363,048	

Category	Taxable Appraised Value for Fiscal Year Ended September 30,			
	2012		2011	
	Amount	% of Total	Amount	% of Total
Real, Residential, Single-Family	\$ 291,483,450	42.35%	\$ 289,667,360	39.49%
Real, Residential, Multi-Family	13,261,660	1.93%	15,944,110	2.17%
Real, Vacant Lots/Tracts	10,399,160	1.51%	12,507,990	1.71%
Real, Acreage (Land Only)	10,389,880	1.51%	10,551,320	1.44%
Real, Farm and Ranch Improvements	4,975,820	0.72%	5,843,880	0.80%
Real, Commercial	108,501,200	15.76%	104,608,550	14.26%
Real, Industrial	31,517,260	4.58%	31,841,660	4.34%
Real, Oil, Gas and Other Mineral Reserves	17,130	0.00%	12,380	0.00%
Real and Tangible Personal, Utilities	12,603,530	1.83%	13,794,160	1.88%
Tangible Personal, Commercial	44,692,120	6.49%	47,906,390	6.53%
Tangible Personal, Industrial	158,318,270	23.00%	198,102,600	27.01%
Tangible Personal, Mobile Homes	984,270	0.14%	1,416,120	0.19%
Other	1,100,630	0.16%	1,299,040	0.18%
Total Appraised Value Before Exemptions	\$ 688,244,380	100.00%	\$ 733,495,560	100.00%
Less: Total Exemptions/Reductions	56,949,094		66,903,557	
Adjustments	-		-	
Taxable Assessed Value	\$ 631,295,286		\$ 666,592,003	

PART C 39 Financial Information – Historical Taxable Appraised Valuation 2011 – 2015 for the City of Mineral Wells. The boundaries of PPCMWD No. 1 overlay the City's boundaries so values would be similar.

PART C 40 Financial Information - Direct & Overlapping Tax Rate Table

<u>Entity</u>	<u>Tax Rate / \$100</u>
Palo Pinto County	0.35200
Mineral Wells Independent School District	1.40907
City of Mineral Wells	0.51000
Palo Pinto County Municipal Water District No. 1	-
Palo Pinto County Emergency Service District	0.03000
Palo Pinto County Hospital District	0.25900

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

**Palo Pinto County Municipal Water District No. 1**

Pro Forma of Texas Water Development Board Issuance for Turkey Peak Project  
 State Water Implementation Fund Loan - September 15, 2015 Anticipated Delivery

TWDB C45 - PRO FORMA

	A	B	C	D	E	F	G	H	I	J	K	L
	TOTAL REVENUE	TOTAL OPERATING EXPENSES	Net Income Before Debt Service <sup>(1)</sup>	Existing Debt Service <sup>(2)</sup>	<b>\$17,100,000 SWIFT Low Interest Rate Loan - Acquisition and Design Fund:</b>						Total Debt Service	Projected Annual Coverage
FYE					Tax-Exempt Series 2015A - \$9,915,000 <sup>(3)</sup>			Taxable Series 2015B - \$7,185,000 <sup>(3)</sup>				
					Principal	Interest	TOTAL	Principal	Interest	TOTAL		
2015	\$ 2,434,000	\$(228,170)	<b>2,205,830</b>	\$ (1,391,964)							<b>\$ (1,391,964)</b>	1.58 x
2016	2,434,000	(228,170)	<b>2,205,830</b>	(1,394,666)	\$ -	\$ (145,890)	\$ (145,890)	\$ -	\$ (107,033)	\$ (107,033)	<b>(1,647,590)</b>	1.34 x
2017	2,434,000	(228,170)	<b>2,205,830</b>	(766,523)	(240,000)	(291,781)	(531,781)	(170,000)	(214,067)	(384,067)	<b>(1,682,370)</b>	1.31 x
2018	2,434,000	(228,170)	<b>2,205,830</b>	(769,928)	(245,000)	(289,525)	(534,525)	(175,000)	(212,541)	(387,541)	<b>(1,691,994)</b>	1.30 x
2019	2,434,000	(228,170)	<b>2,205,830</b>	(766,010)	(245,000)	(286,536)	(531,536)	(175,000)	(210,411)	(385,411)	<b>(1,682,956)</b>	1.31 x
2020	2,434,000	(228,170)	<b>2,205,830</b>	(761,642)	(250,000)	(283,057)	(533,057)	(180,000)	(207,926)	(387,926)	<b>(1,682,624)</b>	1.31 x
2021	2,434,000	(228,170)	<b>2,205,830</b>	(765,096)	(255,000)	(279,082)	(534,082)	(180,000)	(204,949)	(384,949)	<b>(1,684,126)</b>	1.31 x
2022	2,434,000	(228,170)	<b>2,205,830</b>	(762,822)	(260,000)	(274,568)	(534,568)	(185,000)	(201,621)	(386,621)	<b>(1,684,011)</b>	1.31 x
2023	2,434,000	(228,170)	<b>2,205,830</b>	(769,316)	(265,000)	(269,576)	(534,576)	(190,000)	(197,854)	(387,854)	<b>(1,691,746)</b>	1.30 x
2024	2,434,000	(228,170)	<b>2,205,830</b>	(359,198)	(270,000)	(264,064)	(534,064)	(195,000)	(193,644)	(388,644)	<b>(1,281,906)</b>	1.72 x
2025	2,434,000	(228,170)	<b>2,205,830</b>	(362,138)	(275,000)	(258,151)	(533,151)	(200,000)	(189,004)	(389,004)	<b>(1,284,293)</b>	1.72 x
2026	2,434,000	(228,170)	<b>2,205,830</b>	(359,620)	(280,000)	(251,881)	(531,881)	(200,000)	(184,230)	(384,230)	<b>(1,275,731)</b>	1.73 x
2027	2,434,000	(228,170)	<b>2,205,830</b>	(361,815)	(285,000)	(244,853)	(529,853)	(210,000)	(178,862)	(388,862)	<b>(1,280,530)</b>	1.72 x
2028	2,434,000	(228,170)	<b>2,205,830</b>	(363,648)	(295,000)	(237,158)	(532,158)	(215,000)	(172,867)	(387,867)	<b>(1,283,673)</b>	1.72 x
2029	2,434,000	(228,170)	<b>2,205,830</b>	(120,000)	(305,000)	(228,721)	(533,721)	(220,000)	(166,376)	(386,376)	<b>(1,040,097)</b>	2.12 x
2030	2,434,000	(228,170)	<b>2,205,830</b>	(120,000)	(315,000)	(219,663)	(534,663)	(225,000)	(159,597)	(384,597)	<b>(1,039,259)</b>	2.12 x
2031	2,434,000	(228,170)	<b>2,205,830</b>	(120,000)	(320,000)	(209,961)	(529,961)	(235,000)	(152,523)	(387,523)	<b>(1,037,484)</b>	2.13 x
2032	2,434,000	(228,170)	<b>2,205,830</b>	(120,000)	(330,000)	(199,849)	(529,849)	(240,000)	(145,025)	(385,025)	<b>(1,034,874)</b>	2.13 x
2033	2,434,000	(228,170)	<b>2,205,830</b>	(120,000)	(345,000)	(189,289)	(534,289)	(250,000)	(137,255)	(387,255)	<b>(1,041,544)</b>	2.12 x
2034	2,434,000	(228,170)	<b>2,205,830</b>	(120,000)	(355,000)	(178,145)	(533,145)	(255,000)	(129,084)	(384,084)	<b>(1,037,229)</b>	2.13 x
2035	2,434,000	(228,170)	<b>2,205,830</b>	(120,000)	(365,000)	(166,572)	(531,572)	(265,000)	(120,669)	(385,669)	<b>(1,037,241)</b>	2.13 x
2036	2,434,000	(228,170)	<b>2,205,830</b>	-	(380,000)	(154,600)	(534,600)	(275,000)	(111,842)	(386,842)	<b>(921,442)</b>	2.39 x
2037	2,434,000	(228,170)	<b>2,205,830</b>	-	(390,000)	(141,870)	(531,870)	(285,000)	(102,360)	(387,360)	<b>(919,230)</b>	2.40 x
2038	2,434,000	(228,170)	<b>2,205,830</b>	-	(405,000)	(128,766)	(533,766)	(295,000)	(92,533)	(387,533)	<b>(921,299)</b>	2.39 x
2039	2,434,000	(228,170)	<b>2,205,830</b>	-	(415,000)	(115,158)	(530,158)	(305,000)	(82,362)	(387,362)	<b>(917,520)</b>	2.40 x
2040	2,434,000	(228,170)	<b>2,205,830</b>	-	(430,000)	(101,214)	(531,214)	(315,000)	(71,845)	(386,845)	<b>(918,059)</b>	2.40 x
2041	2,434,000	(228,170)	<b>2,205,830</b>	-	(445,000)	(86,766)	(531,766)	(325,000)	(60,984)	(385,984)	<b>(917,750)</b>	2.40 x
2042	2,434,000	(228,170)	<b>2,205,830</b>	-	(460,000)	(70,746)	(530,746)	(335,000)	(49,626)	(384,626)	<b>(915,372)</b>	2.41 x
2043	2,434,000	(228,170)	<b>2,205,830</b>	-	(480,000)	(54,140)	(534,140)	(350,000)	(37,919)	(387,919)	<b>(922,059)</b>	2.39 x
2044	2,434,000	(228,170)	<b>2,205,830</b>	-	(495,000)	(36,764)	(531,764)	(360,000)	(25,687)	(385,687)	<b>(917,451)</b>	2.40 x
2045	2,434,000	(228,170)	<b>2,205,830</b>	-	(515,000)	(18,746)	(533,746)	(375,000)	(13,106)	(388,106)	<b>(921,852)</b>	2.39 x
<b>TOTAL</b>				<b><u>\$ (10,794,386)</u></b>	<b><u>\$ (9,915,000)</u></b>	<b><u>\$ (5,677,088)</u></b>	<b><u>\$ (15,592,088)</u></b>	<b><u>\$ (7,185,000)</u></b>	<b><u>\$ (4,133,801)</u></b>	<b><u>\$ (11,318,801)</u></b>	<b><u>\$ (37,705,275)</u></b>	

Notes:

Assumes all 2015 budgeted revenues and expenses remain constant. Excludes Drought Contingency Revenue

(1) Includes revenues from property tax, other water sales, interest earnings, rent and lease income and other. Excludes depreciator

(2) Includes existing debt service payments from \$2,400,000 Sub Rev Bonds, Series 2009A, \$3,200,000 Sub Rev Bonds, Taxable Series 2009B, and \$6,990,000 Rev Ref Bonds, Series 201

(3) Assumes "AA" Rated Taxable Market Interest Rates as of May 15, 2015 + 0.25% and "AAA" TWDB Tax-Exempt Borrowing Rates as of May 14, 2015 + 0.25%. 22% interest subsidy for 30 ye: Low Interest Loan.



**PART C 46 Financial Information - PPCMWD No. 1 Comparative System Operating Statement**  
**Audit (TSI-7) Schedule of Revenues & Expenditures - General Fund, Debts Service Fund & Enterprise Fund**  
**Audited Prior Years and Unaudited Year-to-Date**

	AMOUNTS					
	5/24/2015	2014	2013	2012	2011	2010
<b>ENTERPRISE FUND</b>						
<u>Operating Revenues</u>						
Property Taxes						
Water Service	1,733,527	2,726,686	2,531,313	2,246,041	2,116,946	1,813,915
Miscellaneous Income	2,472	4,772	1,500	1,500	1,375	2,014
Application Fees	-	-	-	-	-	-
Dividends	-	-	-	-	-	-
Interest on Time Deposits	1,171	2,701	6,304	7,244	7,191	12,323
<u>Total Operating Revenues</u>	<u>\$ 1,737,170</u>	<u>\$ 2,734,159</u>	<u>\$ 2,539,117</u>	<u>\$ 2,254,785</u>	<u>\$ 2,125,512</u>	<u>\$ 1,828,252</u>
<u>Operating Expenses</u>						
Professional Fees	\$ 72,360	\$ 238,688	\$ 118,611	\$ 108,302	\$ 92,325	\$ 48,275
Payroll	-	-	-	-	-	-
Utilities	-	-	-	-	-	-
Repairs & Maintenance	1,200	-	3,710	-	2,268	2,484
Other Expenditures	124,707	58,572	20,960	20,253	44,864	57,715
<u>Total Operating Expenses</u>	<u>\$ 198,267</u>	<u>\$ 297,260</u>	<u>\$ 143,281</u>	<u>\$ 128,555</u>	<u>\$ 139,457</u>	<u>\$ 108,474</u>
Operating Income (Loss)	<u>\$ 1,538,903</u>	<u>\$ 2,436,899</u>	<u>\$ 2,395,836</u>	<u>\$ 2,126,230</u>	<u>\$ 1,986,055</u>	<u>\$ 1,719,778</u>
<u>Non-Operating Revenues (Expenses)</u>						
Interest Expense & Fiscal Charges	\$ 206,964	\$ 222,221	\$ 245,158	\$ 449,118	\$ 464,418	\$ 477,311
<u>Total Non-Operating Revenues (Expenses)</u>	<u>\$ 206,964</u>	<u>\$ 222,221</u>	<u>\$ 245,158</u>	<u>\$ 449,118</u>	<u>\$ 464,418</u>	<u>\$ 477,311</u>
<u>Net Income (Loss)</u>	<u>\$ 1,331,939</u>	<u>\$ 2,214,678</u>	<u>\$ 2,150,678</u>	<u>\$ 1,677,112</u>	<u>\$ 1,521,637</u>	<u>\$ 1,242,467</u>
Number of Customers	3	3	3	3	3	3

**PALO PINTO COUNTY**  
**MUNICIPAL WATER DISTRICT No. 1**

**PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT NO. 1**

**ANNUAL FINANCIAL REPORT  
FOR THE YEAR ENDED SEPTEMBER 30, 2014**

**Palo Pinto County Municipal Water District No. 1  
Annual Financial Report  
September 30, 2014**

**TABLE OF CONTENTS**

	<u>Page</u>
Independent Auditor's Report	1 - 3
Management's Discussion and Analysis	4 - 7
 Basic Financial Statements:	
Proprietary Fund Financial Statements	
Statement of Net Position – Proprietary Fund	8
Statement of Revenues, Expenses, and Changes in Fund Net Position – Proprietary Fund	9
Statement of Cash Flows – Proprietary Fund	10
Notes to the Financial Statements	11 - 19
 Supplementary Information	
Budgetary Comparison Schedule – Proprietary Fund	20 - 21
 Texas Supplementary Information (TSI)	
TSI-1. Services and Rates	22 - 23
TSI-2. Enterprise Fund Expenses	24
TSI-3. Temporary Investments	25
TSI-4. Taxes Levied and Receivable	26
TSI-5. Long-Term Debt Service Requirements by Years	27 - 30
TSI-6. Changes in Long-Term Bonded Debt	31
TSI-7. Comparative Schedule of Revenues and Expenses	32
TSI-8. Board Members, Key Personnel, and Consultants	33 - 34
 Overall Compliance and Internal Control Section	
Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters based on an audit of Financial Statements Performed in Accordance with Government Auditing Standards	35 - 36
Schedule of Findings and Questioned Costs	37



## **INDEPENDENT AUDITOR'S REPORT**

Board of Directors  
Palo Pinto County Municipal Water District No. 1  
Mineral Wells, Texas

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the business-type activities of Palo Pinto County Municipal Water District No. 1 (the "District"), a component unit of the City of Mineral Wells, Texas, as of and for the year ended September 30, 2014, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditor's Responsibility**

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosure in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant account estimates made by management, as well as evaluating the overall presentation of the financial statements.



We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

## **Opinions**

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities of the District as of September 30, 2014, and the respective changes in financial position, and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

## **Other Matters**

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that management's discussion and analysis on pages 4-7 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Other Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise District's basic financial statements. The supplementary information on pages 20-21 and the Texas supplementary information (TSI) on pages 22-34 are not a required part of the basic financial statements, but are supplementary information required by the Texas Commission on Environmental Quality. This supplementary information has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

## **Other Reporting Required by Governmental Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated February 3, 2015, on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.

*George Morgan Jones, P.C.*

Weatherford, Texas

February 3, 2015



**Palo Pinto County Municipal  
Water District No. 1**  
P.O. Box 387  
Mineral Wells, Texas 76068

#### Management's Discussion and Analysis

As management of the Palo Pinto County Municipal Water District No. 1 ("District"), we offer readers of the District's financial statements this narrative overview of the financial activities for the fiscal year ended September 30, 2014.

#### Financial Highlights

The assets of the District exceeded its liabilities at the close of the fiscal year by \$14,477,581 (net position). Of this amount, \$2,671,577 (unrestricted net assets) may be used to meet the District's ongoing obligations. The District's net position increased by \$1,987,595. Excluding capital grants and contributions, revenues increased 7.7 percent. Total expenses increased 12.27 percent driven by an increase in costs for professional and technical services for emergency water supply projects to address worsening drought conditions.

In June 2009, the District received a Texas Water Development Board ("TWDB"), Economically Distressed Areas Program Grant ("Grant") in the amount of \$2,400,000, issued \$2,400,000 Revenue Bonds, Series 2009A from the TWDB's Economically Distressed Areas Program, and \$3,200,000 Revenue Bonds Series 2009B from the TWDB's Water Infrastructure Program, for the planning, permitting, and preliminary engineering for the development of the Lake Palo Pinto Storage Restoration Project-Turkey Peak Reservoir ("Turkey Peak Project"). Project costs are proportionally allocated to the Grant and bond funds. The Grant share (Capital grants and contributions) was \$166,806 compared to \$189,063 for the previous year.

The District continues to work on the Turkey Peak Project to increase its water storage capacity. Work on the Project consists of environmental, geotechnical and water rights engineering and legal services to obtain the necessary permits to enlarge Lake Palo Pinto by building new reservoir. As of September 30, 2014, most of the significant elements of the preliminary work have been completed. The District expects to receive permits from the Texas Commission on Environmental Quality and the U S Army Corps of Engineers in 2015. The Grant Agreement expires December 31, 2015.

#### Overview of Financial Statements

This discussion and analysis is intended to serve as an introduction to the District's basic financial statements. The basic financial statements have two components: proprietary fund financial statements, and notes to financial statements. This report also contains other supplementary information in addition to the basic financial statements.

Fund financial statements. A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The District, like other state and local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

Proprietary funds. The District has one type of proprietary fund, an enterprise fund. This fund is used to report business type activities. The financial statements can be found on pages 8-10 of this report.



Notes to the financial statements. The notes provide additional information that is essential to a full understanding of the audited financial statements. The notes can be found on pages 11-19 of this report.

### Proprietary Fund Financial Analysis

Total net position may serve as a useful indicator of a government's financial position. The District is reporting positive balances in its total net position. The same was true for the prior fiscal year. Assets exceeded liabilities by \$14,477,581 at September 30, 2014.

The largest portion of the District's net position (71 percent) reflects its investment in capital assets (e.g., land, buildings, water system infrastructure, and equipment), less any related debt used to acquire those assets that is still outstanding. The District uses these capital assets to provide water to its customers; consequently, these assets are not available for future spending. Although the District's investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

	<i>Business-Type Activities</i>		<i>Total</i>	
	<i>2014</i>	<i>2013</i>	<i>2014</i>	<i>2013</i>
<i>Current and Other Assets</i>	\$5,957,043	\$6,810,383	\$5,957,043	\$6,810,383
<i>Capital Assets</i>	17,555,581	15,849,794	17,555,581	15,849,794
<b>Total Assets</b>	<b>\$23,512,624</b>	<b>\$22,660,177</b>	<b>\$23,512,624</b>	<b>\$22,660,177</b>
<i>Long-Term Liabilities</i>	\$7,640,630	\$8,828,010	\$7,640,630	\$8,828,010
<i>Other Liabilities</i>	1,305,038	1,252,806	1,305,038	1,252,806
<b>Total Liabilities</b>	<b>\$8,945,668</b>	<b>\$10,080,816</b>	<b>\$8,945,668</b>	<b>\$10,080,816</b>
<i>Deferred Inflows of Resources</i>	\$89,375	\$89,375	\$89,375	\$89,375
<b>Net Position</b>				
<i>Capital Assets Net of Related Debt</i>	\$10,244,865	\$7,760,589	\$10,244,865	\$7,760,589
<i>Restricted</i>	1,561,139	1,686,367	1,561,139	1,686,367
<i>Unrestricted</i>	2,671,577	3,043,030	2,671,577	3,043,030
<b>Total Net Position</b>	<b>\$14,477,581</b>	<b>\$12,489,986</b>	<b>\$14,477,581</b>	<b>\$12,489,986</b>

An additional portion of the District's net position (\$1,561,139) (10.8 percent) represents resources that are subject to external restrictions related to debt. The District's Contingency Fund, Interest and Sinking Funds, and Reserve Funds for the Series 2009A, Series 2009B, and Series 2011 Bonds were fully funded at September 30, 2014.

The remaining balance of unrestricted net assets (\$2,671,577) may be used to meet the District's ongoing obligations to customers and creditors.

#### Changes in Net Position

	<i>Business-Type Activities</i>		<i>Total</i>	
	2014	2013	2014	2013
<b>Revenues:</b>				
<b>Program revenues:</b>				
<i>Charges for services</i>	\$2,729,959	\$2,531,313	\$2,729,959	\$2,531,313
<i>Operating grants and contributions</i>	0	0	0	0
<i>Capital grants and contributions</i>	166,806	189,063	166,806	189,063
<b>General revenues:</b>				
<i>Property taxes</i>	0	0	0	0
<i>Interest earned</i>	2,701	6,304	2,701	6,304
<i>Other</i>	1,500	1,500	1,500	1,500
<b>Total revenues</b>	<b>\$2,900,966</b>	<b>\$2,728,180</b>	<b>\$2,900,966</b>	<b>\$2,728,180</b>
<b>Expenses:</b>				
<i>Administration</i>	\$297,260	\$143,281	\$297,260	\$143,281
<i>Depreciation</i>	393,890	425,081	393,890	425,081
<i>Interest expense</i>	222,221	245,158	222,221	245,158
<b>Total expenses</b>	<b>\$913,371</b>	<b>\$813,520</b>	<b>\$913,371</b>	<b>\$813,520</b>
<i>Change in net position before transfers</i>	0	0	0	0
<i>Special Items Transfers</i>	0	0	0	0
<i>Change in net position</i>	<b>\$1,987,595</b>	<b>\$1,914,660</b>	<b>\$1,987,595</b>	<b>\$1,914,660</b>
<i>Net position-Beginning</i>	12,489,986	10,827,932	12,489,986	10,827,932
<i>Prior period adjustment</i>		-252,606		-252,606
<i>Net position-Ending</i>	<b>\$14,477,581</b>	<b>\$12,489,986</b>	<b>\$14,477,581</b>	<b>\$12,489,986</b>

#### Capital Asset and Debt Administration

Capital assets. The District's investment in capital assets as of September 30, 2014, amounts to \$17,555,581 (net of depreciation). This investment in capital assets includes land, buildings, water system infrastructure, equipment and construction-in-progress. The current year investment in capital assets totaled \$2,099,677 that included plant equipment, water system improvements, additions to construction-in-progress, and the purchase of 450 acres of land to be held for mitigation purposes for the Turkey Peak Project. Engineering costs for emergency water supply projects were included in



construction process pending their completion in the 2014-15 fiscal year. Additional information on the District's capital assets can be found in Note 2 on page 16 of this report.

Long-term debt. At the end of the fiscal year, the District had total outstanding debt of \$8,805,000. This debt backed by the full faith and credit of the City of Mineral Wells. The debt represents bonds secured by charges for services (water revenues). The District's outstanding debt is rated "A" by Standard & Poor's Ratings Services, and "AA-" by Fitch Ratings, without regard to credit enhancement. Additional information on the District's long-term debt can be found in Note 2 on pages 16-18 of this report.

#### Economic Factors and Next Year's Budgets and Rates

The District's operating budget is approved by the City Council of the City of Mineral Wells. District facilities are maintained by the City through an Operation and Maintenance Contract. In 1974 the District entered into a Water Purchase Contract with the City which has been supplemented and modified. In the Water Purchase Contract, the City covenants to pay the District for water sold and services rendered so that the revenues of the District will at all times be sufficient to pay its operation and maintenance expenses, pay the principal and interest on all outstanding bonded indebtedness, and to meet the requirements for reserves and contingencies.

Worsening drought conditions caused the City of Mineral Wells to further curtail water use by its customers. Budgeted revenues from the City were reduced to \$2,058,000, a 13 percent reduction from the fiscal year ended September 30, 2014. With the water supply in Lake Palo Pinto at about ten percent of its capacity, the District will be constructing emergency water supply infrastructure and issuing an estimated \$4,000,000 of debt in 2014-15 to fund it.

#### Requests for Information

This financial report is designed to provide a general overview of the finances of the Palo Pinto County Municipal Water District No. 1. Questions concerning information in this report should be addressed to the Secretary/Treasurer, Palo Pinto County Municipal Water District No. 1, P.O. Box 387, Mineral Wells, Texas, 76068.

Reference: Gauthier, Stephen J. Governmental Accounting, Auditing, and Financial Reporting, Chicago: Government Finance Officers Association, 2001.



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

**Statement of Net Position**

**Proprietary Fund**

**Enterprise Fund**

**September 30, 2014**

**ASSETS:**

Current Assets:

Cash and cash equivalents	\$ 283,885
Investments	3,922,509
Due from Texas Water Development Board	60,680
Receivables (Net of allowances):	
Accounts	2,755
Inventory	57,087
Restricted assets:	
Investments	<u>1,630,127</u>
Total current assets	<u>5,957,043</u>

Noncurrent assets:

Capital assets, at cost:	
Land	2,365,747
Buildings and improvements	98,455
Improvements other than Buildings	22,019,830
Equipment	547,145
Construction-in-Progress	6,136,095
Less: accumulated depreciation	<u>(13,611,691)</u>
Capital assets, net	<u>17,555,581</u>
Total assets	<u>23,512,624</u>

**LIABILITIES:**

Current Liabilities:

Accounts Payable	51,050
Current Liabilities Payable from Restricted Assets:	
Current portion of Revenue Bonds	1,185,000
Interest payable	<u>68,988</u>
Total current liabilities	<u>1,305,038</u>

Noncurrent Liabilities:

Revenue Bonds (Net of Current portion)	7,620,000
Bond Premium/Discount (Net of Accumulated Amortization)	<u>20,630</u>
Total noncurrent liabilities	<u>7,640,630</u>
Total liabilities	<u>8,945,668</u>

**DEFERRED INFLOWS OF RESOURCES:**

Deferred Inflows	<u>89,375</u>
Total deferred inflows of resources	<u>89,375</u>

**NET POSITION:**

Investment in capital assets, net of debt	10,244,865
Restricted for debt service (Expendable)	1,561,139
Unrestricted	2,671,577
Total Net Position	<u>\$ 14,477,581</u>

The notes to the financial statements are an integral part of this statement.

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**Statement of Revenues, Expenses, and Changes in Fund Net Position**  
**Proprietary Fund**  
**Enterprise Fund**  
**For the Year Ended September 30, 2014**

OPERATING REVENUES:	
Licenses and Permits	\$ 1,500
Charges for Services	2,729,959
Total operating revenue	<u>2,731,459</u>
OPERATING EXPENSES:	
Administrative	297,260
Depreciation	393,890
Total operating expenses	<u>691,150</u>
Operating income (loss)	<u>2,040,309</u>
Nonoperating revenues (expenses):	
Interest Earned	2,701
Interest Expense	<u>(222,221)</u>
Total nonoperating revenues (expenses)	<u>(219,520)</u>
Income before contributions and transfers	<u>1,820,789</u>
Contributions and transfers (to) from other funds:	
Capital Grants & Contributions	<u>166,806</u>
Change in Net Position	1,987,595
Net Position, October 1, 2013	<u>12,489,986</u>
Net Position, September 30, 2014	<u><u>\$ 14,477,581</u></u>

The notes to the financial statements are an integral part of this statement.



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

**Statement of Cash Flows**

**Proprietary Fund**

**Enterprise Fund**

**For the Year Ended September 30, 2014**

Cash flows from operating activities:	
Cash received from customers	\$ 2,731,324
Cash paid to suppliers	<u>(276,656)</u>
Net cash provided (used) by operating activities	<u>2,454,668</u>
Cash flow from capital and related financing activities:	
Capital expenditures	(2,099,677)
Capital grants received	176,457
Principal payments on long-term debt	(1,155,000)
Interest paid on bonds	<u>(233,419)</u>
Net cash provided (used) by capital and related financing activities	<u>(3,311,639)</u>
Cash flow from investing activities:	
Interest received	<u>2,701</u>
Net cash provided (used) by investing activities	<u>2,701</u>
Net increase (decrease) in cash and cash equivalents	(854,270)
Cash and cash equivalents, October 1, 2013	<u>6,690,791</u>
Cash and cash equivalents, September 30, 2014	<u>\$ 5,836,521</u>
Reconciliation of Operating Income to	
Net Cash Provided (Used) by Operating Activities	
Operating income	<u>\$ 2,040,309</u>
Adjustments to reconcile operating income to	
net cash provided (used) by operating activities:	
Depreciation expense	393,890
(Increase) decrease in accounts receivable	(135)
(Increase) decrease in Inventory	(10,446)
Increase (decrease) in accounts payable	<u>31,050</u>
Total adjustments	<u>414,359</u>
Net cash provided (used) by operating activities	<u>\$ 2,454,668</u>
Reconciliation of cash and cash equivalents to Statement of Net Assets	
Cash and cash equivalents	\$ 283,885
Investments	3,922,509
Restricted investments	<u>1,630,127</u>
Total cash and cash equivalents	<u>\$ 5,836,521</u>

The notes to the financial statements are an integral part of this statement.



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

**NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**A. Creation of District**

Palo Pinto County Municipal Water District No. 1 (the "District") was created in 1961 by Chapter 416 Acts, 57th Legislature of the State of Texas. The Board of Directors held its first meeting on September 19, 1961 and the first bonds were sold in November 1962. The District was formed to furnish water to the City of Mineral Wells, Texas. Approximately 86% of water sales are to the City of Mineral Wells, Texas, which amounted to \$2,358,000.

The accounting policies of the District conform to generally accepted accounting principles as applicable to governments. The following is a summary of the more significant policies.

**B. Reporting Entity**

The Palo Pinto County Municipal Water District No. 1 Board of Directors, a five member group constituting an on-going entity, is the level of government which has governance responsibilities over all activities related to providing water resources for the District. The Board receives funding from local sources through water sales, primarily to the City of Mineral Wells. Board members are appointed by the Mineral Wells City Council. The District is included in the City of Mineral Wells' "reporting entity" as defined in Section 2100, Codification of Governmental Accounting and Financial Reporting Standards, due to the financial accountability of the City of Mineral Wells for the District, and because the District provides services almost entirely for the benefit of the City of Mineral Wells.

**C. Basic Financial Statements – Fund Financial Statements**

The financial statements of the District are reported in the proprietary fund financial statements. The fund is accounted for by providing a separate set of self-balancing accounts that comprises its assets, liabilities, net assets, revenues and expenses.

**Proprietary Fund**

The focus of proprietary fund measurement is on the determination of operating income, changes in net position, financial position, and cash flows. The generally accepted accounting principles applicable are those similar to business in the private sector. The following briefly describes the purpose of proprietary fund.

An enterprise fund is required to be used to account for operations for which a fee is charged to external users for good and services and the activity is financed with debt that is solely secured by a pledge of the net revenues.



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

D. Measurement Focus and Basis of Accounting and Financial Statement Presentation

The proprietary fund financial statements are reported using the *economic resources measurement focus* and the *accrual basis of accounting*. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenues in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Proprietary funds distinguish *operating* revenues and expenses from *nonoperating* items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal ongoing operating revenues of the enterprise fund are charges to customers for sales of water. Operating expenses for the enterprise fund includes the cost of sales and services, administrative expenses and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Property taxes, licenses and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. All other revenue items are considered to be measurable and available only when cash is received by the government.

The preparation of financial statements in conformity with generally accepted accounting principles requires the use of estimates by management that affect reported amounts of assets and liabilities and the reported amounts of revenues and expenditures during the reporting period. Actual results could differ from these estimates.

E. Assets, Liabilities and Net Position

1. Cash and Cash Equivalents

The District's cash and cash equivalents are considered to be cash on hand, demand deposits and short term investments with original maturities of three months or less from date of acquisition.

State statues authorize the District to invest in obligations of the U.S. Treasury, commercial paper, corporate bonds, repurchase agreements and the State Treasurer's Investment Pool. Investments for the District are reported at fair value.



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

2. Inventories

All inventories are valued at the lower of cost or market on the first-in, first-out method. The City's inventory is recorded under the purchase method. Under the purchase method the inventory is first recorded as an expense when purchased. A physical inventory is taken at the end of the fiscal year and the inventory is adjusted to reflect the value of inventory at that date.

3. Restricted Assets

Certain resources set aside for the repayment of the District's revenue bonds are classified as restricted assets on the balance sheet because they are maintained in separate bank accounts and their use is limited by applicable bond covenants. When both restricted and unrestricted resources are available for use, the District's policy is to use unrestricted resources first, then restricted resources as they are needed.

4. Capital Assets

Capital assets include property, plant, equipment and infrastructure assets (e.g., roads, bridges, sidewalks and similar items). Capital assets are defined by the government as assets with an initial, individual cost of more than \$5,000 and an estimated useful life in excess of two years. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at estimated fair market value at the date of donation.

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend the asset lives are not capitalized.

Major outlays for capital assets and improvements are capitalized as projects are constructed. Interest incurred during the construction phase of capital assets of business-type activities and proprietary funds is included as part of the capitalized value of the assets constructed. The total interest expense incurred by the proprietary funds during the current fiscal year was \$222,221. Of this amount \$0 was included as part of the cost of capital assets under construction in connection with utility construction projects.

Property, plant and equipment of the District is depreciated using the straight-line method over the following estimated useful lives:

Building and Improvements	10 – 50 years
Distribution System	25 – 100 years
Machinery and Equipment	5 – 10 years



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

5. Long-term Obligations

Long-term debt and other long-term obligations are reported as liabilities in the Statement of Net Position. Bond premiums and discounts are deferred and amortized over the life of the bonds using the straight-line method. Bond issuance costs are expensed as incurred.

NOTE 2: DETAILED NOTES

A. Deposits and Investments

1. Deposits

The District's cash deposits were with financial institutions or invested in certificates of deposit. Custodial credit risk is the risk that in the event of a bank failure, the government's deposits may not be returned to it. The District's funds are required to be deposited and invested under the terms of a depository contract. The District's deposits are required to be collateralized with securities held by the pledging financial institution's trust department or agent in the District's name. The pledge of approved securities is waived only to the extent of the depository bank's dollar amount of Federal Deposit Insurance Corporation ("FDIC") Insurance. At September 30, 2014, the District's deposits were covered by FDIC Insurance or collateralized with securities held by the bank's agent in the District's name.

The District's policy regarding bank depository services requires the District's secretary to hold evidence of collateral held by a third party.

2. Investments

The District's funds may be invested in:

- a. U.S. Treasury, Agency and Instrumentality securities maturing in less than two years (except reserve, endowment and other long-term capital preservation funds which may be invested up to five years);
- b. Fully insured or collateralized certificates of deposit from commercial banks and savings and loan associations;
- c. Local government investment pools which adhere to a strategy consistent with this policy;
- d. Other such securities or obligations approved by the City Council and eligible under the Public Funds Investment Act, as amended.



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

NOTE 2: DETAILED NOTES (continued)

The District invests in the Texas Short Term Asset Reserve Fund (TexSTAR), which is a public funds investment pool. All deposits are secured by the underlying assets of the pool. They carrying amounts approximate the market values. Interest income is allocated on a percentage basis according to the pro rata portions of the balances in the investment account.

TexSTAR is a local government investment pool organized under the authority of the Interlocal Cooperation Act, Chapter 791, Texas Government Code, and the Public Funds Investment Act, Chapter 2256, Texas Government Code. The investment pool operates in a manner consistent with the SEC's Rule 2A7 of the Investment Act of 1940. The Pool is required to maintain a market value of its underlying investment portfolio within one half of one percent of the value of its shares.

The District's investments carried at fair value at September 30, 2014 are:

<u>Investment</u>	<u>Credit Rating (1)</u>	<u>Maturities</u>	<u>Percentage of Total Investments</u>	<u>Cost</u>	<u>Fair Value</u>
TexSTAR Cash Reserve	AAAm	50 days	100%	5,552,247	5,552,636

(1) Per Standard and Poor's

Interest Rate Risk – In accordance with its investment policy, the District's core of investments are limited to relatively low risk securities in anticipation of earning a fair return relative to the risk being assumed.

Credit Risk – As of September 30, 2014, the District's investment in TexSTAR was rated "AAAm" by Standard and Poor's.

**B. Water Revenue**

Revenue for raw water is based on contractual agreements with the following three entities:

- City of Mineral Wells
- Brazos Electric Power Co-Operative, Inc.
- Lake Palo Pinto Area Water Supply Corporation

The amount the City of Mineral Wells is charged for water is determined by the amount the District needs to meet its anticipated expenses based on the budget that is prepared annually.

The only metered water sales are to the Lake Palo Pinto Area Water Supply Corporation which is of a de minimis amount. The District charges an annual water use fee for residential domestic use to Lake Palo Pinto residents.



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

NOTE 2: DETAILED NOTES (continued)

C. Capital Assets

Capital asset activity for the year ended September 30, 2014 was as follows:

	Beginning Balance	Increases	Decreases	Adjustments	Ending Balance
Business-type Activities:					
Non-depreciable Assets:					
Land	\$ 1,192,895	\$ 1,172,852	\$ -	\$ -	\$ 2,365,747
Construction in progress	5,234,240	926,825	-	(24,970)	6,136,095
Total non-depreciable assets	<u>6,427,135</u>	<u>2,099,677</u>	<u>-</u>	<u>(24,970)</u>	<u>8,501,842</u>
Depreciable Assets:					
Buildings	98,455	-	-	-	98,455
Machinery and equipment	542,175	-	(20,000)	24,970	547,145
Distribution system	22,019,830	-	-	-	22,019,830
Total capital assets being dep	<u>22,660,460</u>	<u>-</u>	<u>(20,000)</u>	<u>24,970</u>	<u>22,665,430</u>
Accumulated Depreciation:					
Buildings	(93,053)	(3,602)	-	-	(96,655)
Machinery and equipment	(500,487)	(19,957)	20,000	-	(500,444)
Distribution system	(12,644,261)	(370,331)	-	-	(13,014,592)
Total accumulated depreciati	<u>(13,237,801)</u>	<u>(393,890)</u>	<u>20,000</u>	<u>-</u>	<u>(13,611,691)</u>
Business-type activities capital assets, net	<u>\$ 15,849,794</u>	<u>\$ 1,705,787</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 17,555,581</u>

Depreciation expense charged to the water operations was \$393,890

D. Revenue Bonds

On June 26, 2009, the District issued Subordinate Revenue Bonds, Series 2009A and Series 2009B, in the amounts of \$2,400,000 and \$3,200,000. The bonds were issued as serial bonds maturing June 1, 2010 through June 1, 2029 and June 1, 2010 through June 1, 2028. The debt will be repaid from unrestricted funds, primarily water sales. Proceeds from the sale of the bonds will be used for the planning, permitting, and preliminary engineering for the development of the Turkey Peak Reservoir. The proposed reservoir would be constructed downstream of Lake Palo Pinto on Palo Pinto Creek and breach out

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

NOTE 2: DETAILED NOTES (continued)

the existing dam on Lake Palo Pinto so that the new reservoir will be level with the existing lake, doubling the District's water storage capacity to meet future water demands.

On November 8, 2011, the District issued Revenue Refunding Bond, Series 2011, in the amount of \$6,990,000, with interest rates ranging between 2% and 3.375%. The bonds were issued to refund the outstanding balances of the Revenue Refunding Bonds, Series 2002, and Revenue Refunding Bonds, Series 2001.

Water revenues are used as security for revenue bonds. Revenue bonds outstanding as of year end are as follows:

<u>Purpose</u>	<u>Interest Rates</u>	<u>Amount</u>
Series 2011	2.00 - 3.375%	\$ 4,430,000
Series 2009B	2.63 - 3.68%	\$ 2,575,000
Series 2009A	0%	\$ 1,800,000

Revenue bond debt service requirements to maturity are as follows:

	<u>Principal</u>	<u>Interest</u>	<u>Totals</u>
2015	1,185,000	206,964	1,391,964
2016	1,215,000	179,667	1,394,667
2017	615,000	151,523	766,523
2018	630,000	139,928	769,928
2019	640,000	126,010	766,010
2024-2028	3,035,000	383,070	3,418,070
2029-2033	1,485,000	82,220	1,567,220
Totals	<u>\$ 8,805,000</u>	<u>\$ 1,269,382</u>	<u>\$ 10,074,382</u>

At September 30, 2014, the amount of interest cost incurred and expensed was \$222,221.

E. Changes in Long-term Liabilities

Long-term liability activity for the year ended September 30, 2014 was as follows:



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

NOTE 2: DETAILED NOTES (continued)

Description	October 1, 2013	Additions	Retirements	September 30, 2014	Due within one year
Revenue Bonds, Series 2009A	1,920,000	-	120,000	1,800,000	120,000
Revenue Bonds, Series 2009B	2,710,000	-	135,000	2,575,000	140,000
Revenue Refunding Bonds, Series 2011	5,330,000	-	900,000	4,430,000	925,000
Total Long-term Debt	<u>\$ 9,960,000</u>	<u>\$ -</u>	<u>\$ 1,155,000</u>	<u>\$ 8,805,000</u>	<u>\$ 1,185,000</u>

F. Compliance with Debt Service Requirements

The provisions of the bond ordinance of the Series Revenue Bonds, Series 2009A and 2009B resolutions require a "Reserve Fund" be established for the bonds issued by the District depositing \$5,877 on the 25<sup>th</sup> of each month beginning July 25, 2009 and continuing each subsequent month until a balance of \$352,626 is obtained. The District is in compliance with requirements. At September 30, 2014, the District had \$364,000 in the fund.

The provisions of the bond ordinance of the Revenue Refunding Bonds, Series 2011 resolutions require a "Reserve Fund" equal to the average annual debt service requirements over the life of the bonds to be maintained. The average annual debt service requirement for the remaining life of the bonds was \$551,162 and the balance in the reserve was \$552,000 at September 30, 2014.

The provisions of the bond ordinance of the Revenue Refunding Bonds, Series 2011 require a "Contingency Fund" of \$250,000 to be maintained. Monthly deposits of \$3,334 are required to be made when the "Contingency Fund" falls below the required balance. At September 30, 2014, the "Contingency Fund" had a balance of \$250,000.

G. Risk Management

Palo Pinto County Municipal Water District No. 1 is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; injuries to employees; and natural disasters. The District purchases insurance with Texas Municipal League Intergovernmental Risk Pool. The District also purchases a surety policy to insure against theft. The District does not expect claims to exceed insurance coverage. At September 30, 2014, there were no known claims against the District.

H. Texas Water Development Board Grant

In June 2009, the District received a \$2,400,000 grant from the Texas Water Development Board's Economically Distressed Areas Program. Expenditures from the grant are limited to environmental, geotechnical and water rights engineering and legal



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**NOTES TO FINANCIAL STATEMENTS**  
**September 30, 2014**

NOTE 2: DETAILED NOTES (continued)

services. The grant is to be used for the Lake Palo Pinto Storage Restoration Project ("Turkey Peak Project"). As of September 30, 2014, expenditures allocated to the grant totaled \$1,714,388.

On April 29, 2011, the District entered into an Escrow Agreement with the Texas Water Development Board. The escrowed funds shall be kept in a separate account and shall not be subject to warrants, drafts or checks drawn by the District but shall be disbursed or withdrawn to pay the costs of the Project for which the Grant Agreement was executed and solely upon written authorization from the Executive Administrator, his designated representative.

The bank shall distribute to the District and to the Executive Administrator's staff of the TWDB the escrow account statements or trust account statements on a monthly basis. The balance of the Escrow Account at September 30, 2014 was \$746,291.

I. Commitments

In 2009, the District issued \$5,600,000 Subordinate Revenue Bonds, \$2,400,000 from the Texas Water Development Board's Economically Distressed Areas Program and \$3,200,000 from the Texas Water Development Board's Water Infrastructure Fund, for the Turkey Peak Project. The District also received a grant of \$2,400,000 from the Texas Water Development Board's Economically Distressed Areas Program for the Turkey Peak Project. The total amount budgeted for the project is \$8,000,000. As of September 30, 2014, expenditures for the project totaled \$5,759,628 with a remaining budget of \$2,240,372.

NOTE 3: SUBSEQUENT EVENTS

Subsequent events were evaluated through February 3, 2015, which is the date the financial statements were available to be issued.

Lake Palo Pinto's water level is at about 10% of its capacity due to drought conditions. The District has an agreement for 1,000 acre feet of Brazos River water beginning October 1, 2014 and an additional 4,800 acre feet of Brazos River water beginning June 1, 2015 for \$69.50 per acre foot. The Brazos River water is blended with Lake Palo Pinto water. Approximately June 1, 2015 the District will begin leasing portable reverse osmosis equipment in six month intervals to treat the Brazos River water for \$300,000 per month plus electricity. The District will be constructing emergency water supply infrastructure and issuing an estimated \$4,000,000 debt in 2014-15.



**SUPPLEMENTARY INFORMATION**

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**Budgetary Comparison Schedule - Proprietary Fund**  
**For the Year Ended September 30, 2014**

	Budgeted Amounts		Actual Amounts	Variance
	Original	Final	Budgetary Basis	Positive (Negative)
<b>REVENUES:</b>				
Charges for water services	\$ 2,734,500	\$ 2,725,775	\$ 2,726,686	\$ 911
Rents and leases	1,500	1,500	1,500	-
Investment earnings	5,000	2,000	2,701	701
Grant proceeds	804,630	160,000	166,806	6,806
Other	650	1,375	3,273	1,898
Total revenues	<u>3,546,280</u>	<u>2,890,650</u>	<u>2,900,966</u>	<u>10,316</u>
<b>EXPENSES:</b>				
Interest	243,916	222,222	222,221	1
Debt retirement	1,155,000	1,155,000	1,155,000	-
Auditing	10,300	10,500	12,800	(2,300)
Legal fess	5,000	20,000	29,782	(9,782)
Other professional fees	50,000	57,900	159,568	(101,668)
Palo Pinto Co. - lake patrol	36,000	38,000	36,538	1,462
Infrastructure maintenance	1,000	1,000	-	1,000
Insurance	3,900	16,000	14,793	1,207
Travel, training, dues and sub	800	800	1,040	(240)
Office supplies	300	300	1,110	(810)
Postage	500	500	527	(27)
Telephone	220	220	802	(582)
Facility repair parts	1,000	1,000	-	1,000
Capital outlay	300,000	1,300,000	1,543,657	(243,657)
Miscellaneous	8,000	8,000	10,448	(2,448)
State inspection fees	10,000	10,000	7,473	2,527
Purchased water	-	38,010	22,379	15,631
Depreciation	391,000	391,000	393,890	(2,890)
Total expenses	<u>2,216,936</u>	<u>3,270,452</u>	<u>3,612,028</u>	<u>(341,576)</u>
Change in net position	1,329,344	(379,802)	(711,062)	(331,260)
Net Position, October 1, 2013	<u>12,489,986</u>	<u>12,489,986</u>	<u>12,489,986</u>	<u>-</u>
Net Position, September 30, 2014	<u>\$13,819,330</u>	<u>\$12,110,184</u>	<u>\$11,778,924</u>	<u>\$ (331,260)</u>

Reconciliation from Budgetary Basis to GAAP Basis

Debt retirement	1,155,000
Capital outlay	1,543,657
	<u>\$14,477,581</u>



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**Notes to the Supplementary Information**  
**For the Year Ended September 30, 2014**

Budget

Annual operating budget is adopted on a basis consistent with modified accrual accounting principles for the proprietary fund. All annual appropriations lapse at fiscal year end.

The Board of Directors follow these procedures in establishing budgetary data reflected in the financial statements.

- a. Prior to the beginning of the fiscal year, proposed operating budget is submitted to the Board for the fiscal year commencing the following October 1. The operating budget includes proposed expenses and the means of financing them for the proprietary fund.
- b. The budget may be amended with the approval of the Board of Directors.
- c. Budgetary control is maintained at the line item level, subject to adjustments permitted as described above.

Budgetary Compliance

The official District budget for the year ended September 30, 2014, was formally adopted by the Board of Directors at a duly advertised meeting on August 30, 2013, prior to the expenditure of funds. The budget was prepared on a basis consistent with generally accepted accounting principles. The level of budgetary responsibility is by total appropriations. Any revisions that alter the total appropriations of any fund must be approved by the District's Board of Directors.

Excess of Expenses Over Appropriations of \$5,000 or more:

Other professional fees, legal fees, and capital outlay exceeded appropriations by \$101,668, \$9,782, and \$243,657 respectively.

Budget to GAAP Differences

Debt retirement is budgeted as an expense, but is reported as a reduction in liability for GAAP purposes.

Capital outlay is budgeted as an expense, but is reported as an increase in capital assets for GAAP purposes.

TEXAS SUPPLEMENTARY INFORMATION

**Palo Pinto County Municipal Water District No. 1**  
**TSI-1. Services and Rates**  
**For the Year Ended September 30, 2014**

**1. Services Provided by the District during the Fiscal Year:**

- |  |   |                                     |
|--|---|-------------------------------------|
| <input type="checkbox"/> Retail Water  | <input checked="" type="checkbox"/> Wholesale Water | <input type="checkbox"/> Drainage   |
| <input type="checkbox"/> Retail Wastewater   | <input type="checkbox"/> Wholesale Wastewater       | <input type="checkbox"/> Irrigation |
| <input type="checkbox"/> Parks/Recreation  | <input type="checkbox"/> Fire Protection            | <input type="checkbox"/> Security   |
| <input type="checkbox"/> Solid Waste/Garbage   | <input type="checkbox"/> Flood Control              | <input type="checkbox"/> Roads      |
| <input type="checkbox"/> Participates in joint venture, regional system, and/or wastewater service (other than emergency interconnect) |   |                                     |

**2. Retail Service Providers**

Note: The District does not provide retail services. Therefore, this section is not applicable.

**a. Retail Rates for a 5/8" Meter (or equivalent):**

	Minimum Charge	Minimum Usage	Flat Rate Y/N	Rate per 1,000 Gallons Over Minimum Use	Usage Levels
WATER: \$				\$	_____ to _____
				\$	_____ to _____

District employs winter averaging for wastewater usage?  Yes  No

Total charges per 10,000 gallons usage: Water \$ \_\_\_\_\_

**b. Water Connections:**

Meter Size	Total Connections	Active Connections	ESFC Factor	Active ESFCs
Unmetered	_____	_____	x 1.0	_____
≤ 3/4"	_____	_____	x 1.0	_____
1"	_____	_____	x 2.5	_____
1 1/2"	_____	_____	x 5.0	_____
2"	_____	_____	x 8.0	_____
3"	_____	_____	x 15.0	_____
4"	_____	_____	x 25.0	_____
6"	_____	_____	x 50.0	_____
8"	_____	_____	x 80.0	_____
10"	_____	_____	x 115.0	_____
Total Water				

**3. Total Water Consumption (in thousands) During the Fiscal Year (rounded to the nearest thousand):**

Gallons pumped into system:	<u>1,417,670</u>	Water Accountability Ratio:
		(Gallons billed/Gallons pumped)
Gallons billed to customers:	<u>1,417,670</u>	<u>100.00%</u>



**Palo Pinto County Municipal Water District No. 1**  
**TSI-1. Services and Rates (continued)**  
**For the Year Ended September 30, 2014**

4. **Standby Fees: Does the District assess standby fees?**       Yes       No
- Does the District have Debt Service standby fees?       Yes       No
- If yes, date of the most recent Commission Order      \_\_\_\_\_
- Does the District have Operation & Maint standby fees?       Yes       No
- If yes, date of the most recent Commission Order      \_\_\_\_\_

5. **Location of District:**

- County(ies) in which District is located:      Palo Pinto      Parker
- Is the District located entirely within one county?       Yes       No
- Is the District located within a city?       Entirely       Partly       Not at all
- City(ies) in which the District is located:      Mineral Wells
- Is the District located within a city's extra territorial jurisdiction (ETJ)?
- Entirely       Partly       Not at all
- ETJs in which the District is located:      Mineral Wells
- Are Board members appointed by an office outside the district?       Yes       No
- If Yes, by whom?      Mineral Wells City Council

**Palo Pinto County Municipal Water District No. 1**  
**TSI-2. Enterprise Fund Expenses**  
**For the Year Ended September 30, 2014**

Personnel Expenses (including benefits)*	\$ -
Professional Fees:	
Auditing	12,800
Accounting	40,480
Financial	6,755
Legal	29,782
Engineering	112,333
State Inspection Fees	7,473
Purchased Services For Resale:	
Bulk Water Purchases	22,379
Contracted Services	36,538
Laboratory Fees	-
Fuel	-
Utilities	-
Depreciation	393,890
Bond discount amortization	-
Repairs and Maintenance	-
Administrative Expenses	
Interest Expense	222,221
Insurance	14,793
Office Supplies	1,110
Postage	527
Other Administrative Expenses	12,290
Other Expenditures	<u><u>\$ 913,371</u></u>

\* Number of persons employed by the District:      0 Full-Time      0 Part-Time

**Palo Pinto County Municipal Water District No. 1**  
**TSI-3. Temporary Investments**  
**For the Year Ended September 30, 2014**

<u>Fund</u>	<u>Identification or Certificate Number</u>	<u>Interest Rate</u>	<u>Maturity Date</u>	<u>Balance at End of Year</u>	<u>Accrued Interest Receivable At End of Year</u>
<b>Enterprise Fund:</b>					
None				\$ -	\$ -
Total Enterprise Fund				<u>-</u>	<u>-</u>
Total All Funds				<u><u>\$ -</u></u>	<u><u>\$ -</u></u>

**Palo Pinto County Municipal Water District No. 1**  
**TSI-4. Taxes Levied and Receivable**  
**For the Year Ended September 30, 2014**

	Debt Service Taxes
Taxes Receivable, Beginning of Year	\$ -
Less: Adjustments	-
Total to be Accounted for Tax Collections	-
Current Year	-
Prior Years	-
Total Collections	-
Taxes Receivable, End of Year	\$ -
Taxes Receivable by Years 2006 and Prior	\$ -
Taxes Receivable, End of Year	\$ -

	2014	2013	2012	2011
Property Valuations:				
Total Property Valuations	\$ -	\$ -	\$ -	\$ -
Tax Rates per \$100 Valuation:				
Debt Service Tax Rates				
Total Tax Rates Per \$100 Valuation	0%	0%	0%	0%
Original Tax Levy:	\$ -	\$ -	\$ -	\$ -
Percent of Taxes Collected to Taxes Levied*	0%	0%	0%	0%

\* Calculated as taxes collected in current and previous years divided by tax levy.



**Palo Pinto County Municipal Water District No. 1**  
**TSI-5. Long-Term Debt Service Requirements - by Years (continued)**  
**Series 2009A - Revenue Bonds**  
**For the Year Ended September 30, 2014**

Due During Fiscal Years Ending September 30	Series 2009A		
	Principal Due June 1	Interest Due December 1 and June 1	Total
2015	120,000	-	120,000
2016	120,000	-	120,000
2017	120,000	-	120,000
2018	120,000	-	120,000
2019	120,000	-	120,000
2020	120,000	-	120,000
2021	120,000	-	120,000
2022	120,000	-	120,000
2023	120,000	-	120,000
2024	120,000	-	120,000
2025	120,000	-	120,000
2026	120,000	-	120,000
2027	120,000	-	120,000
2028	120,000	-	120,000
2029	120,000	-	120,000
	<u>\$ 1,800,000</u>	<u>\$ -</u>	<u>\$ 1,800,000</u>



**Palo Pinto County Municipal Water District No. 1**  
**TSI-5. Long-Term Debt Service Requirements - by Years (continued)**  
**Series 2009B - Revenue Bonds**  
**For the Year Ended September 30, 2014**

Due During Fiscal Years Ending September 30	Series 2009B		
	Principal Due June 1	Interest Due December 1 and June 1	Total
2015	140,000	88,173	228,173
2016	145,000	84,001	229,001
2017	150,000	79,607	229,607
2018	160,000	74,912	234,912
2019	165,000	69,744	234,744
2020	170,000	64,250	234,250
2021	180,000	58,503	238,503
2022	185,000	52,329	237,329
2023	195,000	45,983	240,983
2024	200,000	39,198	239,198
2025	210,000	32,138	242,138
2026	215,000	24,620	239,620
2027	225,000	16,815	241,815
2028	235,000	8,648	243,648
	<u>\$ 2,575,000</u>	<u>\$ 738,921</u>	<u>\$ 3,313,921</u>

**Palo Pinto County Municipal Water District No. 1**  
**TSI-5. Long-Term Debt Service Requirements - by Years (continued)**  
**Series 2011 - Revenue Bonds**  
**For the Year Ended September 30, 2014**

Due During Fiscal Years Ending September 30	Series 2011		
	Principal Due June 1	Interest Due December 1 and June 1	Total
2015	925,000	118,791	1,043,791
2016	950,000	95,667	1,045,667
2017	345,000	71,916	416,916
2018	350,000	65,016	415,016
2019	355,000	56,267	411,267
2020	360,000	47,391	407,391
2021	370,000	36,592	406,592
2022	380,000	25,491	405,491
2023	395,000	13,331	408,331
	<u>\$ 4,430,000</u>	<u>\$ 530,462</u>	<u>\$ 4,960,462</u>

**Palo Pinto County Municipal Water District No. 1**  
**TSI-5. Long-Term Debt Service Requirements - by Years (continued)**  
**Summary of Principal and Interest Requirements**  
**For the Year Ended September 30, 2014**

Annual Requirements for All Series			
Due During Fiscal Years Ending September 30	Principal Due June 1	Interest Due December 1 and June 1	Total
2015	1,185,000	206,964	1,391,964
2016	1,215,000	179,668	1,394,668
2017	615,000	151,523	766,523
2018	630,000	139,928	769,928
2019	640,000	126,011	766,011
2020	650,000	111,641	761,641
2021	670,000	95,095	765,095
2022	685,000	77,820	762,820
2023	710,000	59,314	769,314
2024	320,000	39,198	359,198
2025	330,000	32,138	362,138
2026	335,000	24,620	359,620
2027	345,000	16,815	361,815
2028	355,000	8,648	363,648
2029	120,000	-	120,000
	\$ 8,805,000	\$ 1,269,383	\$ 10,074,383

**Palo Pinto County Municipal Water District No. 1**  
**TSI-6. Change in Long-Term Bonded Debt**  
**For the Year Ended September 30, 2014**

	Bond Issues			Totals
	Series 2009A	Series 2009B	Series 2011	
Interest Rate	0%	2.63 - 3.68%	2.00 - 3.375%	
Dates Interest Payable	6/1; 12/1	6/1; 12/1	6/1; 12/1	
Maturity Dates	6/1/2010 - 6/1/2029	6/1/2010 - 6/1/2028	6/1/2011 - 6/1/2023	
Beginning Bonds Outstanding	\$ 1,920,000	\$ 2,710,000	\$ 5,330,000	\$ 9,960,000
Bonds Sold During the Fiscal Year				
Bonds Retired During the Fiscal Year	120,000	135,000	900,000	1,155,000
Ending Bonds Outstanding	<u>\$ 1,800,000</u>	<u>\$ 2,575,000</u>	<u>\$ 4,430,000</u>	<u>\$ 8,805,000</u>
Interest Paid During the Fiscal Year	<u>\$ -</u>	<u>\$ 92,128</u>	<u>\$ 141,291</u>	<u>\$ 233,419</u>
Paying Agent's Name and City:				
Series 2009A	U.S. Bank		Dallas, TX	
Series 2009B	U.S. Bank		Dallas, TX	
Series 2011	U.S. Bank		Dallas, TX	

Bond Authority:	Revenue Refunding and Impr. Bonds
Amount Authorized by Voters	<u>\$ -</u>
Amount Issued	<u>\$ 12,590,000</u>
Remaining To Be Issued	<u>\$ -</u>
Debt Service Fund cash and temporary investments balances as of 9/30/2014:	<u>\$ 464,127</u>
Average annual debt service payment (Principal and Interest) for remaining term of bonded debt:	<u>\$ 671,626</u>



**Palo Pinto County Municipal Water District No. 1**  
**TSI-7. Comparative Schedule of Revenues and Expenses-Enterprise Fund-Four Years Ended**  
**September 30, 2014**

	Amounts				Percent of Fund Total Revenues			
	2014	2013	2012	2011	2014	2013	2012	2011
<b>Operating Revenues:</b>								
Property Taxes	\$ -	\$ -	\$ -	\$ -	0.00 %	0.00 %	0.00 %	0.00 %
Penalty and Interest					0.00	0.00	0.00	0.00
Water Service	2,729,959	2,531,313	2,246,041	2,116,946	99.95	99.94	99.93	99.94
Miscellaneous Income	1,500	1,500	1,500	1,375	0.05	0.06	0.07	0.06
<b>Total Operating Revenues</b>	<u>2,731,459</u>	<u>2,532,813</u>	<u>2,247,541</u>	<u>2,118,321</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>
<b>Operating Expenses:</b>								
Professional fees	209,623	90,253	80,416	92,325	7.67	3.56	3.58	4.36
Payroll					0.00	0.00	0.00	0.00
Utilities					0.00	0.00	0.00	0.00
Repairs and maintenance	-	3,710	-	2,268	0.00	0.15	0.00	0.11
Other Expenditures	87,637	49,318	48,139	44,864	3.21	1.95	2.14	2.12
Depreciation	393,890	425,081	451,601	458,183	14.42	16.78	20.09	21.63
<b>Total Operating Expenses</b>	<u>691,150</u>	<u>568,362</u>	<u>580,156</u>	<u>597,640</u>	<u>25.30</u>	<u>22.44</u>	<u>25.81</u>	<u>28.21</u>
<b>Operating Income (Loss)</b>	<u>2,040,309</u>	<u>1,964,451</u>	<u>1,667,385</u>	<u>1,520,681</u>	<u>74.70</u>	<u>77.56</u>	<u>74.19</u>	<u>71.79</u>
<b>Non-operating Revenues (Expenses)</b>								
Grant Proceeds	166,806	189,063	113,873	761,338	6.11	7.46	5.07	35.94
Interest on Time Deposits	2,701	6,304	7,244	7,191	0.10	0.25	0.32	0.34
Interest Expense and Fiscal Charges	(222,221)	(245,158)	(449,118)	(464,418)	(8.14)	(9.68)	(19.98)	(21.92)
<b>Total Non-Operating Revenues (Expenses)</b>	<u>(52,714)</u>	<u>(49,791)</u>	<u>(328,001)</u>	<u>304,111</u>	<u>(1.93)</u>	<u>(1.97)</u>	<u>(14.59)</u>	<u>14.36</u>
<b>Net Income (Loss)</b>	<u>\$ 1,987,595</u>	<u>\$ 1,914,660</u>	<u>\$ 1,339,384</u>	<u>\$ 1,824,792</u>	<u>72.77 %</u>	<u>75.59 %</u>	<u>59.59 %</u>	<u>86.14 %</u>



**Palo Pinto County Municipal Water District No. 1**  
**TSI-8. Board Members, Key Personnel, and Consultants**  
**For the Year Ended September 30, 2014**

Complete District Mailing Address: P.O. Box 387, Mineral Wells, Texas 76068

District Business Telephone Number: (940) 328-7712

Names and Addresses:	Term of Office or Date Hired	Fees 09/30/14	Expenses Reimbursed 09/30/14	Title at End of Period	Resident of District?
----------------------	------------------------------------	------------------	------------------------------------	---------------------------	--------------------------

**Board Members:**

David Turk 10 Cliff Drive Mineral Wells, TX 76067	01/13-12/14	\$ -	\$ -	President	Yes
---	-------------	------	------	-----------	-----

Wes Ellis 3203 NW 4th Ave. Mineral Wells, TX 76067	01/14-12/15	\$ -	\$ -	Vice-President	Yes
--	-------------	------	------	----------------	-----

Don Crawford 16 Cliff Drive Mineral Wells, TX 76067	01/13-12/14	\$ -	\$ -		Yes
---	-------------	------	------	--	-----

Bob Sturdivant 502 Mesquite St. Mineral Wells, TX 76067	01/14-12/15	\$ -	\$ -		Yes
---	-------------	------	------	--	-----

Ronny Collins 2600 Hilley Drive Mineral Wells, TX 76067	01/14-12/15	\$ -	\$ -		Yes
---	-------------	------	------	--	-----

**Key Administrative Personnel:**

Scott Blasor P.O. Box 387 Mineral Wells, TX 76068	09/2009	\$ 40,480	\$ 1,670	Secretary	Yes
---	---------	-----------	----------	-----------	-----

**Consultants:**

The Ritchie Law Firm P.O. Box 98 Mineral Wells, TX 76068		\$ 3,250		Attorney	
--	--	----------	--	----------	--

Lloyd Gosselink Blevins Rochelle & Townsend, P.C. 816 Congress Avenue, Suite 1900 Austin, TX 78701		\$ 58,359		Attorney	
---	--	-----------	--	----------	--

George, Morgan & Sneed, PC 1849 Wall Street Weatherford, TX 76086		\$ 12,800		Auditors	
---	--	-----------	--	----------	--

**Palo Pinto County Municipal Water District No. 1**  
**TSI-8. Board Members, Key Personnel, and Consultants**  
**For the Year Ended September 30, 2014**

Complete District Mailing Address: P.O. Box 387, Mineral Wells, Texas 76068

District Business Telephone Number: (940) 328-7712

<u>Names and Addresses:</u>	<u>Term of Office or Date Hired</u>	<u>Fees 09/30/14</u>	<u>Expenses Reimbursed 09/30/14</u>	<u>Title at End of Period</u>	<u>Resident of District?</u>
-----------------------------	---	--------------------------	---	-----------------------------------	----------------------------------

**Consultants (continued):**

HDR Engineering, Inc. P.O. Box 3480 Omaha, NE 68103-0480		\$ 963,349		Engineers	
--	--	------------	--	-----------	--

OVERALL COMPLAINTS AND INTERNAL CONTROL  
SECTION





**GMS**

CERTIFIED PUBLIC  
ACCOUNTANTS

GEORGE | MORGAN | SNEED

**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS***

To the Board of Directors  
Palo Pinto County Municipal Water District No. 1  
Mineral Wells, Texas

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of the business-type activities of Palo Pinto County Municipal Water District No. 1 (the "District") as of and for the year ended September 30, 2014, and the related notes to the financial statements, which collectively comprise the District's basic financial statements, and have issued our report thereon dated February 3, 2015.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the District's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the District's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results

of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

**Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*George Morgan Jones, P.C.*

Weatherford, Texas  
February 3, 2015



**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**Schedule of Findings and Questioned Costs**  
**For the Fiscal Year Ended September 30, 2014**

**Status of Prior Year Findings**

There were no prior year findings.

**Current Year Findings**

There were no current year findings.

BALANCE SHEET  
AS OF: MAY 31ST, 2015

70 -PPCMWD NO. 1

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

ACCOUNT#	TITLE		
<b>ASSETS</b>			
=====			
70-0000-1010-00	Cash	138,935.00	
70-0000-1080-00	INVENTORY	46,641.06	
70-0000-1112-00	Texstar-Operating	538.49	
70-0000-1112-01	Texstar-Surplus	1,359,003.25	
70-0000-1112-02	Txstr-Ctgy 2009A-B, 2011	250,000.00	
70-0000-1112-03	Txstr-Rsv Series 2011	552,000.00	
70-0000-1112-04	Txstr-Debt Service Series 2011	437,371.83	
70-0000-1112-05	Txstr-Rsv Series 2009 A-B	364,000.00	
70-0000-1112-06	Txstr-Dbt Svs Series 2009 A-B	116,335.75	
70-0000-1200	Unamortized Bond Discount	43,197.63	
70-0000-1320	LAND	2,343,540.26	
70-0000-1330-01	BUILDINGS - WATER	98,455.47	
70-0000-1360	IMPVTS OTHER THAN BLDGS - WATE	22,019,829.95	
70-0000-1380-05	EQUIPMENT	547,144.80	
70-0000-1400	CONSTRUCTION IN PROGRESS	6,136,094.74	
70-0000-1415	ORGANIZATIONAL COSTS	22,207.00	
70-0000-1425	ACCUMULATED DEPRECIATION	( 13,611,690.59)	
70-0000-1500-03	Accrued Amort-Bond Premium	17,387.26	
70-0000-1500-04	Accrued Amort-Bond Discount	( 10,643.02)	
			<u>20,870,348.88</u>
TOTAL ASSETS			20,870,348.88
=====			
<b>LIABILITIES</b>			
=====			
70-0000-2015	RETAINAGE	32,116.99	
70-0000-2043	DEFERRED REVENUE	89,375.00	
70-0000-2110	BOND PAYABLE - CURRENT PORTION	1,185,000.00	
70-0000-2120	Bond Premium Series 2011	70,572.20	
70-0000-2400	ACCRUED BOND INTEREST PAYABLE	68,988.00	
70-0000-2481	TWDB REVENUE BONDS - 2009A	1,680,000.00	
70-0000-2482	TWDB REVENUE BONDS - 2009B	2,435,000.00	
70-0000-2483	REFUNDING BONDS - 2011	3,505,000.00	
	TOTAL LIABILITIES		<u>9,066,052.19</u>
<b>EQUITY</b>			
=====			
70-0000-3010-00	FUND BALANCE/RETAINED EARNINGS	12,901,987.03	
	TOTAL BEGINNING EQUITY	12,901,987.03	
TOTAL REVENUE		1,737,169.51	
TOTAL EXPENSES		2,834,859.85	
TOTAL REVENUE OVER/(UNDER) EXPENSES		( 1,097,690.34)	
TOTAL EQUITY & REV. OVER/(UNDER) EXP.			<u>11,804,296.69</u>
TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			20,870,348.88
=====			

BALANCE SHEET  
AS OF: MAY 31ST, 2015

71 -PPCMWD NO. 1 - CAPT PROJ

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

ACCOUNT#	TITLE		
<b>ASSETS</b>			
=====			
71-0000-1010-00	CASH EDAP-WIF	138,601.45	
71-0000-1015	Cash w/Fiscal Agent TWDB	586,203.89	
71-0000-1112-00	TEXSTAR	<u>1,165,352.92</u>	
			<u>1,890,158.26</u>
TOTAL ASSETS			1,890,158.26
=====			
<b>LIABILITIES</b>			
=====			
71-0000-2043	DEFERRED REVENUE	<u>685,611.67</u>	
TOTAL LIABILITIES			<u>685,611.67</u>
<b>EQUITY</b>			
=====			
71-0000-3010-00	FUND BALANCE	<u>1,575,593.75</u>	
TOTAL BEGINNING EQUITY			1,575,593.75
TOTAL REVENUE		386.58	
TOTAL EXPENSES		<u>371,433.74</u>	
TOTAL REVENUE OVER/(UNDER) EXPENSES		( 371,047.16)	
TOTAL EQUITY & REV. OVER/(UNDER) EXP.			<u>1,204,546.59</u>
TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			1,890,158.26
=====			

PART C 47 Financial Information – Interim Statements for the Period Ended May 31, 2015

STATEMENT OF REVENUES - BUDGET vs. ACTUAL  
AS OF: MAY 31ST, 2015

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

70 -PPCMWD NO. 1

REVENUES	ORIGINAL BUDGET	CURRENT BUDGET	MONTHLY REVENUE	YEAR-TO-DATE REVENUE	BUDGET REMAINING	BUDGET % REMAINING
70-0000-4190 PROPERTY TAX-DELINQUENT	50	50.0	0.00	0.70	49.30	98.60
70-0000-4191 Property Tax-Penalty/Intr	100	100.0	0.00	1.22	98.78	98.78
70-0000-4220 OTHER REVENUE	500	500.0	1,470.11	1,470.11 (	970.11)	194.02-
70-0000-4370 Grant Proceeds	684,630	684,630.0	0.00	0.00	684,630.00	100.00
70-0000-4400-WATER SALES-CITY OF MW	2,058,000	2,058,000.0	171,500.00	1,372,000.00	686,000.00	33.33
70-0000-4400-WATER SALES-BEPC	357,500	357,500.0	357,500.00	357,500.00	0.00	0.00
70-0000-4400-WATER SALES-LAKE PPAWSC	10,000	10,000.0	570.57	4,026.88	5,973.12	59.73
70-0000-4400-WATER SALES-OTHER	100	100.0	0.00	0.00	100.00	100.00
70-0000-4610 INTEREST EARNED	2,000	2,000.0	19.09	1,170.60	829.40	41.47
70-0000-4631 RENTS & LEASES	1,500	1,500.0	125.00	1,000.00	500.00	33.33
<b>TOTAL REVENUES</b>	<b>3,114,380</b>	<b>3,114,380</b>	<b>531,184.77</b>	<b>1,737,169.51</b>	<b>1,377,210.49</b>	<b>44.22</b>

STATEMENT OF EXPENDITURES - BUDGET vs. ACTUAL  
AS OF: MAY 31ST, 2015

70 -PPCMWD NO. 1  
PPCMWD NO. 1

DEPARTMENTAL EXPENDITURES	ORIGINAL BUDGET	CURRENT BUDGET	MONTHLY EXPENDITURES	YEAR-TO-DATE EXPENDITURES	BUDGET REMAINING	BUDGET % REMAINING
70-7000-5302 Professional Service	58,000	58,000	0.00	36,422.94	21,577.06	37.20
70-7000-5304 Prof Services-Audit	10,750	10,750	0.00	8,000.00	2,750.00	25.58
70-7000-5306 ATTORNEY'S FEES	10,000	10,000	625.00	10,258.10 (	258.10)	2.58-
70-7000-5312 PPco-Lake Patrol	38,000	38,000	0.00	18,304.45	19,695.55	51.83
70-7000-5416 Infrastructure Maint	1,000	1,000	0.00	1,200.00 (	200.00)	20.00-
70-7000-5420 Rents/Leases	0	0	0.00	18,520.42 (	18,520.42)	0.00
70-7000-5502 INSURANCE	21,000	21,000	0.00	18,657.38	2,342.62	11.16
70-7000-5504 TELEPHONE	720	720	0.00	0.00	720.00	100.00
70-7000-5506 Travel/Training/Dues	800	800	0.00	0.00	800.00	100.00
70-7000-5602 OFFICE SUPPLIES	400	400	0.00	0.00	400.00	100.00
70-7000-5604 POSTAGE	500	500	0.00	60.00	440.00	88.00
70-7000-5645 Facility Repair Part	1,000	1,000	0.00	0.00	1,000.00	100.00
70-7000-5704 Improvements-Other	12,716	12,716	537,010.78	1,242,426.57 (	1,229,710.57)	9,670.58-
70-7000-5714 CONSTRUCTION	55,000	55,000	0.00	1,577.00	53,423.00	97.13
70-7000-5802 Misc Services/Charge	8,000	8,000	0.00	400.00	7,600.00	95.00
70-7000-5804 State Permits & Fees	18,000	18,000	0.00	7,123.00	10,877.00	60.43
70-7000-5812 PURCHASED WATER	69,500	69,500	0.00	79,946.23 (	10,446.23)	15.03-
70-7000-5902 TRANSFER-Reserves	130,400	130,400	0.00	0.00	130,400.00	100.00
70-7000-5952 BOND PRINCIPAL	1,787,000	1,787,000	1,185,000.00	1,185,000.00	602,000.00	33.69
70-7000-5956 BOND INTEREST	195,485	195,485	103,481.88	206,963.76 (	11,478.76)	5.87-
70-7000-5980 Depreciation Expense	370,000	370,000	0.00	0.00	370,000.00	100.00
<b>TOTAL PPCMWD NO. 1</b>	<b>2,788,271</b>	<b>2,788,271</b>	<b>1,826,117.66</b>	<b>2,834,859.85</b>	<b>( 46,588.85)</b>	<b>1.67-</b>
<b>TOTAL EXPENDITURES</b>	<b>2,788,271</b>	<b>2,788,271</b>	<b>1,826,117.66</b>	<b>2,834,859.85</b>	<b>( 46,588.85)</b>	<b>1.67-</b>



STATEMENT OF REVENUES - BUDGET vs. ACTUAL  
AS OF: MAY 31ST, 2015

PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1

71 -PPCMWD NO. 1 - CAPT PROJ

REVENUES	ORIGINAL BUDGET	CURRENT BUDGET	MONTHLY REVENUE	YEAR-TO-DATE REVENUE	BUDGET REMAINING	BUDGET % REMAINING
71-0000-4610 INTEREST EARNED	0	0.0	0.00	386.58 (	386.58)	0.00
<b>TOTAL REVENUES</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>386.58 (</b>	<b>386.58)</b>	<b>0.00</b>

STATEMENT OF EXPENDITURES - BUDGET vs. ACTUAL  
AS OF: MAY 31ST, 2015

71 -PPCMWD NO. 1 - CAPT PROJ  
PPCMWD NO. 1 - CAPT PROJ

DEPARTMENTAL EXPENDITURES	ORIGINAL BUDGET	CURRENT BUDGET	MONTHLY EXPENDITURES	YEAR-TO-DATE EXPENDITURES	BUDGET REMAINING	BUDGET % REMAINING
71-7100-5302-01 PRELIMINARY ENGINEER	13,920	13,920	0.00	0.00	13,920.00	100.00
71-7100-5302-02 ENVIRONMENTAL SERIVC	18,480	18,480	1,408.67	11,939.36	6,540.64	35.39
71-7100-5302-03 ARCHAEOLOGICAL SERVI	455	455	0.00	0.00	455.00	100.00
71-7100-5302-04 AG COORD/ALTERNAT/FU	55,000	55,000	377.10	20,547.39	34,452.61	62.64
71-7100-5302-05 MITIGATION PLANNING/	49,325	49,325	1,010.91	28,084.91	21,240.09	43.06
71-7100-5302-06 MAPPING	34,860	34,860	0.00	0.00	34,860.00	100.00
71-7100-5302-07 GEOTECHNICAL INVESTI	1,427,660	1,427,660	33,102.19	245,515.03	1,182,144.97	82.80
71-7100-5302-08 UTILITY SURVEYS	14,970	14,970	0.00	0.00	14,970.00	100.00
71-7100-5302-09 TXDOT/COUNTY RDWY PL	25	25	0.00	0.00	25.00	100.00
71-7100-5302-10 WATER RATE/MIS FIN/S	9,175	9,175	0.00	0.00	9,175.00	100.00
71-7100-5302-11 UTILITY NEGOTIATIONS	48,025	48,025	0.00	366.24	47,658.76	99.24
71-7100-5302-12 WATER RIGHTS- ENG/HY	183,605	183,605	1,236.71	43,846.86	139,758.14	76.12
71-7100-5302-13 LEGAL SERV. - WATER	270,850	270,850	0.00	21,133.95	249,716.05	92.20
71-7100-5302-14 LEGAL SERV. - ENVIRO	22,845	22,845	0.00	0.00	22,845.00	100.00
71-7100-5302-15 MISC LEGAL	84,505	84,505	0.00	0.00	84,505.00	100.00
71-7100-5302-18 CONTINGENCIES	3,400	3,400	0.00	0.00	3,400.00	100.00
<b>TOTAL PPCMWD NO. 1 - CAPT PROJ</b>	<b>2,237,100</b>	<b>2,237,100</b>	<b>37,135.58</b>	<b>371,433.74</b>	<b>1,865,666.26</b>	<b>83.40</b>
<b>TOTAL EXPENDITURES</b>	<b>2,237,100</b>	<b>2,237,100</b>	<b>37,135.58</b>	<b>371,433.74</b>	<b>1,865,666.26</b>	<b>83.40</b>



PART C 49.b. Financial Information  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
\$2,400,000 SUBORDINATE REVENUE BONDS, SERIES 2009A  
TEXAS WATER DEVELOPMENT FUND E.D.A.P

YEAR ENDING SEPT 30	INTEREST		PRINCIPAL JUNE 1	TOTAL REQUIREMENTS
	DECEMBER 1	JUNE 1		
2016	\$-	\$-	\$120,000	\$120,000
2017	\$-	\$-	\$120,000	\$120,000
2018	\$-	\$-	\$120,000	\$120,000
2019	\$-	\$-	\$120,000	\$120,000
2020	\$-	\$-	\$120,000	\$120,000
2021	\$-	\$-	\$120,000	\$120,000
2022	\$-	\$-	\$120,000	\$120,000
2023	\$-	\$-	\$120,000	\$120,000
2024	\$-	\$-	\$120,000	\$120,000
2025	\$-	\$-	\$120,000	\$120,000
2026	\$-	\$-	\$120,000	\$120,000
2027	\$-	\$-	\$120,000	\$120,000
2028	\$-	\$-	\$120,000	\$120,000
2029	\$-	\$-	\$120,000	\$120,000
	\$-	\$-	\$1,680,000	\$1,680,000

PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
\$3,200,000 SUBORDINATE REVENUE BONDS, (TAXABLE) SERIES 2009B  
TEXAS WATER DEVELOPMENT FUND W.I.F.

YEAR ENDING SEPT 30	INTEREST		PRINCIPAL JUNE 1	TOTAL REQUIREMENTS
	DECEMBER 1	JUNE 1		
2016	\$42,000	\$42,000	\$145,000	\$229,000
2017	\$39,803	\$39,804	\$150,000	\$229,607
2018	\$37,456	\$37,456	\$160,000	\$234,912
2019	\$34,872	\$34,872	\$165,000	\$234,744
2020	\$32,125	\$32,125	\$170,000	\$234,250
2021	\$29,252	\$29,252	\$180,000	\$238,504
2022	\$26,165	\$26,165	\$185,000	\$237,330
2023	\$22,992	\$22,992	\$195,000	\$240,984
2024	\$19,599	\$19,599	\$200,000	\$239,198
2025	\$16,069	\$16,069	\$210,000	\$242,138
2026	\$12,310	\$12,310	\$215,000	\$239,620
2027	\$8,407	\$8,408	\$225,000	\$241,815
2028	\$4,324	\$4,324	\$235,000	\$243,648
2029	\$-	\$-	\$-	\$-
	\$325,374	\$325,376	\$2,435,000	\$3,085,750

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**  
**\$6,990,000 REVENUE REFUNDING BONDS, SERIES 2011**  
**Refunding Series 2001 and Series 2002 Bonds**  
**Underwriter – Estrada Hinojosa & Company, Inc.**

YEAR ENDING SEPT 30	INTEREST		PRINCIPAL JUNE 1	TOTAL REQUIREMENTS
	DECEMBER 1	JUNE 1		
2016	\$47,833	\$47,833	\$950,000	\$1,045,666
2017	\$35,958	\$35,958	\$345,000	\$416,916
2018	\$32,508	\$32,508	\$350,000	\$415,016
2019	\$28,133	\$28,133	\$355,000	\$411,266
2020	\$23,696	\$23,696	\$360,000	\$407,392
2021	\$18,296	\$18,296	\$370,000	\$406,592
2022	\$12,746	\$12,746	\$380,000	\$405,492
2023	\$6,666	\$6,666	\$395,000	\$408,332
	<b>\$205,836</b>	<b>\$205,836</b>	<b>\$3,505,000</b>	<b>\$3,916,672</b>

**SUMMARY OF PRINCIPAL AND INTEREST REQUIREMENTS**  
**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

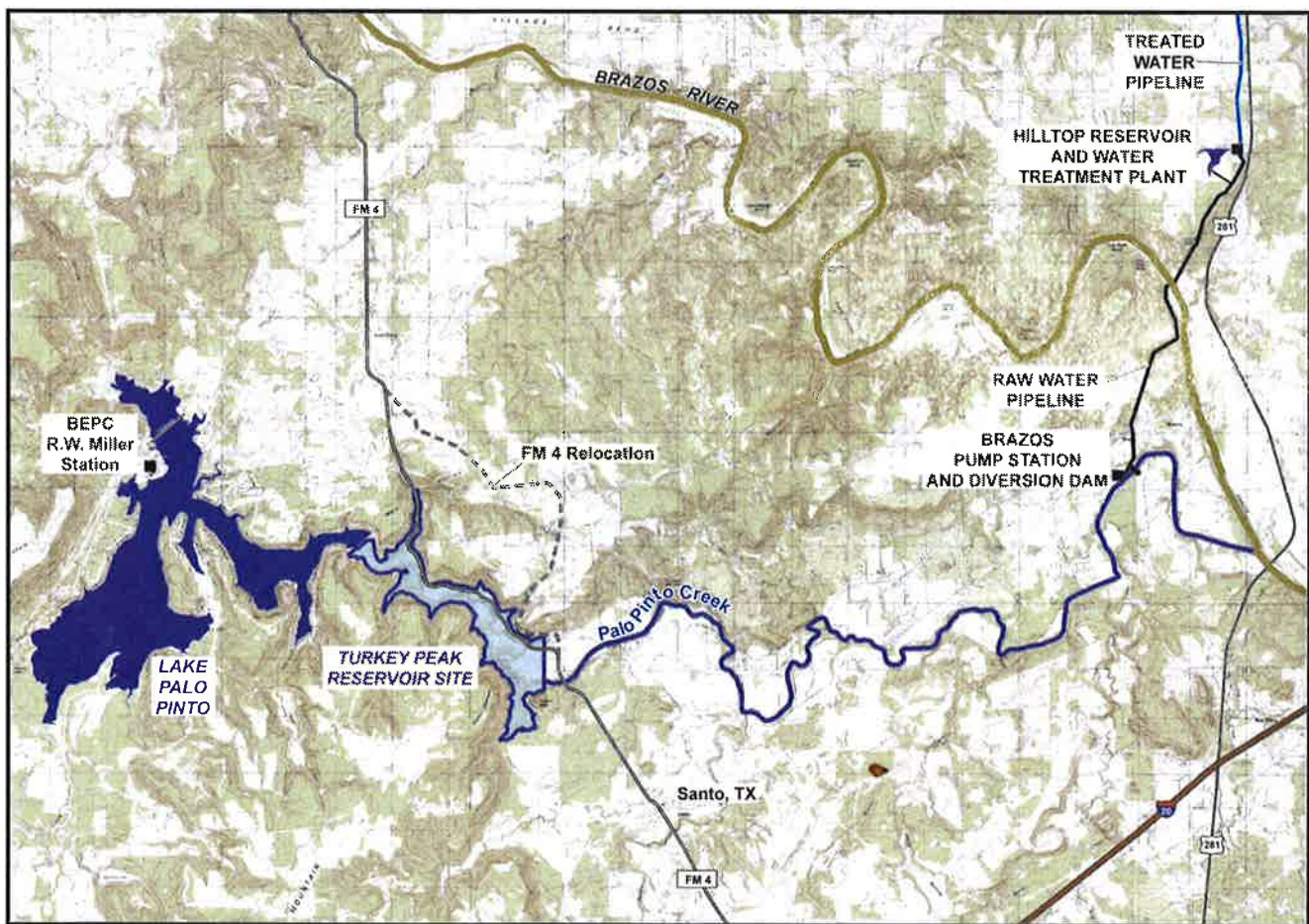
YEAR ENDING SEPT 30	INTEREST		PRINCIPAL JUNE 1	TOTAL REQUIREMENTS
	DECEMBER 1	JUNE 1		
2016	\$89,833	\$89,833	\$1,215,000	\$1,394,666
2017	\$75,761	\$75,762	\$615,000	\$766,523
2018	\$69,964	\$69,964	\$630,000	\$769,928
2019	\$63,005	\$63,005	\$640,000	\$766,010
2020	\$55,821	\$55,821	\$650,000	\$761,642
2021	\$47,548	\$47,548	\$670,000	\$765,096
2022	\$38,911	\$38,911	\$685,000	\$762,822
2023	\$29,658	\$29,658	\$710,000	\$769,316
2024	\$19,599	\$19,599	\$320,000	\$359,198
2025	\$16,069	\$16,069	\$330,000	\$362,138
2026	\$12,310	\$12,310	\$335,000	\$359,620
2027	\$8,407	\$8,408	\$345,000	\$361,815
2028	\$4,324	\$4,324	\$355,000	\$363,648
2029	\$-	\$-	\$120,000	\$120,000
	<b>\$531,210</b>	<b>\$531,212</b>	<b>\$7,620,000</b>	<b>\$8,682,422</b>

Note: Series 2009A and Series 2009B Bonds were subordinate to Series 2001 and Series 2002 Bonds. They are at par with Series 2011 Bonds.

PART C 49.b. Financial Information – Revenue Debt Schedules



# Engineering Feasibility Report and Environmental Information Document for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)



May 2015

Prepared for:  
Palo Pinto County  
Municipal Water District No. 1



# ***Engineering Feasibility Report and Environmental Information Document for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)***

*Prepared for:*

**Palo Pinto County  
Municipal Water District No. 1  
and  
City of Mineral Wells**



*Prepared by:*



*Kenneth L. Choffel*  
5/27/2015

**May 2015**

## **Table of Contents**

<b><u>Section</u></b>	<b><u>Page</u></b>
1	Background and Description of the Project ..... 1-1
2	Population, Water Demands and Supply, and Future Water Needs of the District ..... 2-1
3	Comparison of Alternatives and Selection of Turkey Peak Reservoir..... 3-1
4	Environmental Information and Permitting Issues..... 4-1
4.1	Introduction..... 4-1
4.2	Project Description..... 4-1
4.3	Geologic Elements..... 4-2
4.4	Hydrological Elements..... 4-2
4.5	Floodplains and Wetlands..... 4-3
4.6	Climatic Elements..... 4-3
4.7	Biological Elements..... 4-4
4.7.1	Vegetation ..... 4-4
4.7.2	Wildlife..... 4-5
4.7.3	Rare, Threatened, and Endangered Species ..... 4-6
4.7.4	Water Quality ..... 4-8
4.7.5	Aquatic Resources..... 4-9
4.7.6	Benthic Macroinvertebrates and Fish..... 4-9
4.8	Cultural Resources..... 4-9
4.9	Economic Conditions..... 4-10
4.10	Land Use ..... 4-10
4.11	Site Assessment ..... 4-11
4.12	Permitting and Regulatory Requirements..... 4-11
4.13	Land Acquisition Issues..... 4-12
4.14	Schedule of Environmental Studies and Permitting Activities..... 4-12
5	Project Costs and Schedule ..... 5-1
6	Consistency with Brazos G Regional Water Plan ..... 6-1
<b><u>Appendices</u></b>	
A	District’s Water Conservation and Drought Contingency Plan
B	TCEQ Water Rights Permit (DRAFT)
C	Professional Services Contract for Engineering and Permitting
D	Section 404/401 Joint Application: Supplemental Documentation and Revised Mitigation Plan
E	Map of Reservoir showing Required Land and Easement Purchases
F	TWDB Form WRD-253d – Water Project Information



### **List of Figures**

1-1	Project Location Map.....	1-2
2-1	Water Suppliers Service Area .....	2-1
2-2	Population Estimates for Palo Pinto and Parker Counties .....	2-2
2-3	Trends in Capacity of Lake Palo Pinto.....	2-5
2-4	Comparison of District’s Water Supply and Demands (Without Turkey Peak) .....	2-6
2-5	Comparison of District’s Water Supply and Demands (With Turkey Peak) .....	2-7
5-1	Preliminary Schedule for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir) (May 2015) .....	5-4

### **List of Tables**

<b><u>Table</u></b>	<b><u>Page</u></b>	
1-1	Turkey Peak Reservoir Site Initial Elevation-Area-Capacity .....	1-2
2-1	Population Estimates for Palo Pinto and Parker Counties .....	2-2
2-2	Water Demand and Supply Summary for District .....	2-4
4-1	Rare, Threatened, and Endangered Species of Palo Pinto County.....	4-7
5-1	Summary of Estimated Construction Costs.....	5-2
5-2	Summary of Estimated Project Costs for Turkey Peak Reservoir Project.....	5-3

## **Section 1**

### **Background and Description of the Project**

The Palo Pinto County Municipal Water District No. 1 (District) is the owner of Lake Palo Pinto dam and reservoir which was constructed in 1964. The District supplies water from the reservoir to the City of Mineral Wells, the Lake Palo Pinto Area Water Supply Corporation, and the Brazos Electric Power Cooperative (BEPC). Water for the City of Mineral Wells and its customers is released from the reservoir into Palo Pinto Creek where it travels about 16 miles to the District's diversion dam near the town of Brazos (see Figure 1-1). At this location water is diverted by the District's Brazos pump station for delivery to the Hilltop Reservoir located adjacent to the District's Hilltop Water Treatment Plant. The Lake Palo Pinto Area Water Supply Corporation diverts raw water directly from Lake Palo Pinto for subsequent treatment and municipal use. The BEPC diverts raw water directly from Lake Palo Pinto for industrial cooling purposes at their R.W Miller Steam-Electric Facility located on the western perimeter of Lake Palo Pinto as shown on Figure 1-1.

Under Certificate of Adjudication 12-4031 the District is authorized to store 44,100 acre-feet (acft) in the reservoir's conservation pool. A 1985 volumetric survey determined the reservoir's conservation capacity to be 27,650 acft and a recent 2007 volumetric survey by the TWDB indicated its capacity to be 26,480 acft or 60% of its authorized storage. By 2070 the capacity of the reservoir is estimated to be about 23,200 acft or less than 53% of its authorized capacity. Lake Palo Pinto's existing conservation pool has an average depth of about 12 feet.

Since the 1980's, the District has been investigating alternatives to restore the capacity of Lake Palo Pinto. Three highly efficient reservoir sites (i.e., small surface area with average depths of 36 to 66 feet) have been investigated and are shown on Figure 1-1. These sites include:

- Lake Palo Pinto Off-channel Reservoirs (Wilson and Kettle Hollow Reservoirs). These two sites are located just upstream of Lake Palo Pinto on tributary streams. Either of these projects would be constructed in two Phases. Phase 1 of each project would store 10,000 acft and Phase 2 enlargements of either site would increase storage to about 20,000 acft (effectively restoring the authorized storage volume of Lake Palo Pinto of 44,100 acft).

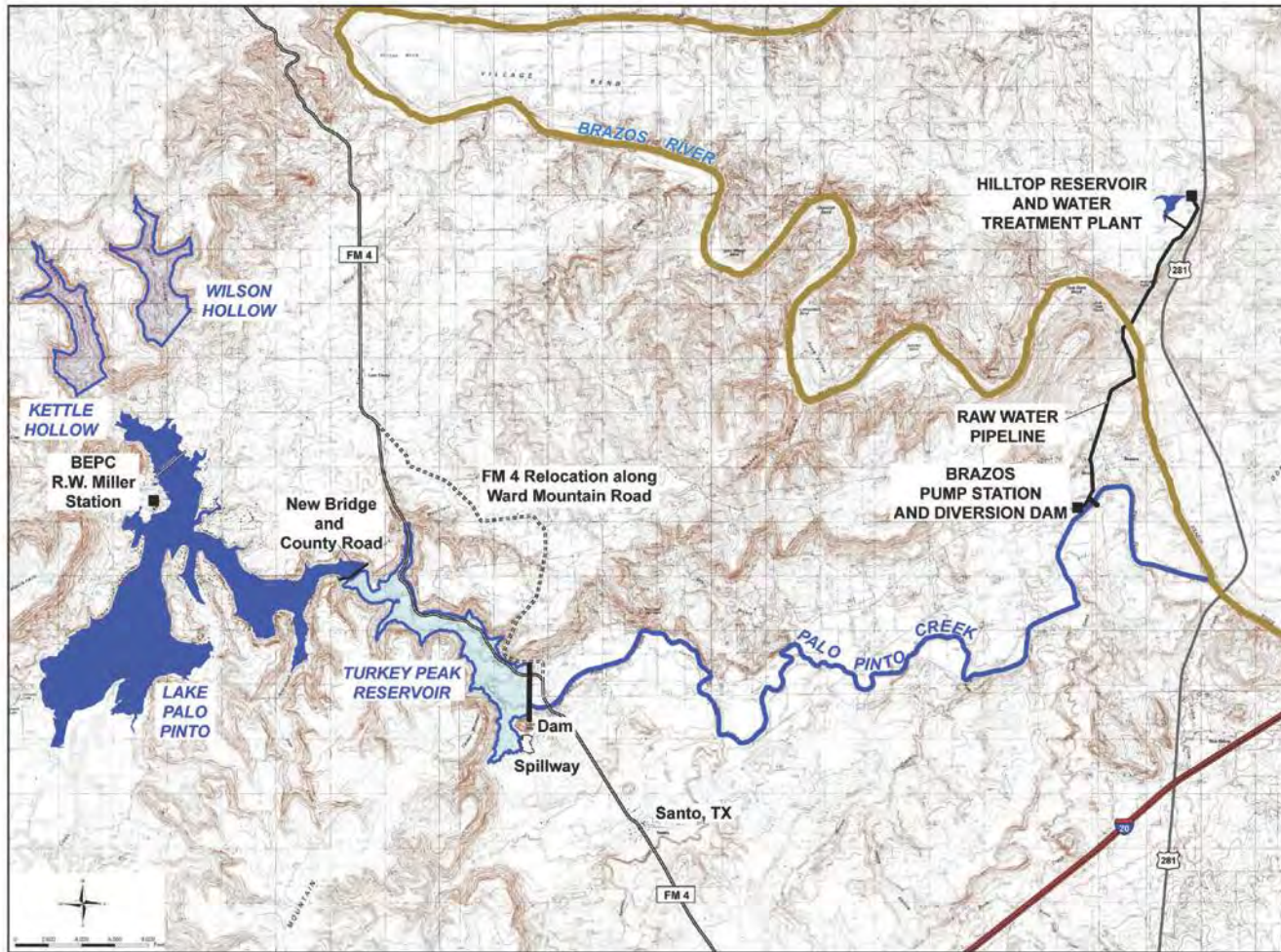


Figure 1-1. Project Location Map



- Turkey Peak Reservoir. This site is located just downstream of Lake Palo Pinto on Palo Pinto Creek and will initially store 22,577 acft (Table 1-1) and will increase 2020 water supplies of the District by 6,800 acft per year based on the recent 2012 to 2015 new critical drought. The Turkey Peak Dam and Reservoir project is also known as the Lake Palo Pinto Storage Restoration Project as it is effectively an enlargement of Lake Palo Pinto to fully restore its permitted capacity. The project includes the construction of a new dam on Palo Pinto Creek approximately 4 miles downstream of the existing Lake Palo Pinto Dam with both portions of the reservoir having the same conservation pool elevation (867.3 ft-msl). The project is described in more detail in the 2011 Brazos G Regional Water Plan (pages 4B.12-81 to 4B.12-98 - Volume II) and in the May 2015 Initially Prepared 2016 Brazos G Regional Water Plan (pages 4.13-1 to 4.13-18 - Volume II). The project will increase the conservation capacity of Lake Palo Pinto from 27,215 acft (2007 TWDB Volumetric Survey) to 49,792 ac-ft.
- This phase of the project includes land acquisition, final design, archeology recovery, and initial utility relocations beginning in 2016. The subsequent phase of the project (TWDB funds not currently being requested) includes construction of the following facilities beginning in about 2018: new dam and associated spillways, final utility and road relocations, and a new bridge and roadway across the existing Lake Palo Pinto Dam and Spillway.

**Table 1-1.  
Turkey Peak Reservoir Site  
Initial Elevation-Area-Capacity**

<b>Elevation (ft-msl)</b>	<b>Surface Area (acres)</b>	<b>Storage Capacity (acft)</b>
867*	648	22,577
860	605	18,216
850	534	12,590
840	455	7,682
830	316	3,769
820	123	1,306
810	61	468
800	29	97
790	0	0

\*Lake Palo Pinto conservation pool elevation.

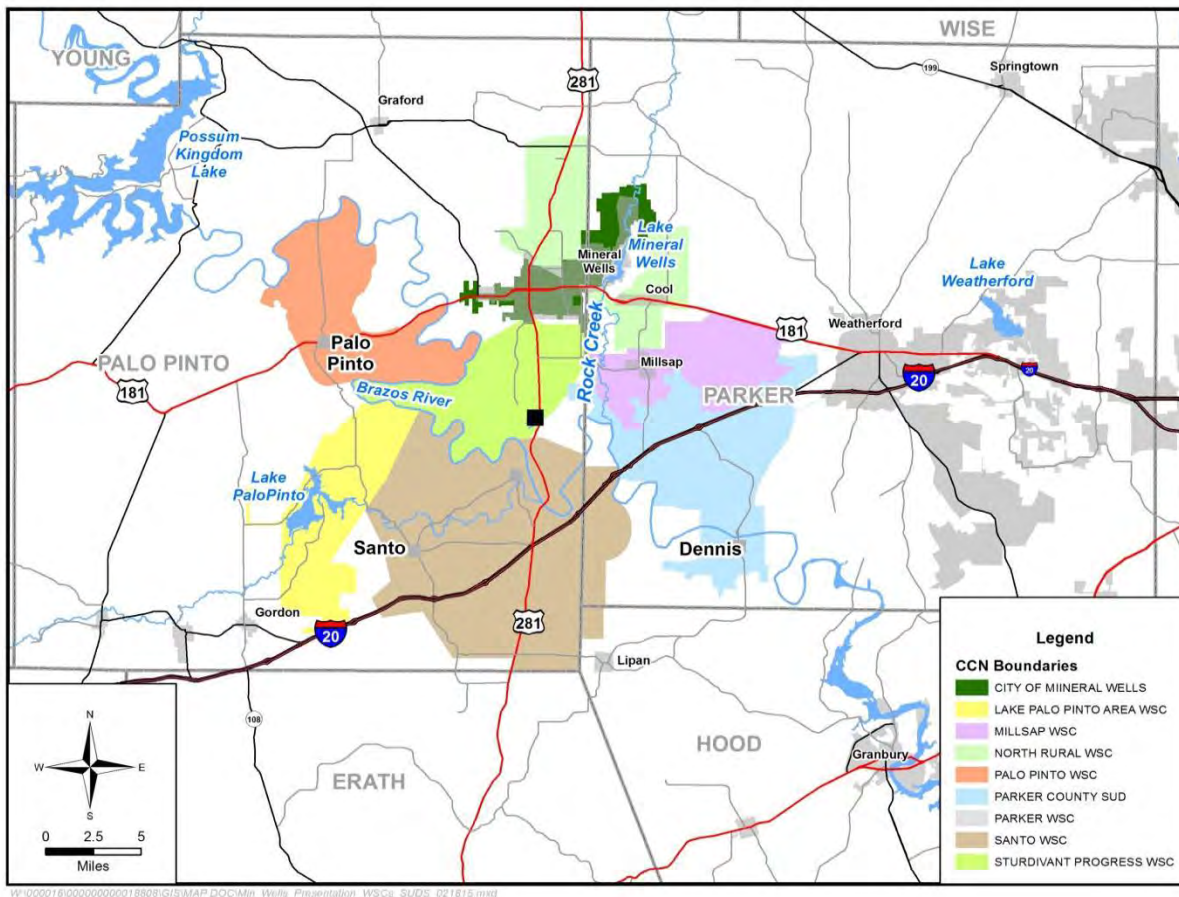
### **Summary of Recent Events**

- Environmental studies of the three alternative reservoir sites were performed to determine if any endangered species were present. These studies indicated that Golden-cheeked warblers were present at both the Wilson Hollow and Kettle Hollow sites but not at the Turkey Peak site.
- On October 31, 2008, the District and BEPC signed a new water supply contract under which the District agreed to supply BEPC 1,000 acft per year until December 31, 2028 with an option for BEPC to extend this supply and purchase up to an additional 3,000 acft per year from the Turkey Peak Project for a 40-year term after the new reservoir fills.
- The 2011 Brazos G Regional Water Plan (2011 Plan) and the 2012 State Water Plan include Turkey Peak Reservoir as a Recommended Water Management Strategy (WMS) for the District.
- In 2012, HDR Engineering, Inc. completed the preliminary design of the Turkey Peak project and prepared an updated project cost estimate which is the basis of costs presented in this report.
- The Initially Prepared 2016 Brazos G Regional Water Plan (2016 IPP) includes the Turkey Peak Reservoir as a Recommended Water Management Strategy for the District.
- On May 6, 2015 the Turkey Peak Project was ranked 6<sup>th</sup> for possible TWDB *SWIFT* funding and the District is submitting this updated Engineering Feasibility Report in support of the District's application.



## Section 2 Population, Water Demands and Supply, and Future Water Needs of the District

The District provides water to three entities including the City of Mineral Wells (City), the Lake Palo Pinto Area Water Supply Corporation (LPPAWSC) and the Brazos Electric Power Cooperative (BEPC). The City's service area includes portions of Palo Pinto and Parker Counties as shown in Figure 2-1. The City provides treated water to several Water Supply Corporations (WSC), Special Utility Districts (SUD), and the City of Graford. Population growth is occurring in both counties with Parker County experiencing very rapid growth as shown in Table 2-1 and Figure 2-2. Between 2010 and 2070 the population of Palo Pinto County is projected to increase by 34 percent from 28,111 to 37,579. During this same timeframe the population of Parker County is projected to increase from 116,927 to 629,277 an increase of 438 percent.

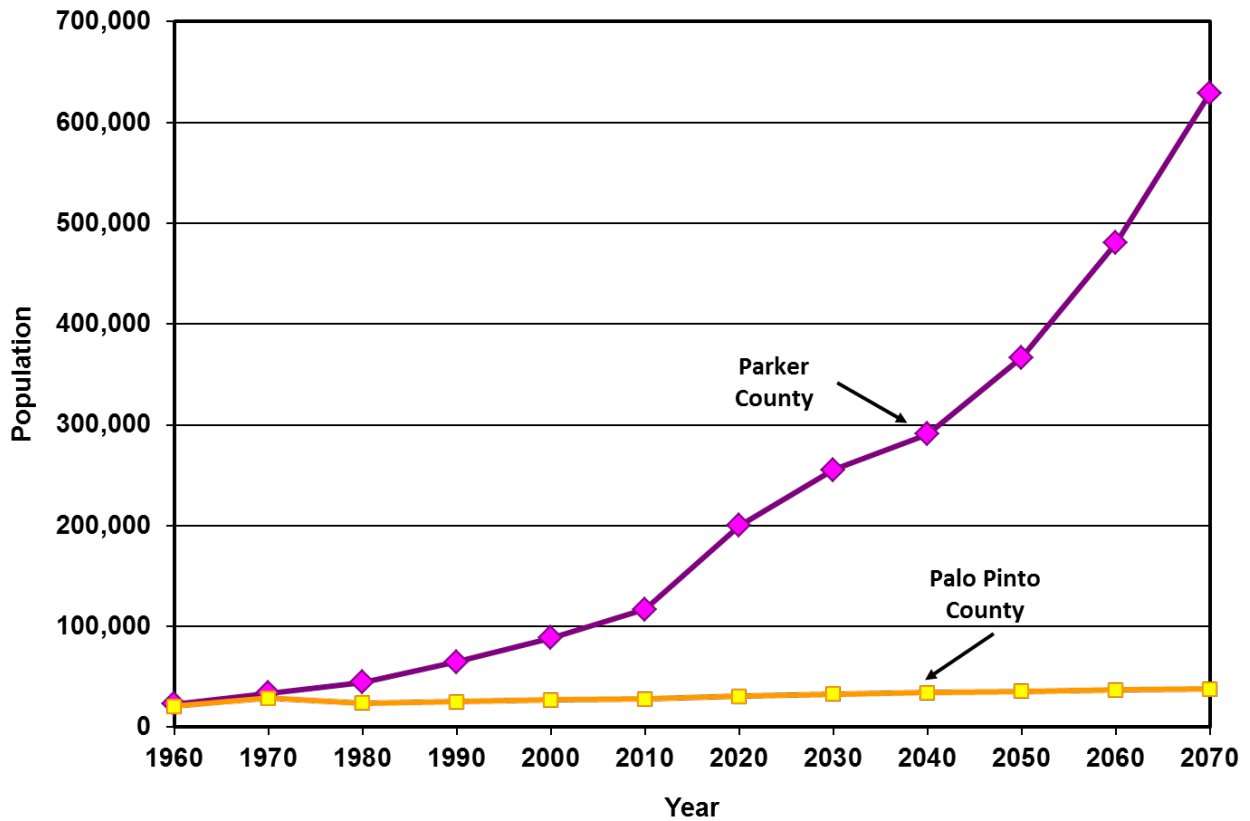


**Figure 2-1. Water Suppliers Service Areas**

**Table 2-1.**  
**Population Estimates for Palo Pinto and Parker Counties**

Year	Population			Combined Population Increase by
	Palo Pinto County	Parker County	Combined	Decade
2000 <sup>1</sup>	27,026	88,495	115,521	—
2010 <sup>2</sup>	28,111	116,927	145,038	29,517
2020 <sup>3</sup>	30,535	199,955	230,490	85,452
2030 <sup>3</sup>	32,771	255,133	287,904	57,414
2040 <sup>3</sup>	34,280	291,007	325,287	37,383
2050 <sup>3</sup>	35,675	366,596	402,271	76,984
2060 <sup>3</sup>	36,739	480,530	517,269	114,998
2070 <sup>3</sup>	37,579	629,277	666,856	149,587

<sup>1</sup>2000 U.S. Census Data.  
<sup>2</sup>2010 U.S. Census Data.  
<sup>3</sup>TWDB Estimates for 2017 State Water Plan.



**Figure 2-2. Population Estimates for Palo Pinto and Parker Counties**

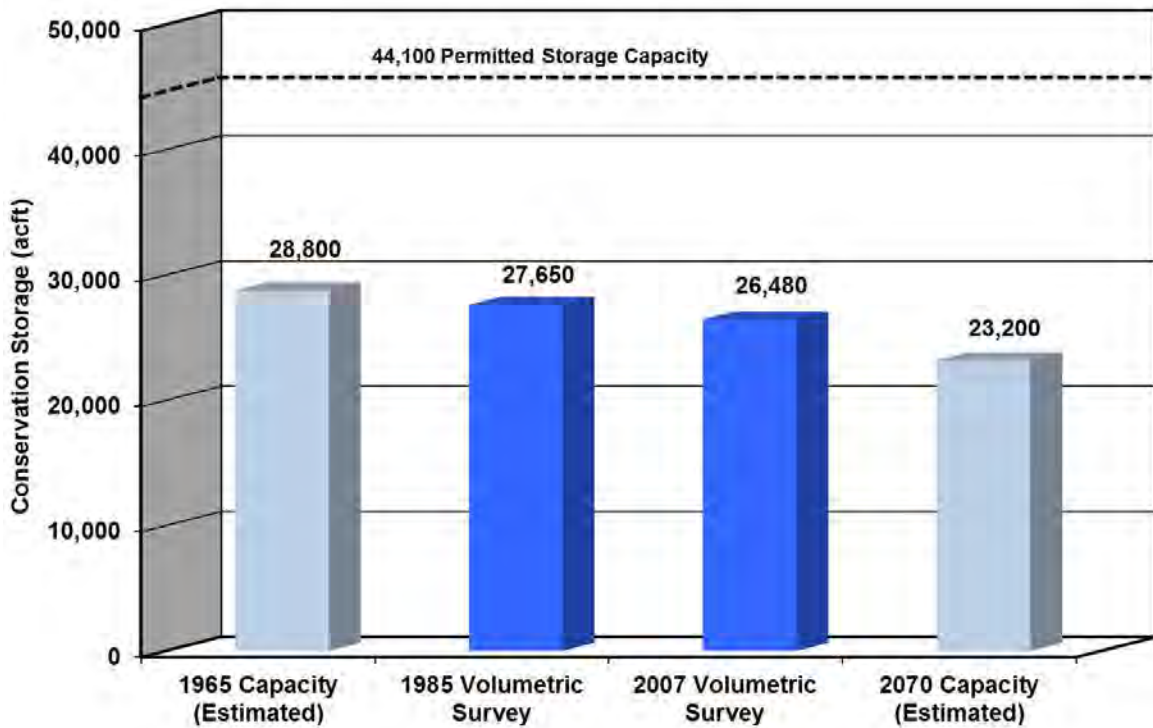
Water demand projections for the District as prepared by the Brazos G Regional Water Planning Group (BGRWPG) for the 2016 Brazos G Regional Water Plan (BGRWP) are summarized in Table 2-2 for the 2020 through 2070 timeframe. These projections include contracts that the District and/or City of Mineral Wells have with numerous Water Supply Corporations (WSC), Special Utility Districts (SUD), the City of Graford, and the Brazos Electric Power Cooperative (BEPC). As estimated by the BGRWPG, demands for the District's existing customers are anticipated to increase from 9,414 acft/yr in 2020 to 9,771 acft/yr in 2070. These amounts reflect a new water supply agreement between the District and BEPC. The new agreement provides BEPC with a total supply of 4,000 acft/yr upon the completion of the Turkey Peak Reservoir project, which is projected to occur by 2020. This new volume of supply exceeds BEPC's existing contract amount (1,000 acft/yr) by 3,000 acft/yr. The 2016 BGRWP also recommended a strategy for the District to meet irrigation needs projected by the TWDB in Palo Pinto County. When this additional volume of water is considered, the District's 2020 demand increases to 11,908 acft/yr and their 2070 demand increases to 11,959 acft/yr as shown in Table 2-2.

**Table 2-2.  
Water Demand and Supply Summary for the District**

<b>Major Water Contract Holders</b>	<b>Year (acft/yr)</b>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
City of Mineral Wells <sup>1</sup>	2,939	3,040	3,095	3,166	3,237	3,296
City of Graford	92	92	92	92	92	92
Palo Pinto County-Other	1,391	1,391	1,391	1,391	1,391	1,391
Parker County Other (Region C)	479	479	479	479	479	479
Palo Pinto County Manufacturing	10	10	10	10	10	10
Parker County Manufacturing (Region C)	25	25	25	25	25	25
Parker County SUD (Region C)	294	294	294	294	294	294
Millsap WSC (Region C)	184	184	184	184	184	184
Palo Pinto County Steam-Electric <sup>2</sup>	4,000	4,000	4,000	4,000	4,000	4,000
<b>Total Demand (BGRWP)</b>	<b>9,414</b>	<b>9,515</b>	<b>9,570</b>	<b>9,641</b>	<b>9,712</b>	<b>9,771</b>
Palo Pinto County Irrigation Demands (TWDB) <sup>3</sup>	2,494	2,392	2,299	2,260	2,222	2,188
<b>Total Demand (BGRWP with Irrigation)</b>	<b>11,908</b>	<b>11,907</b>	<b>11,869</b>	<b>11,901</b>	<b>11,934</b>	<b>11,959</b>
Notes:						
1 - Water demands include portions of the City in Palo Pinto and Parker Counties						
2 - Includes additional contract amount based on October 2008 contract between District and BEPC						
3 - Recommended strategy in 2016 BGRWP to meet irrigation needs						
<b>Existing &amp; Future Supply (2016 BGRWP)</b>	<b>Year (acft/yr)</b>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Lake Palo Pinto (2016 BGRWP 1940-1997) <sup>1</sup>	7,655	7,481	7,307	7,133	6,959	6,785
Lake Palo Pinto (Updated 2012-2015 Drought) <sup>2</sup>	5,200	5,080	4,960	4,840	4,720	4,600
Lake Palo Pinto with Turkey Peak (Updated 2012-2015 Drought) <sup>2</sup>	12,000	11,900	11,800	11,700	11,600	11,500
Notes:						
1 - The 2016 BGRWP yield is based on analysis of droughts occurring between 1940 and 1997; however recent drought occurring between May 2012 and October 2014 has reduced these yields by approximately 2,000 acft/yr.						
2 - Updated 6 month safe yield based on recent drought between 2012 and 2015						
<b>Projected Balance/(Shortage):</b>	<b>Year (acft/yr)</b>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Balance/(Shortage) - 2016 BGRWP without Turkey Peak	(4,214)	(4,435)	(4,610)	(4,801)	(4,992)	(5,171)
Balance/(Shortage) - 2016 BGRWP with Irrigation and without Turkey Peak	(6,708)	(6,827)	(6,909)	(7,061)	(7,214)	(7,359)
Balance/(Shortage) - 2016 BGRWP with Irrigation and with Turkey Peak	92	(7)	(69)	(201)	(334)	(459)

Yield studies of Lake Palo Pinto performed during the 2016 BGRWP (for the 1940 to 1997 period) indicate that the water supply available from Lake Palo Pinto is 7,665 acft/yr based on 2020 reservoir sediment conditions and will be reduced to 6,785acft/yr by 2070 as a result of reservoir sedimentation. These yields are 6 month safe yields which assume that during the critical month of the drought, the minimum storage in the reservoir is equal to 6 months of average diversions. During the critical month of the recent drought the minimum storage of Lake

Palo Pinto was about 4 months of water supply and confirmed that using a 6 month reserve is appropriate. A recent volumetric survey of Lake Palo Pinto performed by the TWDB indicates the reservoir has an average sedimentation rate of about 53 acft/yr and that between 1965 and 2070 (106 years) the capacity of the reservoir will be reduced by about 5,600 acft as shown in Figure 2-3.

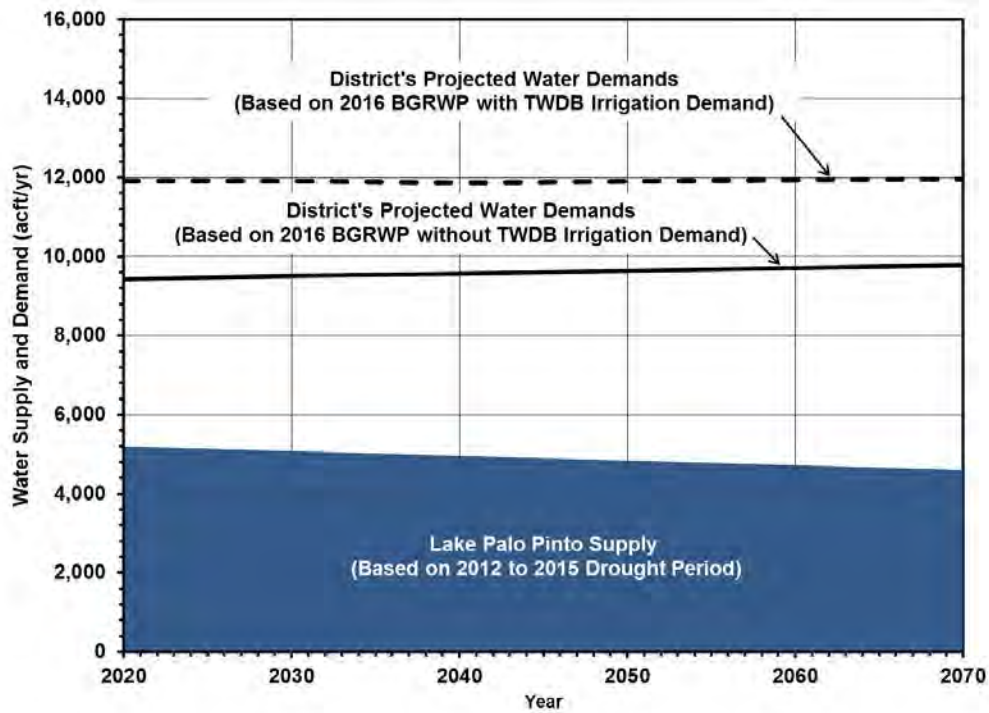


**Figure 2-3. Trends in Capacity of Lake Palo Pinto**

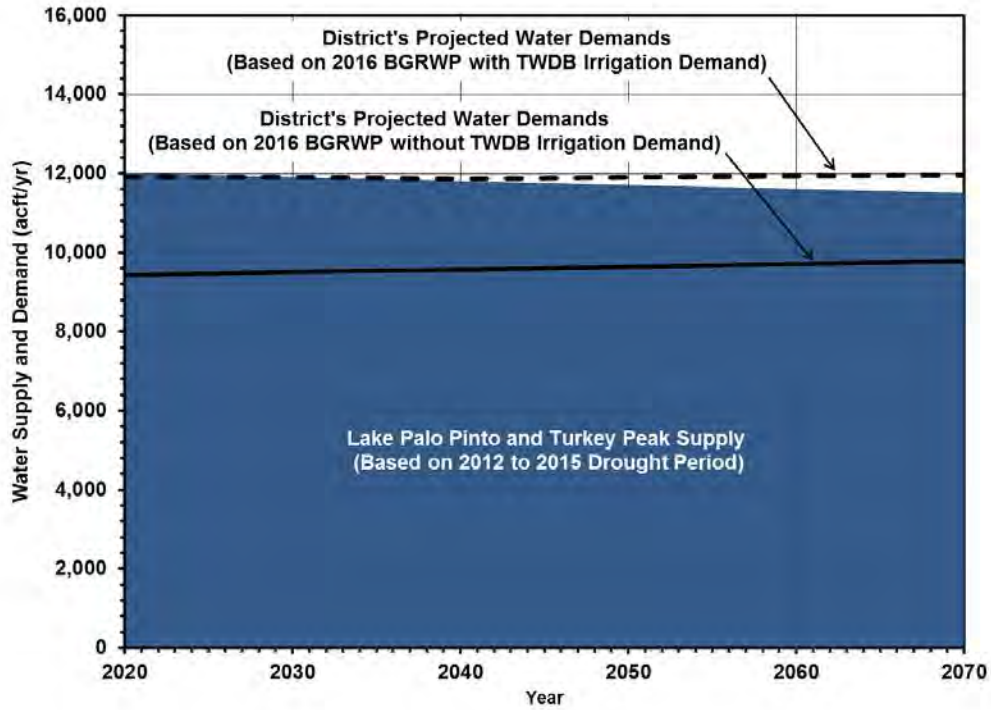
The 2016 BGRWP yield is based on analysis of droughts occurring between 1940 and 1997. However a recent drought occurring between May 2012 and May 2015 has reduced these yields. An updated yield analysis for Lake Palo Pinto using the most recent drought indicates that the 6 month safe yield is 5,200 acft/yr in 2020 and 4,600 acft/yr in 2070. Comparisons of the District’s future water demands with supplies available from Lake Palo Pinto based on the most recent yield analysis are shown on Figure 2-4 and Table 2-2. This figure shows that shortages will occur before 2020 and that by 2070, the District will need an additional water supply of 5,171 acft/yr. Comparison of the District’s future water demands with supplies available from both Lake Palo Pinto and Turkey Peak Reservoir are shown on Figure 2-5. This



figure shows that the District will have adequate supplies to meet needs of their existing customers but only about 79 percent of the 2016 BGRWP recommended TWDB irrigation demands after the Turkey Peak Reservoir project is constructed.



**Figure 2-4. Comparison of District's Water Supply and Demands (Lake Palo Pinto Without Turkey Peak)**



**Figure 2-5. Comparison of District's Water Supply and Demands (With Turkey Peak)**

### **Section 3**

## **Comparison of Alternatives and Selection of Turkey Peak Reservoir**

In 1986, the District performed an initial geotechnical investigation of the Turkey Peak Reservoir Dam site. The results of this investigation indicated that the dam site was suitable for the construction of an earthen embankment. Shortly after the 1986 investigation other needs of the District arose and the District put the Turkey Peak Reservoir Project on hold.

In 2004, the District was approached by BEPC about their need for additional water and the District re-initiated investigations of alternatives to restore the capacity of Lake Palo Pinto. This time, in addition to the Turkey Peak Reservoir site, the District also investigated the feasibility of reservoir sites on Wilson and Kettle Hollow as shown on Figure 1-1.

In 2006, the District undertook environmental studies to determine if endangered species were present at either the Wilson Hollow, Kettle Hollow, or the Turkey Peak Reservoir sites. The findings of these studies indicated that Golden-cheeked Warblers were present at both the Wilson and Kettle Hollow Sites but were not present at the Turkey Peak Reservoir site. Additionally in 2006 the District undertook an initial geotechnical investigation of the Wilson Hollow Reservoir site to determine its suitability as a reservoir site. The results of the geotechnical investigation indicated that although the site was suitable for a reservoir, the local sandstone, which would be needed to construct the dam, would require additional processing. The resulted in the cost of the Wilson Hollow Reservoir project increasing.

In 2007, the District reevaluated both the Turkey Peak and the Wilson Hollow projects and determined that the Turkey Peak Reservoir Project was the preferred project over the Wilson Hollow project for the following reasons: it provides significantly more water supply; it provides water at a lower unit cost; it does not impact Golden-cheeked Warblers; it does not require a new pump station to fill the reservoir; and with Lake Palo Pinto located upstream, its useful life will be greatly extended due to minimal sedimentation.

In February 2015, the District prepared and submitted to the US Army Corps of Engineers (USACE) a Supplemental Documentation and Revised Mitigation Plan for the District's Section 404/401 Joint Application: This document is included in Appendix D and contains an updated comparison of storage restoration alternatives for Lake Palo Pinto.

## **Section 4 Environmental Information and Permitting Issues**

### **4.1 Introduction**

The Turkey Peak Reservoir site is located in southeast Palo Pinto County approximately 13 miles southwest of Mineral Wells, Texas. The section of Palo Pinto Creek from a point immediately downstream of Lake Palo Pinto to its confluence with the Brazos River is approximately 18 miles long with the actual distance to be impacted by the proposed reservoir containing approximately 4 miles (see Figure 1-1). The Turkey Peak Dam is located approximately 2 miles northwest of the city of Santo and just upstream from the FM 4 bridge over Palo Pinto Creek.

The reservoir site is located within the Palo Pinto Mountains which stretch for 15 miles, running from a point in southwestern Palo Pinto County to the northeast to a point just south of the Brazos River. Elevations range from 800 to 1450 feet above mean sea level (ft-msl) within the county.

### **4.2 Project Description**

The proposed project includes the construction of a new dam on Palo Pinto Creek immediately downstream of Lake Palo Pinto. The new reservoir would have the same conservation pool level as Lake Palo Pinto and would effectively be an enlargement of Lake Palo Pinto. Only the existing dam at Lake Palo Pinto will separate the two reservoirs and a portion of the existing spillway is proposed to be removed so that when both portions of the combined reservoir are full, or nearly full, recreational boaters could access both portions of the reservoir. The new dam would impound a reservoir of about 648 surface acres at an operating elevation of 867.3 ft-msl and would contain about 22,577 ac-ft of water at this elevation. It is interesting to note that the Turkey Peak portion of the reservoir will provide approximately 83 percent of the storage volume as Lake Palo Pinto while inundating a land area that is less than 30 percent of the surface area of the existing lake. This results in the Turkey Peak portion of the new reservoir having an average depth of 36 feet with the Lake Palo Pinto portion having an average depth of about 12 feet.

The new project will be operated in the same manner as the existing lake with water supply releases for the City of Mineral Wells and their customers being made to Palo Pinto Creek for subsequent diversion at the District's diversion dam and pump station located about 12 river miles downstream of the new dam near the town of Brazos. This type of operation results in Palo Pinto Creek having flow down to the District's diversion dam about 90 percent of the time. Streamflow records indicate that prior to the construction of Lake Palo Pinto, Palo Pinto Creek was an intermittent stream.

#### **4.3 Geologic Elements**

The physiography of the region includes sandstone, conglomerate, mudstone, shale and limestone, in addition to fluvial terrace deposits, and alluvium areas.<sup>1</sup> The topography ranges from flat to rolling, and from steeply to moderately sloped, with local shallow depressions in flood-prone areas along waterways.<sup>2</sup>

General soil map units in the project area include the Bosque-Santo and Bonti-Truce-Shatruce. Bosque-Santo soils are deep, nearly level to gently sloping, loamy soils, typically found on floodplains. These soils are well suited to rangeland uses and have a high potential for wildlife habitat. Bonti-Truce-Shatruce soils are moderately deep and deep, gently sloping to steep, loamy, stony, and bouldery upland soils.<sup>3</sup> These soils are found on gently sloping sandstone ridges and in narrow valleys where slopes range from one to 40 percent. Soils in this map unit are moderately well suited for use as pastureland and cropland, but not appropriate for urban uses. Limitations of this soil unit include stones, boulders and steep slopes in some areas.

#### **4.4 Hydrological Elements**

The Brazos River, a major regional water source, traverses Palo Pinto County from the northwest to southeast. The applicable stream segment for this project is segment 1206- Brazos River below Possum Kingdom Lake, defined as from a point 100 meters upstream of FM 2580 in Parker County to Morris Sheppard Dam in Palo Pinto County. Palo Pinto Creek is a direct tributary to the Brazos River. The natural drainage of Palo Pinto Creek has been modified by the

---

<sup>1</sup> Bureau of Economic Geology. 1972. Geologic Atlas of Texas, Abilene Sheet. University of Texas at Austin. Austin, Texas.

<sup>2</sup> Kier, R.S., L.E. Garner, and L.F. Brown, Jr., "Land Resources of Texas." Bureau of Economic Geology, University of Texas, Austin, Texas, 1977.

<sup>3</sup> Moore, J.D., *Soil Survey of Palo Pinto County, Texas*, United States Department of Agriculture, Soil Conservation Service, in cooperation with Texas Agricultural Experiment Station, 1981.



construction of Lake Palo Pinto and a diversion dam near its confluence with the Brazos River. Streamflow records on Palo Pinto Creek prior to the construction of Lake Palo Pinto indicate that the creek was previously intermittent with zero flow occurring about 41% of the time during the period of record from May 1951 through the end of 1963. Water supply releases from Lake Palo Pinto to the District's channel dam have resulted in this stream reach having flow about 90 percent of the time.

Within Palo Pinto County low escarpments cross the watershed, and the basins of the Brazos and its tributaries are deeply trenched and confined in narrow valleys with steep sides or bluffs. Two major reservoirs are present within the county; Possum Kingdom Reservoir situated on the Brazos River, and Lake Palo Pinto located on Palo Pinto Creek. No major or minor aquifers underlie the project area. The Trinity Aquifer, a major aquifer consisting of interbedded sandstone, sand, limestone, and shale of Cretaceous Age, lies east and south of the project area.<sup>4</sup>

#### **4.5 Floodplains and Wetlands**

Floodplains within the project area are generally found along Palo Pinto Creek, and contained within narrow valleys. Available floodplain information for Palo Pinto County from Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps show 100-year floodplain designations (Zone A) along the entire stream channel below Lake Palo Pinto. Limited wetlands are located along Palo Pinto Creek, and in shallow depressions in flood-prone areas.

#### **4.6 Climatic Elements**

The climate within the area is characterized as subtropical subhumid, with hot summers and dry winters. Average annual precipitation ranges between 28 and 32 inches<sup>5</sup> and is uniformly distributed throughout the year. Air quality in Palo Pinto County meets current National Ambient Air Quality Standards with prevailing winds generally blowing from the south.

---

<sup>4</sup> Texas Water Development Board (TWDB), Major and Minor Aquifers of Texas; Maps online at <http://www.twdb.state.tx.us/mapping/index.asp>, Accessed May 2008.

<sup>5</sup> Larkin, T.J., and G.W. Bomar, "Climatic Atlas of Texas," Texas Department of Water Resources, Austin, Texas, 1983.

## 4.7 Biological Elements

### 4.7.1 Vegetation

The proposed Turkey Peak Reservoir project lies in the Cross Timbers and Prairie Vegetational Area,<sup>6</sup> a region encompassing most of 29 counties in North Central Texas. This vegetational area contains a large area of closely associated prairie and woodland sites. The topography has rapid surface drainage and includes rolling, hilly, and deeply dissected areas. Differences in soils and topography within this area are reflected in sharp changes in vegetation cover. The physiognomy of the region is oak and juniper woods, and mixed grass prairie. Much of the native vegetation has been displaced by agriculture and development. Range management techniques including fire suppression; have contributed to the spread of invasive woody species and grasses. Farming and grazing practices have also reduced the abundance and diversity of wildlife in the region.<sup>7</sup> The proposed reservoir site is situated in the central portion of this vegetational area, between the Blackland Prairies immediately to the east, the Edwards Plateau to the south, and the Rolling Plains to the west.

Two major vegetation types occur in the general vicinity of the proposed project: Ashe Juniper Parks/Woods, and Oak-Mesquite-Juniper Parks/Woods.<sup>8</sup> Variations of these primary vegetation types occur with changes in the composition of woody and herbaceous species and physiognomy, and in response to localized conditions and specific range sites. Ashe Juniper Parks/Woods, occur principally on the slopes of hills in Palo Pinto County, and within the Turkey Peak Reservoir site are generally found from the Lake Palo Pinto dam to a point approximately 2 miles downstream along Palo Pinto Creek. Commonly found species within this vegetation type include: Ashe Juniper (*Juniperus ashei*), live oak (*Quercus virginiana*), Texas oak (*Q. texana*), cedar elm (*Ulmus crassifolia*), mesquite (*Prosopis glandulosa*), agarito (*Mahonia trifoliolata*), tasajillo (*Opuntia leptocaulis*), western ragweed (*Ambrosia cumanensis*), scurfpea (*Psoralea* spp.), little bluestem (*Schizachyrium scoparium*), sideoats grama (*Bouteloua curtipendula*), Texas wintergrass (*Nasella leucotricha*), silver bluestem (*Bothriochloa saccharoides*), hairy tridens (*Erioneuron pilosum*), tumblegrass (*Schedonnardus paniculatus*), and red three-awn (*Aristida purpurea* var. *longiseta*).

<sup>6</sup> Gould, F.W., G.O. Hoffman, and C.A. Rechenhain, Vegetational Areas of Texas, Texas A&M University, Texas Agriculture Experiment Station Leaflet No. 492, 1960.

<sup>7</sup> Telfair, R.C., "Texas Wildlife Resources and Land Uses," University of Texas Press, Austin, Texas, 1999.

<sup>8</sup> McMahan, C.A., R.F. Frye, and K.L. Brown, "The Vegetation Types of Texas," Texas Parks and Wildlife Department, Wildlife Division, Austin, Texas, 1984.

Oak-Mesquite-Juniper Parks/Woods, which occur as associations or as a mixture of individual (woody) species stands on uplands, are generally found from a point along Palo Pinto Creek 2 miles downstream of Lake Palo Pinto dam to the location of the proposed Turkey Peak Reservoir dam, a distance of about 2 miles. Species commonly found in this vegetation type include post oak (*Q. stellata*), Ashe juniper, shin oak (*Q. sinuata* var. *breviloba*), Texas oak, blackjack oak (*Q. marilandica*), live oak, cedar elm, agarito, soapberry (*Sapindus saponaria*), sumac (*Rhus* spp.), hackberry (*Celtis* spp.), Texas pricklypear (*Opuntia engelmannii* var. *lindheimeri*), Mexican persimmon (*Diospyros texana*), purple three-awn (*Aristida purpurea*), hairy grama (*Bouteloua hirsuta*), Texas grama (*B. texana*), sideoats grama, curly mesquite (*Hilaria belangeri*), and Texas wintergrass.

The bottomland woodlands occurring along Palo Pinto Creek are characterized by species such as American elm (*Ulmus americana*), slippery elm (*Ulmus rubra*), Texas sugarberry (*Celtis laevigata*), pecan (*Carya illinoensis*), and green ash (*Fraxinus pennsylvanica*), which are reaching the western most extensions of their range within this area.

#### 4.7.2 Wildlife

Palo Pinto County is included in the Texan Biotic Province as delineated by Blair<sup>9</sup> and modified by TPWD. This province includes bands of prairie and woodland that begin in South Central Texas and run north to Kansas. The Texan Biotic Province constitutes a broad ecotone between the forests in the eastern portion of this region and the western grasslands.

The wildlife habitat types of the study area coincide closely with the major plant community types present. The mountains and associated vegetation areas within the county are similar to that of the Edwards Plateau thus the wildlife fauna contains a substantial number of typical Balconian species. Therefore, the wildlife habitats and species of the study area represent a mixture of those typical of the surrounding areas.

Mammals typical of this province include the Virginia opossum (*Didelphis virginiana*), eastern mole (*Scalopus aquaticus*), fox squirrel (*Sciurus niger*), Louisiana pocket gopher (*Geomys breviceps*), fulvous harvest mouse (*Reithrodontomys fulvescens*), white-footed mouse (*Peromyscus leucopus*), hispid cotton rat (*Sigmodon hispidus*), eastern cottontail (*Sylvilagus*

<sup>9</sup> Blair, W. Frank. 1950. "The Biotic Provinces of Texas," Texas Journal of Science 2(1):93-117.

*floridanus*) and swamp rabbit (*S. aquaticus*). Animals typical of grasslands of this province include the 13-lined ground squirrel (*Spermophilus tridecemlineatus*), hispid pocket mouse (*Chaetodipus hispidus*), deer mouse (*Peromyscus maniculatus*) and black-tailed jackrabbit (*Lepus californicus*).

Typical anuran species to this province are the Hurter's spadefoot (*Scaphiopus holbrookii hurteri*), Gulf Coast toad (*Bufo valliceps*), Woodhouse's toad (*Bufo woodhousii*), gray treefrog (*Hyla versicolor/chrysoscelis*), green treefrog (*Hyla cinerea*), bullfrog (*Rana catesbeiana*), southern leopard frog (*Rana sphenoccephala*) and eastern narrowmouth toad (*Microhylla carolinensis*).

#### **4.7.3 Rare, Threatened, and Endangered Species**

A total of 21 species could potentially occur within the vicinity of the site that are state or federally listed as threatened or endangered, candidates for listing, or exhibit sufficient rarity to be listed as a species of concern. Table 4-1 includes a list of all the rare, threatened and endangered species within Palo Pinto County (TPWD, 2008). This grouping includes 2 reptiles, 10 birds, 3 mammals, 3 fishes, and 3 mollusk species.

Four bird species federally listed as threatened or endangered could occur in the project area. These include the black-capped vireo (*Vireo atricapillus*), golden-cheeked warbler (*Dendroica chrysoparia*), interior least tern (*Sterna antillarum athalassos*), and whooping crane (*Grus americana*). These bird species are all seasonal migrants that could pass through the project area. Environmental studies conducted in 2006 within the Wilson Hollow, Kettle Hollow and Turkey Peak Reservoir sites, indicated that there were no Golden-cheeked Warblers within the Turkey Peak project area but that the birds were present in the two more remote sites. It is not expected that any bird species would be directly affected by the proposed reservoir construction at the Turkey Peak site.

A special effort will be made to locate and identify habitat of the endemic, state-threatened Brazos water snake (*Nerodia harteri*). Occurrence of this species has been documented twice within 4 miles of Palo Pinto Creek. It has been observed at the mouth of Coffee Creek and the Brazos River located 0.4 mile downstream of the confluence of Palo Pinto Creek and the Brazos River and approximately 4 miles downstream of this confluence along the margins of the Brazos River.

**Table 4-1.  
Rare, Threatened, and Endangered Species of Palo Pinto County**

Scientific Name	Common Name	Summary of Habitat Preference	Federal/ State Status	Potential Occurrence
<b>Birds</b>				
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	Open county; cliffs	DL/E	Migrant
<i>Falco peregrinus tundrius</i>	Arctic Peregrine Falcon	Open county; cliffs	DL/T	Migrant
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Large Bodies of water with nearby resting sites	DL/T	Migrant
<i>Vireo atricapillus</i>	Black-capped Vireo	Oak-juniper woodlands with tree layer and open grassy spaces.	LE/E	Migrant*
<i>Dendroica chrysoparia</i>	Golden-cheeked Warbler	Juniper-oak woodlands.	LE/E	Migrant*
<i>Sterna antillarum athalassos</i>	Interior Least Tern	Nests along sand and gravel bars within braided streams and rivers.	LE/E	Migrant*
<i>Charadrius montanus</i>	Mountain Plover	Breeding-shortgrass plains and fields, plowed fields and sandy deserts	SOC	Migrant*
<i>Athene cunicularia hypugaea</i>	Western Burrowing Owl	Open grasslands, especially prairie, plains and savanna	SOC	Migrant*
<i>Grus americana</i>	Whooping Crane	Potential migrant	LE/E	Migrant
<b>Fishes</b>				
<i>Micropterus treculii</i>	Guadalupe bass	Endemic to perennial streams of Edward's Plateau.	SOC	X
<i>Notropis oxyrhynchus</i>	Sharpnose Shiner	Endemic to Brazos River drainage.	C/SOC	X
<i>Notropis buccula</i>	Smalleye Shiner	Endemic to upper Brazos River system.	C/SOC	X
<b>Mammals</b>				
<i>Canis lupus</i>	Gray Wolf	Extirpated.	LE/E	Historically occurred
<i>Spilogale putorius interrupta</i>	Plains Spotted Skunk	Open fields, prairies and croplands.	SOC	X
<i>Canis rufus</i>	Red Wolf	Extirpated.	LE/E	Historically occurred
<b>Reptiles</b>				
<i>Nerodia harteri</i>	Brazos Water Snake	Upper Brazos River drainage, in shallow water with rocky bottom.	SOC/T	X
<i>Phrynosoma cornutum</i>	Texas Horned Lizard	Varied, sparsely vegetated uplands, grass, cactus, brush	SOC/T	X
<b>Mollusks</b>				
<i>Tritogonia verrucosa</i>	Pistolgrip	Aquatic, stable substrate	SOC	X
<i>Arcidens confragosus</i>	Rock pocketbook	Aquatic: mud, sand and gravel substrates.	SOC	X
<i>Truncilla macrodon</i>	Texas fawnsfoot	Aquatic, intolerant of impoundment.	SOC	X

X = Occurs in county; \* Nesting migrant; may nest in the county.

Federal Status: LE-Listed Endangered; LT-Listed Threatened; DL-De-listed Endangered/Threatened; C-Candidate (USFWS has substantial information on biological vulnerability and threats to support proposing to list as endangered or threatened. Data are being gathered on habitat needs and/or critical habitat designations); SOC-Species of Concern (some information exists showing evidence of vulnerability, but is not listed).

State Status: E-Listed as Endangered by the State of Texas; T-Listed as Threatened by the State of Texas; SOC-Species of Concern (some information exists showing evidence of vulnerability, but is not listed).

Source: TPWD, Annotated County List of Rare Species for Palo Pinto County, (August 8, 2007).



The sharpnose shiner (*Notropis oxyrhynchus*) and the smalleye shiner (*Notropis buccula*) are two small, slender minnows endemic to the Brazos River Basin. In 2002, both species were placed on the FWS list as potential candidates for federal protection. Historically, these sympatric fish existed throughout the Brazos River and several of its major tributaries within the watershed. Current information indicates that the population of each species within the Upper Brazos River drainage occurring upstream of Possum Kingdom Reservoir is apparently stable, while the population within the middle and lower segments of the Brazos River Basin may exist only in remnant areas of suitable habitat. General habitat associations for both species include relatively shallow water of moderate currents flowing through broad and open sandy channels. Typical habitat is similar for both species and includes the often saline and turbid water of the Upper Brazos River. Although situated within the Brazos River watershed, the study area lies downstream of the current recorded distribution for these species, therefore the occurrence of both cyprinid species here is unlikely.

A search of the Texas Natural Diversity Database<sup>10</sup> revealed no documented occurrences of endangered or threatened species within the vicinity of the proposed Turkey Peak Reservoir. Although based on the best information available to TPWD, these data do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features in the project area. On-site evaluations will be required by qualified biologists to confirm the occurrence of sensitive species or habitats.

#### **4.7.4 Water Quality**

Overall quality of the water in the Upper Brazos River Basin is good. Threats to water quality in the Upper region include population growth, urban expansion, increasing industrial activities and drought.

The Brazos River below Possum Kingdom Lake (TCEQ Segment 1206) has concern for high temperatures in the upper portion of the river segment and public concerns for elevated total suspended solids (TSS). Lake Palo Pinto (TCEQ Segment 1230) has no impairments or concerns.

---

<sup>10</sup> Texas Parks and Wildlife Department (TPWD), Texas Natural Diversity Database, 2008.

#### **4.7.5 Aquatic Resources**

This project will likely benefit streamflows and water quality below the reservoir site as an increase in the quantity of median monthly flow will occur downstream as the City of Mineral Wells water demands, which determine release quantities, will gradually increase over time. Additionally, the reservoir will trap and/or dilute pollutants, providing some positive benefits to water quality immediately downstream. The project is expected to have negligible impacts to discharge downstream and water quality in the Brazos River.

Aquatic habitats in the 16-mile reach of Palo Pinto Creek between Lake Palo Pinto and the diversion dam have been enhanced by the release of stored water to supply the existing system. Palo Pinto Creek is an unclassified freshwater stream which is a tributary to the Brazos River. Within the project area the creek consists primarily of long pool areas. The presence of riffle habitats is very dependent upon the volume of water flowing down the creek.

#### **4.7.6 Benthic Macroinvertebrates and Fish**

Benthic macroinvertebrates inhabit a variety of substrates in streams and rivers, from the bottom sediments (silt, sand, gravel, cobble) to vegetation or debris piles along margins or in pools. The density and diversity of the benthic fauna of this region is influenced by the quality of the water in which they inhabit including substrate character, organic content of the substrate, persistence of water and predator-prey relationships.

The tree-lined banks of Palo Pinto creek contribute leafy detritus to the creek, and, eventually to the river. Detritus, in various stages of breakdown and decomposition, serves as an important food source to numerous aquatic macroinvertebrates. Macroinvertebrates are important in the diets of any fish, especially juveniles.

The geographic ranges of around 89 species of freshwater fish found in the Brazos River Basin include the immediate and surrounding area although based on size and habitat suitability, not all of these species would occur in each area.

#### **4.8 Cultural Resources**

A search of the Texas Archeological Sites Atlas database indicates that 99 archeological sites have been documented within the general vicinity of the proposed reservoir. Researchers from the University of Texas recorded 49 of these sites as part of the Village Bend archeological survey in 1980. These sites, which lie outside the currently proposed reservoir, represent a

variety of historic and prehistoric site types. The Intensive Archaeological Survey of the reservoir location conducted in March–June 2010 revealed historic and prehistoric archaeological deposits that would be affected by the proposed construction of the Turkey Peak Reservoir. Upon completion of the deep trenching and archaeological survey within the Turkey Peak project area, two prehistoric localities, 13 prehistoric sites, and one historic site had been recorded. Sites 41PP375, 41PP377, 41PP378, 41PP381, 41PP384, 41PP385, 41PP386, 41PP387, and 41PP388 are all recommended for further testing to establish National Register of Historic Places (NRHP) and State Archeological Landmark (SAL) eligibility. Sites 41PP376, 41PP379, 41PP380, 41PP381, and 41PP383 are recommended not eligible for inclusion in the NRHP or designation as a SAL, with no further work being necessary. By definition, Locality 1 and 2 fail to meet the criteria of a site and cannot be considered for NRHP or SAL eligibility.

Cultural resources that occur on public lands or within the Area of Potential Effect of publicly funded or permitted projects are governed by the Texas Antiquities Code (Title 9, Chapter 191, Texas Natural Resource Code of 1977), the National Historic Preservation Act (PL96-515), and the Archeological and Historic Preservation Act (PL93-291).

#### **4.9 Economic Conditions**

Lake Palo Pinto was initially constructed by the Palo Pinto County Municipal Water District No. 1 in the early 1960's. Shortly after the initial construction of the reservoir, the District entered into a water supply contract with Brazos Electric Power Cooperative (BEPC) and raised the conservation pool elevation. BEPC has recently extended their contract with the District to 40 years following the construction and filling of the Turkey Peak Reservoir which is expected to occur about 2020. Based on projected population increases in the District's service area and projected electrical generation needs by BEPC, increased water volumes will be needed by BEPC for industrial cooling purposes as the region grows.

#### **4.10 Land Use**

The general project vicinity consists of predominantly rural rangeland areas dominated by native and introduced vegetation species. On the eastern edge of the proposed reservoir area there is a small amount of pasture or crop area. Wooded areas are present along the bank of Palo Pinto Creek and in areas of higher elevation along slopes and ridges. Residential use of the area

is limited to scattered homes, with no commercial sites within the proposed reservoir area. There are no cemeteries or parks located within the project area.

#### **4.11 Site Assessment**

The proposed reservoir is located in a rural area of Palo Pinto County. The potential to encounter hazardous materials is low. A review of Leaking Petroleum Storage Tanks (LPST) at the Texas Commission on Environmental Quality (TCEQ) revealed no records of any LPSTs within the proposed reservoir site. No federal or state-listed Superfund sites are present in Palo Pinto County.

#### **4.12 Permitting and Regulatory Requirements**

The construction of the Turkey Peak Reservoir Project will require the following permits to be obtained:

- Texas Commission on Environmental Quality (TCEQ) Water Right and Storage permits (see Appendix B for copy of TCEQ DRAFT permit);
- U.S. Army Corps of Engineers (USACE) Permits (Section 401 / 404 of the Clean Water Act), will be required for discharges of dredge or fill into wetlands and waters of the U.S. for dam construction and other activities (see Appendix D for February 2015 Document titled “Section 401/404”);
- Texas Historical Commission (THC) permit for evaluation and recovery of cultural resources; and
- TCEQ administered Texas Pollutant Discharge Elimination System (TPDES) Storm Water Pollution Prevention Plan.

State and Federal permits may require the following studies and plans:

- Environmental assessment studies (these have been completed);
- Mitigation plan that could require acquisition and management of additional lands near TPWD’s planned Palo Pinto Mountains State Park;
- Flow releases downstream to maintain aquatic ecosystems (these are included in the TCEQ water rights permit); and
- Cultural resources testing to determine extent of cultural resource recovery and cataloging; requires coordination with the Texas Historical Commission and USACE.

#### **4.13 Land Acquisition Issues**

The construction of the Turkey Peak Reservoir Project will require the District to obtain additional land and easements including:

- Up to 1,300 acres of land will need to be acquired for reservoir construction and will include market transactions and, if necessary, eminent domain (See Appendix E for list of current property owners.);
- Rights-of-way and utility easements will be required for the relocation of FM 4 and associated utilities including Texas-New Mexico Power Company line; and
- Removal or relocations of residences, utilities, roads, or other structures will be required.

#### **4.14 Schedule of Environmental Studies and Permitting Activities**

Remaining environmental studies and permitting activities and associated dates include:

- Water Rights Permit – anticipated to be final in July 2015;
- Section 401/404 USACE Permit – anticipated to be final in December 2015;
- Testing and recovery of previously identified cultural resource sites will be performed in 2016 and 2017 as land is acquired;
- A final golden-cheeked warbler bird survey of the site will be performed prior to construction; and
- Aquatic life surveys at specific locations on Palo Pinto Creek will be performed in accordance with the Water Rights permit before and after reservoir construction.



## **Section 5**

### **Project Costs and Schedule**

Based on the preliminary design of the project, the project is currently planned to be constructed under one construction contract with three major work components. The first construction component includes work associated with the relocation of FM 4 and the upgrading of Ward Mountain Road. This work is currently being coordinated with the Texas Department of Transportation (TxDOT) and Palo Pinto County. The second construction component includes the construction of a new bridge and road at the existing Lake Palo Pinto dam and spillway. This work is being coordinated with Palo Pinto County. The third construction component includes the construction of the new Turkey Peak dam and spillways along with modifications to the existing Lake Palo Pinto dam and spillway. This work will be reviewed and coordinated with TCEQ's dam safety group.

Estimates of construction costs and contingencies for these three project components are shown in Table 5-1 and total \$52,305,000 based on 2012 estimated construction costs. In addition to construction costs, costs associated with project management, permitting, land acquisition, mapping and surveying, utility relocations, design, TxDOT plan review, financial services, and construction phase services will be required. These costs are summarized along with construction costs on Table 5-2 and inflated at an average annual rate of 3.5 percent. As shown on Table 5-2, the total project costs is estimated to be \$95,200,000.

The overall project schedule is shown in Figure 5-1. This figure shows that the permitting and preliminary design phases of the project should be completed by the end of 2015 and that the land acquisition, utility relocation, archeology recovery and final design phases of the project will begin in 2016 and be completed by the end of 2017. Construction of the three main project components is estimated to begin in 2018. Based on the sequencing of the three construction components, construction is estimated to be completed sometime in 2020.

**Table 5-1.  
Estimated Construction Costs for  
Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)  
(December 2012)**

<b>Description of Items for Ward Mountain Road</b>	<b>Cost</b>
Preparing ROW & Excavation (Roadway)	\$781,025
Embankment (Final) (Ord Comp) (TY B)	\$1,746,387
FL BS (Rdwy Del) (TY E GR 4) (Final Pos)	\$1,069,013
D-GR HMA (QCQA) TY-D SAC-A PG76-22	\$740,047
Mobilization	\$465,225
Barricades, Signs, and Traffic Handling	\$12,000
MTL W-Beam GD Fen (Tim Post)	\$57,500
Drainage	\$28,867
Signing & Marking	\$17,150
SWPPP	\$98,000
Miscellaneous Roadway	\$101,270
Subtotal	\$5,116,384
Contingencies (10%)	\$511,638
Total	\$5,628,022
<b>Description of Items for New Bridge and Road</b>	
Bridge	\$2,262,449
Roadway & Dam Modifications	\$1,118,015
Subtotal	\$3,380,464
Contingencies (10%)	\$338,046
Total	\$3,718,510
<b>Description of Items for TP Dam and Spillways</b>	
Mobilization & Care of Water & Startup	\$1,665,000
Cutoff Trench & Walls & Grouting	\$3,382,000
Embankment	\$6,812,722
Drains & Filters	\$1,361,500
Seeding & Irrigation	\$892,000
Outlet Works	\$642,075
Roller Compacted Concrete	\$6,280,545
Mass Concrete	\$100,000
Excavation	\$4,576,468
Reinforced Concrete	\$8,515,600
Riprap	\$2,435,500
Emergency Spillway Excavation	\$1,783,825
Palo Pinto Spillway Modifications	\$309,828
Outlet Modifications	\$47,937
Riprap Existing Dam	\$248,348
Subtotal	\$39,053,152
Contingencies (10%)	\$3,905,316
Total	\$42,958,468
<b>Total Construction Costs (All Three Components)</b>	<b>52,305,000</b>

**Table 5-2.**  
**Estimated Total Project Costs for**  
**Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)**  
**(May 2015 – TWDB SWIFT Application)**

	<i>Estimated Total Project Costs<sup>1</sup></i>	<i>Planning &amp; Permitting<sup>1</sup> (\$8,000,000 TWDB Loan/Grant)</i>	<i>Acquisition<sup>2</sup> (Needed 2016/17)</i>	<i>Design (Needed 2016/17)</i>	<i>Construction (Needed 2018/20)</i>
<b>Construction Costs</b>					
Construction	\$47,550,000				\$47,550,000
Construction Contingencies (10%)	4,755,000				4,755,000
<b>Total Construction Costs</b>	<b>52,305,000</b>				<b>\$52,305,000</b>
<b>Planning &amp; Permitting, Acquisition, and Design Costs</b>					
Water Rights (PM, Engineering, & Hydrology)	683,400	\$683,400			
Water Rights (Legal)	340,000	340,000			
Environmental Services (WR/404)	450,000	450,000			
Archaeological Services (404)	875,000	150,000		\$725,000	
Agency Coordination, & Alternatives, & Funding	780,000	780,000			
Legal Services (404)	50,000	50,000			
Land Acquisition	5,867,000		\$ 5,867,000		
Conservation Easements/Mitigation/Negotiation	2,900,000	550,000	1,404,000	946,000	
Contingencies	1,673,000	3,400	1,454,000	215,600	
Negotiations, Survey, Legal, Appraisals, & Title	792,000			792,000	
Mapping	\$118,000	118,000			
Geotechnical Investigations and Value Engineering	2,750,000	2,650,000		100,000	
Utility Surveys	20,000	20,000			
Utility Relocations & Negotiations	1,470,000	146,000	1,124,000	200,000	
Engineering Design/Bidding	3,349,000	1,459,200		1,889,800	
TxDOT Plan & Alternatives Review	124,000	124,000			
Water Rate/Misc. Financial/Spillway Model	300,000	300,000			
Miscellaneous Legal	100,000	100,000			
<b>Subtotal Planning &amp; Permitting, Acquisition, &amp; Design Cost</b>	<b>\$22,641,400</b>	<b>7,924,000</b>	<b>9,849,000</b>	<b>4,868,400</b>	
<b>Financial &amp; Construction Services Costs (Other than Actual Construction)</b>					
Construction Contract Administration	591,000				591,000
Resident Project Representative (RPR)	2,724,000				2,724,000
Materials Testing	680,000				680,000
<b>Subtotal Construction Services Costs</b>	<b>3,995,000</b>				<b>3,995,000</b>
Financial Services for Bond Issuance	947,000	76,000	114,000	57,000	700,000
<b>Sub-Totals</b>	<b>\$79,888,400</b>	<b>\$8,000,000</b>	<b>\$9,963,000</b>	<b>\$4,925,400</b>	<b>\$57,000,000</b>
<b>Contingencies (Inflation at 3.5% per year)</b>	<b>15,311,600</b>	<b>0</b>	<b>1,437,000 (~15%)</b>	<b>774,600 (~15%)</b>	<b>13,100,000 (~23%)</b>
<b>Total Project Costs</b>	<b>\$95,200,000</b>	<b>\$8,000,000</b>	<b>\$11,400,000</b>	<b>\$5,700,000</b>	<b>\$70,100,000</b>
<p>1. Based on December 2012 Project Cost Estimate as updated to reflect September 2014 project budget for the District's previous \$8M TWDB Planning Loan/Grant and 3.5% Annual Inflation.</p> <p>2. Acquisition: Includes purchase of project land, mitigation land and utility relocation cost.</p>					

**Figure 5-1**  
**Schedule for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)**  
**(May, 2015)**

Work Activities	2015				2016				2017				2018				2019				2020			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
<b>Project Funding</b>																								
<b>Permitting</b>																								
Process Water Rights Permit																								
Environmental Studies (Bird Survey)																								
Process 404 Permit																								
Archaeological Survey & Recovery																								
<b>Land Acquisition</b>																								
Meet with Property Owners																								
Obtain Rights of Entry																								
Property Surveys & Appraisals																								
Purchase Land																								
Purchase Conservation Easements																								
<b>Mapping, Surveys, &amp; Geotechnical Investigations</b>																								
Mapping & Utility Surveys																								
Geotechnical Investigations																								
<b>Agreements</b>																								
TxDOT & County																								
TNMPC																								
<b>Design &amp; Construction</b>																								
Final Design & Plan Approvals																								
Construction of Utility Relocations																								
Bidding																								
Construction of Dam, Roads & Bridge																								

## **Section 6**

### **Consistency with Brazos G Regional Water Plan**

Turkey Peak Reservoir is a recommended strategy in the 2011 Brazos G Regional Water Plan and is also included as a recommended strategy in the recently released Initially Prepared 2016 Brazos G Regional Water Plan.



## **Appendix A**

### **District's Water Conservation and Drought Contingency Plan**

## ***Palo Pinto County Municipal Water District No. 1 Water Conservation and Drought Contingency Plan***

### ***1.0 Introduction***

The Palo Pinto County Municipal Water District No. 1 (District) is a wholesale water provider and strives to provide a reliable water supply to its municipal and industrial customers. The objectives of the District's Water Conservation and Drought Contingency Plan are to establish short-term and long-term goals for conserving water and to identify procedures necessary to achieve water conservation goals and reductions in water use during drought conditions. The District has developed this Water Conservation and Drought Contingency Plan pursuant to the rules of the Texas Commission on Environmental Quality (TCEQ).

The District is a regional wholesale water provider currently serving three customers with raw water supplied from Lake Palo Pinto. These customers include the City of Mineral Wells (City), the Brazos Electric Power Co-operative (BEPC), and the Lake Palo Pinto Area Water Supply Corporation (Lake Palo Pinto Area WSC). The City provides treated water to its retail customers as well as seven wholesale water supply entities. All water provided by the District to the City and its customers is treated at the City's Hilltop Water Treatment Plant. BEPC uses raw water for steam-electric power generation at their RW Miller Station located on the shoreline of Lake Palo Pinto. Lake Palo Pinto Area WSC is a small water supply corporation and diverts raw water through an intake located on Lake Palo Pinto and treats it at their water treatment plant. The Lake Palo Pinto Area WSC provides a small amount of treated water supply to BEPC for use at their RW Miller Station for sanitary and drinking water purposes.

### ***2.0 Texas Commission on Environmental Quality Requirements***

The TCEQ requires that wholesale water providers file a water conservation and drought contingency plan pursuant to 30 TAC §288.5 and 30 TAC §288.22, respectively. The TCEQ further requires that a water conservation plan be filed for industrial uses pursuant to 30 TAC §288.3. As a wholesale water supplier, the District does not directly control the water use of its customers and does not have a direct relationship with retail water customers. Therefore, the District's water conservation and drought contingency provisions for its municipal customers are generally consistent with plans adopted by these municipal customers.

## 2.1 Water Conservation Plans

The Texas Commission on Environmental Quality (TCEQ) has developed guidelines and requirements for development of water conservation plans for wholesale water providers (Title 30, TAC §288.5) and for industrial use (Title 30, TAC §288.3). Pursuant to TCEQ rules, a “water conservation plan” is defined as “a strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing and recycling and reuse of water, and for preventing the pollution of water.”<sup>1</sup> The District’s water conservation plan requirements are in accordance with TCEQ guidelines, as provided below.

- 30 TAC §288.5 (1A): Description of District’s Service Area — This plan includes population and customer data, water use data, and water supply system data. The District does not provide wastewater services and this data is not included in the plan.
- 30 TAC §288.5 (1C): Specific, Quantified 5-Year and 10-Year Water Savings Targets — This plan includes per capita target goals for municipal use and maximum acceptable unaccounted-for-water and goals, and basis for development of goals.
- 30 TAC §288.5 (1D): Description of Practices and/or Devices Used to Account for Determining the Amount of Water Diverted from the Source of Supply.
- 30 TAC §288.5 (1E): Monitoring and Record Management Program for the District.
- 30 TAC §288.5 (1F): Metering, Leak Detection, and Repair Program for the District.
- TAC §288.5 (1G): Contract Requirements for Successive Customers.
- 30 TAC §288.5 (1I): Means of Implementation and Enforcement of the Plan.
- 30 TAC §288.5 (1J): Coordination with Regional Water Planning Groups for Consistency with Approved Regional Water Plans.
- 30 TAC §288.5 (2): Additional Conservation Strategies — This plan documents additional water conservation strategies pursued by the District customer’s including reuse and recycling programs. Additionally this plan outlines the recently renegotiated water supply contract between the District and BEPC which reduces BEPC’s maximum annual water use by over 40 percent.
- 30 TAC §288.5 (3)- Review and Update of Water Conservation Plan (on at least a 5-year basis).
- A reservoir operations plan (30 TAC §288.5 (1H)) is not applicable to the District.
- Pursuant to 30 TAC §288.3, in addition to the provisions of this water conservation plan, an industrial/mining water conservation plan provided by BEPC is included as part of the District’s plan and is included in Appendix A.

<sup>1</sup> Title 30, Texas Administrative Code, 288.1.

## **2.2 Drought Contingency Plan**

The TCEQ has developed rules for development of drought contingency plans for wholesale water providers in Title 30, TAC §288.22. A “drought contingency plan” is defined by TCEQ as “a strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies.”<sup>2</sup> The District’s drought contingency plan has been prepared in accordance with TCEQ guidelines, as provided below.

- 30 TAC §288.22 (a1): Provisions to Inform the Public and Wholesale Customers Regarding Preparation of the Plan.
- 30 TAC §288.22 (a2): Coordination with Regional Water Planning Groups.
- 30 TAC §288.22 (a3): Monitoring for Initiation and Termination of Drought Response Stages.
- 30 TAC §288.22 (a4): Identification of Drought or Emergency Response Stages (at least three).
- 30 TAC §288.22 (a5): Procedures to Follow for the Initiation or Termination of Drought Response Stages.
- 30 TAC §288.22 (a6): Specific, Quantified Targets for Water Use Reductions During Periods of Water Shortage and Drought.
- 30 TAC §288.22 (a7A&B): Specific Water Supply or Water Demand Management Measures to be Implemented During Each Stage of the Plan.
- 30 TAC §288.22 (a8): Provision for Contract Requirements for Successive Customers.
- 30 TAC §288.22 (a9): Procedures for Granting Variances to the Plan.
- 30 TAC §288.22 (a10): Procedures for Enforcement of Mandatory Water Use Restrictions including Specification of Penalties.
- 30 TAC §288.22 (b): Notification of Executive Director of Implementation of Mandatory Provisions of the Drought Contingency Plan.
- 30 TAC §288.22 (c): Review and Update of the Drought Contingency Plan.

## **3.0 Water Conservation Plan**

### **3.1 Description of the District’s Service Area**

The District was created in 1963 by the Legislature (Act 1961, 57th Leg., P. 945, Ch. 416, as amended), pursuant to Section 59 of Article XVI of the Constitution of the State of Texas and by Article 8280-258, Revised Civil Statutes of Texas, 1925, as amended. The District

---

<sup>2</sup> Title 30, Texas Administrative Code, 288.1.

operates as a conservation and reclamation district, and is authorized to acquire or construct within or without the boundaries of the District in Palo Pinto County or Eastland County, a dam or dams including all works, plants, and other facilities necessary or useful for the purpose of impounding, processing, and transporting water to cities and others for all useful purposes.

The District owns Lake Palo Pinto, which is used to supply water to its three customers. The original dam was constructed in 1964. In 1965, the dam and spillway were modified resulting in the current conservation pool elevation of 867 ft-msl. In June 2007, the TWDB completed a volumetric survey of the lake and determined the capacity of Lake Palo Pinto at 867 ft-msl to be 27,215 acft.<sup>3</sup> The District has water rights to store 44,100 ac-ft in Lake Palo Pinto and 24 ac-ft in the Channel Dam, and to divert up to 12,500 acft/yr from these reservoirs for municipal use and 6,000 ac-ft/yr from these reservoirs for industrial use.

### **3.1.1 Population and Customer Data**

The District's primary municipal customer is the City of Mineral Wells, which had an estimated population of 17,550<sup>4</sup> in 2008. The estimated year 2008 population of the City's seven wholesale customers and the Lake Palo Pinto Area WSC (taken from the Brazos G Regional Water Plan) is approximately 13,000.

### **3.1.2 Water Use Data**

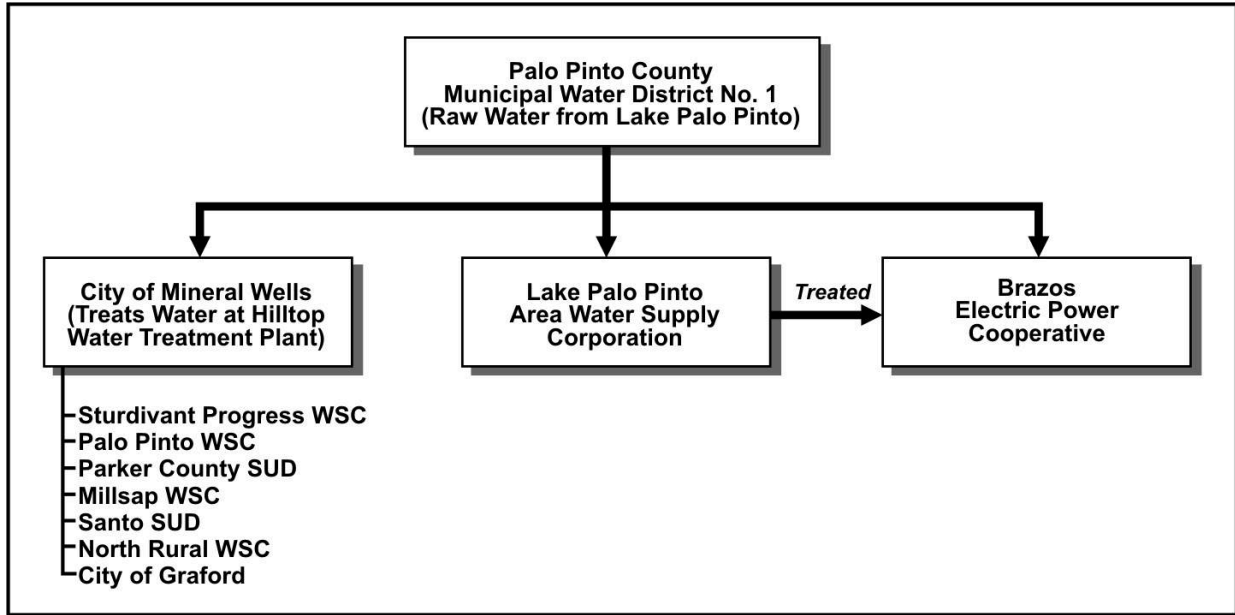
In 2008, the District supplied 6,207 acft of raw water from Lake Palo Pinto for municipal and industrial uses. The majority of the raw water provided by the District is for municipal use by the City of Mineral Wells. The City of Mineral Wells operates one water treatment plant: Hilltop Water Treatment Plant (WTP). In addition to providing their own residents with treated drinking water, the City of Mineral Wells provides treated water supplies to four water supply corporations, two special utility districts and the City of Graford as shown in Figure 3-1.<sup>5</sup> Table 3-1 shows a summary of the previous 5 year water raw water use for all District customers. In 2008, total water use was 6,207 acft with the City and its customers using 5,258 acft (85%), BEPC using 850 acft (14%) and Lake Palo Pinto Area WSC using 99 acft (1%).

<sup>3</sup> Volumetric and Sedimentation Survey of Lake Palo Pinto, June 2007 Survey, TWDB Report, June 2008.

<sup>4</sup> The 2008 population was calculated based on population growth from 2006 to 2007 for the City of Mineral Wells from TWDB and Texas State Data Center population estimates, respectively. This population does not include the City of Mineral Wells wholesale customers.

<sup>5</sup> An indirect customer is a successive customer of the District's primary customers.





**Figure 3-1. Palo Pinto County Municipal Water District No. 1 Customers**

**Table 3-1.  
Summary of Raw Water Use by  
District Customers for Previous 5 Years**

Year	Raw Water Use (acft)			
	Total (acft)	BEPC* (acft)	City & Customers (acft)	Lake Palo Pinto Area WSC
2004	5,269	620	4,649	-
2005	6,841	1,504	5,274	63
2006	6,512	1,205	5,224	83
2007	5,153	517	4,561	75
2008	6,207	850	5,258	99

\*Use based on formula in October 2008 Contract.

**3.1.3 Water Supply System Data**

Figure 3-2 shows the service areas of municipal entities receiving water from Lake Palo Pinto in Palo Pinto, Parker and Hood Counties. All of these municipal entities are provided treated water through either the City of Mineral Wells or the Lake Palo Pinto Area WSC systems. The District does not maintain or operate water treatment or water distribution facilities.

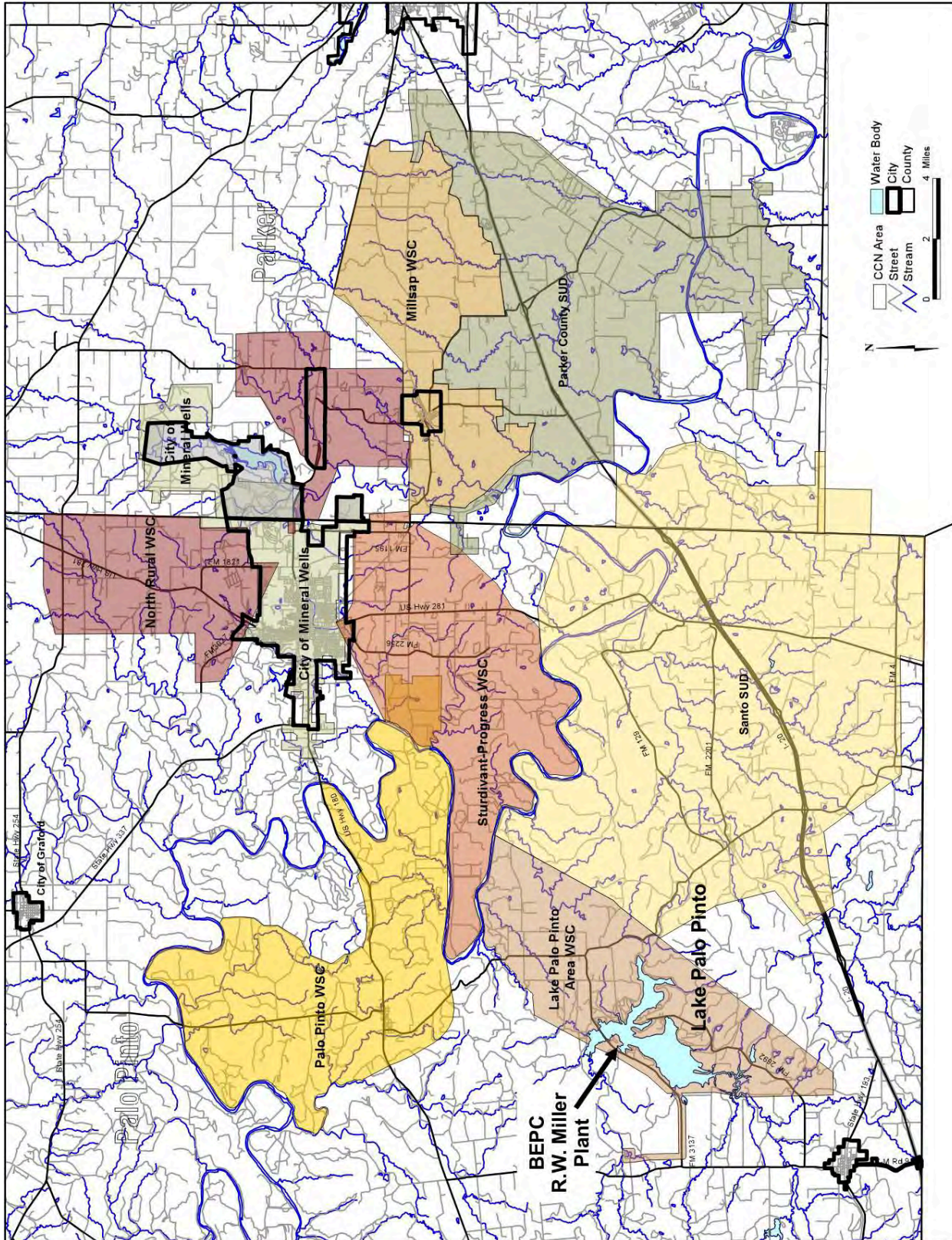


Figure 3-2. Service Area Map — BEPC, the City of Mineral Wells, and Water Supply Corporations



The District also provides raw water to BEPC for steam-electric power generation at their RW Miller Station. BEPC's RW Miller Station consists of (3) steam boiler units: Unit 1 - 75mw, Unit 2 - 120 mw, and Unit 3 - 208 mw. There are also (2) gas turbines Unit 4 - 104 mw and Unit 5 - 104 mw. The plant steam boiler units went online in 1968, 1972, and 1975 and the gas turbines were added in 1994. Cooling water for the steam boilers comes from Lake Palo Pinto through an intake structure and is pumped by the circulating water pumps through the units in a once-through cooling system. Water is also pumped from Lake Palo Pinto to an on site water treatment plant by the service water pumps. Cooling water is not required for the gas turbines, although water injection is used for NOx control on these units. Water is also used through the heat exchangers to dissipate heat and to cool motors. All water not consumed by process operations or evaporated during the heat exchanger process is returned to Lake Palo Pinto as return flow. The minimum elevation that BEPC can withdraw water from Lake Palo Pinto is approximately 850 ft-msl (about 15% of capacity) and their use would be significantly curtailed at this level.

#### **3.1.4 Wastewater Data**

The District does not operate wastewater facilities.

#### **3.1.5 Specific, Quantified 5-Year and 10-Year Water Savings Targets**

The District is a wholesale water provider and does not directly control the water use of its customers nor does it have a direct relationship with retail customers who are the ultimate users of the water. As strictly a wholesale water provider, the District encourages its customers to develop and implement 5-year and 10-year water savings targets based on their water conservation plans.

In August 2008, the Texas Water Development Board<sup>6</sup> recognized the water conservation efforts of the District with the "highest score based on achieving the greatest past reduction in per capita use." When compared to 22 other entities applying for TWDB assistance, the District's service area showed the greatest reduction in average per capita water use.

---

<sup>6</sup> Texas Water Development Board letter, "State Water Plan Projects and Requirements," August 18, 2008.

The specific, quantified 5-year and 10 year water savings targets for municipal users<sup>7</sup> who use on average more than 140 gallons per person per day are as follows:

- A. 0.25% per capita reduction per day for the first 5-year target.
- B. Additional 0.25% per capita reduction per day for the 10-year target.

On October 31, 2008, the District and BEPC renegotiated their water supply contract and reduced BEPC's annual maximum supply from 2,024 acft to 1,200 acft. All water not consumed by BEPC plant operations is returned to Lake Palo Pinto as return flow. Due to the age and layout of the RW Miller Station the BEPC routinely monitors and repairs any leaks in the cooling water system. Extensive data analysis is used to maintain proper water chemistry and pinpoint leaks in boiler and condenser tubes that lower overall performance. BEPC has identified water conservation goals and implemented water conservation practices (see Appendix A). The District encourages BEPC to pursue the goals they have identified. BEPC's new contract with the District requires BEPC to have master meters at the RW Miller Station tested each 12 months for accuracy and if not accurate to within 2 % then BEPC is responsible to either repair or replace the meter.

### **3.3 Description of Practices and/or Devices Used to Account for Determining the Amount of Water Diverted from the Source of Supply**

All diversions of water by the District's municipal customers will be metered or otherwise measured with an accuracy of 2% and reported to the District each January unless drought contingency triggers have been reached and water use is required to be reported at more frequent intervals. BEPC measures and accounts for the amount of water diverted by using master meters which must be maintained to an accuracy of 2% and pump curves.

### **3.4 Monitoring and Record Management Program**

As a wholesale water provider, the District has a monitoring and record management program to assure that its customers are charged appropriately for their water use. The program includes the following:

---

<sup>7</sup> City of Mineral Wells, "Water Conservation and Drought Contingency Plan for the City of Mineral Wells, Texas," Amended April 2005.

- District customers are required by January 31<sup>st</sup> of each year to document their previous year's water usage in a monthly water use summary or report. Additionally BEPC is required to report their monthly power generation in GW-h for Generating Units No. 1, 2 and 3.
- The District has the authority to schedule random readings of customer meters and all customers are required to furnish water use records upon request of the District. The District has the right to access customer meters upon 48 hours prior notice.
- The District requires its customers to furnish, install, test, operate, read and maintain meters. The District requires customers to test Master Meters for accuracy each 12 month period. If accuracy is found to be in excess of the required 2% limit, then the District requires customers to adjust the meter to register correctly and accuracy or to replace the meter. The District has the right to request customers to test Master Meters more frequently than once per year.

### **3.5 Metering, Leak Detection, and Repair Program**

The District encourages its customers to maintain a leak detection and repair program and to maintain careful inspection of raw water main pipes, distribution facilities, and to construct adequate system infrastructure sufficient to meet TCEQ requirements. The District requires all master meters of its customers to be calibrated once a year and to be accurate within 2%.

### **3.6 Contract Requirements for Successive Customers**

The District includes a requirement in every water supply contract entered into or renewed that each successive wholesale customer develop and implement a water conservation plan meeting the requirements of Title 30, Texas Administrative Code, 288.2. This requirement extends to each successive wholesale customer in the resale of water. Any political-subdivision and/or wholesale customer contracting for water from the District must have (1) an approved Texas Water Development Board Conservation and Drought Contingency Plan in effect or (2) must officially adopt applicable provisions of District's Water Conservation and Drought Contingency Plan. Upon each threshold condition, wholesale customers will be notified to implement their plan.



### **3.7 Means of Implementation and Enforcement**

This Water Conservation Plan is required to be followed by all District wholesale customers. Appendix B contains a copy of the resolution by the District Board of Directors adopting this Water Conservation Plan. Both the President of the District or Secretary of the District are authorized to implement and enforce this plan, to the extent provided herein with in the laws of the State of Texas.

### **3.8 Coordination with Regional Water Planning Groups**

The District's service area is located within the Brazos G and Region C Regional Water Planning Areas and the District is providing a copy of this water conservation plan to the Brazos G and Region C Planning Groups.

### **3.9 Additional Conservation Strategies**

The District encourages its water customers to conserve water and implement additional conservation strategies to meet targets and goals identified in their water conservation plans. The District supports their customers' implementation of water conservation strategies including:

- a. Funding education and information programs;
- b. Promoting retrofit programs to improve water-use efficiency in existing buildings;
- c. Promoting water recycling and reuse;
- d. Promoting water conserving landscaping; and
- e. Other water conservation practices identified by their customers.

### **3.10 Conservation-Oriented Water Rate Structure**

The District requires its customers to have either non-declining block rates or increasing block rates to encourage water conservation.

### **3.11 Review and Update of Water Conservation Plan**

The District will review and update its Water Conservation Plan, as appropriate, at least every 5 years from May 1, 2009. The update will include an assessment of previous 5-year and 10-year targets and any other new or updated information.

#### **4.0 Drought Contingency Plan**

The TCEQ requires that wholesale water providers file a drought contingency plan pursuant to 30 TAC 288.22. The District adopts the following Drought Contingency Plan to conserve the District's water supply and to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety, and to minimize the adverse impacts of water supply shortages or other water supply emergency conditions. The topics addressed in the District's Drought Contingency Plan are in accordance with TCEQ guidelines.

#### **4.1 Provisions to Inform the Public and Opportunity for Input**

The District provided the opportunity for public and wholesale customer input in the development of this drought contingency plan by the following means:

- Holding a public meeting on May 19, 2009 to actively inform the public and solicit input for preparation of the drought contingency plan.
- Providing the draft copy of the plan to the District's customers and making a draft copy of the plan available to anyone requesting a copy.
- Holding a public meeting on June 2, 2009 to solicit and receive public input prior to adoption of the drought contingency plan.

The provisions of this Drought Contingency Plan shall apply to all customers utilizing water provided by the District.

#### **4.2 Coordination with Regional Water Planning Groups**

The District's service area is located within the Brazos G and Region C Regional Water Planning Areas and the District will provide a copy of this Drought Contingency Plan to the Brazos G and Region C Planning Groups.

#### **4.3 Monitoring for Initiation and Termination of Drought Response Stages**

The District Secretary, or his/her designee(s), shall monitor water supply and/or demand conditions on a weekly basis and shall, in consultation with the City Manager of the City of Mineral Wells or his/her designee, determine when conditions warrant initiation or termination of each stage of the Plan. Customer notification of the initiation or termination of drought response stages will be made by mail or telephone. The news media will also be informed.

The District will periodically provide wholesale water customers with information about the Plan, including information about the conditions for initiating or terminating trigger stages and the drought response measures to be implemented in each stage. This information will be provided by means of providing a copy of the Plan to its customers.

The District Secretary, or his/her designee(s), is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The District Secretary, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan. The District Secretary, or his/her designee, will coordinate the on-going implementation of the plan with the City Manager of Mineral Wells.

#### **4.4 Identification of Drought or Emergency Response Stages**

The District Secretary, or his/her designee(s), shall monitor water supply and/or demand conditions and, in accordance with the criteria for the four trigger stages set forth below, shall determine that mild, moderate, or severe water shortage conditions exist or that an emergency condition exists and shall implement action according to this plan.

The triggering criteria described below are based on a statistical analysis of the vulnerability of the water source during a repeat of the drought-of-record. Official weather forecasts are to be considered in the initiation and termination of triggering conditions.

#### **4.5 Procedures to Follow for Initiation and Termination of Drought Response Stages**

##### **4.5.1 Stage 1 — Mild Water Shortage Conditions**

Initiation — The District will recognize that a mild water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than elevation 860 ft-msl (about 50% of storage capacity).

Requirements for Termination — Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. The District will notify its customers and the news media of the termination of Stage 1 in the same manner as the notification of initiation of Stage 1 of the Plan.

#### **4.5.2 Stage 2— Moderate Water Shortage Conditions**

Initiation — The District will recognize that a moderate water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than elevation 858 ft-msl (about 40% of storage capacity).

Requirements for Termination — Stage 2 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. The District will notify its customers and the news media of the termination of Stage 2 in the same manner as the notification of initiation of Stage 2 of the Plan.

#### **4.5.3 Stage 3 — Severe Water Shortage Conditions**

Initiation — The District will recognize that a severe water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than elevation 856 ft-msl (about 30% of storage capacity).
2. Mechanical failure of equipment.

Requirements for Termination — Stage 3 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. The District will notify its customers and the news media of the termination of Stage 3 in the same manner as the notification of initiation of Stage 3 of the Plan.

#### **4.5.4 Stage 4 — Emergency Water Shortage Conditions**

Initiation — The District will recognize that an emergency water shortage condition exists when:

1. Water system is contaminated either accidentally or intentionally. Emergency condition is reached immediately upon detection.
2. Water system failure from acts of God (tornadoes, hurricanes) or man. Emergency condition is reached immediately upon detection.
3. Notification to customers will be enacted at once and periodic updates will be conveyed through the news media on progress of emergency water conditions.

Requirements for Termination — After the emergency situation has been resolved, the District will notify its customers and the news media of the termination of Stage 4.

#### **4.6 Specific, Quantified Targets for Water Use Reductions During Periods of Water Shortage and Drought**

##### **4.6.1 Stage 1— Mild Water Shortage Conditions**

Goal: Achieve a voluntary 10% reduction in municipal water use.

##### **4.6.2 Stage 2 — Moderate Water Shortage Conditions**

Goal: Achieve an additional 10% reduction in municipal water use.

##### **4.6.3 Stage 3 — Severe Water Shortage Conditions**

Goal: Achieve a 25% reduction in municipal water use.

#### **4.7 Specific Water Supply or Demand Management Measures to be Implemented During Each Stage of the Plan**

##### **4.7.1 Stage 1— Mild Water Shortage Conditions**

1. Supply Management Measures:
  - a. Monitor Lake Palo Pinto levels.
  - b. Monitor water releases from Lake Palo Pinto to minimize operational spills at the District's Channel Dam on Palo Pinto Creek.
2. Demand Management Measures:
  - a. The District Secretary, or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate voluntary measures to reduce water use, and to implement Stage I of the customer's drought contingency plan.
  - b. The District Secretary, or his/her designee(s), will coordinate with the City Manager of Mineral Wells and designate an information person.
  - c. Advise public of condition and publicize availability of information from the information center and encourage voluntary reduction of water use.
  - d. Monitor system and work with City staff to make adjustments as required to meet changing conditions.
  - e. The District Secretary, or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/ or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.



#### **4.7.2 Stage 2 - Moderate Water Shortage Conditions**

1. Supply Management Measures:
  - a. Monitor Lake Palo Pinto levels.
  - b. Monitor water releases from Lake Palo Pinto to minimize operational spills at the District's Channel Dam on Palo Pinto Creek
2. Demand Management Measures:

The District Secretary, or his/her designee(s), on identifying moderate water shortage conditions, shall initiate Stage 2 curtailment. Listed action is compulsory on users and is intended to prohibit non-essential water use. ("Non-essential Water Use" will be defined consistent with the City of Mineral Wells plan.)

- a. The District Secretary, or his/her designee(s), will monitor system function. A rate surcharge may be implemented by the District on excessive water users.
- b. The District Secretary, or his/her designee(s), will initiate weekly contact with wholesale water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.
- c. The District Secretary, or his/her designee(s), will instruct wholesale water customers to initiate mandatory measures to reduce non-essential water use and implement Stage 2 of the customer's drought contingency plan,
- d. The District Secretary, or his/her designee(s), will initiate preparations for the implementation of pro rata curtailment of water diversions, and/or deliveries by preparing monthly water usage allocation baseline for each wholesale customer according to the procedures specified in Section 4.7.5 of the Plan.
- e. The District Secretary, or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and customer information on water conservation measures and practices.

#### **4.7.3 Stage 3 Severe Water Shortage Conditions**

1. Supply Management Measures:
  - a. Monitor Lake Palo Pinto levels.
  - b. Monitor water releases from Lake Palo Pinto to minimize operational spills at the District's Channel Dam on Palo Pinto Creek.

- c. Investigate alternative water sources which might be available for purposes of supplemental supply if drought conditions continue to worsen, such as obtaining supplemental water from the Brazos River.

2. Demand Management Measures:

The District Secretary, or his/her designee(s), shall initiate Stage 3 curtailment upon existence of severe conditions as determined. The District Secretary, or his/her designee(s), in coordination with the City Manager of Mineral Wells will restrict the use of water for certain municipal water use activities consistent with the requirements of the City's plan.

- a. The District Secretary, or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will instruct that wholesale water customers initiate additional mandatory measures to reduce non-essential water use and implement Stage 3 of customer's drought contingency plan.
- b. The District Secretary, or his/her designee(s), will initiate pro rata curtailment of water diversion and/or deliveries for each municipal wholesale customer.
- c. The District Secretary, or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

**4.7.4 Stage 4 — Emergency Water Shortage Conditions**

Whenever emergency water shortage conditions exist as defined above in Section 4.5.4, the District Secretary, or his/her designee(s), shall:

- 1. Assess the severity of the problem and identify the actions needed and time required to solve the problem.
- 2. Inform the City Manager of Mineral Wells and other responsible official of each wholesale water customer by telephone or in person and suggest actions, as appropriate, to alleviate problems and notification to the public to reduce water use until service is restored.
- 3. If appropriate, notify city, county, and/or state emergency response officials for assistance.
- 4. Undertake necessary actions, including repairs and/or clean up as needed.
- 5. Prepare a post-event assessment report on the incident and critique of emergency response procedures and actions.

#### **4.7.5 Pro-Rata Water Allocation For Stage 3 or Stage 4 Conditions**

In the event of a drought of greater severity than that previously experienced, or if for any other reason water in the District's care becomes in short supply, the District may fairly and equitably apportion and ration the available water supply among its customers.

If Stage 3 — Severe Water Shortage Conditions criteria specified in Section 4.5 have been met, the District Secretary, or his/her designee(s), is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039 and according to the following water allocation policies and procedures:

- A. A wholesale customer's monthly allocation shall be a percentage of the customer's water usage baseline. The percentage will be set by resolution of the Board based on the District Secretary's, or his/her designee(s), assessment of the severity of the water shortage condition and the need to curtail water diversions and/or deliveries and may be adjusted periodically by resolution of the Board, as conditions warrant. Once pro rata allocation is in effect, water diversions by or deliveries to each wholesale customer shall be limited to the allocation established for each month.
- B. A monthly water usage allocation shall be established by the District Secretary, or his/her designee(s), for each wholesale customer. The wholesale customer's water usage baseline will be computed on the average water usage by month for the 5-year period as shown in the example given below. If the wholesale water customer's billing history is less than 5-years, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exist.
- C. The District Secretary, or his/her designee(s), shall provide notice, by certified mail, to each wholesale customer informing them of their monthly water usage allocations and shall notify the news media and the executive director of the TCEQ upon initiation of pro rata allocation.
- D. Upon request of the customer or at the initiative of the District Secretary, or his/her designee(s), the allocation may be reduced or increased, if, (1) the designated period does not accurately reflect the wholesale customer's normal water usage; (2) the customer agrees to transfer part of its allocation to another wholesale customer; or (3) other objective evidence demonstrates that the designated allocation is inaccurate or not appropriate under present conditions. A customer may appeal an allocation established hereunder to the District Board.

**Example Calculation of Monthly Allocation for a Hypothetical Wholesale Water Customer**

	2000	2001	2002	2003	2004	Sum	Avg.	Allocation Percentage	Monthly Allocation
Jan	43.335	44.638	47.571	48.222	50.829	234.269	46.919	75%	35.189
Feb	37.470	39.751	43.335	43.335	47.896	211.787	42.357	75%	31.931
Mar	42.357	48.874	47.571	48.548	51.806	239.156	47.897	75%	35.841
Apr	42.357	54.413	54.739	51.155	60.929	263.267	52.784	75%	39.751
May	52.132	49.526	58.232	59.626	55.716	275.323	55.065	75%	41.380
Jun	73.637	59.952	56.042	66.794	81.131	337.230	67.446	75%	50.503
Jul	76.569	89.276	75.592	102.309	80.153	423.900	84.715	75%	63.536
Aug	72.333	66.143	67.120	109.803	100.680	416.080	83.086	75%	62.233
Sep	64.839	52.132	63.862	74.614	64.514	319.961	63.862	75%	74.896
Oct	53.761	56.042	64.188	53.761	60.278	288.030	57.671	75%	43.335
Nov	45.290	46.267	48.548	49.851	52.784	242.740	48.548	75%	36.493
Dec	46.267	46.593	48.874	50.829	53.761	245.999	49.200	75%	36.818
Total	650.023	653.607	675.112	759.175	760.152		760.152		
*Units in Million Gallons									

**4.7.6 Utilization of Alternative Water Sources (Upon approval by the Executive Director)**

In the event the District determines that the supply available from Lake Palo Pinto may not be adequate to meet the needs of the District’s customers, the District, after consultation with the City Manager of the City of Minerals Wells, will pursue the development of a supplemental water supply source. Previously the City and District have made tentative arrangements with the Brazos River Authority for the purchase of raw water from the Brazos River or its tributaries. Since the water quality of the Brazos River exceeds drinking water standards for dissolved solids, chlorides and sulfates, it will be necessary for this water to be treated to remove a portion of the dissolved minerals. The location of this diversion point, treatment process and point of entry into the City’s system will be determined prior to the diversion of any water and, if necessary, the District will obtain approval of TCEQ’s Executive Director prior to implementation.

**4.8 Provision for Contract Requirements for Successive Customers**

The District will include a requirement in every water supply contract entered into or renewed after official adoption of the drought contingency plan, and including contract extension, that each successive wholesale customer develop and implement a drought

conservation plan meeting the requirements of Title 30, TAC §288.22. This requirement will extend to each successive wholesale customer in the resale of water.

#### **4.9 Procedures for Granting Variances to the Plan**

The District Secretary, or his/her designee(s) may, in writing, grant a variance to the pro rata water allocation policies provided by this Drought Contingency Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met.

1. Compliance with this Drought Contingency Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect,
2. Alternate methods can be implemented which will achieve the same level of reduction in water use.

Customers requesting a variance from the provisions of this Drought Contingency Plan shall file a petition for variance with the District Secretary within 5 days after pro rata allocation has been invoked. All petitions for variance shall be reviewed by the District Secretary, or his/her designee(s), and shall include the following:

1. Name and address of the petitioner(s).
2. Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established above in Section 4.7 adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with the Ordinance.
3. Description of the relief requested.
4. Period of time for which the variance is sought.
5. Alternative measures the petitioner is taking or purpose to take to meet the intent of this Plan and the compliance date.
6. Other pertinent information.

Any variance granted by the District Secretary shall be subject to the following conditions, unless waived or modified by the Board :

1. Variances granted shall include a timetable for compliance.
2. Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.



No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance. Initial decisions regarding a petition for variance may be appealed to the Board of the Directors of the District.

#### **4.10 Procedures for Enforcement of Mandatory Water Use Restrictions including Specification of Penalties**

The District may, without liability, curtail partially or wholly the amount of raw water delivered to its primary customers, during times of drought, or under other conditions when it is necessary to curtail deliveries for the District to maintain the operational stability of its raw water supply.

During any period when pro rata allocation of available water supply is in effect, the District may require wholesale customers to pay the following surcharge on excess water diversions and/or deliveries.

1. 1.5 times the normal water charge per thousand-gallon for water diversions and/or deliveries in excess of the monthly allocation up through 5% above the monthly allocation.
2. 2.0 times the normal water charge per thousand gallon for water diversions and/or deliveries in excess of the monthly allocation from 5% through 10% above the monthly allocation.
3. 2.5 times the normal water charge per thousand-gallon for water diversions and/or deliveries in excess of the monthly allocation from 10% through 15% above the monthly allocation.
4. 3.0 times the normal water charge per thousand-gallon for water diversions and/or deliveries more than 15% above the monthly allocation.
5. The above surcharge shall be cumulative.

#### **4.11 Notification of Executive Director of TCEQ of Implementation of Mandatory Provisions of the Drought Contingency Plan**

The District shall notify the Executive Director of TCEQ within 5 business days of the implementation of any mandatory provisions of the drought contingency plan.

#### **4.12 Review and Update of the Drought Contingency Plan**

Per TCEQ rules, the District will review and update, as appropriate, the drought contingency plan, at least every 5 years, based on new or updated information, such as adoption or revision of the Brazos G and/or Region C Regional Water Plan.

## **Appendix B**

### **TCEQ Water Rights Permit (DRAFT)**

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## AMENDMENT TO A CERTIFICATE OF ADJUDICATION

CERTIFICATE NO. 12-4031A

TYPE § 11.122

Owner:	Palo Pinto County Municipal Water District No. 1	Address:	P.O. Box 387 Mineral Wells, Texas 76068
Filed:	November 25, 2009	Granted:	
Purpose:	Municipal and Industrial	County:	Palo Pinto
Watercourse:	Tributaries of Palo Pinto Creek and Palo Pinto Creek, tributary of the Brazos River	Watershed:	Brazos River Basin

WHEREAS, Certificate of Adjudication No. 12-4031 authorizes Palo Pinto County Municipal Water District No. 1 (District or Owner) to maintain two existing dams and reservoirs on Palo Pinto Creek, tributary of the Brazos River, Brazos River Basin, in Palo Pinto County; and

WHEREAS, under Certificate of Adjudication No. 12-4031, the District is authorized to impound not to exceed 44,100 acre-feet of water in Lake Palo Pinto and to impound not to exceed 24 acre-feet of water in a second reservoir on Palo Pinto Creek downstream of Lake Palo Pinto; and

WHEREAS, Certificate of Adjudication No. 12-4031 also authorizes the District to divert and use not to exceed 12,500 acre-feet of water per year for municipal purposes and 6,000 acre-feet of water per year for industrial purposes from the perimeters of these reservoirs at a maximum combined diversion rate of 85.00 cfs (38,250 gpm); and

WHEREAS, Certificate of Adjudication No. 12-4031 contains multiple special conditions and time priorities; and

WHEREAS, in 2007 the Texas Water Development Board (TWDB) performed a volumetric survey of Lake Palo Pinto (Volumetric and Sedimentation Survey of Lake Palo Pinto, June 2007 Survey, TWDB) which determined the storage of Lake Palo Pinto to be 27,215 acre-feet; and

WHEREAS, the District seeks to amend Certificate of Adjudication No. 12-4031 to authorize the construction and maintenance of a new dam (Turkey Peak Dam), located approximately 4 miles downstream of the existing Lake Palo Pinto Dam on Palo Pinto Creek, which would restore the authorized capacity of Lake Palo Pinto, as enlarged, and increase the storage capacity of such Lake, as enlarged, by 5,692 acre-feet, for an authorized maximum total storage of 49,792 acre-feet of water; and

WHEREAS, the District is not requesting a new appropriation of water and indicates that the additional water to support the proposed increase in storage capacity will be charged against **the District's existing diversion rights under the certificate; and**

WHEREAS, the intersection of the centerline of the principal spillway with the centerline of the proposed dam is located 10.5 miles south southeast from Palo Pinto, bearing S 36.5° W, 1,125 feet from the northeast corner of the W.M. Logan Survey, Abstract No. 294, also being at Latitude 32.626047° N, Longitude 98.235357° W; and

WHEREAS, the District also seeks to authorize the diversion of water from anywhere on the perimeter of Lake Palo Pinto, as enlarged; and

WHEREAS, on October 23, 1962, the Texas Water Commission granted **the District's** application for a water right, Permit No. 2031, authorizing the District to (i) impound 34,250 acre-feet of water in Lake Palo Pinto and (ii) divert 16,000 acre-feet of water (10,000 acre-feet for municipal use; 6,000 acre-feet for industrial use) per year from such Lake, with the limitation that only 16,000 acre-feet of water can be collectively diverted from Lake Palo Pinto and Lake Mineral Wells per year; and

WHEREAS, on December 3, 1964, the Texas Water Commission granted an amendment to Permit No. 2031-A, **increasing the District's right to divert water** from Lake Palo Pinto from 16,000 acre-feet per year to 18,500 acre-feet per year; however, such permit amendment failed to include a modification to a limitation in Permit No. 2031 so as to increase the limitation on such annual diversion rights from Lake Palo Pinto (combined with diversions from Lake Mineral Wells) from 16,000 acre-feet per year to 18,500 acre-feet per year; and

WHEREAS, on May 1, 1972, the Texas Water Rights Commission issued an order certifying that under Permit No. 2031-A, the District is authorized to maintain a reservoir (Lake Palo Pinto) having an impounding capacity of 44,100 acre-feet of water and the diversion and use therefrom of 18,500 acre-feet of water per annum for municipal and industrial uses; and

WHEREAS, in this Application, the District requests to correct the error in Special Condition 5.D., changing **the aforementioned limitation on the District's** annual diversion rights out of Lake Palo Pinto, combined with diversions from Lake Mineral Wells, from **"16,000 acre-feet" to "18,500 acre-feet"; and**

WHEREAS, the Texas Commission on Environmental Quality (Commission) finds that jurisdiction over the application is established; and

WHEREAS, the District submitted the ***Lake Palo Pinto Storage Restoration Project at Turkey Peak Palo Pinto County, Texas*** mitigation plan, which was accepted and approved by the Executive Director; and

WHEREAS, the District submitted the ***Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan***, which was accepted and approved by the Executive Director; and

WHEREAS, the District submitted the ***2011 Palo Pinto County Municipal Water District No. 1 Turkey Peak Reservoir Project Monitoring Program for Palo Pinto Creek***, which was accepted and approved by the Executive Director; and

WHEREAS, this amendment, if granted, is subject to the requirements and orders of the Brazos River Watermaster; and

WHEREAS, no requests for a contested case hearing were received for this application; and

WHEREAS, the Executive Director recommends that Special Conditions be included in the amendment; and

WHEREAS, the Commission has complied with the requirements of the Texas Water Code and Rules of the Texas Commission on Environmental Quality in issuing this amendment;

NOW, THEREFORE, this amendment to Certificate of Adjudication No. 12-4031, designated Certificate of Adjudication No. 12-4031A, is issued to the Palo Pinto County Municipal Water District No. 1, subject to the following terms and conditions:

1. IMPOUNDMENT

In lieu of IMPOUNDMENT paragraph 1.A of Certificate of Adjudication No. 12-4031, Owner is now authorized to maintain the existing dam on Palo Pinto Creek creating Lake Palo Pinto, and construct and maintain a new dam (Turkey Peak Dam) enlarging Lake Palo Pinto and impound therein a maximum total of 49,792 acre-feet of water. The intersection of the centerline of the principal spillway with the centerline of Turkey Peak Dam is located S 36.5° W, 1,125 feet from the northeast corner of the W.M. Logan Survey, Abstract No. 294, also being at Latitude 32.626047° N, Longitude 98.235357° W.

2. DIVERSION

A. In addition to the previous diversion authorizations, Owner is also authorized to divert from the perimeter of Lake Palo Pinto, as enlarged by Turkey Peak Dam.

B. Maximum combined rate of 85 cfs (38,250 gpm).

3. PRIORITY DATE

**The time priority of Owner's right is** November 25, 2009 for the storage of an additional 5,692 acre-feet of water in Lake Palo Pinto, as enlarged by Turkey Peak Dam. However, the time priority for the water to initially fill and maintain such additional storage shall be the priority dates established in Section 4. of Certificate of Adjudication No. 12-4031.

4. CONSERVATION

Owner shall implement water conservation plans that provide for the utilization of those practices, techniques, and technologies that reduce or maintain the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, or prevent the pollution of water, so that a water supply is made available for future or alternative uses. Such plans shall include a requirement that in every wholesale water contract entered into, on or after the effective date of this amendment, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures. If the customer intends to resell the water, then the contract for resale of the water must



have water conservation requirements so that each successive wholesale customer in the resale of the water be required to implement water conservation measures.

5. SPECIAL CONDITIONS

- A. In lieu of SPECIAL CONDITION 5.D. of Certificate of Adjudication No. 12-4031, Owner shall not divert any water from Lake Palo Pinto, as enlarged by Turkey Peak Dam, when said diversion will result in there being diverted from Lake Palo Pinto, as enlarged by Turkey Peak Dam, in combination with diversions from Lake Mineral Wells which is authorized under Certificate of Adjudication 12-4039, more than 18,500 acre-feet of water per calendar year.
- B. Owner shall account for the water needed to support the increase in storage capacity (5,692 acre-feet) with **Owner's existing diversion rights authorized under this certificate** in accordance with the most recently approved *Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan*.
- C. Owner shall only impound water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Dam, as authorized by this amendment, in accordance with the most recently approved *Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan*. Owner shall maintain said plan in electronic format and make the data available to the Executive Director upon request. Any modifications to the *Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan* shall be approved by the Executive Director. Only modifications that have the effect of changing a term in the amendment must be in the form of an amendment to the certificate. Should Owner fail to maintain the accounting plan or timely notify the Executive Director of any modifications to the plan, Owner shall immediately cease impoundment of water as authorized in Paragraph 1. IMPOUNDMENT, and either apply to amend the certificate or voluntarily forfeit the amendment. Owner shall provide prior notice to the Executive Director of any proposed modifications of the accounting plan and provide copies of the appropriate documents effectuating such changes.
- D. All mitigation plans and monitoring required herein shall comply with conditions set forth in 33 United States Code §1341, commonly known as the federal Clean Water Act (CWA), §401 and 30 Texas Administrative Code (TAC) §279. Mitigation and monitoring plans shall also comply with §404 of the CWA.
- E. Impoundment of water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Dam, as authorized under this amendment, is contingent upon implementation of the approved *Lake Palo Pinto Storage Restoration Project at Turkey, Peak Palo Pinto County, Texas* mitigation plan. **Owner's continued authorization for impoundment of such water under this Certificate is contingent upon timely completion of implementation in accordance with the terms of the approved mitigation plan.** Modifications or changes to the plan must be approved by the Executive Director. Only modifications that would result in a change to a certificate term must be in the form of an amendment to the certificate.
- F. Owner shall construct and operate a multilevel outlet tower and regulate releases to help ensure that water released from the reservoir maintains existing temperature criterion and presumed Aquatic Life Use designations for Palo Pinto Creek down to the **District's channel dam** in accordance with 30 TAC §§307.4 and 307.7. Owner

shall monitor water quality in accordance with March **2011 Palo Pinto County Municipal Water District No. 1 Turkey Peak Reservoir Project Monitoring Program for Palo Pinto Creek.**

- G. Owner shall conduct additional baseline Aquatic Life Monitoring and water quality monitoring studies twice during the year prior to construction of the project and twice a year for three years following the deliberate impoundment of water in Lake Palo Pinto, as enlarged by Turkey Peak Dam. All Aquatic Life Monitoring and *in situ* measurements of water quality shall be consistent with the **March 2011 Palo Pinto County Municipal Water District No. 1 Turkey Peak Reservoir Project Monitoring Program for Palo Pinto Creek** and follow TCEQ protocols set forth in the most recently approved Surface Water Quality Monitoring Procedures.
- H. Owner shall submit to the Executive Director, a summary report documenting all monitoring activities. The report shall contain a description of the field work; assessment of water quality, fish, and macroinvertebrate communities; and the biological metric scoring criteria used to assess compliance with the Aquatic Life Use designations of Palo Pinto Creek. In the event Aquatic Life Use designations of Palo Pinto Creek are not supported, the report will identify remedial management strategies, subject to Executive Director approval, to meet the designated aquatic life uses.
- I. Owner is not required to release stored water to meet the environmental flow requirements in this amendment. All requirements for pass through of inflows are limited to the volume of calculated inflows. Calculated inflows are the portion of inflows into Lake Palo Pinto that are attributable to the increased drainage area at Turkey Peak Dam, as determined in the **Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan.**
- J. Owner shall determine compliance with the requirement to pass reservoir inflows up to the applicable subsistence or base flow values based on measured flows at the outlet works of Turkey Peak Dam.
- K. Owner shall document compliance with the terms and conditions of this amendment relating to environmental flow requirements in the most recently approved **Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan.**
- L. Impoundment of water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Reservoir, shall be authorized when calculated inflows, exceed the following values subject to the requirements of SPECIAL CONDITIONS M., N. and O., below.

Season	Month	Subsistence Flow (cfs)	Base Flows (cfs)		
			Dry	Average	Wet
Winter	January	1	1	2	3
	February	1	1	2	3
Spring	March	1	1	2	4
	April	1	1	2	4
	May	1	1	2	4
	June	1	1	2	4
Summer	July	1	1	2	4

	August	1	1	2	4
	September	1	1	2	4
	October	1	1	2	4
Winter	November	1	1	2	3
	December	1	1	2	3

- M. Owner shall not impound water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Reservoir, authorized by this amendment if the calculated inflows are below the applicable subsistence flow.
- N. If the calculated inflow is greater than the applicable base flow for the season and hydrologic condition, Owner may impound water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Reservoir, authorized by this amendment unless the calculated inflow falls below the applicable base flow value for that hydrologic condition.
- O. The hydrologic condition for the applicable season shall be determined in accordance with the most recently approved ***Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan***.
- P. Owner shall install a measuring device which accounts for, within 5% accuracy, the quantity of water diverted from Palo Pinto Creek. Owner shall allow representatives of the TCEQ Brazos River Watermaster reasonable access to the property to inspect the measuring device.
- Q. Owner shall contact the Brazos River Watermaster prior to diversion of water authorized in the certificate.

6. TIME LIMITATIONS

- A. Construction of the new dam and modifications to the existing dam must be in accordance with the plans and specifications approved by the Executive Director. Construction of the facility without final approval of the plans and specifications is a violation of the authorization.
- B. Construction shall begin within two years of issuance of this amendment and be completed within five years of the issuance of this amendment, unless Owner applies for and is subsequently granted an extension of time before the expiration of these time limitations.
- C. Failure to commence construction of the new dam and modification of the existing dam within the period stated above shall subject all rights to this amendment to forfeiture, subject to notice and hearing. After beginning construction, failure to timely construct the new dam and modification of the existing dam stated above shall subject this amendment to cancellation in whole or in part, subject to notice and hearing.

This amendment is issued subject to all terms, conditions and provisions contained in Certificate of Adjudication No. 12-4031, except as specifically amended herein.

This amendment is issued subject to all superior and senior water rights in the Brazos River Basin.

Owner agrees to be bound by the terms, conditions and provisions contained herein and such agreement is a condition precedent to the granting of this amendment.

All other matters requested in the application which are not specifically granted by this amendment are denied.

This amendment is issued subject to the Rules of the Texas Commission on Environmental Quality and to the right of continuing supervision of State water resources exercised by the Commission.

---

For the Commission

ISSUED:

DRAFT

## **Appendix C**

### **Professional Services Contract for Engineering and Permitting**



This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law. This Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (No. C-700, 2002 Edition) of the Engineers Joint Contract Documents Committee. Their provisions are interrelated, and a change in one may necessitate a change in the other.

# STANDARD FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES



Issued and Published Jointly by  
**National Society of  
Professional Engineers**  
*Professional Engineers in Private Practice*



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*a practice division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

---

AMERICAN COUNCIL OF ENGINEERING COMPANIES

---

AMERICAN SOCIETY OF CIVIL ENGINEERS

National Society of Professional Engineers  
1420 King Street, Alexandria, VA 22314

American Council of Engineering Companies  
1015 15th Street N.W., Washington, DC 20005

American Society of Civil Engineers  
1801 Alexander Bell Drive, Reston, VA 20191-4400

TABLE OF CONTENTS

	<u>Page</u>
ARTICLE 1 - SERVICES OF ENGINEER .....	1
1.01 Scope.....	1
ARTICLE 2 - OWNER'S RESPONSIBILITIES.....	1
2.01 General.....	1
ARTICLE 3 - SCHEDULE FOR RENDERING SERVICES.....	1
3.01 Commencement .....	1
3.02 Time for Completion.....	1
ARTICLE 4 - INVOICES AND PAYMENTS .....	2
4.01 Invoices.....	2
4.02 Payments.....	2
ARTICLE 5 - OPINIONS OF COST .....	2
5.01 Opinions of Probable Construction Cost .....	2
5.02 Opinions of Total Project Costs.....	2
ARTICLE 6 - GENERAL CONSIDERATIONS.....	2
6.01 Standards of Performance.....	2
6.02 Design without Construction Phase Services .....	3
6.03 Use of Documents.....	3
6.04 Insurance.....	4
6.05 Suspension and Termination.....	4
6.06 Controlling Law .....	5
6.07 Successors, Assigns, and Beneficiaries .....	5
6.08 Dispute Resolution.....	6
6.09 Environmental Condition of Site .....	6
6.10 Indemnification and Mutual Waiver .....	6
6.11 Miscellaneous Provisions .....	7
ARTICLE 7 - DEFINITIONS .....	7
7.01 Defined Terms .....	7
ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS.....	8
8.01 Exhibits Included .....	8
8.02 Total Agreement .....	9
8.03 Designated Representatives .....	9

STANDARD FORM OF AGREEMENT  
BETWEEN OWNER AND ENGINEER  
FOR  
PROFESSIONAL SERVICES

THIS IS AN AGREEMENT effective as of May 30 , 2008 ("Effective Date") between  
Palo Pinto County Municipal Water District No. 1 ("Owner") and  
HDR Engineering, Inc. ("Engineer").

Owner intends to obtain permits and land necessary for the construction of Turkey Peak Dam and Reservoir and associated relocations and to construct the Turkey Peak Dam and Reservoir and associated relocations.

Owner and Engineer agree as follows:

**ARTICLE 1 - SERVICES OF ENGINEER**

**1.01 Scope**

A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

**ARTICLE 2 - OWNER'S RESPONSIBILITIES**

**2.01 General**

A. Owner shall have the responsibilities set forth herein and in Exhibit B.

B. Owner shall pay Engineer as set forth in Exhibit C.

C. Owner shall be responsible for, and Engineer may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by Owner to Engineer pursuant to this Agreement. Engineer may use such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement.

**ARTICLE 3 - SCHEDULE FOR RENDERING SERVICES**

**3.01 Commencement**

A. Engineer shall begin rendering services as of the Effective Date of the Agreement.

**3.02 Time for Completion**

A. Engineer shall complete its obligations within a reasonable time. Specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided in Exhibit A, and are hereby agreed to be reasonable.

B. If, through no fault of Engineer, such periods of time or dates are changed, or the orderly and continuous progress of Engineer's services is impaired, or Engineer's services are delayed or suspended, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

C. If Owner authorizes changes in the scope, extent, or character of the Project, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

D. Owner shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Engineer's performance of its services.

E. If Engineer fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted, then Owner shall be entitled to the recovery of direct damages resulting from such failure.

## ARTICLE 4 - INVOICES AND PAYMENTS

---

### 4.01 Invoices

A. *Preparation and Submittal of Invoices.* Engineer shall prepare invoices in accordance with its standard invoicing practices and the terms of Exhibit C. Engineer shall submit its invoices to Owner on a monthly basis. Invoices are due and payable within 30 days of receipt.

### 4.02 Payments

A. *Application to Interest and Principal.* Payment will be credited first to any interest owed to Engineer and then to principal.

B. *Failure to Pay.* If Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, then:

1. amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day; and

2. Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Owner has paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension.

C. *Disputed Invoices.* If Owner contests an invoice, Owner may withhold only that portion so contested, and must pay the undisputed portion. Owner shall promptly notify Engineer of the disputed item and request either clarification or that remedial action be taken. After a disputed item has been settled, Engineer shall include the disputed item on a subsequent regularly scheduled invoice or on a special invoice for the disputed item only.

D. *Legislative Actions.* If after the Effective Date of the Agreement any governmental entity takes a legislative action that imposes taxes, fees, or charges on Engineer's services or compensation under this Agreement, then the Engineer may invoice such new taxes, fees, or charges as a Reimbursable Expense to which a factor of 1.0 shall be applied. Owner shall pay such invoiced new taxes, fees, and charges; such payment shall be in addition to the compensation to which Engineer is entitled under the terms of Exhibit C.

## ARTICLE 5 - OPINIONS OF COST

---

### 5.01 Opinions of Probable Construction Cost

A. Engineer's opinions of probable Construction Cost are to be made on the basis of Engineer's experience and qualifications and represent Engineer's best judgment as an experienced and qualified professional generally familiar with the construction industry. However, since Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer. If Owner wishes greater assurance as to probable Construction Cost, Owner shall employ an independent cost estimator as provided in Exhibit B.

### 5.02 Opinions of Total Project Costs

A. The services, if any, of Engineer with respect to Total Project Costs shall be limited to assisting the Owner in collating the various cost categories which comprise Total Project Costs. Engineer assumes no responsibility for the accuracy of any opinions of Total Project Costs.

## ARTICLE 6 - GENERAL CONSIDERATIONS

---

### 6.01 Standards of Performance

A. The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with Engineer's services.

B. Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct any such deficiencies in technical accuracy without additional compensation except to the extent such corrective action is directly attributable to deficiencies in Owner-furnished information.

C. Engineer may employ such Consultants as Engineer deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objections by Owner.

D. Subject to the standard of care set forth in paragraph 6.01.A, Engineer and its Consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

E. Engineer and Owner shall comply with applicable Laws and Regulations and Owner-mandated standards that Owner has provided to Engineer in writing. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the Effective Date of this Agreement may be the basis for modifications to Owner's responsibilities or to Engineer's scope of services, times of performance, and compensation.

G. Engineer shall not be required to sign any documents, no matter by whom requested, that would result in the Engineer having to certify, guarantee, or warrant the existence of conditions whose existence the Engineer cannot ascertain. Owner agrees not to make resolution of any dispute with the Engineer or payment of any amount due to the Engineer in any way contingent upon the Engineer signing any such documents.

H. The General Conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (No. C-700, 2002 Edition) unless both parties mutually agree to use other General Conditions.

I. Engineer shall not at any time supervise, direct, or have control over Contractor's work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to the Contractor's work in progress, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.

J. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform the Work in accordance with the Contract Documents.

K. Engineer shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any of their agents or employees or of any other persons (except Engineer's own employees and its Consultants) at the Site or otherwise furnishing or performing any Work; or for any decision made on interpretations or

clarifications of the Contract Documents given by Owner without consultation and advice of Engineer.

#### **6.02 Design without Construction Phase Services**

A. If Engineer's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, then (1) Engineer's services under this Agreement shall be deemed complete no later than the end of the Bidding or Negotiating Phase; (2) Engineer shall have no design or shop drawing review obligations during construction; (3) Owner assumes all responsibility for the application and interpretation of the Contract Documents, contract administration, construction observation and review, and all other necessary Construction Phase engineering and professional services; and (4) Owner waives any claims against the Engineer that may be connected in any way thereto.

#### **6.03 Use of Documents**

A. All Documents are instruments of service in respect to this Project, and Engineer shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of the Engineer) whether or not the Project is completed. Owner shall not rely in any way on any Document unless it is in printed form, signed or sealed by the Engineer or one of its Consultants.

B. A party may rely that data or information set forth on paper (also known as hard copies) that the party receives from the other party by mail, hand delivery, or facsimile, are the items that the other party intended to send. Files in electronic media format of text, data, graphics, or other types that are furnished by one party to the other are furnished only for convenience, not reliance by the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

C. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any transmittal errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files.

D. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of such documents resulting from the use of software application



packages, operating systems, or computer hardware differing from those used by the documents' creator.

E. Owner may make and retain copies of Documents for information and reference in connection with use on the Project by Owner. Engineer grants Owner a license to use the Documents on the Project, extensions of the Project, and other projects of Owner, subject to the following limitations: (1) Owner acknowledges that such Documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project or on any other project without written verification or adaptation by Engineer; (2) any such use or reuse, or any modification of the Documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to Engineer's Consultants; (3) Owner shall indemnify and hold harmless Engineer and Engineer's Consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification without written verification, completion, or adaptation by Engineer; (4) such limited license to Owner shall not create any rights in third parties.

F. If Engineer at Owner's request verifies or adapts the Documents for extensions of the Project or for any other project, then Owner shall compensate Engineer at rates or in an amount to be agreed upon by Owner and Engineer.

#### 6.04 Insurance

A. Engineer shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Engineer shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Engineer.

B. Owner shall cause Engineer and Engineer's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by Owner which are applicable to the Project.

C. Owner shall require Contractor to purchase and maintain general liability and other insurance in accordance with the requirements of paragraph 5.04 of the "Standard General Conditions of the Construction Contract," (No. C-700, 2002 Edition) as prepared by the Engineers Joint Contract Documents Committee and to cause Engineer and Engineer's Consultants to be listed as additional insureds with respect to such liability and other insurance purchased and maintained by Contractor for the Project.

D. Owner and Engineer shall each deliver to the other certificates of insurance evidencing the coverages indicated in Exhibit G. Such certificates shall be furnished prior to commencement of Engineer's services and at renewals thereafter during the life of the Agreement.

E. All policies of property insurance relating to the Project shall contain provisions to the effect that Engineer's and Engineer's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against Engineer or its Consultants, or any insureds or additional insureds thereunder.

F. At any time, Owner may request that Engineer or its Consultants, at Owner's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective than those specified in Exhibit G. If so requested by Owner, and if commercially available, Engineer shall obtain and shall require its Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by Owner, and Exhibit G will be supplemented to incorporate these requirements.

#### 6.05 Suspension and Termination

##### A. Suspension.

By Owner: Owner may suspend the Project upon seven days written notice to Engineer.

By Engineer: If Engineer's services are substantially delayed through no fault of Engineer, Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement.

B. *Termination.* The obligation to provide further services under this Agreement may be terminated:

##### 1. For cause,

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

##### b. By Engineer:

1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional;  
or

2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control.

3) Engineer shall have no liability to Owner on account of such termination.

c. Notwithstanding the foregoing, this Agreement will not terminate under paragraph 6.05.B.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience,

a. By Owner effective upon Engineer's receipt of notice from Owner.

C. *Effective Date of Termination.* The terminating party under paragraph 6.05.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files. Upon payment due for services performed prior to the effective date of termination, Engineer shall deliver or otherwise make available to Owner all documents, data, drawings, specifications, reports, estimates, summaries, notes, and other information and materials as may have been produced or accumulated by Engineer in performing this Agreement.

D. *Payments Upon Termination.*

1. In the event of any termination under paragraph 6.05, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination. Upon making such payment, Owner shall have the limited right to the use of Documents, at Owner's sole risk, subject to the provisions of paragraph 6.03.E.

2. In the event of termination by Owner for convenience or by Engineer for cause, Engineer shall be entitled, in addition to invoicing for those items identified in paragraph 6.05.D.1; to invoice Owner and to payment of a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with Engineer's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit C.

## 6.06 Controlling Law

A. This Agreement is to be governed by the law of the state in which the Project is located.

## 6.07 Successors, Assigns, and Beneficiaries

A. Owner and Engineer each is hereby bound and the partners, successors, executors, administrators and legal representatives of Owner and Engineer (and to the extent permitted by paragraph 6.07.B the assigns of Owner and Engineer) are hereby bound to the other party to this Agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.

B. Neither Owner nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, claims arising out of this Agreement or moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

C. Unless expressly provided otherwise in this Agreement:

1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Engineer to any Contractor, Contractor's subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them.

2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party.

3. Owner agrees that the substance of the provisions of this paragraph 6.07.C shall appear in the Contract Documents.

#### **6.08 Dispute Resolution**

A. Owner and Engineer agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to invoking the procedures of Exhibit H or other provisions of this Agreement, or exercising their rights under law.

B. If the parties fail to resolve a dispute through negotiation under paragraph 6.08.A, then either or both may invoke the procedures of Exhibit H. If Exhibit H is not included, or if no dispute resolution method is specified in Exhibit H, then the parties may exercise their rights under law.

#### **6.09 Environmental Condition of Site**

A. Owner has disclosed to Engineer in writing the existence of all known and suspected Asbestos, PCBs, Petroleum, Hazardous Waste, Radioactive Material, hazardous substances, and other Constituents of Concern located at or near the Site, including type, quantity, and location.

B. Owner represents to Engineer that to the best of its knowledge no Constituents of Concern, other than those disclosed in writing to Engineer, exist at the Site.

C. If Engineer encounters an undisclosed Constituent of Concern, then Engineer shall notify (1) Owner and (2) appropriate governmental officials if Engineer reasonably concludes that doing so is required by applicable Laws or Regulations.

D. It is acknowledged by both parties that Engineer's scope of services does not include any services related to Constituents of Concern. If Engineer or any other party encounters an undisclosed Constituent of Concern, or if investigative or remedial action, or other professional services, are necessary with respect to disclosed or undisclosed Constituents of Concern, then Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until Owner: (1) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Constituents of Concern; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.

E. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Engineer's services under this Agreement, then the

Engineer shall have the option of (1) accepting an equitable adjustment in its compensation or in the time of completion, or both; or (2) terminating this Agreement for cause on 30 days notice.

F. Owner acknowledges that Engineer is performing professional services for Owner and that Engineer is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, which are or may be encountered at or near the Site in connection with Engineer's activities under this Agreement.

#### **6.10 Indemnification and Mutual Waiver**

A. *Indemnification by Engineer.* To the fullest extent permitted by law, Engineer shall indemnify and hold harmless Owner, and Owner's officers, directors, partners, agents, consultants, and employees from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Engineer or Engineer's officers, directors, partners, employees, or Consultants. The indemnification provision of the preceding sentence is subject to and limited by the provisions agreed to by Owner and Engineer in Exhibit I, "Allocation of Risks," if any.

B. *Indemnification by Owner.* To the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer, Engineer's officers, directors, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Owner or Owner's officers, directors, partners, agents, consultants, or employees, or others retained by or under contract to the Owner with respect to this Agreement or to the Project.

C. *Environmental Indemnification.* In addition to the indemnity provided under paragraph 6.10.B of this

Agreement, and to the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer and its officers, directors, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals, and all court, arbitration, or other dispute resolution costs) caused by, arising out of, relating to, or resulting from a Constituent of Concern at, on, or under the Site, provided that (i) any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this paragraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.

D. *Percentage Share of Negligence.* To the fullest extent permitted by law, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.

E. *Mutual Waiver.* To the fullest extent permitted by law, Owner and Engineer waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project.

#### 6.11 Miscellaneous Provisions

A. *Notices.* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, by facsimile, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

B. *Survival.* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.

C. *Severability.* Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Engineer, who agree that the Agreement shall be reformed to replace such stricken

provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

D. *Waiver.* A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement. One or more waivers by either party of any provision, term, condition or covenant shall not be constructed as a waiver of a subsequent breach of the same by the other party.

E. *Accrual of Claims.* To the fullest extent permitted by law, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of Substantial Completion.

## ARTICLE 7 - DEFINITIONS

---

### 7.01 Defined Terms

A. Wherever used in this Agreement (including the Exhibits hereto) terms (including the singular and plural forms) printed with initial capital letters have the meanings indicated in the text above or in the exhibits; in the following provisions; or in the "Standard General Conditions of the Construction Contract," prepared by the Engineers Joint Contract Documents Committee (No. C-700, 2002 Edition):

1. *Additional Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 2, of this Agreement.

2. *Basic Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 1, of this Agreement.

3. *Construction Cost*--The cost to Owner of those portions of the entire Project designed or specified by Engineer. Construction Cost does not include costs of services of Engineer or other design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, or Owner's costs for legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with the Project, or the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement. Construction Cost is one of the items comprising Total Project Costs.

4. *Constituent of Concern*--Any substance, product, waste, or other material of any nature whatsoever (including, but not limited to, Asbestos, Petroleum, Radioactive Material, and PCBs) which is

or becomes listed, regulated, or addressed pursuant to [a] the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); [b] the Hazardous Materials Transportation Act, 49 U.S.C. §§1801 et seq.; [c] the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); [d] the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; [e] the Clean Water Act, 33 U.S.C. §§1251 et seq.; [f] the Clean Air Act, 42 U.S.C. §§7401 et seq.; and [g] any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

5. *Consultants*--Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer's independent professional associates, consultants, subcontractors, or vendors.

6. *Documents*--Data, reports, Drawings, Specifications, Record Drawings, and other deliverables, whether in printed or electronic media format, provided or furnished in appropriate phases by Engineer to Owner pursuant to this Agreement.

7. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings are not Drawings as so defined.

8. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

9. *Reimbursable Expenses*--The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic and Additional Services for the Project.

10. *Resident Project Representative*--The authorized representative of Engineer, if any, assigned to assist Engineer at the Site during the Construction Phase. The Resident Project Representative will be Engineer's agent or employee and under Engineer's supervision. As used herein, the term Resident Project Representative includes any assistants of Resident Project Representative agreed to by Owner. The duties and responsibilities of the Resident Project Representative, if any, are as set forth in Exhibit D.

11. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

12. *Total Project Costs*--The sum of the Construction Cost, allowances for contingencies, and the total costs of services of Engineer or other design professionals and consultants, together with such other Project-related costs that Owner furnishes for inclusion, including but not limited to cost of land, rights-of-way, compensation for damages to properties, Owner's costs for legal, accounting, insurance counseling and auditing services, interest and financing charges incurred in connection with the Project, and the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement.

## ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS

---

### 8.01 Exhibits Included

A. Exhibit A, "Engineer's Services," consisting of 8 pages.

B. Exhibit B, "Owner's Responsibilities," consisting of 2 pages.

C. Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses," consisting of 3 pages.

D. Exhibit D, "Duties, Responsibilities and Limitations of Authority of Resident Project Representative," consisting of 4 pages.

E. Exhibit E, "Notice of Acceptability of Work," consisting of 2 pages.

F. Exhibit F, Not Used.

G. Exhibit G, "Insurance," consisting of 1 page.

H. Exhibit H, "Dispute Resolution," consisting of 1 page.

I. Exhibit I, "Allocation of Risks," consisting of 1 page.

J. Exhibit J, Not Used.

K. Exhibit K, "Amendment to Standard Form of Agreement," consisting of 2 pages.



## **8.02 Total Agreement**

A. This Agreement (consisting of pages 1 to 10 inclusive, together with the exhibits identified above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument based on the format of Exhibit K to this Agreement.

## **8.03 Designated Representatives**

A. With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of Owner under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of each respective party.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

Owner:

Earl Medlin

By: Earl Medlin

Title: President

Date Signed: May 30, 2008

Address for giving notices:

P.O. Box 387

Mineral Wells, TX 76068

Designated Representative (see paragraph 8.03.A):

Scott Blasor

Title: Secretary

Phone Number: 940-328-7712

Facsimile Number: 940-328-7725

E-Mail Address: ppcmwd\_1@yahoo.com

Engineer:

Kelly Kaatz

By: Kelly Kaatz, P.E.

Title: Senior Vice President

Date Signed: 6-9-08

Engineer License or Certificate No. 75421

State of: Texas

Address for giving notices:

4401 West Gate Blvd.

Suite 400

Austin, TX 78745-1469

Designated Representative (see paragraph 8.03.A):

Kenneth Choffel, P.E.

Title: Senior Vice President

Phone Number: 512-912-5131

Facsimile Number: 512-912-5158

E-Mail Address: ken.choffel@hdrinc.com

This is **EXHIBIT A**, consisting of 8 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008

Engineer's Services

---

Article 1 of the Agreement is amended and supplemented to include the following agreement of the parties. Engineer shall provide Basic and Additional Services as set forth below.

**PART 1 – BASIC SERVICES**

**A1.01 Permitting Phase**

**A. Engineer shall:**

1. Consult with Owner to define and clarify Owner's requirements for the Project and available data.
2. Advise Owner of any need for Owner to provide data or services of the types described in Exhibit B.
3. All work under the Permitting Phase will be performed as Additional Services.

**A1.02 Preliminary Design Phase**

A. After acceptance by Owner of the Environmental and Alternatives Reports and any other deliverables as described in Exhibit B, selection by Owner of a recommended solution and indication of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner, and upon written authorization from Owner, Engineer shall:

1. Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, outline specifications, and written descriptions of the Project. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project designed or specified by Engineer.
2. Coordinate the services of subconsultants to perform field surveys, geotechnical investigations and topographic and utility mapping for design purposes. Utility mapping will be based upon information obtained from utility owners.
3. Advise Owner if additional reports, data, information, or services of the types described in Exhibit B are necessary and assist Owner in obtaining such reports, data, information, or services.
4. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost, and assist Owner in collating the various cost categories which comprise Total Project Costs.
5. Furnish 5 review copies of the Preliminary Design Phase documents and any other deliverables to Owner within 9 months of authorization to proceed with this phase, and review them with Owner. Within 30 calendar days of receipt, Owner shall submit to Engineer any comments regarding the Preliminary Design Phase documents and any other deliverables.
6. Revise the Preliminary Design Phase documents and any other deliverables in response to Owner's comments, as appropriate, and furnish to Owner 15 copies of the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables within 60 calendar days after receipt of Owner's comments.

B. Engineer's services under the Preliminary Design Phase will be considered complete on the date when the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables have been delivered to Owner.

#### A1.03 Final Design Phase

A. After acceptance by Owner of the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and any other deliverables subject to any Owner-directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon written authorization from Owner, Engineer shall:

1. Prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor. If appropriate, Specifications shall conform to the 16-division format of the Construction Specifications Institute.
2. Provide technical criteria, written descriptions, and design data for Owner's use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design of the Project; assist Owner in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities.
3. Advise Owner of any adjustments to the opinion of probable Construction Cost known to Engineer.
4. Prepare and furnish Bidding Documents for review by Owner, its legal counsel, and other advisors within 9 months of authorization to proceed with this phase and assist Owner in the preparation of other related documents. Within 30 days of receipt, Owner shall submit to Engineer any comments and, subject to the provisions of paragraph 6.01.G, instructions for revisions.
5. Revise the Bidding Documents in accordance with comments and instructions from the Owner, as appropriate, and submit 15 final copies of the Bidding Documents, a revised opinion of probable Construction Cost, and any other deliverables to Owner within 45 calendar days after receipt of Owner's comments and instructions.

B. Engineer's services under the Final Design Phase will be considered complete on the date when the submittals required by paragraph A1.03.A.5 have been delivered to Owner.

C. In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime contract, or if Engineer's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast-tracking), Owner and Engineer shall, prior to commencement of the Final Design Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding or Negotiating, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts. This schedule is to be prepared and included in or become an amendment to Exhibit A whether or not the work under such contracts is to proceed concurrently.

D. The number of prime contracts for Work designed or specified by Engineer upon which the Engineer's compensation has been established under this Agreement is three (3). If more prime contracts are awarded, Engineer shall be entitled to an equitable increase in its compensation under this Agreement.

#### A1.04 Bidding or Negotiating Phase

A. After acceptance by Owner of the Bidding Documents and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by Owner to proceed, Engineer shall:

1. Assist Owner in advertising for and obtaining bids or proposals for the Work and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend pre-Bid conferences, if any, and receive and process contractor deposits or charges for the Bidding Documents.
2. Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.

3. Provide information or assistance needed by Owner in the course of any negotiations with prospective contractors.

4. Consult with Owner as to the acceptability of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors for those portions of the Work as to which such acceptability is required by the Bidding Documents.

5. Attend the Bid opening, prepare Bid tabulation sheets, and assist Owner in evaluating Bids or proposals and in assembling and awarding contracts for the Work.

B. The Bidding or Negotiating Phase will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective contractors.

#### A1.05 Construction Phase

A. Upon successful completion of the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall:

1. *General Administration of Construction Contract.* Consult with Owner and act as Owner's representative as provided in the General Conditions. The extent and limitations of the duties, responsibilities, and authority of Engineer as assigned in the General Conditions shall not be modified, except as Engineer may otherwise agree in writing. All of Owner's instructions to Contractor will be issued through Engineer, which shall have authority to act on behalf of Owner in dealings with Contractor to the extent provided in this Agreement and the General Conditions except as otherwise provided in writing.

2. *Resident Project Representative (RPR).* Provide the services of an RPR at the Site to assist the Engineer and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit D. The furnishing of such RPR's services will not limit, extend, or modify Engineer's responsibilities or authority except as expressly set forth in Exhibit D.

3. *Selecting Independent Testing Laboratory.* Assist Owner in the selection of an independent testing laboratory to perform the services identified in Exhibit B, paragraph B2.01.0.

4. *Pre-Construction Conference.* Participate in a Pre-Construction Conference prior to commencement of Work at the Site.

5. *Schedules.* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.

6. *Baselines and Benchmarks.* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed.

7. *Visits to Site and Observation of Construction.* In connection with observations of Contractor's Work while it is in progress:

a. Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary, to observe as an experienced and qualified design professional the progress and quality of Contractor's executed Work. Such visits and observations by Engineer, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of Contractor's Work in progress or to involve detailed inspections of Contractor's Work in progress beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and observations, Engineer will determine in general if the Work is proceeding in accordance with the Contract Documents, and Engineer shall keep Owner informed of the progress of the Work.



b. The purpose of Engineer's visits to, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Engineer shall not, during such visits or as a result of such observations of Contractor's Work in progress, supervise, direct, or have control over Contractor's Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety on the Site, for safety precautions and programs incident to Contractor's Work, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work. Accordingly, Engineer neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.

8. *Defective Work.* Engineer will have the authority to reject Contractor's Work while it is in progress if, on the basis of Engineer's observations, Engineer believes that such Work will not produce a completed Project that conforms generally to the Contract Documents or that it will threaten the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. However, neither Engineer's authority to reject Work nor Engineer's decision to exercise or not exercise such authority shall give rise to a duty or responsibility of the Engineer to Contractors, Subcontractors, material and equipment suppliers, their agents or employees, or any other person(s) or entities performing any of the Work, including but not limited to any duty or responsibility for Contractors' or Subcontractors' safety precautions and programs incident to the Work.

9. *Clarifications and Interpretations; Field Orders.* Issue necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of Contractor's work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Engineer may issue Field Orders authorizing minor variations in the Work from the requirements of the Contract Documents.

10. *Change Orders and Work Change Directives.* Recommend Change Orders and Work Change Directives to Owner, as appropriate, and prepare Change Orders and Work Change Directives as required.

11. *Shop Drawings and Samples.* Review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.

12. *Substitutes and "or-equal."* Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor, but subject to the provisions of paragraph A2.02.A.2 of this Exhibit A.

13. *Inspections and Tests.* Require such special inspections or tests of Contractor's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents. Engineer's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. Engineer shall be entitled to rely on the results of such tests.

14. *Disagreements between Owner and Contractor.* Render formal written decisions on all duly submitted issues relating to the acceptability of Contractor's work or the interpretation of the requirements of the Contract Documents pertaining to the execution, performance, or progress of Contractor's Work; review each duly submitted Claim by Owner or Contractor, and in writing either deny such Claim in whole or in part, approve such Claim, or decline to resolve such Claim if Engineer in its discretion concludes that to do so would be inappropriate. In rendering

such decisions, Engineer shall be fair and not show partiality to Owner or Contractor and shall not be liable in connection with any decision rendered in good faith in such capacity.

15. *Applications for Payment.* Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:

a. Determine the amounts that Engineer recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the quality of such Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe Contractor's Work. In the case of unit price work, Engineer's recommendations of payment will include final determinations of quantities and classifications of Contractor's Work (subject to any subsequent adjustments allowed by the Contract Documents).

b. By recommending any payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment including final payment will impose on Engineer responsibility to supervise, direct, or control Contractor's Work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the Work in progress, materials, or equipment has passed to Owner free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid.

16. *Contractor's Completion Documents.* Receive, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Contract Documents, certificates of inspection, tests and approvals, Shop Drawings, Samples and other data approved as provided under paragraph A1.05.A.11, and the annotated record documents which are to be assembled by Contractor in accordance with the Contract Documents to obtain final payment. The extent of such review by Engineer will be limited as provided in paragraph A1.05.A.11.

17. *Substantial Completion.* Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with Owner and Contractor, conduct an inspection to determine if the Work is substantially complete. If after considering any objections of Owner, Engineer considers the Work substantially complete, Engineer shall deliver a certificate of Substantial Completion to Owner and Contractor.

18. *Final Notice of Acceptability of the Work.* Conduct a final inspection to determine if the completed Work of Contractor is acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide a notice in the form attached hereto as Exhibit E (the "Notice of Acceptability of Work") that the Work is acceptable (subject to the provisions of paragraph A1.05.A.15.b) to the best of Engineer's knowledge, information, and belief and based on the extent of the services provided by Engineer under this Agreement.

B. *Duration of Construction Phase.* The Construction Phase will commence with the execution of the first construction Contract for the Project or any part thereof and will terminate upon written recommendation by Engineer for final payment to Contractors. If the Project involves more than one prime contract as indicated in paragraph A1.03.C, Construction Phase services may be rendered at different times in respect to the separate contracts. Subject to the provisions

of Article 3, Engineer shall be entitled to an equitable increase in compensation if Construction-Phase services are required after the original date for final completion of the Work as set forth in the construction Contract.

C. *Limitation of Responsibilities.* Engineer shall not be responsible for the acts or omissions of any Contractor, or of any subcontractors, suppliers, or other individuals or entities performing or furnishing any of the Work. Engineer shall not be responsible for the failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.

#### A1.06 Post-Construction Phase

A. Upon written authorization from Owner, Engineer, during the Post-Construction Phase, shall:

1. Provide assistance in connection with the adjusting of Project equipment and systems.
2. Assist Owner in training Owner's staff to operate and maintain Project equipment and systems.
3. Assist Owner in developing procedures for control of the operation and maintenance of, and record keeping for Project equipment and systems.
4. Together with Owner, visit the Project to observe any apparent defects in the Work, assist Owner in consultations and discussions with Contractor concerning correction of any such defects, and make recommendations as to replacement or correction of Defective Work, if present.
5. Assist Owner with instrumentation readings or obtain services of subconsultant to obtain instrumentation readings.
6. In company with Owner or Owner's representative, provide an inspection of the Project within one month before the end of the Correction Period to ascertain whether any portion of the Work is subject to correction.

B. The Post-Construction Phase services may commence during the Construction Phase and, if not otherwise modified in this Exhibit A, will terminate at the end of the Construction Contract's correction period.

#### PART 2 -- ADDITIONAL SERVICES

A2.01. Engineer shall furnish or obtain from others Additional Services of the types listed below.

1. Preparation of applications and supporting documents for private or governmental grants, loans, or advances in connection with the Project; preparation or review of environmental assessments and impact statements; preparation of applications and supporting documents associated with the State water rights and Federal section 404 permitting; attending meetings and responding to agency requests associated with permitting efforts; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; preparation of Environmental and Alternatives Reports for TxDOT, TCEQ, TWDB, USACE or other agencies, and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
2. Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by Owner or others.
3. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer or its design requirements including, but not limited to, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date of this Agreement or are due to any other causes beyond Engineer's control.

4. Services resulting from Owner's request to evaluate alternative solutions.
5. Services required as a result of Owner's request to assist with property acquisition and negotiations with property owners.
6. Providing renderings or models for Owner's use.
7. Undertaking investigations and studies including, but not limited to, detailed consideration of operations, maintenance, and overhead expenses; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules, and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing, and assisting Owner in obtaining process licensing; detailed quantity surveys of materials, equipment, and labor; and audits or inventories required in connection with construction performed by Owner.
8. Furnishing services of Engineer's Consultants for other than Basic Services.
9. Services attributable to more prime construction contracts than specified in paragraph A1.03.C.
10. Services during out-of-town travel required of Engineer other than for visits to the Site or Owner's office.
11. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructability review requested by Owner; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other Bidding Documents as a result of such review processes.
12. Preparing additional Bidding Documents or Contract Documents for alternate bids or prices requested by Owner for the Work or a portion thereof.
13. Determining the acceptability of substitute materials and equipment proposed during the Bidding or Negotiating Phase when substitution prior to the award of contracts is allowed by the Bidding Documents.
14. Assistance in connection with Bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services.
15. Providing construction surveys and staking to enable Contractor to perform its work other than as required under paragraph A1.05.A.5, and any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys.
16. Providing Construction Phase services beyond the original date for final completion of the Work.
17. Providing assistance in responding to the presence of any Constituent of Concern at the Site, in compliance with current Laws and Regulations.
18. Preparing and furnishing to Owner Record Drawings showing appropriate record information based on Project annotated record documents received from Contractor.
19. Preparation of operation and maintenance manuals.
20. Preparing to serve or serving as a consultant or witness for Owner in any litigation, arbitration, or other dispute resolution process related to the Project.
21. Providing more extensive services required to enable Engineer to issue notices or certifications requested by Owner.
22. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.
23. Services in connection with Work Change Directives and Change Orders to reflect changes requested by Owner.

24. Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or-equal" items; and services after the award of the Construction Contract in evaluating and determining the acceptability of a substitution which is found to be inappropriate for the Project or an excessive number of substitutions.

25. Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of materials, equipment, or energy shortages.

26. Additional or extended services during construction made necessary by (1) emergencies or acts of God endangering the Work, (2) the presence at the Site of any Constituent of Concern, (3) Work damaged by fire or other cause during construction, (4) a significant amount of defective, neglected, or delayed work by Contractor, (5) acceleration of the progress schedule involving services beyond normal working hours, or (6) default by Contractor.

27. Services (other than Basic Services during the Post-Construction Phase) in connection with any partial utilization of any part of the Work by Owner prior to Substantial Completion.

28. Evaluating an unreasonable claim or an excessive number of claims submitted by Contractor or others in connection with the Work.

29. Services during the Construction Phase rendered after the date stated in A1.05.B.

30. Services required as a result of Owner's providing incomplete or incorrect Project information to Engineer.



This is **EXHIBIT B**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Owner's Responsibilities

---

Article 2 of the Agreement is amended and supplemented to include the following agreement of the parties.

B2.01 In addition to other responsibilities of Owner as set forth in this Agreement, Owner shall at its expense:

A. Provide Engineer with all criteria and full information as to Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which Owner will require to be included in the Drawings and Specifications; and furnish copies of Owner's standard forms, conditions, and related documents for Engineer to include in the Bidding Documents, when applicable.

B. Furnish to Engineer any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.

C. Following Engineer's assessment of initially-available Project information and data and upon Engineer's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable Engineer to complete its Basic and Additional Services. Such additional information or data would generally include the following:

1. Property descriptions.
2. Zoning, deed, and other land use restrictions.
3. Property, boundary, easement, right-of-way, topographic, utility, and other special surveys or data, including establishing relevant reference points.
4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
5. Environmental assessments, audits, investigations, and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas except as prepared by Engineer under Exhibit A, Part 2, Additional Services.
6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.

D. Give prompt written notice to Engineer whenever Owner observes or otherwise becomes aware of the presence at the Site of any Constituent of Concern, or of any other development that affects the scope or time of performance of Engineer's services, or any defect or nonconformance in Engineer's services, the Work, or in the performance of any Contractor.

E. Authorize Engineer to provide Additional Services as set forth in Part 2 of Exhibit A of the Agreement as required.

F. Arrange for safe access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services under the Agreement.

G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Engineer (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as Owner deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.

H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by Engineer and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.

I. Provide, as required for the Project:

1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
2. Legal services with regard to issues pertaining to the Project as Owner requires or deems appropriate, Contractor raises, or Engineer reasonably requests, including but not limited to the review of Contract Documents supplied by Engineer.
3. Such auditing services as Owner requires to ascertain how or for what purpose Contractor has used the moneys paid.
4. Placement and payment for advertisement for Bids in appropriate publications.

J. Advise Engineer of the identity and scope of services of any independent consultants employed by Owner to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructability review.

K. Furnish to Engineer data as to Owner's anticipated costs for services to be provided by others (including, but not limited to, accounting, bond and financial, independent cost estimating, insurance counseling, and legal advice) for Owner so that Engineer may assist Owner in collating the various cost categories which comprise Total Project Costs.

L. If Owner designates a construction manager or an individual or entity other than, or in addition to, Engineer to represent Owner at the Site, define and set forth as an attachment to this Exhibit B the duties, responsibilities, and limitations of authority of such other party and the relation thereof to the duties, responsibilities, and authority of Engineer.

M. If more than one prime contract is to be awarded for the Work designed or specified by Engineer, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of Engineer as an attachment to this Exhibit B that is to be mutually agreed upon and made a part of this Agreement before such services begin.

N. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment inspections.

O. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of Samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of Owner, prior to their incorporation into the Work with appropriate professional interpretation thereof.

P. Provide Engineer with the findings and reports generated by the entities providing services to Owner pursuant to this paragraph.

This is **EXHIBIT C**, consisting of 3 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

Payments to Engineer for Services and Reimbursable Expenses

Article 2 of the Agreement is amended and supplemented to include the following agreement of the parties:

ARTICLE 2 -- --Owner's Responsibilities

C2.01 Compensation For Basic Services (other than Resident Project Representative and Post-Construction) -- Percentage of Construction Cost Method of Payment

A. Owner shall pay Engineer for Basic Services set forth in Exhibit A, except for services of Engineer's Resident Project Representative and Post-Construction Phase services, if any, as follows:

1. *General.* An amount equal to 8.0 percent of the Construction Cost for Contract No. 1 for the relocation of Farm to Market Road 4; 13.0 percent of the Construction Cost for Contract No. 2 for the new bridge and roadway relocation at the existing dam; 7.0 percent of the Construction Cost for Contract No. 3 for the Turkey Peak dam and spillways. This amount includes compensation for Engineer's Services including labor, overhead, profit, and Reimbursable Expenses.

2. As a basis for payment to Engineer, Construction Cost will be based on one or more of the following determinations with precedence in the order listed for Work designed or specified by Engineer:

a. For Work designed or specified and incorporated in the completed Project, the actual final cost of the work performed by Contractor and paid by Owner.

b. For Work designed or specified but not constructed, the lowest bona fide Bid received from a qualified bidder for such Work; or, if the Work is not bid, the lowest bona fide negotiated proposal for such Work.

c. For Work designed or specified but not constructed upon which no such Bid or proposal is received, Engineer's most recent opinion of probable Construction Cost.

d. Labor furnished by Owner for the Project will be included in the Construction Cost at current market rates including a reasonable allowance for overhead and profit. Materials and equipment furnished by Owner will be included at current market prices.

e. No deduction is to be made from Engineer's compensation on account of any penalty, liquidated damages, or other amounts withheld from payments to Contractor(s).

3. Progress payments:

a. The portion of the amounts billed for Engineer's services which is on account of the Percentage of Construction Cost will be based upon Engineer's estimate of the proportion of the total services actually completed during the billing period to the Percentage of Construction Cost.

b. Upon conclusion of each phase of Basic Services, Owner shall pay such additional amount, if any, as may be necessary to bring total compensation paid during such phase on account of the percentage of Construction Cost to the following estimated percentages of total compensation payable on account of the percentage of Construction Cost for all phases of Basic Services:

Preliminary Design Phase	40%
Final Design Phase	40%
Bidding or Negotiating Phase	5%
Construction Phase	15%

c. Engineer may alter the distribution of compensation between individual phases of the work noted herein but shall not exceed the total percent fee unless approved in writing by the Owner.

C2.04 Compensation For Resident Project Representative and Post-Construction Basic Services -- Standard Hourly Rates  
Method of Payment

A. Owner shall pay Engineer for Resident Project Representative and Post-Construction Basic Services as follows:

1. *Resident Project Representative Services.* For services of Engineer's Resident Project Representative, if any, under paragraph A1.05A of Exhibit A, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all Resident Project Representative services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any. The total compensation under this paragraph will be negotiated during the Bidding Phase of each Construction Contract.

2. *Post-Construction Phase Services.* For Post-Construction Phase services under paragraph A1.06 of Exhibit A, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.

B. Compensation For Reimbursable Expenses

1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under paragraph C2.01, and are directly related to the provision of Resident Project Representative or Post-Construction Basic Services, Owner shall pay Engineer for all expenses multiplied by a factor of 1.10.

2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; expenses incurred for computer time and the use of other highly specialized equipment, subsistence and transportation of Resident Project Representative and assistants; toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A, and, if authorized in advance by Owner, overtime work requiring higher than regular rates.

3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be those internal expenses related to the Resident Project Representative or Post-Construction Basic Services that are actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to such services, both multiplied by a factor of 1.10.

C. Other Provisions Concerning Payment Under this Paragraph C2.04

1. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 1.05.

2. Factors. The external Reimbursable Expenses and Engineer's Consultant's factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.

3. Estimated Compensation Amounts

a. Engineer's estimate of the amounts that will become payable for specified services are only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.

b. When estimated compensation amounts have been stated herein and it subsequently becomes apparent to Engineer that a compensation amount thus estimated will be exceeded, Engineer shall give Owner written

notice thereof. Promptly thereafter Owner and Engineer shall review the matter of services remaining to be performed and compensation for such services. Owner shall either agree to such compensation exceeding said estimated amount or Owner and Engineer shall agree to a reduction in the remaining services to be rendered by Engineer, so that total compensation for such services will not exceed said estimated amount when such services are completed. If Engineer exceeds the estimated amount before Owner and Engineer have agreed to an increase in the compensation due Engineer or a reduction in the remaining services, the Engineer shall be paid for all services rendered hereunder.

4. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.

#### C2.05 Compensation For Additional Services

A. Owner shall pay Engineer for Additional Services as follows:

1. *General.* For services of Engineer's employees engaged directly on the Project pursuant to paragraph A2.01 or A2.02 of Exhibit A, except for services as a consultant or witness under paragraph A2.01.A.20, an amount equal to the cumulative hours charged to the Project by each Engineer's employees times the Engineer's applicable Salary Costs times a factor of 2.3, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.

B. Compensation For Reimbursable Expenses

1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under paragraph C2.01 and are directly related to the provision of Additional Services, Owner shall pay Engineer for all expenses multiplied by a factor of 1.10.

2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; expenses incurred for computer time and the use of other highly specialized equipment, toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A, and, if authorized in advance by Owner, overtime work requiring higher than regular rates.

3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be the Additional Services-related internal expenses actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to Additional Services, both multiplied by a factor of 1.1.

C. Other Provisions Concerning Payment For Additional Services

1. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 1.05.

2. Factors. The external Reimbursable Expenses and Engineer's Consultant's factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.

3. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.



This is **EXHIBIT D**, consisting of 4 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Duties, Responsibilities, and Limitations of Authority of Resident Project Representative

Paragraph 1.01.A of the Agreement is amended and supplemented to include the following agreement of the parties:

D1.01 Resident Project Representative

A. Engineer shall furnish a Resident Project Representative ("RPR"), assistants, and other field staff to assist Engineer in observing progress and quality of the Work. The RPR, assistants, and other field staff under this Exhibit D may provide full time representation or may provide representation to a lesser degree.

B. Through such additional observations of Contractor's work in progress and field checks of materials and equipment by the RPR and assistants, Engineer shall endeavor to provide further protection for Owner against defects and deficiencies in the Work. However, Engineer shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct, or have control over the Contractor's Work nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to the Contractor's work in progress, for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's performing and furnishing the Work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Contract Documents. In addition, the specific terms set forth in section A.1.05 of Exhibit A of the Agreement are applicable.

C. The duties and responsibilities of the RPR are as follows:

1. *General:* RPR is Engineer's agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Contractor's work in progress shall in general be with Engineer and Contractor, keeping Owner advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner with the knowledge of and under the direction of Engineer.

2. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.

3. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.

4. *Liaison:*

a. Serve as Engineer's liaison with Contractor, working principally through Contractor's superintendent, assist in providing information regarding the intent of the Contract Documents.

b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.

c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.

5. *Interpretation of Contract Documents:* Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.

6. *Shop Drawings and Samples:*

a. Record date of receipt of Samples and approved Shop Drawings.

b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.

c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.

7. *Modifications:* Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.

8. *Review of Work and Rejection of Defective Work:*

a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.

b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. *Inspections, Tests, and System Startups:*

a. Consult with Engineer in advance of scheduled major inspections, tests, and systems startups of important phases of the Work.

b. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.

c. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to Engineer.

10. *Records:*

a. Maintain at the Site orderly files for correspondence, reports of job conferences, reproductions of original Contract Documents including all Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports, Shop Drawing and Sample submittals received from and delivered to Contractor, and other Project-related documents.

b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.

c. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, subcontractors, and major suppliers of materials and equipment.

- d. Maintain records for use in preparing Project documentation.
- e. Upon completion of the Work, furnish original set of all RPR Project documentation to Engineer.

11. *Reports:*

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Furnish to Engineer and Owner copies of all inspection, test, and system start-up reports.
- d. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Constituent of Concern. .

12. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. *Completion:*

- a. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
- b. Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

D. Resident Project Representative shall not:

- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
- 2. Exceed limitations of Engineer's authority as set forth in the Agreement or the Contract Documents.
- 3. Undertake any of the responsibilities of Contractor, subcontractors, suppliers, or Contractor's superintendent.
- 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.
- 5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.

6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

This is **EXHIBIT E**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

---

NOTICE OF ACCEPTABILITY OF WORK

---

PROJECT:

OWNER:

OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION:

EFFECTIVE DATE OF THE CONSTRUCTION AGREEMENT:

CONSTRUCTION CONTRACT DATE:

ENGINEER:

---

To:

OWNER

And To:

CONTRACTOR

From:

ENGINEER

---

The Engineer hereby gives notice to the above Owner and Contractor that the completed Work furnished and performed by Contractor under the above Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated \_\_\_\_\_, \_\_\_\_\_, and the terms and conditions set forth on the reverse side of this Notice.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

(Reverse side of Notice)  
**CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK**

The Notice of Acceptability of Work ("Notice") on the front side of this sheet is expressly made subject to the following terms and conditions to which all persons who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the professional judgment of Engineer.
3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the date hereof.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner and under the Construction Contract referred to on the front side of this Notice, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement and Construction Contract.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract referred to on the front side of this Notice, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents.



**EXHIBIT F - Not Used**

This is **EXHIBIT G**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Insurance

---

G6.04 Insurance

A. The limits of liability for the insurance required by paragraph 6.04.A and 6.04.B of the Agreement are as follows:

1. By Engineer:

a. Workers' Compensation:	Statutory
b. Employer's Liability --	
1) Each Accident:	<u>\$500,000</u>
2) Disease, Policy Limit:	<u>\$500,000</u>
3) Disease, Each Employee:	<u>\$500,000</u>
c. General Liability --	
1) General Aggregate:	<u>\$1,000,000</u>
2) Each Occurrence (Bodily Injury and Property Damage):	<u>\$1,000,000</u>
d. Excess or Umbrella Liability --	
1) Each Occurrence:	<u>\$1,000,000</u>
2) General Aggregate:	<u>\$1,000,000</u>
e. Automobile Liability --	
1) Bodily Injury:	
a) Each Accident	<u>\$1,000,000</u>
2) Property Damage:	
a) Each Accident	<u>\$1,000,000</u>
f. Professional Liability --	
1) Each Claim Made	<u>\$1,000,000</u>
2) General Aggregate:	<u>\$1,000,000</u>

B. Additional Insureds

1. The Owner shall be listed on Engineer's general liability policy as provided in paragraph 6.04.A.

This is **EXHIBIT H**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Dispute Resolution

---

Paragraph 6.08 of the Agreement is amended and supplemented to include the following agreement of the parties:

H6.09 Dispute Resolution

A. Mediation. Owner and Engineer agree that they shall first submit any and all unsettled claims, counterclaims, disputes, and other matters in question between them arising out of or relating to this Agreement or the breach thereof (“Disputes”) to mediation. If such mediation is unsuccessful in resolving a Dispute, then (a) the parties may mutually agree to a dispute resolution of their choice, or (b) either party may seek to have the Dispute resolved by a court of competent jurisdiction.

This is **EXHIBIT I**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Allocation of Risks

---

Paragraph 6.11 of the Agreement is amended and supplemented to include the following agreement of the parties:

16.11.B Limitation of Engineer's Liability

1. *Exclusion of Special, Incidental, Indirect, and Consequential Damages.* To the fullest extent permitted by law, and notwithstanding any other provision in the Agreement, consistent with the terms of paragraph 6.11.E the Engineer and Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants, or any of them, shall not be liable to Owner or anyone claiming by, through, or under Owner for any special, incidental, indirect, or consequential damages whatsoever arising out of, resulting from, or in any way related to the Project or the Agreement from any cause or causes, including but not limited to any such damages caused by the negligence, professional errors or omissions, strict liability, breach of contract, or warranties, express or implied, of Engineer or Engineer's officers, directors, partners, employees, agents, or Engineer's Consultants, or any of them.

**EXHIBIT J – Not Used**

This is EXHIBIT K, consisting of 1 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT**

1. Background Data:

- a. Effective Date of Owner-Engineer Agreement: \_\_\_\_\_
- b. Owner: \_\_\_\_\_
- c. Engineer: \_\_\_\_\_
- d. Project: \_\_\_\_\_

2. Nature of Amendment *[Check those that are applicable and delete those that are inapplicable.]*

- \_\_\_\_\_ Additional Services to be performed by Engineer
- \_\_\_\_\_ Modifications to Services of Engineer
- \_\_\_\_\_ Modifications to Responsibilities of Owner
- \_\_\_\_\_ Modifications to Payment to Engineer
- \_\_\_\_\_ Modifications to Time(s) for rendering Services
- \_\_\_\_\_ Modifications to other terms and conditions of the Agreement

3. Description of Modifications

Attachment 1, "Modifications"  
[List other Attachments, if any]

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is \_\_\_\_\_.

OWNER:

ENGINEER:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Date Signed: \_\_\_\_\_



This is **Attachment 1**, consisting of 1 pages, to Amendment No. \_\_\_\_\_, dated \_\_\_\_\_.

### **Modifications**

[Include the following paragraphs that are appropriate and delete those not applicable to this amendment. Refer to paragraph numbers used in the Agreement or a previous amendment for clarity with respect to the modifications to be made. Use paragraph numbers in this document for ease of reference herein and in future correspondence or amendments.]

1. Engineer shall perform the following Additional Services:
  
2. The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows:
  
3. The responsibilities of Owner are modified as follows:
  
4. For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation:
  
5. The schedule for rendering services is modified as follows:
  
6. Other portions of the Agreement (including previous amendments, if any) are modified as follows:

This is EXHIBIT K, consisting of 2 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

*No. 1*  
AMENDMENT TO OWNER-ENGINEER AGREEMENT

1. Background Data:

- a. Effective Date of Owner-Engineer Agreement: May 30, 2008
- b. Owner: Palo Pinto County Municipal Water District No. 1
- c. Engineer: HDR Engineering, Inc
- d. Project: Turkey Peak Dam and Reservoir

2. Nature of Amendment:

- 1) Additional Services to be performed by Engineer
- 2) Modifications to Payment to Engineer

3. Description of Modifications

Attachment 1, Modifications (1 page)  
Attachment 2, HDR Technical Memorandum – Potential Cost Reduction Measures (12/3/2012; 3 pages)

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is December 5, 2014.

OWNER:

ENGINEER:

David R. Turk  
By: DAVID R. TURK  
Title: PRESIDENT  
Date Signed: 12/5/14

Kelly J. Kaatz  
By: Kelly J. Kaatz, P.E.  
Title: Senior Vice President  
Date Signed: 12/1/14

This is Attachment 1, consisting of 1 page, to Amendment No. 1, dated December 5, 2014.

## Modifications

1. Engineer shall perform the following Additional Services:

The Engineer will perform Value Engineering (VE) analyses of the Project generally as described in December 3, 2012 Technical Memorandum (TM) prepared by the Engineer entitled "Potential Cost Reduction Measures". During the Preliminary Design of the Project, the Engineer incorporated many of the cost reduction measures as described in the TM including the development of a physical spillway model by Utah State University that resulted in the dam and spillway being moved downstream and closer to FM 4 (revised dam alignment). For the VE analyses, the Engineer will evaluate the revised dam alignment and other potential cost reduction measures as identified in the TM to determine: 1) if they are feasible; 2) how much, if any, risk they could potentially add to the safe operation of the facilities; and 3) the estimated cost reduction potential of each item, if incorporated in the design of the Project. The Engineer will prepare a TM describing the analyses and will include recommendations as to which design modifications should be incorporated. The Engineer will prepare a new Project construction cost estimate to determine the estimated reduction in costs.

To provide data to support the VE analyses at the new dam site, the Engineer will obtain the services of a Geotechnical firm with drilling and materials testing capabilities to perform a Phase 3 Geotechnical Investigation. The Engineer will provide an on-site representative during the on-site drilling and sampling operations of the Geotechnical firm. The Geotechnical firm will be required to produce a Data Report that will summarize the findings of the Phase 3 Geotechnical Investigation. This Data Report will be used by the Engineer during the VE analyses.

2. For the Additional Services set forth above, Owner shall pay Engineer the following additional compensation:

Owner will pay the Engineer for the above described Additional Services in accordance with the terms of Section C2.05 of this Agreement (Page 3 of Exhibit C "Compensation for Additional Services"). The estimated cost of these services is \$1,400,000 and this amount will not be exceeded without additional authorization from the Owner.

3. The schedule for rendering these services is approximately 12 months.
4. Other portions of the Agreement (including previous amendments, if any) are modified as follows:

Based on the revised dam alignment and the Phase 3 Geotechnical Investigation, the results of the VE analyses are anticipated to result in the modification or removal of project elements that were designed and incorporated in the Preliminary Design of the Project by the Engineer. Because the Engineer has previously performed design work on these project elements, the Engineer's payment for Basic Services for the Preliminary Design Phase will now be fixed based on 40% of the Engineer's Basic Services Fee as computed using the December 2012 Construction Cost estimate without contingencies. This Preliminary Design Phase compensation will not be revised up or down in the future. The Engineer's compensation for Basic Services for the other Phases of the Project will still be based on 60% of the Engineer's Basic Services Fee as computed based on Construction Costs for the remaining Phases of the Project (i.e. Final Design, Bidding or Negotiating, and Construction).

To: Ken Choffel, P.E., Project Manager	
From: Rich Shoemaker, P.E.	Project: Turkey Peak Dam & Reservoir
CC:	
Date: December 3, 2012	Job No: 120507

**RE: Potential Cost Reduction Measures**

Ten potential cost reduction measures were identified and discussed during the second internal Independent Technical Review meeting (May 2-3, 2012) for Turkey Peak Dam. These ideas are listed below along with comments as to how they were addressed during preliminary design of the project.

1. Maximize use of required excavation (downstream random zone, emergency spillway fill along upstream and downstream edges, flatten saddle dam slopes, stability toe berms at maximum section):
  - a. This was addressed and has been incorporated into the embankment configuration, emergency spillway layout, and saddle dam slopes.
2. Lower top of dam by widening emergency spillway:
  - a. This was addressed; the spillway was widened from 800 to 1,100 feet and resulted in the ability to lower the dam crest elevation (see Item 3).
3. Perform detailed wave and freeboard analyses to lower top of dam elevation:
  - a. This analysis was performed and, when combined with the results of widening the emergency spillway, the top of dam was lowered 3.5 feet from 894 to 890.5 ft-msl.
4. Reduce construction risk via design measures:
  - a. This was addressed by examining historic flood flows for Palo Pinto Creek and establishing the size and number of diversion conduits in the RCC dam and providing additional flood storage in Lake Palo Pinto by allowing the use 2-ft high flashboards on top of the spillway crest at Lake Palo Pinto.
5. Reduce length of RCC bulkheads (non-overflow gravity ends of RCC structure):
  - a. No further reduction in length of the originally conceived 200-ft long bulkhead sections was possible in order to maintain 3H:1V vegetated downstream and 2.5H:1V riprap protected upstream slopes for the embankment wrap around at each end of the RCC structure. The required 200-ft length is being dictated by the depth of excavation for the structure and the lowest gate elevation (818 feet) at the intake tower incorporated into the upstream face of the RCC dam to the left (north) of the 500-ft wide spillway.
6. Stilling basin hydraulic criteria:
  - a. The stilling basin length and type for preliminary design was established based on hydraulic computations and empirical relationships. A physical model study is recommended prior to final design to optimize the dimensions and type of stilling basin, as well as the spillway discharge channel.
7. Reduce foundation grouting in non-critical areas:
  - a. In preliminary design phase an exploratory curtain grouting program was developed for the entire dam foundation. Opportunities to reduce this should be explored during the final design.

8. Consider eliminating a drainage gallery in the RCC dam section:
  - a. The drainage gallery was eliminated during preliminary design by increasing the structure's mass with an RCC heel section in front of the dam from the foundation surface up to elevation 820 ft. Curtain grouting will be performed beneath the RCC dam/spillway to reduce seepage and potential uplift pressures. An under-drain system will also be installed in the foundation rock beneath the leveling concrete and stilling basin slab to control seepage and reduce uplift pressures.
9. Slurry cutoff wall versus deep excavated and backfilled cutoff trench:
  - a. After discussions during preliminary design, this type of cutoff wall was not considered because of the potential for settlement in the alluvium beneath the embankments, particularly the soft, loose recent alluvium in the creek area and differential settlement concerns at the steep right (south) abutment contact. Removal and replacement of a substantial amount of the recent and terrace alluvium beneath the dam was deemed necessary to reduce long-term settlement of the embankment(s) and the potential for excessive differential settlement at the maximum section in the creek area and adjacent to the south abutment. (Note: This should be further evaluated during final design.) There are also complications associated with tying the slurry cutoff wall into the ends of the RCC bulkheads, as well as concerns about differential settlement between the embankment and RCC structure at the transition sections. Additionally, the quantity (square feet) of slurry wall cutoff that would be required is fairly small, and the high cost of mobilization for construction would drive up the unit price. Therefore, the relative cost savings compared to excavation and replacement is not likely to be significant.
10. Homogeneous versus zoned embankment:
  - a. It is believed that sufficient quantities of lean and sandy clay materials exist in the proposed borrow areas and required excavations to design and construct a zoned embankment dam with a central clay core.

The above list was not considered to be exhaustive at the time it was developed and additional potential cost reduction measures should be considered during the final design phase. After completing preliminary designs for various project elements and developing the opinions of probable construction cost, there appears to be a limited number of potential design modifications that would have a significant impact on reducing construction costs. The following items should be investigated during final design to determine their potential for reducing the estimated construction cost:

1. Conduct a physical model study of the RCC dam/spillway to examine and optimize: a) the steps on the 0.85H:1V overflow slope for energy dissipation; b) the length and type of stilling basin; c) the height of the stilling basin training walls; and d) the configuration of the spillway discharge channel considering the effects of anticipated high tail water levels. Potential cost reduction: \$100,000 to \$300,000.
2. Reduce the amount of rock excavation currently proposed to achieve an acceptable foundation surface for the RCC dam/spillway. Additional geotechnical investigations will be required to evaluate the continuity of a thin clay seam(s) near the upper portion of the Dobbs Valley sandstone immediately below the Goen limestone, which is currently dictating a substantial amount of rock excavation, followed by replacement of the excavated volume with leveling concrete and RCC. Potential cost reduction: \$1,000,000 to \$1,500,000.
3. Consider less costly alternatives for the upstream and downstream concrete facing elements on the RCC dam/spillway. These two items combined account for approximately \$6,000,000 of the current estimated construction cost of the RCC structure. Potential cost reduction: \$1,000,000 to \$1,500,000.

4. Optimize the dimensions (volume) of the RCC dam/spillway by performing additional detailed (possibly 3-D) stability analyses using shear strength parameters derived from direct shear testing of rock cores at and below the proposed foundation surface. Potential cost reduction unknown; depends on the results of direct shear testing and stability analyses.
5. Perform a detailed thermal (cracking) analysis of the RCC structure to minimize the number of crack inducers required in the dam/spillway. Potential cost reduction: \$250,000.
6. Perform trial RCC mix designs using aggregate from at least three potential sources and various amounts of Portland cement and fly ash to determine the total cementitious content and blend required for each source to produce RCC with the desired compressive strength, unit weight and durability properties. Potential cost reduction unknown; depends strictly on the results of mix design testing (aggregate cost and cementitious material requirements) and how that compares to preliminary design assumptions.
7. Optimize the structural design of the stilling basin retaining walls and their footings. Reduce the stilling basin slab thickness from 3 to 2 feet. Potential cost reduction: \$250,000 to \$400,000.
8. Limit the locations for curtain grouting in the dam foundation to the abutments and beneath the RCC dam/spillway. Potential cost reduction: \$250,000.
9. Perform on-site testing of foundation materials using test-pits to reduce the amount of general excavation beneath the shells of the embankment dams. Also evaluate a combination of excavation and ground improvement such as deep dynamic compaction or vibro-compaction. Potential cost reduction: \$0 to \$2,000,000.
10. Reduce the amount of excavation in the spillway discharge channel by optimizing dimensions of spillway stilling basin and discharge channel during physical model testing. Potential cost reduction: \$250,000 to \$500,000.
11. Reduce thickness of rock riprap slope protection layer from 24 to 21 inches on upstream face of Turkey Peak Dam and downstream slope of Lake Palo Pinto Dam. Also consider adding riprap to upper slope of Lake Palo Pinto Dam to reduce District's maintenance costs. Potential cost reduction: \$50,000 to \$250,000.
12. Reduce amount of rock riprap placed in spillway discharge channel as a result of reduced channel dimensions determined by physical model study: Potential cost reduction: \$250,000.
13. Allow flexibility in construction sequencing to reduce the amount of double handling of material from required excavations. This flexibility would probably be best achieved by having a single construction contract for the entire project. A single contract will also help to reduce the overall risk to the Owner of a contractor not finishing part of the work on-time. Potential cost reduction: \$500,000 to \$1,000,000.
14. As part of the Phase 3 geotechnical investigation, investigate areas near the project to determine if a suitable quantity of quality rock can be located that contractor could process on site for use as: riprap and associated base material; road base material; RCC and /or concrete aggregate; and other potential uses. Potential savings: \$500,000 to \$1,000,000.
15. As part of the Phase 3 geotechnical investigation, evaluate moving the main dam alignment downstream and purchase the old Shirley Henry property. If foundation conditions are determined to be acceptable, this could result in significantly reducing the volume of dam embankment material and foundation preparation necessary to construct the North dam embankment. Potential cost savings: \$1,000,000 to \$3,000,000.
16. As part of the Phase 3 geotechnical investigation, evaluate the use of clay seepage blankets on each abutment in place of the cut-off walls. Potential cost savings: \$400,000 to \$600,000

Summary of Potential Cost Savings during Final Design: \$5,800,000 (sum of above minimums)



## **Appendix D**

### **Section 404/401 Joint Application: Supplemental Documentation and Revised Mitigation Plan**

**Section 401 / 404 Joint Application:  
Supplemental Documentation and Revised Mitigation Plan**

**Lake Palo Pinto  
Storage Restoration Project at Turkey Peak  
Palo Pinto County, Texas**

**U.S. Army Corps of Engineers, Project Number 2009-00264**

**Prepared for:  
Palo Pinto County Municipal Water District No. 1**

**Prepared by:  
HDR Engineering, Inc.**

**February 2015**



February 27, 2015

Mr. David Madden  
Regulatory Division (CESWF-DE-R)  
Fort Worth District  
U.S. Army Corps of Engineers (USACE)  
819 Taylor Street, Room 3A37  
P.O. Box 17300  
Fort Worth, TX 76102-0300

**Re:** SWF-2009-00264, Lake Palo Pinto Storage Restoration Project at Turkey Peak,  
Palo Pinto County, Texas

Dear Mr. Madden:

On behalf of our client the Palo Pinto County Municipal Water District No. 1 (Applicant), HDR Engineering Inc. (HDR) submits the enclosed supplemental information to the Individual Permit application for the Lake Palo Pinto Storage Restoration Project at Turkey Peak. The Application for a Department of the Army Individual Permit was submitted to the Fort Worth District of the USACE on July 9, 2009 to initiate the process for approval to impact waters of the U.S., including wetlands, under Section 404 of the Clean Water Act. A conceptual mitigation plan was subsequently submitted in June 2011. Following coordination with the USACE, including comments to the conceptual mitigation plan, and a meeting with Texas Parks and Wildlife Department; the enclosed supplemental information was prepared which includes a revised mitigation plan. The supplemental package also includes updated information on the purpose and need considering the on-going record drought that has seriously impacted local water supplies, as well as documentation of the environmental effects and public interest review factors for the proposed project.

We are requesting your expedient review of this submittal since the Texas Commission on Environmental Quality is currently considering the final draft of the water rights permit on the project. If you have any questions or need additional information, please contact me by phone at 512-912-5129 or e-mail at [james.thomas@hdrinc.com](mailto:james.thomas@hdrinc.com). I appreciate your time and attention to this project of regional importance.

Respectfully,

James Thomas, PWS, CWB  
HDR Engineering, Inc.

Enclosure

Cc: Scott Blasor, PPCMWD No. 1  
Ken Choffel, HDR

## **Turkey Peak Reservoir – Supplement to Individual Permit Application SWF-2009-00264**

The Palo Pinto County Municipal Water District No. 1 (hereinafter referred to as the District or Applicant) operates the existing Lake Palo Pinto in Palo Pinto County, Texas. The Applicant proposes to construct the Lake Palo Pinto Storage Restoration Project at Turkey Peak (herein referred to as proposed project or reservoir). The Application for a Department of the Army Individual Permit (IP) was submitted to the Fort Worth District of the U.S. Army Corps of Engineers (USACE) on July 9, 2009 to initiate the process for approval to impact waters of the U.S., including wetlands (WOTUS), under Section 404 of the Clean Water Act (CWA). A conceptual mitigation plan was subsequently submitted in June 2011. Through discussions with the USACE, including comments to the conceptual mitigation plan and a meeting with Texas Parks and Wildlife Department, supplemental information was prepared and is presented herein. An outline of the supplemental information is listed below.

1. Updated information on purpose and need
  - a. Information on power plant demand/intake level
  - b. Related information on drought and lake level
  - c. Updated supply/demand information
2. Alternatives analysis information
  - a. Includes Hilltop reservoir expansion
  - b. Includes percentage of other sites with GCW habitat
  - c. Additional evaluation to justify the project as LEDPA (quantifying logistical/environmental limits of other sites)
3. Updated design sheets for key elements
4. Updated impacts (linear feet of stream, particularly Palo Pinto Creek below dam)
5. Information on 20 public interest review factors
6. Information to address TPWD comments/concerns/input related to:
  - a. Upland wildlife habitat (WHAP and other information)
  - b. Reservoir clearing plan (for navigation) review
  - c. Recreation access
  - d. Shoreline buffer protection (development restrictions related to mitigation credit).
7. Revised Mitigation Plan
  - a. Updated debit and credit calculations (using conditional assessments)
  - b. Ecological preference for on-site/near-site as opposed to mitigation bank
  - c. Additional information to justify reservoir shoreline credit including expanding reservoir shoreline conservation area (functional replacement for stream, benefits of limiting development).
  - d. Additional information/updates on environmental flows, such as flow variability, timing, water quality (DO), following TCEQ requirements.
  - e. Additional compensatory mitigation for stream channel functions with assessment of stream ecological lift using TXRAM.
  - f. Site protection/conservation easement information

Purpose and Need – Updated

The purpose of the proposed project is to capture and store water from the Palo Pinto Creek watershed to restore the permitted storage capacity of Lake Palo Pinto. The need for the proposed project is to fulfill current and future water supply demands in the region for the District’s existing and future customers.

The need for the proposed project is driven by demand for water and the available supply based on: 1) population growth, 2) power generation, and 3) Lake Palo Pinto yield.

*Population Growth*

The District supplies water to the City of Mineral Wells (City), the Lake Palo Pinto Area Water Supply Corporation, and other water supply corporations and utility districts in Palo Pinto and Parker counties that are customers of the City. The population growth for the District, and subsequent water demand, is expected to increase in the timeframe from present to year 2070. The population of the District’s service area, as included in the 2016 Brazos G Regional Water Plan (BGRWP), is projected to increase from 37,964 in 2020 to 44,730 by 2070, an increase of about 18% (Table 1).

**Table 1. Population Projections for the District**

<i>Entity</i>	<i>Year</i>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Mineral Wells <sup>1</sup>	18,026	19,161	19,913	20,600	21,108	21,492
Graford <sup>1</sup>	635	681	713	742	764	781
Parker County SUD <sup>2</sup>	2,766	2,850	2,890	2,909	2,917	2,919
County - Other (Palo Pinto) <sup>1</sup>	11,432	12,270	12,834	13,357	13,756	14,071
County - Other (Parker) <sup>2</sup>	5,105	5,236	5,343	5,429	5,457	5,468
<b>Total Population</b>	<b>37,964</b>	<b>40,198</b>	<b>41,693</b>	<b>43,037</b>	<b>44,001</b>	<b>44,730</b>
Notes:						
<sup>1</sup> Population served estimate is entire population for that entity.						
<sup>2</sup> Population served estimate is a portion of entire population for that entity. Calculated based on supply provided from the District.						

*Power Generation*

The District supplies water to the Brazos Electric Power Cooperative (BEPC) for industrial cooling purposes at their R.W. Miller Steam-Electric Facility located on the western perimeter of Lake Palo Pinto (LPP). The BEPC is a non-profit electric cooperative which provides electric service to its member cooperatives and their member/owners in 66 counties in Texas. Raw water is diverted directly from Lake Palo Pinto using an intake at elevation 852 feet above mean sea level (ft-msl), which is approximately 15 feet below the conservation pool of LPP. In the summer of 2014 the power plant had to shut down its generation units for the first time since their construction in the 1960’s. The current water level of LPP (846.9 ft-msl as of February 11, 2015) continues to prohibit the operation of BEPC’s power generation

units at LPP. Raw water for cooling is critical to maintain operation of the BEPC facility for production of reliable electricity for 66 counties in Texas, including Palo Pinto County. Thus the proposed project is necessary for the energy needs of the surrounding area. In addition, there are significant adverse impacts related to socioeconomic conditions, such as direct and indirect job loss—not only at the BEPC facility but the associated community and suppliers—associated with this water demand. Furthermore, the District and BEPC have a water supply agreement for an additional 3,000 acre-feet/year (ac-ft/yr).

*Demand*

Based on the needs described above, the District’s demand for water are projected to increase from 9,414 ac-ft/yr in 2020 to 9,771 ac-ft/yr in 2070, an increase of about 4% (Table 2).

**Table 2. Water Demand Projection for the District (ac-ft/yr)**

<i>Entity</i>	<i>Year (ac-ft/yr)</i>					
	<i>2020</i>	<i>2030</i>	<i>2040</i>	<i>2050</i>	<i>2060</i>	<i>2070</i>
City of Mineral Wells <sup>1</sup>	5,164	5,265	5,320	5,391	5,462	5,521
City of Mineral Wells <sup>2</sup>	2,939	3,040	3,095	3,166	3,237	3,296
City of Graford	92	92	92	92	92	92
Palo Pinto WSC (Palo Pinto C-O)	179	179	179	179	179	179
Santo SUD (Palo Pinto C-O)	331	331	331	331	331	331
Sturdivant-Progress WSC (Palo Pinto C-O)	307	307	307	307	307	307
North Rural WSC (Palo Pinto C-O)	324	324	324	324	324	324
Palo Pinto County Manufacturing	10	10	10	10	10	10
Parker County SUD (Region C)	294	294	294	294	294	294
Millsap WSC (Region C)	184	184	184	184	184	184
Parker County Other (Region C)	479	479	479	479	479	479
Parker County Manufacturing (Region C)	25	25	25	25	25	25
Lake Palo Pinto Area WSC (Palo Pinto C-O)	250	250	250	250	250	250
Palo Pinto County Steam-Electric (BEPC)	1,000	1,000	1,000	1,000	1,000	1,000
Additional Steam-Electric (BEPC) <sup>3</sup>	3,000	3,000	3,000	3,000	3,000	3,000
<b>Total Demand</b>	<b>9,414</b>	<b>9,515</b>	<b>9,570</b>	<b>9,641</b>	<b>9,712</b>	<b>9,771</b>

Notes:

<sup>1</sup> Mineral Wells meets its own water demand and sells to other customers in Palo Pinto and Parker Counties.

<sup>2</sup> Water demands are after conservation savings and include portions of the City in Palo Pinto and Parker Counties.

<sup>3</sup> Additional contract amount based on October 2008 contract between District and BEPC.

*Lake Palo Pinto Yield*

Prior to the recent drought, the safe yield (with a 6-month storage reserve) available from LPP was estimated to be reduced to 6,785 ac-ft/yr by 2070 as a result of sedimentation. However, the yield of



Lake Palo Pinto, and thus the existing water supply for the District, has been significantly diminished by the recent drought. In the past 16 years, the level of Lake Palo Pinto has dropped below the 33% storage level of 857 ft-msl four times for 628 days (10.7% of the time over the last 16 years). However, during the recent drought, which began in May 2012, the level of Lake Palo Pinto has been below the 33% storage level for about 440 days or about 43% of the time since November 29, 2013. As of February 11, 2015, the storage in Lake Palo Pinto is only 9% full at a level of 846.9 ft-msl. The recent drought occurring since May 2012 and has reduced the safe yield of Lake Palo Pinto by approximately 2,000 ac-ft/yr. As of February 2015, this drought continues.

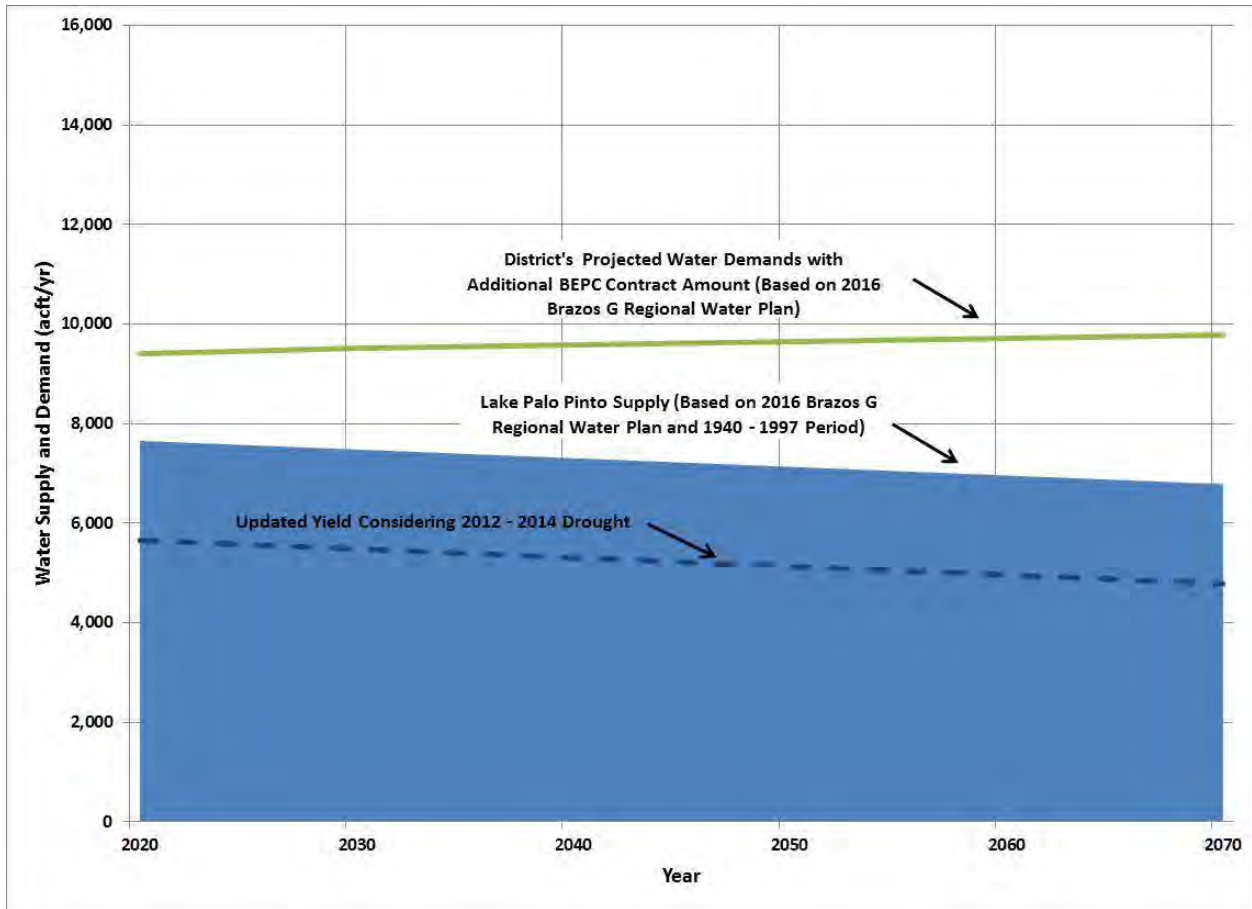
**Supply**

Based on the impacts to the District’s water supply described above, the anticipated supply in 2070 without the proposed project is about 4,785 ac-ft/yr, when considering the recent drought reduction of about 2,000 ac-ft/yr to the previous LPP yield of 6,785 ac-ft/yr. When compared to demands, the need for the project occurs prior to 2020. By 2070, the District is expected to need approximately 4,986 ac-ft/yr to meet the projected shortage when accounting for the drought yield reduction of about 2,000 ac-ft/yr (Table 3 and Figure 1). The proposed project will meet the District’s projected needs through 2070 by providing an additional supply of about 7,600 ac-ft/yr.

**Table 3. Water Demand and Supply Summary for the District (ac-ft/yr)**

	<b>Year</b>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
<b>Projected Demands:</b>						
Total Water Demand	9,414	9,515	9,570	9,641	9,712	9,771
	<b>Year</b>					
<b>Existing Supply (2016 BGRWP)</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Lake Palo Pinto <sup>1</sup>	7,655	7,481	7,307	7,133	6,959	6,785
	<b>Year</b>					
<b>Projected Balance/(Shortage):</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Balance/(Shortage) - BGRWP with October 2008 BEPC Contract <sup>2</sup>	(1,759)	(2,034)	(2,263)	(2,508)	(2,753)	(2,986)
Notes:						
<sup>1</sup> - Yields are based on analysis of droughts occurring between 1940 and 1997; however the recent drought occurring between May 2012 and October 2014 has reduced the yield of LPP by approximately 2,000 ac-ft/yr. As of February 2015, this drought continues.						
<sup>2</sup> - Based on the new drought, these shortages would be increased by approximately 2,000 ac-ft/yr.						

**Figure 1. District's Water Supply and Demand Summary Chart**



Since the Joint 401 / 404 Joint Permit Application for the proposed project submitted on July 2009, the District has initiated implementation of an unplanned, temporary project as part of their drought contingency efforts. The District has approved the advancement of a temporary reverse osmosis (RO) treatment project and short term water purchase contract using Brazos River water and transported by pipe to the Hilltop Reservoir. Since the RO project is only a temporary/short term water supply option (as it has an extremely high operating costs and the District cannot obtain a long-term contract for water from the Brazos River Authority as they currently do not have availability), it does not affect the water supply need for the proposed project.

## Alternatives Analysis - Updated

### *Overview*

In response to the purpose and need described in the previous section, the District performed an alternatives analysis to evaluate the reasonable range of alternatives, including the proposed project. The alternatives analysis includes six alternative storage sites for a reservoir, as well as expansion of the District's existing Hilltop Reservoir, and the option to raise the Lake Palo Pinto water level by 5.5 feet. These alternatives were considered based on their technological and economic feasibility as well as their potential environmental impacts. Several factors were used to evaluate practicability, including but not limited to the anticipated economic outcome of each alternative, environmental impacts, public impacts, logistical impacts to the reservoir operation, and technological limitations. A summary of the evaluation for the seven alternative sites that meet the purpose and need for the project is presented in Table 4. The table includes the potential reservoir capacity, surface area, average depth, length of stream impacts, length of new pipeline required, and other factors that affect practicability (impacts to endangered species, other economic and engineering factors).

### *Alternatives Eliminated Based on Purpose and Need*

The following describes alternatives that were evaluated but eliminated from further consideration since they do not meet the need for the project.

Expanding the existing Hilltop Reservoir at the District's Water Treatment Plant would provide approximately 1,921 ac-ft/yr of additional storage or less than 10% of the storage provided by Turkey Peak. Since this reservoir has a very limited watershed and is supplied by pumping from the District's diversion dam on Palo Pinto Creek, it does not provide a meaningful increase to the District's water supply. Thus, this alternative does not meet the need for the project of restoring the allocated storage capacity for Lake Palo Pinto necessary to meet the District's long term water supply demands.

### *No Action Alternative*

Section 404(b)(1) guidelines require the Applicant to evaluate alternatives that would involve no discharges of dredged or fill material into waters of the U.S., including wetlands, and the evaluation of the No Action Alternative satisfies this requirement. Under the No Action Alternative, it is assumed the USACE would deny the District's application for an Individual Permit under Section 404 of the Clean Water Act. As a result, the proposed Turkey Peak Reservoir would not be constructed, and the potential impacts to the natural or human environment identified for the proposed alternative would not occur. Under this scenario, implementation of the No Action Alternative would not meet the purpose and need for the project. Under the No Action Alternative, the District would not be able to meet existing or future municipal and power generation demands in the region. Additionally, water supply would decrease due to continued reservoir sedimentation and potential drought, resulting in significant adverse socio-economic impacts.

**Table 4. Comparison of Alternative Storage Sites**

<b>Storage Site</b>	<b>Capacity (acre-feet)</b>	<b>Surface Area (acres)</b>	<b>Average Depth (feet)</b>	<b>Approximate Length of Stream Impacts (Miles)*</b>	<b>Approximate Length of New Pipeline Required (Miles)</b>	<b>Meets Purpose-Need and Practicable (Yes or No)</b>	<b>Other Factors Affecting Practicability</b>
Turkey Peak (Proposed)	22,577	648	35	8.58	None	Yes	<ul style="list-style-type: none"> <li>• No impacts to federally listed species</li> <li>• No pump station and pipeline required</li> <li>• Lowest unit cost</li> <li>• Minimizes indirect effects due to expansion of existing reservoir</li> </ul>
Kettle Hollow	22,000	422	52	4.14	0.87	No	<ul style="list-style-type: none"> <li>• Golden-cheeked Warblers at site</li> <li>• Requires pump station and pipeline</li> <li>• Requires processing of sandstone for dam</li> </ul>
Wilson Hollow	16,885	379	45	3.91	0.65	No	<ul style="list-style-type: none"> <li>• Golden-cheeked Warblers at site</li> <li>• Requires pump station and pipeline</li> <li>• Requires processing of sandstone for dam</li> </ul>

<b>Storage Site</b>	<b>Capacity (acre-feet)</b>	<b>Surface Area (acres)</b>	<b>Average Depth (feet)</b>	<b>Approximate Length of Stream Impacts (Miles)*</b>	<b>Approximate Length of New Pipeline Required (Miles)</b>	<b>Meets Purpose-Need and Practicable (Yes or No)</b>	<b>Other Factors Affecting Practicability</b>
Raise Lake Palo Pinto by 5.5 feet	16,885	1,343	12.6	21.41**	11.63	No	<ul style="list-style-type: none"> <li>• Impacts 695 acres more than Turkey Peak</li> <li>• Impacts to existing homes, utilities, power plant, and FM 3237</li> <li>• Requires modification or replacement of existing dam</li> <li>• Less efficient (increased evaporation rates) than Turkey Peak</li> <li>• Requires new pipeline</li> <li>• Higher water per unit cost than Turkey Peak</li> <li>• Increased stream impacts to unmodified segments</li> </ul>
Kickapoo Site	22,577	1,305	17	19.16	16.93	No	<ul style="list-style-type: none"> <li>• Impacts 657 acres more than Turkey Peak</li> <li>• Requires new pipeline</li> <li>• Increased stream impacts to unmodified segments</li> <li>• Requires new water right and contract with Brazos River Authority to compensate for water supply impacts</li> </ul>

<b>Storage Site</b>	<b>Capacity (acre-feet)</b>	<b>Surface Area (acres)</b>	<b>Average Depth (feet)</b>	<b>Approximate Length of Stream Impacts (Miles)*</b>	<b>Approximate Length of New Pipeline Required (Miles)</b>	<b>Meets Purpose-Need and Practicable (Yes or No)</b>	<b>Other Factors Affecting Practicability</b>
Keechi Site	22,577	1,045	22	14.60	14.96	No	<ul style="list-style-type: none"> <li>• Impacts 397 acres more than Turkey Peak</li> <li>• Requires new pipeline</li> <li>• Increased stream impacts to unmodified segments</li> <li>• Requires new water right and contract with Brazos River Authority to compensate for water supply impacts</li> </ul>
Sanchez Site	20,540	812	25	13.31	17.84	No	<ul style="list-style-type: none"> <li>• Impacts 164 acres more than Turkey Peak</li> <li>• Requires new pipeline\</li> <li>• Increased stream impacts to unmodified segments</li> <li>• Requires new water right and contract with Brazos River Authority to compensate for water supply impacts</li> </ul>

\* Approximate stream length based on USGS 1:24,000 quad maps, except for Turkey Peak site which is based on field delineation.

\*\* Includes 15.76 mi of indirect functional stream impacts to Palo Pinto Creek downstream of existing dam due to reduction of releases from LPP outlet valve to offset inefficiency effect on yield.



### *Alternatives Eliminated Based on Practicability*

The following describes alternatives eliminated because they were determined not to be practicable based on cost, technological, and logistical factors in light of the overall project purpose (see Attachment A for locations of alternatives).

The Kettle Hollow and Wilson Hollow alternative sites occur upstream of the northern arm of the existing Lake Palo Pinto. Separately, each site would impact less area and waters of the U.S. than the Turkey Peak site. However, these alternative sites would require the construction of a pump station and pipeline to transfer water from Lake Palo Pinto to fill either site. By releasing water to Lake Palo Pinto, these alternative sites would not require construction of additional pipeline to transfer water to a treatment location. A geotechnical investigation of the Wilson Hollow site indicated that although this site was suitable for construction of a reservoir, the local sandstone (needed for construction of the dam) would require significant processing resulting in significant additional construction material costs. While the alternative sites would potentially meet the purpose and need for the project (not considering the effects of the recent drought on their yields), a biological survey in 2006 for the golden-cheeked warbler (*Dendroica chrysoparia*), a federal endangered species, identified nesting populations of warblers in approximately 15% of the Kettle Hollow (10 territories) and approximately 20% of Wilson Hollow (14 territories) alternative sites. Due to the presence of the golden-cheeked warbler and the extent of adverse impacts of the reservoir to confirmed nesting habitat, the Kettle Hollow and Wilson Hollow alternatives were determined to be not practicable and dropped from further consideration.

Raising the conservation pool of Lake Palo Pinto by 5.5 feet would restore the storage capacity of the lake. However, raising the level of Lake Palo Pinto would impact the 1,343-acre area around the lake that has been developed and currently contains numerous homes and their associated utilities as well as an electric power plant which would need to be modified at a substantial cost. In addition, the Farm-to-Market Road 3137 causeway over the lake would have to be raised. This alternative would also require the current Lake Palo Pinto dam and spillway to be redesigned and modified or rebuilt in order to retain the additional water. This alternative would include the construction of a pipeline from Lake Palo Pinto to an existing water pipeline that transports water to the Hilltop water treatment plant in order to eliminate channel losses, and would not require amendment of the District's existing water rights. The pipeline would eliminate the annual loss of approximately 2,000 ac-ft of water to the bed and banks in Palo Pinto Creek. Lastly, this alternative would store water less efficiently and would impact 695 acres more land than the Turkey Peak site. For example, the combined surface area and storage volume of LPP and Turkey Peak Reservoir is 2,824 acres and 49,792 acre feet (ac-ft), respectively. Raising the conservation level of Lake Palo Pinto by 5.5 feet would provide conservation pool storage of 44,100 ac-ft (or 5,692 ac-ft or 11.4% less than the combined storage of LPP and Turkey Peak) and would result in Lake Palo Pinto having a surface area of 3,519 acres which is 695 acres or 24.6% more than the combined surface area of LPP and Turkey Peak. When comparing the surface areas of both projects storing a total of 44,100 ac-ft the difference is even more dramatic as the combined surface area of LPP and Turkey Peak is only 2,731 acres compared to 3,519 acres for a raised LPP level. This results in an increase in surface area of 788 acres or a 28.8% increase. The efficiency of the Turkey Peak site is significant both in terms of conserving water by reducing evaporation as well as reducing the footprint

and impact of the project. Due to these factors, the alternative to raise the conservation pool level of LPP by 5.5 feet is not practicable and was dropped from further consideration.

The Kickapoo, Keechi, and Sanchez alternative sites would impact more area and waters of the U.S. than the Turkey Peak site. These sites are outside of the Palo Pinto Creek watershed and would require a new water right permit with the TCEQ, and a contract, which includes a subordination agreement, with Brazos River Authority to compensate for water supply impacts for the downstream senior rights. In addition, these sites would require the construction of a new pipeline to transport water to the Hilltop water treatment plant. The additional cost of new reservoir and pipeline construction limits the practicability of these alternative sites. Due to cost and environmental impact, these alternatives were determined to be not practicable and dropped from further consideration.

#### *Proposed Alternative – Turkey Peak Site*

The District's proposed alternative is the expansion of Lake Palo Pinto at the Turkey Peak Reservoir site to meet the purpose and need for the project. The Turkey Peak site is an efficient alternative to meet water supply needs while maximizing yield and minimizing evaporative loss and stream impacts. The Turkey Peak site would store as much or more acre-feet of water than the other alternative sites but cover less surface area than all the alternative sites except for the Wilson and Kettle Hollow sites. The average depth of the Turkey Peak site is also greater than all the alternative sites except for the Wilson and Kettle Hollow sites. These features make the Turkey Peak site the most efficient site (that avoids impacts to golden-cheeked warblers) in terms water storage and evaporative loss. The Turkey Peak site would not require construction of a pump station to fill the reservoir as would the Wilson and Kettle Hollow Sites. The Turkey Peak site provides water at a lower unit cost than the other alternatives, and with Lake Palo Pinto located upstream and capturing the bulk of the sediment, its useful life will be greatly extended. Therefore, the Turkey Peak site is the proposed alternative.

The Turkey Peak site would impact less surface area and waters of the U.S. (stream) compared to three of the alternative sites (Kickapoo, Keechi, and Sanchez) and the option to raise the Lake Palo Pinto water level by 5.5 feet. The Turkey Peak alternative also avoids habitat for the golden-cheeked warbler found at two of the alternative sites (Wilson Hollow and Kettle Hollow). The Turkey Peak site is located on a reach of Palo Pinto Creek directly downstream of the existing Lake Palo Pinto. Palo Pinto Creek has artificial perennial flow due to releases from Lake Palo Pinto. The habitat along Palo Pinto Creek has also been partially converted from forest to rangeland with pecan trees or improved pasture. The Turkey Peak site would primarily impact a stream that has already been modified by past development, hydrologic modification, and land use. Any of the other alternatives would result in modification of stream segments with unmodified stream flows.

The Turkey Peak site (proposed alternative) minimizes impacts to surface area, waters of the U.S., and a federal endangered species to the extent practicable while providing the lowest unit cost to meet the purpose and need for the project. Therefore, the proposed Turkey Peak site is the least environmentally damaging practicable alternative.

### Updated Design Exhibits

Additional geotechnical and engineering following the submittal of the permit application in July 2009 has resulted in minor changes of the design of the dam, spillway, and outlet works of the proposed project, which have further minimized the potential adverse affects to the aquatic environment. Design exhibits showing the updated plans are attached (Attachment B), and an updated impact assessment is included below.

Table of Waters of the U.S. Impacted by the Proposed Project – Updated

The following table provides an updated impact assessment, based on the updated project design (see included exhibits) that generally decreases the permanent impacts to Palo Pinto Creek from the previous information.

**Table 5. Waters of the U.S. Impacted by the Proposed Project**

Waterbody ID <sup>1</sup>	Resource Type <sup>2</sup>	Impact Type <sup>3</sup>	Linear Feet of Impact	Acres of Impact	Cubic Yards of Material to be Discharged	Activity Type <sup>4</sup>
S-1	PS (artificial)	D/P, I/P	22,300	12.80	10,115	DC, IN, Other
S-2	IS	I/P	4,785	1.65	0	IN
S-3	ES	I/P	1,230	0.14	0	IN
S-4	ES	I/P	1,177	0.08	0	IN
S-5	ES	I/P	239	0.02	0	IN
S-6	ES	I/P	1,394	0.06	0	IN
S-7	ES	I/P	221	0.01	0	IN
S-8	ES	I/P	1,021	0.07	0	IN
S-9	ES	I/P	4,243	0.29	0	IN
S-10	ES	I/P	4,843	1.33	0	IN
S-11	ES	I/P	554	0.06	0	IN
S-12	ES	I/P	64	0.01	0	IN
S-13	IS	I/P	1,151	0.66	0	IN
S-14	ES	I/P	345	0.02	0	IN
S-15	ES	I/P	1,070	0.07	0	IN
S-16	IS	D/P	101	0.03	224	Other
W-1	NFW	I/P	-	0.02	0	IN
W-2	NFW	I/P	-	0.08	0	IN
OCI-2	I	***	-	***	0	IN
NFW subtotal	-	-	-	0.10	0	-
PS subtotal	-	-	22,300	12.80	10,416	-
IS subtotal	-	-	6,037	2.34	224	-
ES subtotal	-	-	16,401	2.16	0	-
I subtotal	-	-	-	0	0	-
TOTAL	-	-	44,738	17.40	10,640	-

<sup>1</sup> Waterbody ID may be the name of a feature or an assigned label such as “W-1” for a wetland.

<sup>2</sup> Resource Types: NFW – Non-forested wetland, FW – Forested wetland, PS – Perennial Stream, IS – Intermittent Stream, ES – Ephemeral Stream, I – Impoundment

<sup>3</sup> Impact Types: D/P – Direct\* and Permanent, D/T – Direct and Temporary, I/P – Indirect\*\* and Permanent, I/T – Indirect and Temporary

\* Direct impacts are here defined as those adverse affects caused by the proposed activity, such as discharge or excavation.

\*\* Indirect impacts are here defined as those adverse affects caused subsequent to the proposed activity, such as flooding or effects of drainage on adjacent waters of the U.S.

\*\*\* 0.78 acre of impoundment will not receive discharge of fill and function will not be altered by inundation

<sup>4</sup> Activity Types: DC – Dam Construction, IN – Inundation, or Other (see Box 7 of original permit application dated July 2009)

## Information for Public Interest Review Factors

The following information provides a discussion of the expected impacts, reasonably foreseeable cumulative adverse effects, as well as the expected benefits likely to result from the proposed project for each of the public interest review factors from 33 CFR 320.4(a)(1).

1. **Conservation (33 CFR 320.4[a])**: The preferred alternative minimizes impacts to waters of the U.S., uplands, and endangered species habitat compared to other alternatives. Additionally, based on the surface area to volume ratio, the project is the most efficient alternative for minimizing evaporative water loss. Other alternatives would require construction of new pump stations and pipelines increasing energy use over the project life (estimated at 2070) compared to the preferred alternative which uses existing infrastructure.

During construction, the project proposes the use of sediment control structures and best management practices to minimize the contribution of solids to streams located downstream of the project. During construction, the temporary sediment control structures may include, but not be limited to, temporary silt basins, ditches, straw/hay bale fencing, and cloth filter fences. Measures proposed to be taken to control drainage around, over and through the dam construction would include the construction of appropriately designed sediment ditches, diversion ditches, culverts, flumes, drains and silt catchment basins. Additionally, measures proposed to be taken to minimize additional contributions of suspended solids into the aquatic environment would include timely construction and maintenance of sediment control structures combined with revegetation of disturbed areas. The effects below the dam would be limited by compliance with TCEQ discharge permit limits for suspended solids and settleable solids. Based on our evaluation of all available information, it appears unlikely the project will result in any adverse effects on human use characteristics such as recreational and commercial fisheries, water-related recreation, aesthetics, local, state, or national parks. Additionally, no human health effects are anticipated as a result of the proposed project.

2. **Economics (33 CFR 320.4(q)) and Energy Needs**: Clifton Karnei, General Manager, Brazos Electric Power Cooperative, Inc.(BEPC), stated in a response to the Public notice issued for the project, beneficial for the growth, economy, and energy needs of the surrounding area. BEPC is a non-profit electric cooperative that provides electric service to its member cooperatives and their member/owners in 66 counties in Texas. Its R. W. Miller power generation station depends on water from the Palo Pinto County Municipal Water District No. 1 (applicant) and this project will facilitate continued electricity production necessary for those counties, including Palo Pinto County. Money saved by BEPC's customers, due to the production of reliable and affordable electricity, will be passed on to local businesses in the area of this proposed project. The project will also be a source of income to workers and businesses in the area while the new dam is being constructed.

3. **Aesthetics (33 CFR 320.4(a))**: The proposed project will be constructed immediately downstream of an existing lake in an area of gently rolling topography. The vegetation and terrain around the proposed lake expansion will be maintained as a natural buffer to an elevation approximately 33 feet above the conservation pool around a majority of the reservoir. The project will typically have a water surface elevation about the same as the existing water supply lake. The visual impacts from the proposed project will not greatly alter the aesthetic values of this area.
4. **Wetlands (33 CFR 320.4 (b))**: 0.10 acres of wetlands will be impacted by this project. The impacts to these wetlands will be mitigated for with a combination of seasonally to permanently flooded lacustrine wetlands within shallow areas of the proposed reservoir. While an exact surface area of lacustrine wetlands cannot be determined, based on an evaluation of topography and soils in the future littoral zone it is estimated the project will support in excess of 1 acre of lacustrine wetlands, or a ratio of more than 10:1. The wetlands will be included in the proposed lake shore buffer protected through a conservation easement.
5. **Historic, Cultural, Scenic Resources and Recreational Values (33 CFR 320.4(a) and EO 13175)**: The National Register of Historic Places (NRHP) has been consulted and no NRHP eligible properties are listed in the permit area. An archeological survey, from the applicant, was submitted to the Fort Worth District Regulatory Division on April 29, 2009. Cultural resources identified during the survey, which included deep excavations for pre-historic conditions assessment will be tested, documented and recovered as required by the USACE and State Historic Preservation Officer (SHPO). A special permit condition would be included in the permit that specifies the completion of coordination and mitigation for compliance with Section 106 of the National Historic Preservation Act such that impacts to cultural resources are considered and addressed.

If a permit is issued for this project, it will contain the following General Condition: "If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places." This General Condition ensures that the applicant is aware of the process to notify the Corps if any historic or archeological remains are encountered during any construction activities authorized by any issued permit.

The project is not expected to result in adverse effects to scenic or recreational resources. The additional surface area will result in a benefit for recreation from increased access to water resources.

6. **Flood Hazards and Floodplain Values (33 CFR 320.4(l) and E.O. 11988)**: The 100-year flood pool elevation for Turkey Peak Reservoir is estimated to be approximately 874.9 ft-msl. A concrete intake structure with water control gates at multiple levels would be constructed to release



stored water through a 48-inch diameter outlet pipe in the base of the dam. The pipe would discharge reservoir releases to the spillway stilling basin which will flow into Palo Pinto Creek. The reservoir in the vicinity of the intake structure would have a maximum normal depth of approximately 49 feet.

To pass expected high flow events, the dam will be constructed with service and auxiliary spillways. The service spillway for the new dam would be 520 feet wide and constructed using concrete. The spillway structure would be comprised of a concrete crest at an elevation of 867.3 ft-msl, a sloping chute, and a stilling basin at the bottom of the spillway to dissipate flow energy. Concrete side walls would contain flood flows through the service spillway. An excavated, rock and/or riprap lined outfall channel with 3H:1V side slopes would convey flow from the downstream end of the service spillway channel approximately 1,400 feet to Palo Pinto Creek.

An auxiliary spillway to pass extreme floods in excess of the 100-year event would be constructed approximately 2,000 feet south of the dam in a topographic saddle immediate south of Turkey Peak. This spillway would consist of an approximately 1,100-foot wide excavated channel in the native earth and rock with a crest elevation of approximately 876 ft-msl. An earthen training berm would need to be constructed along the south edge of the auxiliary spillway to direct extreme flood flows away from an adjacent property and towards the natural draw downstream of the spillway, which flows back to Palo Pinto Creek near FM 4. The inside 3H:1V slope of the berm would be lined with rock and/or vegetation to prevent erosion of the berm. Two other shallow topographic saddles are present southwest of the auxiliary spillway. To prevent extreme flood flows from escaping the reservoir at these locations, small earth fill dams would be constructed across these saddles. The crest of the saddle dams would be 15 feet wide and built to the same top elevation as the main dam, approximately 890 ft-msl.

The applicant contacted Mr. Barry Gill, Palo Pinto County Floodplain Administrator, and informed him of the changes in flood levels associated with the project. Mr. Gill did not express any concerns, regarding the change in flood levels, during this communication or during the Public Comment period.

No other comments regarding Flood Hazards and Floodplain Values were received during the Public Comment period.

7. **Water Supply and Conservation (33 CFR 320.4 (m))**: The proposed Turkey Peak Reservoir is designed to fulfill current and future area water supply needs by capturing the water needed to restore the permitted storage capacity of Lake Palo Pinto.

In 2008 the Turkey Peak Reservoir Water Management Strategy (WMS) was officially approved by the Texas Water Development Board and is included in the State Water Plan as a Recommended WMS. The District supplies water to the City of Mineral Wells (City), the Lake

Palo Pinto Area Water Supply Corporation, the Brazos Electric Power Cooperative, and other water supply corporations and utility districts in Palo Pinto and Parker counties that are customers of the City. The District's service area includes portions of Palo Pinto and Parker counties.

The population of the District projected in the 2016 Brazos G Regional Water Plan for the 2020 to 2070 timeframe will increase from 37,964 in 2020 to 44,730 by 2070 – an increase of about 18 percent. Water demand projections for the District as prepared by the Brazos G Regional Water Planning Group (Brazos G) for the 2020 through 2070 timeframe show that demands are anticipated to increase from 9,414 acre-feet per year in 2020 to 9,771 acre-feet per year in 2070. Yield studies of Lake Palo Pinto performed during preparation of the 2006 Brazos G Plan indicate that the water supply available from Lake Palo Pinto will be reduced to about 6,785 acre-feet per year by 2070 as a result of sedimentation. However, based on the recent drought that occurred between May 2012 and October 2014, this yield has been reduced by about 2,000 ac-ft/yr. This drought continues as of February 2015. Comparisons of the District's existing water demands with existing supplies available from Lake Palo Pinto show that the District currently has a water supply shortage. These comparisons also show that by 2070, the District will need an additional water supply of approximately 4,986 acre-feet per year. The proposed Turkey Peak Reservoir is expected to increase the yield of the District's reservoirs by about 7,600 acre-feet per year. This amount of additional supply will meet the District's future needs through at least 2070. Additional information on the District's supply and demand can be found in the submitted supplemental to the USACE Permit Application, which is located in this project's administrative record (AR).

8. **Needs and Welfare of People (33 CFR Part 320.4 (a) and EO 12898)**: Please see Economics and Water Supply and Conservation sections. If approved, the project will be a reliable source of drinking water for the area and provide cooling water for electricity to be generated for BEPC customers. Reliable electricity and a source of future drinking water will benefit the residents within the service area of this project in the future.
9. **Navigation (33 CFR 320.4 (o))**: Navigable streams are not located within the proposed project site; therefore, the project will not have any effects related to navigation.
10. **Property Ownership (33 CFR 320.4 (g))**: All areas proposed to be utilized by the proposed project are or will be owned by the applicant for the use as a storage restoration and supply lake.
11. **Food and Fiber Production, Soils and Prime Farmland (33 CFR 320.4 (a))**: There are no areas within the proposed project site associated with food and fiber production. Therefore, no impacts on food and fiber production would occur as a result of this project.

12. **Air Quality:** The project would result in temporary air quality impacts during construction of the proposed dam. The effects would be associated with the storage and use of gas and diesel to operate equipment and the release of fugitive dust associated with the construction of the dam. The applicant proposes to utilize best management practices (BMPs) to reduce the impacts to the air quality around the proposed site during the construction phase of this project.
13. **Shore Erosion and Accretion (33CFR 320.4):** To help prevent erosion, the new dam will be constructed with a primary service spillway and an auxiliary spillway to prevent erosion of the structure and downstream of the structure during flood events. The service spillway for the new dam would be 520 feet wide and constructed using concrete. The spillway structure would be comprised of an upstream concrete crest at elevation about 867.3 ft-msl, a sloping chute, and a stilling basin at the bottom of the spillway to dissipate flow energy. Concrete side walls would contain flood flows through the service spillway. An excavated, rock and/or riprap lined outfall channel with 3H:1V side slopes would convey flow from the downstream end of the service spillway channel approximately 1,400 feet to Palo Pinto Creek.

An auxiliary spillway to pass extreme floods in excess of the 100-year event would be constructed approximately 2,000 feet south of the dam in a topographic saddle immediate south of Turkey Peak. This spillway would consist of an approximately 1,100-foot wide excavated channel in the native earth and rock with a crest elevation of approximately 876 ft-msl. An earthen training berm would need to be constructed along the south edge of the auxiliary spillway to direct extreme flood flows away from an adjacent property and towards the natural draw downstream of the spillway, which flows back to Palo Pinto Creek near FM 4. The inside 3H:1V slope of the berm would be lined with rock or vegetated to prevent erosion of the berm. Two other shallow topographic saddles are present southwest of the auxiliary spillway. To prevent extreme flood flows from escaping the reservoir at these locations, small earth fill dams would be constructed across these saddles. The crest of the saddle dams would be 15 feet wide and built to the same top elevation as the main dam, approximately 890 ft-msl. The upstream slopes of the main dam would be protected from erosion using a layer of rock riprap on gravel bedding up to the elevation of the 100-year flood. All slopes not covered with concrete or rock riprap would be top soiled, seeded with a native warm-season grass mixture, and covered with a biodegradable soil retention blanket to prevent erosion. Bank stabilization would be constructed in Palo Pinto Creek from the outlet structure below the dam to the existing FM 4 bridge as necessary to provide erosion protection.

The shoreline condition will be managed through the implementation of a buffer of 33 feet (vertical) above the conservation pool, resulting in an average horizontal buffer of approximately 140 feet. The vegetation buffer will be protected through a conservation easement. The easement conditions may allow adjacent landowners to clear no more than a cumulative total of 10 percent of the woody vegetation between the conservation pool and their property. Additionally, improvements for access across the buffer must be constructed of

wood or pervious materials. No permanent bulkheads or large concrete structures will be allowed in the buffer area.

14. **Traffic/Transportation Patterns (33 CFR 320.4 (a))**: The impoundment of the proposed Turkey Peak Reservoir would necessitate the closure of 4.5 miles of FM 4 and a county road near the Lake Palo Pinto dam that serves residents on the south side of the lake. In response to the proposed project, TXDOT has agreed to transfer a 4.5 mile section of FM 4 between FM 3137 and the FM 4 bridge over Palo Pinto Creek to Palo Pinto County. When construction of the proposed dam begins, approximately 4.5 miles of FM 4 and county roads would be closed. Ward Mountain Road would be upgraded to county road standards to accommodate the traffic that would be transferred onto it because of the closure of FM 4. This could require expanding the width of Ward Mountain Road from 20 feet wide to 24 feet wide, in addition to minor extensions of any existing culverts and drainage structures. The new road over the existing Lake Palo Pinto dam and the new bridge across the existing 550-foot wide spillway would be 24 feet wide and paved. To connect existing county roads with the new road across the existing dam, 0.75 mile of new county road would be constructed in an upland area between Lake View Drive and Brown Road.
15. **Land Use (33 CFR 320.4 (a))**: Existing land uses are primarily agriculture, rural residence, and undeveloped. The land in the proposed project area will be converted from upland areas to inundated lake areas. The proposed project will change land use in this area, and may increase property values on adjacent upland areas. No comments were received during the Public Comment period regarding the adverse effects on any local land zoning requirements.
16. **Safety (33 CFR 320.4 (a))**: Design plans for the proposed dam will be reviewed by Texas Commission on Environmental Quality (TCEQ) to ensure compliance with Texas dam safety program. The structure was designed by a professional engineer and will be constructed with appropriately sized spillways to eliminate the risk of overtopping and compromise of the structure during expected high flow events.
17. **Mineral Needs (33 CFR 320.4 (a))**: Other than on-site materials which may be used to construct the dam and associated facilities, there are no plans to extract and remove minerals (gravel, sand, peat, rock and precious metals) from the proposed project site. The only removal of streambed material will be for the excavation accompanying construction of the dam foundation and associated facilities.
18. **Noise (33 CFR 320.4 (a))**: The project would result in increased noise emissions associated with construction of the proposed dam and removal of the existing structure. Light truck and vehicle traffic in and around the proposed project site would generate a sound level of approximately 70-75 decibels which is comparable to human conversation levels. The increased noise would be of minimal effect outside the permit area, and would be for a short time during construction activities.

19. **Water Quality (33 CFR 320.4 (d))**: The applicant has submitted an individual water quality certification to Texas Commission on Environmental Quality (TCEQ) for this project. This project exceeds the limits under TCEQ's Tier I water quality certifications for projects impacting waters in the state of Texas. Proposed best management practices and the spillway design with multi-level outlet design will minimize water quality impacts during construction and improve downstream water temperature and dissolved oxygen levels during operation.
20. **Fish and Wildlife Values (33 CFR 320.4 [c] and Endangered Species Act)**: Wildlife habitat changes associated with construction of the proposed project would be permanent in the project area. An evaluation following the Wildlife Habitat Appraisal Procedure was performed for the proposed project and was included in the water rights amendment application. This evaluation found that based on the acres of different habitat (cover/vegetation) types in the project area, and the average habitat quality score of each type, the total habitat units inundated by the project is 361.7. Based on a review of the habitat protected and enhanced by the proposed project and its associated mitigation plan, the total increase of habitat units resulting from the proposed mitigation for the project are anticipated to exceed the net loss of habitat units from project construction, and be of similar habitat types. Furthermore, the upland habitats impacted by the proposed project are relatively abundant in downstream and adjacent areas that will not be impacted by the proposed project, and these areas (some protected by the proposed project) will remain. The aquatic resources and their associated riparian/buffer areas that currently exist in the proposed project area and provide habitat for aquatic, amphibian and terrestrial species would be replaced by creation, restoration, and enhancement of aquatic resources by the proposed project and its associated mitigation plan.

The U.S. Fish and Wildlife Service (USFWS) commented during the Public Notice that a "not likely to adversely affect" determination for Black-capped Vireo (*Vireo atricapilla*) and the Golden-cheeked Warbler (*Dendroica chrysoparia*) be conducted. In particular, the USFWS requested an analysis of the presence/absence surveys in suitable habitat for these species at least one year prior to construction initiation.

No potential or suitable habitat for the Black-capped Vireo occurs within or adjacent to the proposed project.

A survey for the Golden-cheeked Warbler conducted in 2006 in the proposed project area did not observe this federally endangered species, and also found that the proposed project area lacks appropriate habitat for the golden-cheeked warbler. The report detailing the findings of the 2006 survey was submitted to the USACE on December 3, 2008. During informal Section 7 consultation discussions, the USFWS requested one additional pre-construction survey of the project area to confirm absence of Golden-cheeked Warbler. The applicant proposes to conduct the survey after the Water Rights and Section 404 permits are authorized and at least one year prior to construction initiation.

The state threatened Brazos water snake (*Nerodia harteri harteri*) discontinuously inhabits a limited segment of the upper Brazos River drainage in north central Texas. Preferred habitat for the species includes areas of shallow water flowing over a rocky bottom (i.e., a riffle) and adjacent rocky shorelines. During a survey along Palo Pinto Creek within the proposed project

area in May 2009, the Brazos water snake was not observed and it was found that the proposed project area lacks suitable habitat for this species. No sightings of federal-listed threatened or endangered species or species of special concern have occurred or were recorded within the limits of the proposed project area during environmental baseline studies, field reconnaissance, and initial reviews.

21. **Recreation (33 CFR 320.4):** Currently there is one public boat ramp located on the existing portion of Lake Palo Pinto. When water is within 3 feet of the conservation pool level, boats will be able to move between the existing Lake Palo Pinto area and the new inundated lake area. The Applicant is considering the installation of a controlled-access boat ramp to be installed off of Ward Mountain Road.



Information Related to Texas Parks and Wildlife Department Comments and Coordination

The following information is provided regarding specific areas of concern, comment, or coordination with Texas Parks and Wildlife Department (TPWD) for the Proposed Project.

1. Upland Wildlife Habitat

In response to the public notice, TPWD stated that the project should address upland habitat impacts by compensating for these in the mitigation plan. An evaluation following the Wildlife Habitat Appraisal Procedure (WHAP), which was developed by TPWD, was performed for the proposed project and was included in the water rights amendment application. This evaluation found that based on the acres of different habitat (cover/vegetation) types in the project area, and the average habitat quality score of each type, the total habitat units inundated by the project is 361.7 (Table 6). Based on a review of the habitat protected and enhanced by the proposed project and its associated mitigation plan, the total increase of habitat units resulting from the proposed mitigation for the project are anticipated to exceed the net loss of habitat units from project construction, and be of similar habitat types (Tables 7–9). Furthermore, the upland habitats impacted by the proposed project are relatively abundant in downstream and adjacent areas that will not be impacted by the proposed project, and these areas (some protected by the proposed project) will remain. Thus the proposed project has sufficiently compensated for upland habitat impacts.

**Table 6. Inundation by Reservoir as Included in Water Rights Amendment Application**

Cover / Vegetation Type	Average Habitat Quality Score	Estimated Acres of Cover / Vegetation Type	Habitat Units
Pasture	0.33	61.68	20.35
Brush	0.46	32.37	14.89
Floodplain Savannah	0.66	98.45	64.98
Woods	0.56	233.97	131.02
Bottomland Forest	0.75	164.29	123.22
Wetland Areas	0.6	0.43	0.26
Quarry	0.17	12.51	2.13
Urban	0.03	30.9	0.93
Water	0.31	12.63	3.92
<b>TOTAL</b>		647.2	<b>361.7</b>

**Table 7. Proposed Reservoir and Buffers**

Cover / Vegetation Type	Average Habitat Quality Score	Estimated Acres of Cover / Vegetation Type	Habitat Units
Brush	0.46	10	4.6
Woods	0.56	170	95.2
Water	0.31	648	200.88
<b>TOTAL</b>		828	<b>300.68</b>

Note: Average habitat quality score for each vegetation type taken from scores for WHAP at project site in Water Rights Amendment Application

**Table 8. Existing on 450-Acre Mitigation Area, Stephens County**

Cover / Vegetation Type	Average Habitat Quality Score	Estimated Acres of Cover / Vegetation Type	Habitat Units
Pasture	0.42	128	53.76
Brush	0.38	246	93.48
Woods	0.56	59	34.81
Water	0.31	12	3.72
Un-vegetated / Road	0	5	0
<b>TOTAL</b>		450	<b>185.77</b>

**Table 9. Proposed on 450-Acre Mitigation Area, Stephens County**

Cover / Vegetation Type	Average Habitat Quality Score	Estimated Acres of Cover / Veg Type	Habitat Units
Grassland	0.59	135	79.65
Brush	0.55	233	128.15
Woods	0.67	65	43.55
Water	0.31	12	3.72
Un-vegetated / Road	0	5	0
<b>TOTAL</b>		450	<b>255.07</b>

2. Reservoir Clearing Plan

A 2009 reservoir clearing plan was developed and submitted by the Applicant as part of the Joint Application. After meeting with TPWD and USACE staff, the Applicant now proposes to minimize clearing of habitat in the reservoir to promote the development of aquatic habitat. The Applicant will only clear the portions of the reservoir footprint needed for construction including borrow areas. If the District decides to grant current and future landowners adjacent to the reservoir use of the shoreline areas, the District will only authorize the clearing of woody snags on up to 10% of the shoreline frontage to a depth of approximately 847 ft-msl. Additionally, if the District decides to grant shoreline access easements, these agreements will not allow permanent bulkheads or large concrete structures to be constructed within the buffer area or conservation pool by adjacent private landowners.

3. Recreation Access

The Applicant proposes to maintain recreational access through the normal pool connection between the existing Palo Pinto Lake and the Turkey Peak portion of the reservoir. This connection will allow for boats to move between the two reservoir pools when the lakes are not more than about 3 feet below their conservation pool levels. The Applicant is considering the installation of a controlled-access boat ramp to be installed off of Ward Mountain Road.

4. Shoreline Protection

As discussed in the revised mitigation plan (included as separate document), the Applicant proposed to protect the existing, natural habitats along the proposed reservoir shoreline to limit

development and enhance the quality of the aquatic habitat that is created by the project. The shoreline protection plan, as detailed in the revised mitigation plan, is based on literature review, evaluation of site conditions, and coordination with stakeholders, including TPWD.

### Revised Mitigation Plan

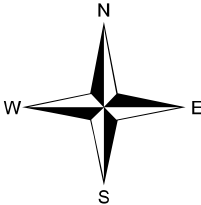
The Applicant developed a revised mitigation plan based on feedback from the USACE and other agencies, the evaluation of practicable alternatives for mitigation activities, and utilizing the Fort Worth District template for a mitigation plan to fulfill the requirements on the 2008 mitigation rule. The revised mitigation plan is presented as a separate document to replace the conceptual mitigation plan dated June 2011 (see Attachment C).

**Attachment A – Alternatives Evaluation Exhibit (no changes)**

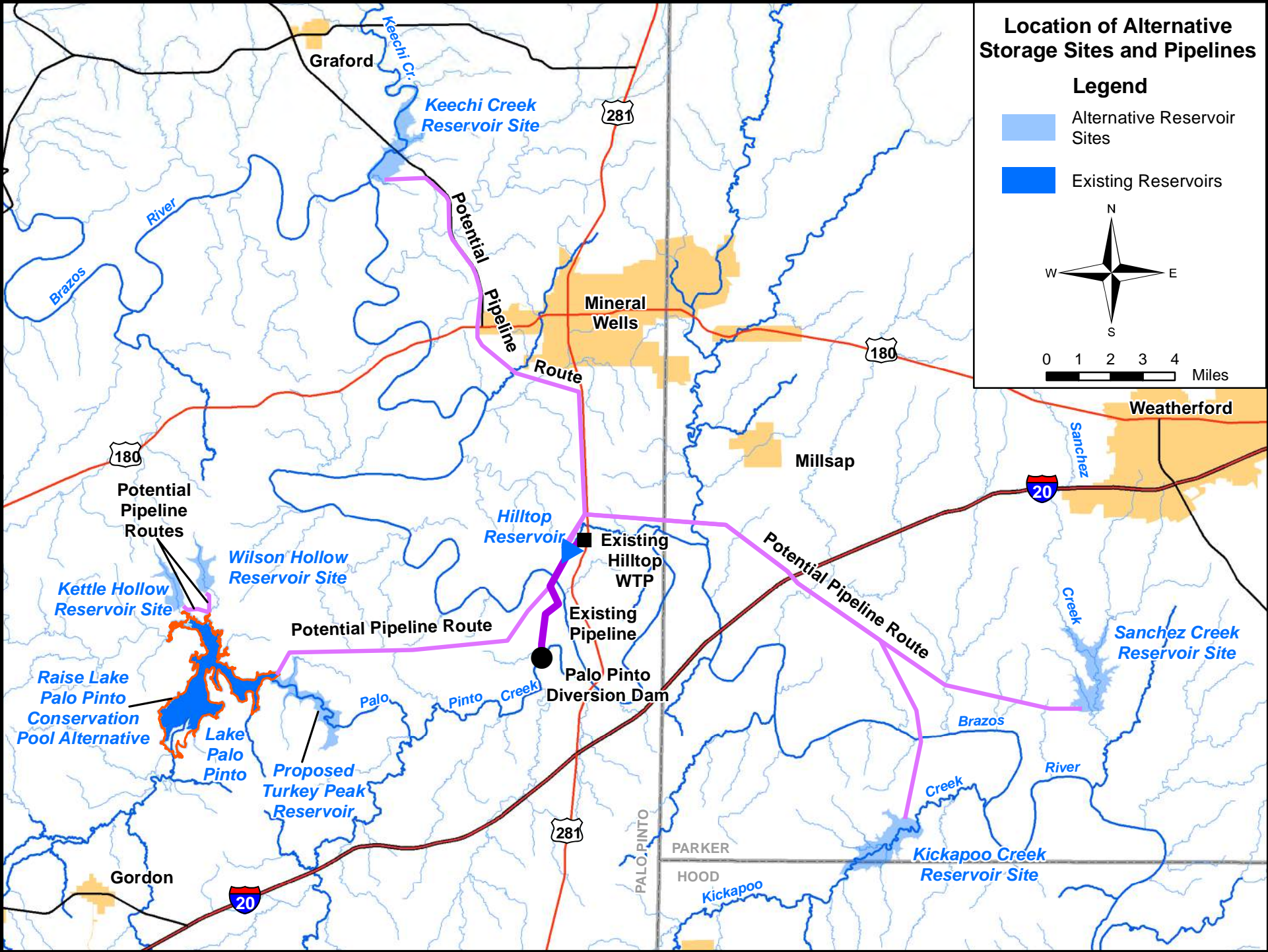
# Location of Alternative Storage Sites and Pipelines

## Legend

- Alternative Reservoir Sites
- Existing Reservoirs



0 1 2 3 4 Miles





**Attachment B – Updated Project Design Exhibits**

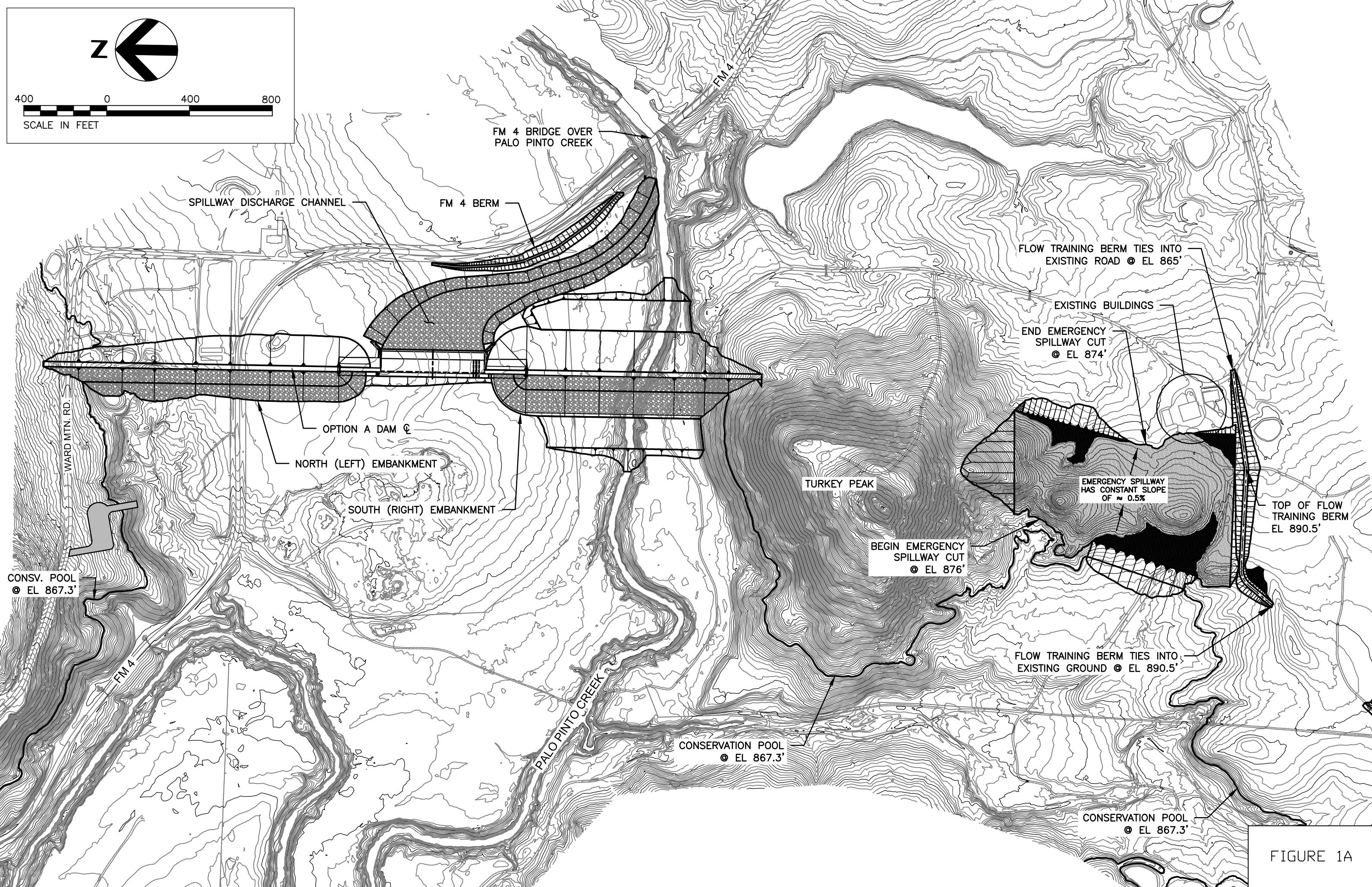
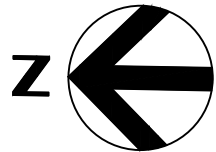
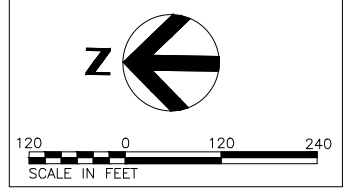
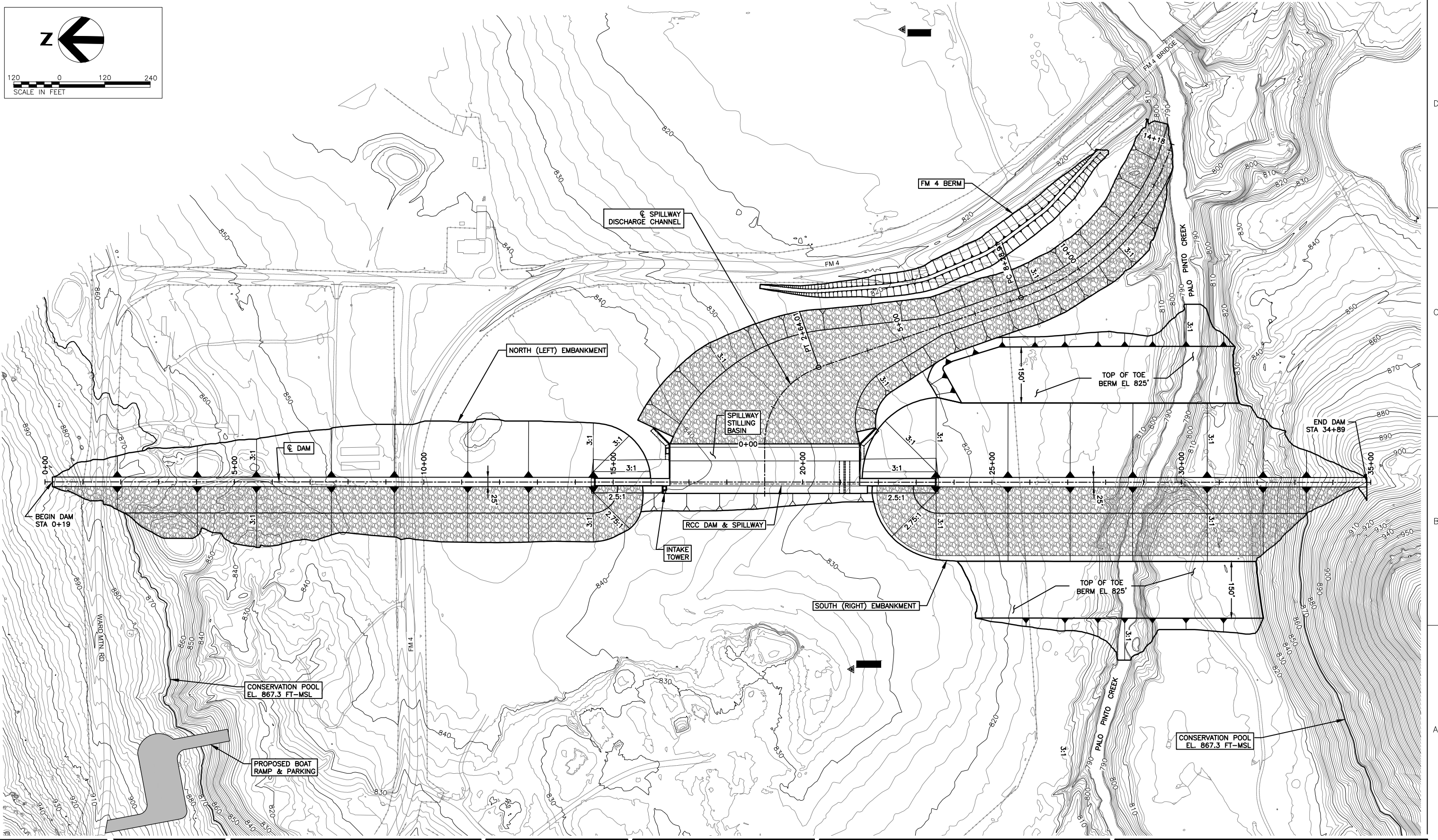


FIGURE 1A



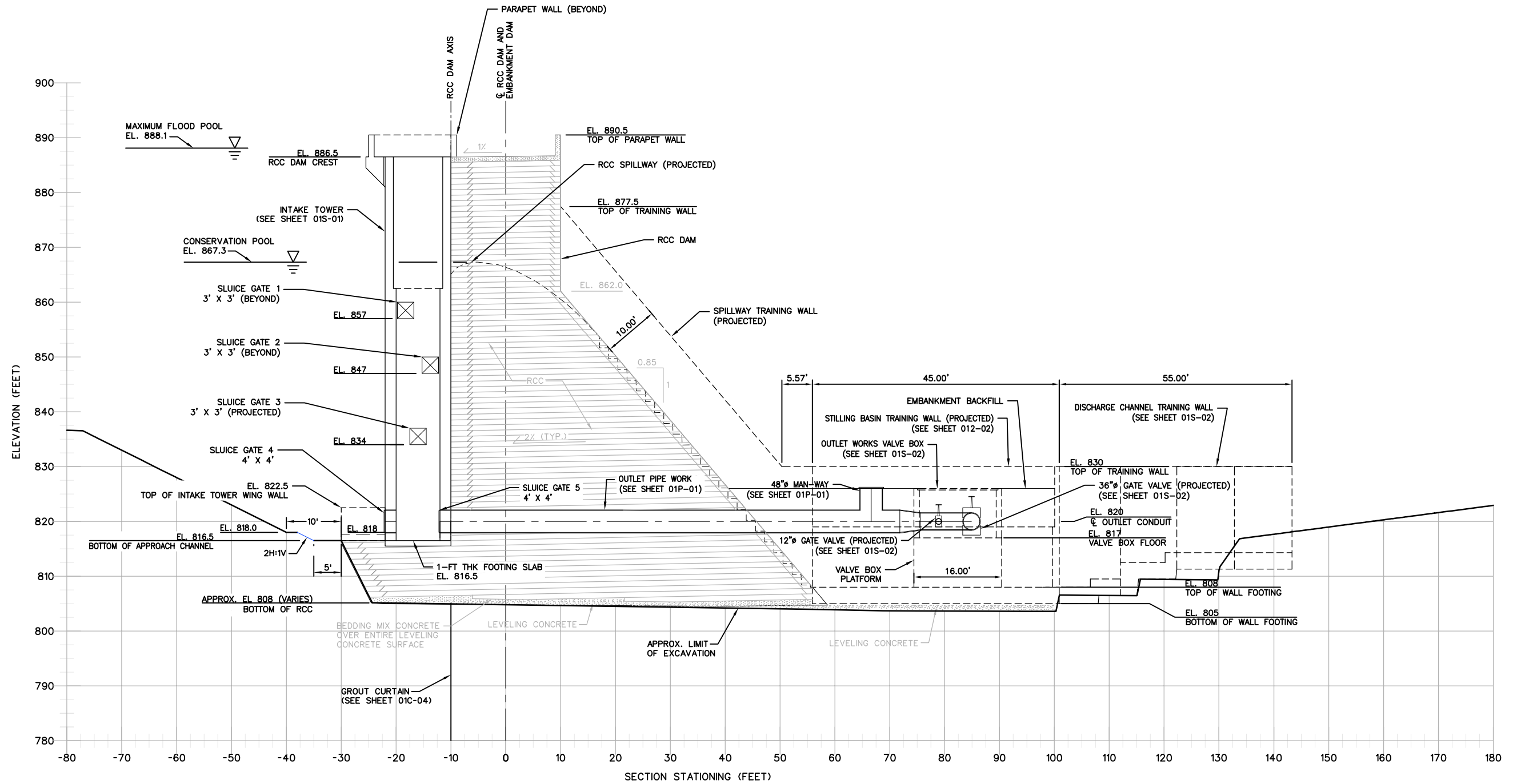


ISSUE	DATE	DESCRIPTION
A	11/30/2012	FOR PRELIMINARY ENGINEERING REPORT

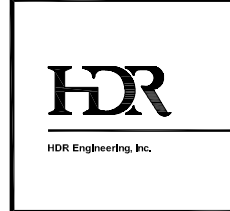
PROJECT MANAGER	K. CHOFFEL P.E.
DESIGNED BY	R. SHOEMAKER P.E.
DRAWN BY	C. AMARAL
PROJECT NUMBER	00000000120507

**PALO PINTO COUNTY  
 MUNICIPAL WATER DISTRICT No. 1**  
 Mineral Wells, TX  
  
**TURKEY PEAK DAM &  
 RESERVOIR PROJECT**

<b>TURKEY PEAK DAM          PLAN - SITE OVERVIEW</b>		FILENAME	O4C-01.dwg	SHEET	04C-01
	SCALE	1"=120'			



SECTION STA 15+85.25  
SCALE: 1"=10'



ISSUE	DATE	DESCRIPTION
A	11/30/2012	FOR PRELIMINARY ENGINEERING REPORT

PROJECT MANAGER	K. CHOFFEL P.E.
DESIGNED BY	K. FERGUSON P.E.
DRAWN BY	D. WOOD
PROJECT NUMBER	00000000120507

THIS DRAWING HAS BEEN PREPARED UNDER THE AUTHORITY OF KEITH A. FERGUSON TEXAS P.E. NO. 70650 DATE: NOV. 30, 2012 FOR THE SOLE PURPOSE OF INCLUSION IN PRELIMINARY ENGINEERING REPORT

IT IS NOT TO BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSE.

**PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1**  
Mineral Wells, TX

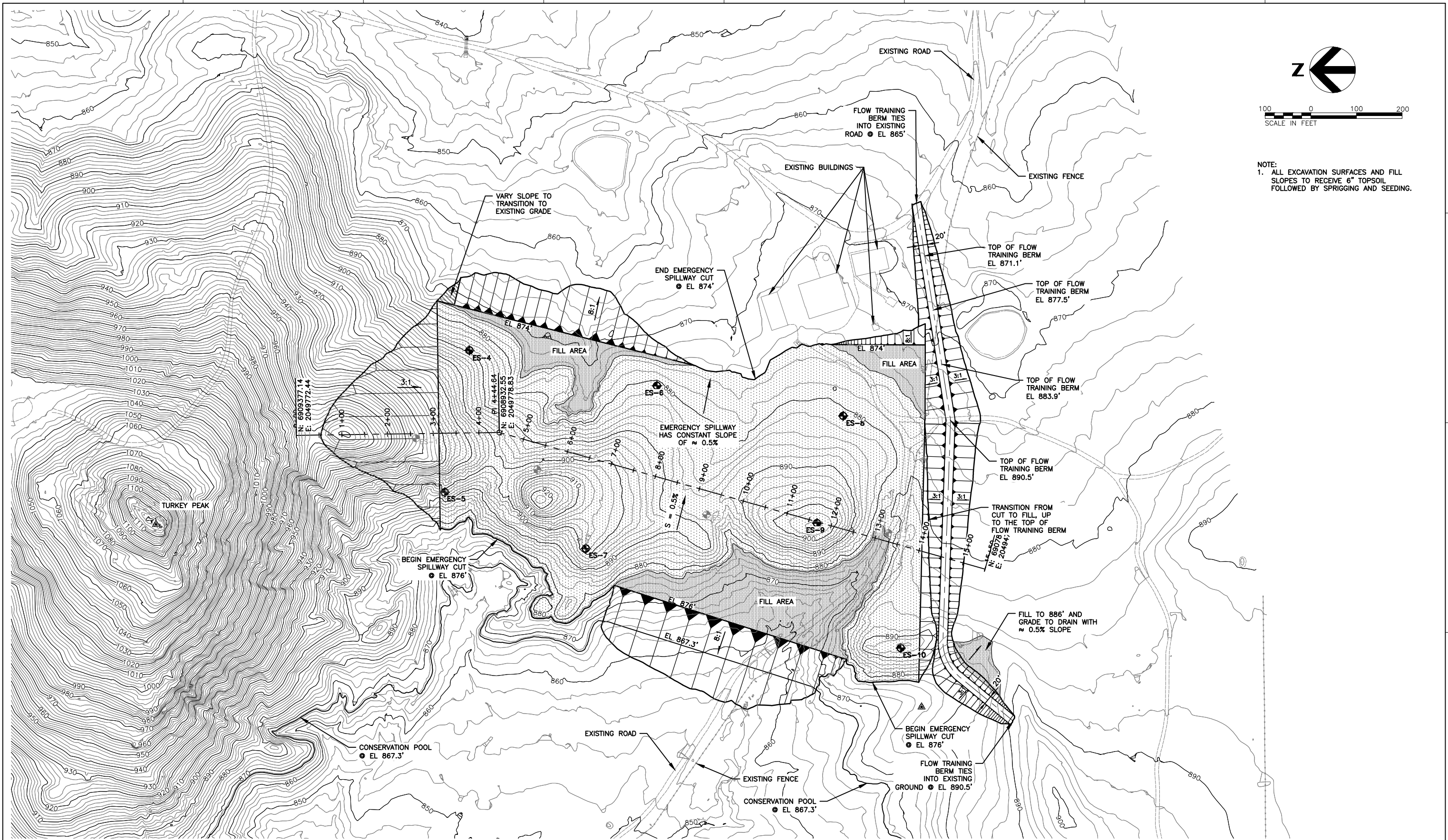
**TURKEY PEAK DAM &  
RESERVOIR PROJECT**

**TURKEY PEAK DAM  
SECTION - RCC AT OUTLET WORKS**

SCALE: 1"=10'

FILENAME: 01C-23.dwg  
SHEET: 01C-23

C:\Pwworking\da\064629\02C-01 & 02C-03.dwg, 02C-01, 2/25/2015 5:01:32 PM, camara



NOTE:  
1. ALL EXCAVATION SURFACES AND FILL SLOPES TO RECEIVE 6" TOPSOIL FOLLOWED BY SPRIGGING AND SEEDING.



ISSUE	DATE	DESCRIPTION
A	11/30/2012	FOR PRELIMINARY ENGINEERING REPORT

PROJECT MANAGER	K. CHOFFEL P.E.
DESIGNED BY	R. SHOEMAKER P.E.
DRAWN BY	C. AMARAL
PROJECT NUMBER	00000000120507

THIS DRAWING HAS BEEN PREPARED UNDER THE AUTHORITY OF RICHARD A. SHOEMAKER TEXAS P.E. NO. 64598 DATE: NOV. 30, 2012 FOR THE SOLE PURPOSE OF INCLUSION IN PRELIMINARY ENGINEERING REPORT

IT IS NOT TO BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSE.

**PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1**  
Mineral Wells, TX

**TURKEY PEAK DAM &  
RESERVOIR PROJECT**

TURKEY PEAK DAM EMERGENCY SPILLWAY PLAN - SITE OVERVIEW		FILENAME	02C-01 & 02C-03.dwg	SHEET	02C-01
0 1" 2"		SCALE	1"=100'		

**Attachment C – Revised Mitigation Plan**



# **PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

## ***REVISED MITIGATION PLAN***

### **APPLICATION FOR DEPARTMENT OF THE ARMY INDIVIDUAL PERMIT**

**Palo Pinto County Municipal Water District No. 1  
Proposed Lake Palo Pinto Storage Restoration Project at Turkey Peak**

**USACE Project No. SWF-2009-00264**

**February 2015**

**Prepared for:  
Palo Pinto County Municipal  
Water District No. 1  
PO Box 387  
Mineral Wells, Texas 76068**

**Prepared by:  
HDR Engineering, Inc.  
4401 West Gate, Suite 400  
Austin, TX 78757**

# Mitigation Plan

## Part I: Project Information

Project Name: **Lake Palo Pinto Storage Restoration Project at Turkey Peak**

SWF Permit No.: **SWF-2009-00264**

Project Location: **Northwest of Santo, Texas**

Mitigation Site Location(s) (if different): **On-site and west of Strawn, Texas**

Watershed(s): **Palo Pinto Creek**

County or Counties: **Palo Pinto and Stephens Counties, Texas**

*Note to Reader: The mitigation plan that follows is prepared in accordance with and follows the Fort Worth District recommended format posted on the District's webpage (as of July 28, 2014).*

The Palo Pinto County Municipal Water District No. 1 (hereinafter referred to as the District or Applicant) operates the existing Lake Palo Pinto in Palo Pinto County, Texas. The Applicant proposes to construct the Lake Palo Pinto Storage Restoration Project at Turkey Peak (herein referred to as proposed project or reservoir). This revised mitigation plan is submitted as an update to the Application for Department of the Army Individual Permit (IP) provided to the Fort Worth District of the U.S. Army Corps of Engineers (USACE) on July 9, 2009 to initiate the process for approval to impact waters of the U.S., including wetlands (WOTUS), under Section 404 of the Clean Water Act (CWA), and also as a revision to the conceptual mitigation plan subsequently submitted in June 2011.

Additional detailed background information is contained in a separate permit amendment application for water right held by the District that was submitted to the Texas Commission on Environmental Quality (TCEQ) on January 30, 2009.

This mitigation plan is a required attachment of the larger IP application, which is paired with the water rights permit amendment application. With this in mind, the mitigation plan is designed to reflect the requirements of both Section 404 of the CWA and TCEQ regulations, including the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (Federal Register Vol. 73, No. 70; April 10, 2008) [hereafter referred to as the 2008 Mitigation Rule]. This document and the water rights permit amendment application should be reviewed together since various parts of each document rely on the information in the other. Incorporation of information by reference between documents is warranted, acceptable, and expected due to the size of the individual documents in question. Reproduction of all these documents for incorporation into the mitigation plan or IP application is not required by the USACE, is not practical, and is not required under National Environmental Policy Act (NEPA).

## **Part II: Avoidance and Minimization**

### **1. Avoidance**

Impacts to waters of the U.S. (WOTUS) were avoided to the maximum extent practicable through the reservoir site selection screening process and design measures utilized for the expansion of storage volume. An alternatives analysis was performed for seven storage sites identified as potential locations for the expansion of current surface water storage. Additional information on comparison of alternatives is found in Attachment F of the IP document, the water rights permit amendment application, and other supporting and supplemental documentation. This analysis shows the proposed project is the least environmentally damaging practicable alternative.

## 2. Minimization

The Applicant will take appropriate and practicable on-site measures in the design and operational plans for the proposed project in order to minimize adverse impacts to waters of the U.S. that can not be reasonably avoided. These measures will include, but are not limited to, water quality protection and maintenance of pool habitat and aeration downstream of the outlet works channel as well as maintaining existing downstream flows.

Best Management Practices (BMPs) will be used to control erosion and sedimentation during construction of the proposed project and to control total suspended solids following construction. Areas temporarily disturbed by construction will be re-contoured and re-vegetated as appropriate to minimize adverse impacts to water quality. The Applicant has prepared the TCEQ Tier II 401 Certification Questionnaire and Alternatives Analysis Checklist for Clean Water Act Section 401 water quality certification (included in the Individual Permit application submitted to the USACE on July 9, 2009).

The Applicant will include design measures and implement BMPs within the proposed project area to enhance water quality in the aquatic ecosystem of Palo Pinto Creek downstream. The design and construction of a multi-level outlet tower for water release will maintain acceptable dissolved-oxygen (DO) levels and water quality downstream of the proposed reservoir. The outlet works will include 4 gates with their invert elevations set 10, 20, 34 and 49 feet below the reservoir's conservation level. This measure will assure that water is released from the top 15 feet of the reservoir regardless of the lake level to maintain acceptable DO and temperature levels and minimize the adverse impacts associated with releasing water from the bottom portion of the 70 feet deep conservation pool. The water quality benefits of the multi-level outlet tower are anticipated to increase DO levels above acceptable levels approximately 11–17% of the time above the existing releases from Lake Palo Pinto which has a fixed outlet set at an elevation which is 32 feet below the reservoir's conservation level (see December 23, 2010, memo to TCEQ which was also submitted to the USACE).

The Applicant proposes to provide for the continued maintenance of the existing channel dam located downstream of the FM 4 bridge and the proposed outlet channel. In addition to providing a pool habitat, the existing channel dam will serve as a drop structure and provide additional aeration to the water released to Palo Pinto Creek. This will further minimize adverse impacts to the existing aquatic environment downstream of the new dam. The section of Palo Pinto Creek between the proposed outlet works and the existing Farm-to-Market Road (FM) 4 bridge will be protected from erosion, as appropriate, to minimize the impacts from high velocity water in the spillway channel.

To minimize impacts to Palo Pinto Creek downstream of the proposed project, the Applicant proposes flow releases so that the stream will experience a flow regime that mimics existing conditions. The Applicant will compute daily reservoir inflows and track seasonal drought conditions (wet, average, and dry) for the middle Brazos Basin as computed by the Palmer Hydrological Drought Index (PHDI). Inflows originating in the 7 square mile contributing drainage area below the existing Lake Palo Pinto dam will be computed as 1.5% of the total inflow (7 square miles is 1.5% of the total drainage area of the proposed Turkey Peak Reservoir). Inflows originating in the 7 square miles will be subject to in-stream flow requirements and the District will release 4 cubic feet per second (cfs) during wet conditions, 2 cfs during average conditions, and 1 cfs during dry conditions to satisfy base-flow requirements.

If the inflow originating in the 7 square miles is less than the base-flow requirements, the District will release half of the difference between the inflow rate and 1 cfs to satisfy subsistence flow requirements. Separate from the environmental flow requirements and to accommodate downstream senior water right holders, the District will release inflows at rates up 170 cfs within a 4-day period to satisfy priority calls. Reservoir spills will still occur from the uncontrolled spillway when the reservoir is full. This flow regime provides minimal change to how the existing stream reach receives flow today.

The proposed flow releases will minimize adverse impacts to Palo Pinto Creek downstream of the proposed project by maintaining flows within the stream and enhancing water quality. This action will also minimize impacts by continuing flow variability, and transferring organic matter and nutrients required for the maintenance of a healthy aquatic ecosystem. This activity will be performed by the Applicant based on reservoir operations and reported in accordance with the water rights authorization from the TCEQ.

## **Part III: Compensatory Mitigation**

### **1. Goals and Objectives**

The goals of the proposed mitigation plan include:

1. Avoid and minimize impacts to waters of the U.S. caused by the proposed project to the maximum extent practicable.
2. Provide for the replacement of the chemical, physical, and biological functions of the WOTUS that will be lost or degraded as a result of the proposed project.
3. Provide for the establishment, restoration, enhancement, and preservation of aquatic resources within the watershed in order to sustain the ecological functions and aesthetic values of aquatic communities within the landscape of the proposed project.

The proposed mitigation plan includes the following objectives:

1. The restoration of approximately 1,557 linear feet (LF) of stream channels with associated riparian buffers in a mitigation area upstream of the proposed reservoir within the Palo Pinto Creek watershed;
2. The enhancement of approximately 20,013 LF of stream channels with associated riparian buffers in a mitigation area upstream of the proposed reservoir within the Palo Pinto Creek watershed;
3. The preservation of approximately 2,600 LF of stream channels with associated riparian buffers adjacent to the proposed reservoir;
4. The establishment of approximately 55,310 LF of lacustrine shoreline aquatic habitat along the littoral zone of the proposed reservoir with associated riparian buffer habitat up to an elevation that is approximately 33 feet in elevation above the conservation pool of about 867 feet above mean sea level for approximately 95% of the shoreline;
5. The development of a shoreline management and protection plan so that the established lacustrine shoreline habitat achieves sustainability and will limit the amount of maintenance required by repairing and mimicking ecological functions of sediment transport/development, energy dissipation, groundwater interaction, surface water storage/transport, geomorphic/topographic development, nutrient/chemical cycling, carbon/organic matter cycling, biodiversity support and landscape corridors. This plan shall include a limitation of native vegetation clearing and restriction on bulk heading shoreline areas, except where needed to protect infrastructure as shown in the plan.



## 2. Site Selection

Based on the scale and nature of the proposed project, the Applicant plans to provide compensatory mitigation by permittee-responsible mitigation under a watershed approach consistent with the 2008 Final Compensatory Mitigation Rule. The proposed compensatory mitigation measures and site selection consider the practicability and capability for offsetting impacts to aquatic resource functions in the vicinity of the project given the geologic and land use constraints. This includes likelihood for ecological success and sustainability; logistical and local stakeholder factors; location and significance in the watershed; and potential cost of the mitigation measures. The proposed measures for compensatory mitigation use the principles of a watershed approach to the extent practicable in order to maintain and improve the quality and quantity of aquatic resources within the watershed by strategic selection of compensatory mitigation. This watershed approach considers the aquatic resource needs of, and desired functions in, the watershed as well as the importance of landscape position and resource type of compensatory mitigation for sustainability of aquatic resource functions within the watershed. Mitigation sites were selected based on their hydrologic and ecological potential to maximize the likelihood of enhancing naturally, self-sustaining aquatic resources in the watershed.

In addition to on-site mitigation measures, a 450-acre upstream mitigation site along Palo Pinto Creek and several tributaries, 19 miles southwest of the project area, was identified based on the occurrence in the Palo Pinto Creek watershed, proximity to the proposed Palo Pinto Mountains State Park (i.e., protected conservation area), and property availability (see Figure 1 in **Attachment A**). Given the current condition and previous land uses, this upstream mitigation site provides an opportunity to restore stream habitat and enhance the quality of aquatic resources within the local watershed with high likelihood of success. The watershed of the area immediately surrounding this upstream mitigation site is rural and primarily undeveloped, with the exception of agricultural (i.e., grazing and pond construction) activities. Given the watershed characteristics and potential for natural hydrology and native vegetation at this mitigation site, the selection of this upstream mitigation site is practicable for promoting successful, self-sustaining mitigation.

Several alternatives for compensatory mitigation were also considered for the proposed action. First the potential to enhance the portion of Palo Pinto Creek downstream of the project area including livestock exclusion to enhance both stream and riparian habitat conditions. However, due to the number of landowners over the length of Palo Pinto Creek and fencing installation and maintenance requirements resulted in a determination that this alternative was not practicable.

Additionally, the use of "entrepreneurial" mitigation bank credits was considered but is not proposed in this mitigation plan. There is one mitigation bank with a service area that includes the proposed project (see table below), but use of mitigation bank credits is not practicable due to the cost per credit based on current mitigation bank pricing, which would be an excessive burden on the Applicant, a public entity and their water customers, considering the practicability and ecological benefit of enhancing aquatic resources in the same watershed as the proposed action.

Mitigation Bank	Credit Type	Service Area	Distance (Aerial Miles)
Fall Off Creek	Legacy Stream credits only	Secondary	98

The use of the proposed mitigation sites is environmentally preferable for functional replacement and is anticipated to provide sufficient compensatory mitigation. Additionally, the use of mitigation measures outlined in **Part III, Section 5** (Mitigation Work Plan) of this document, along with an Adaptive Management Plan, will maximize the likelihood of establishing ecologically self-sustaining aquatic resources.

The Applicant and their customers (consisting largely of local residents) have experienced increased operational and infrastructure expenditures as the result of conservation and emergency drought response projects in the recent past. The use of the proposed Palo Pinto Creek upstream mitigation site will meet the 2008 Mitigation Rule requirements, reduce the financial burden on the residents, and allow the enhancement of natural resources in the watershed (i.e., downstream portions of Palo Pinto State Park), that will be accessible to the stakeholders.

### **3. Liens, Easements or Encumbrances**

Liens, easements or encumbrances on the mitigation sites are not anticipated to impact the mitigation activities and success criteria based on the Applicants planning described below.

Based on the Title Commitment for the upstream mitigation site, approximately 11 pipeline and utility easements may occur in portions of the site. Most of the easements allow access to the site, and may have ended due to lack of use. Only two pipeline easements are evident and in use based on the survey of the site, and these do not have a specified width, therefore the assumption for these easements is that maintenance would occur within 15 feet of the existing pipeline. Portions of the aquatic resources used as mitigation that are within these existing pipeline easements and encumbrances are not included in the determination of credits described herein and as shown on Figure 2-2 in **Attachment D**. Information on the liens, easements, and encumbrances for the on-site mitigation on property acquired by the District for the proposed project will be provided to the USACE during the real-estate acquisition process.

Mineral resources, including natural gas and oil, may exist under the mitigation sites. The District would not own subsurface mineral rights, and cannot control a mineral owner's access to those minerals. However, the District will endeavor to work with mineral rights owners and lessees prior to the further development of mineral resources. The District would provide guidelines and identify areas that are away from the aquatic resources and associated buffers utilized as mitigation in order that development of mineral rights avoids and minimizes impacts to the mitigation sites to the extent practicable.

The exploration for, and production and transportation for, subsurface mineral resources beneath the mitigation sites is acceptable provided the amount of ground disturbing activities and surface alterations are minimized to the maximum extent practicable; activities are conducted in a manner that minimizes adverse environmental impacts; impacted areas are restored to pre-existing conditions as soon as practicable; reasonable and appropriate compensatory mitigation is achieved; and the entity conducting the activities complies with all applicable regulatory requirements, including Section 404 of the CWA. The District will work with the entity conducting the activity to replace/restore aquatic resources used as mitigation depending on the extent and location of adverse impacts associated with mineral exploration and/or extraction activities, as determined by the USACE.

The District will maintain right-of-entry and control as necessary for mitigation through ownership of properties in fee or by leases/easements as discussed in more detail in **Part III, Section 8**.

## 4. Baseline Information / Site History

### Ecological Conditions for the Impact Site

A summary of ecological conditions for the proposed project impact site is provided below. The delineation of the waters of the U.S. found in Attachment C of the Individual Permit application provides detailed descriptions of the aquatic resources, existing vegetation, surrounding land uses, and local geology and soils within the project area, which is the site of impacts and mitigation (i.e., on-site). Ecological condition for streams at the impact site was determined by using the Texas Rapid Assessment Method (TXRAM) and can be found in **Attachment E** of this mitigation plan.

The following information summarizes the existing conditions at the impact site, including the artificial and degraded quality of the impacted waters of the U.S., as it relates to the determination of mitigation requirements. Waters of the U.S. in the proposed project area include Palo Pinto Creek, a historically intermittent stream prior to the construction of Lake Palo Pinto which is now artificially maintained as perennial through non-required water-supply releases, and secondarily from flow of intermittent and ephemeral tributaries. Two small non-forested wetlands and an on-channel impoundment also occur within the proposed project area. The waters of the U.S. impacted for construction of the proposed project and inundation at the conservation pool elevation include 44,738 LF of stream and 0.1 acre of wetland. A 0.78-acre on-channel impoundment within the proposed project area will not receive discharge of fill and will not have permanent impacts as a result of inundation. Prior to the construction of Lake Palo Pinto, Palo Pinto Creek experienced no flow about 40% of the time based on flows recorded at the USGS stream gage near Santo, Texas which is located about 10 miles downstream of Lake Palo Pinto. At present, Palo Pinto Creek downstream of Lake Palo Pinto experiences no flow between about 10 and 13% of the time. In addition, the high aquatic life use within Palo Pinto Creek that has resulted from the District's historic non-required water supply releases has been accompanied by a reduction in the floodplain connectivity of the stream. The development of Lake Palo Pinto upstream has likely caused the channel of Palo Pinto Creek below the existing dam to become wider and more incised than it was historically. This has subsequently reduced the effective floodplain and limited the riparian corridor to an average of 150–200 feet wide. Thus, the floodplain and riparian functions along Palo Pinto Creek downstream of Lake Palo Pinto are reduced compared to the historical condition of this stream and the natural condition of other streams in the vicinity.

### Ecological Conditions for the On-site Mitigation

The ecological conditions for the on-site mitigation are generally similar to the existing vegetation, surrounding land uses, and local geology and soils within the project area, which is the site of impacts discussed above (and described in the delineation of the waters of the U.S. found in Attachment C of the Individual Permit application). Furthermore, a description of the proposed ecological conditions of the on-site mitigation by establishment of lacustrine shoreline aquatic habitat with associated buffers is described in **Attachment I**.

### Ecological Conditions for the Upstream Mitigation Site

At the mitigation site along Palo Pinto Creek and tributaries that is upstream of the proposed project (i.e., impact area), the streams and riparian buffers are currently degraded due to past agricultural land uses, such as cattle grazing. Additionally, in Palo Pinto Creek, a channel dam

structure was built presumably for historic water supply to serve rail and/or oil and gas operations which creates an impoundment of the channel. An earthen dam was also constructed on an ephemeral tributary to create an impoundment for livestock. Along the majority of Palo Pinto Creek and tributaries, the riparian corridor has been invaded by Ashe juniper (*Juniperus ashei*) and subject to heavy cattle grazing that has caused erosion, sedimentation, and degradation of the native plant community. A delineation of waters of the U.S. for the upstream mitigation site is in **Attachment B**.

Representative ecological condition for streams within the proposed upstream mitigation site was determined by using TXRAM and can be found in **Attachment E** of this mitigation plan.

A Phase I Environmental Site Assessment was performed for the District by Adams Environmental, Inc. dated May 23, 2014. A summary of the results from this report are provided below, with historic aerial images and site photos from the report provided in **Attachment J**. Based on site reconnaissance and research and review of available historic and physical setting information, the upstream mitigation site was historically used for ranching and oil and gas exploration and production. Remnants of a reported oil refinery seen in the 1947 aerial photograph but not apparent in subsequent photographs were observed along the southern boundary of the eastern half of the site, as evidenced by dilapidated foundations and concrete footings. No evidence of stained soils, unusual odors, stressed or dead vegetation, or other indicators of media contamination was observed at these locations, and there was no definitive historical evidence that an actual refinery was located on the site. These remnant foundations do not occur within the riparian buffers of the proposed stream mitigation segments. There are records of seventeen oil/gas wells recorded on the site. Ten of these are plugged, four were recorded as dry holes, one as a permitted location, one unaccounted oil well (identified in database, but could not be verified at coordinates), and one oil/gas well (identified in database, but could not be verified at coordinates). Surface features indicating the locations of several well sites were observed at the time of the site reconnaissance; however, a majority of the wells were no longer visible or were not located at the coordinates listed within the records, and no evidence of active wells occurs within the site. Two small diameter crude oil and natural gas pipelines traverse the eastern half of the subject property. As discussed in **Part III, Section 3**, the portions of stream within pipeline easements are not included in the mitigation credits calculation. No additional investigations of potential impacts associated with the oil/gas activity and production sites and pipelines were recommended. No other regulated facilities, evidence of hazardous substances, or recognized environmental conditions were found on the site. Therefore, the upstream mitigation site is suitable and ecologically preferable for the proposed mitigation activities described herein.

## 5. Mitigation Work Plan

The Applicant proposes on-site and near-site mitigation measures under a watershed approach to compensate for the unavoidable impacts to waters of the U.S. caused by the proposed project. The following mitigation work plan describes the proposed mitigation by activity type. These activities include stream restoration, enhancement, and preservation as well as lacustrine shoreline habitat establishment and protection. A figure illustrating the mitigation plan is shown in **Attachment D**, Figure 2. It is anticipated that the proposed mitigation work plan described below will achieve the goals and objectives of this mitigation plan by providing the functional replacement value for unavoidable adverse impacts to the aquatic ecosystem.

The proposed compensatory mitigation measures consider the practicability and capability for offsetting impacts to aquatic resource functions in the vicinity of the project given the geologic and land use constraints. This includes the likelihood for ecological success and sustainability, the location and significance in the watershed, and the potential cost of the mitigation measures. The proposed measures for compensatory mitigation use the principles of a watershed approach to the extent practicable in order to maintain and improve the quality and quantity of aquatic resources within the watershed by strategic selection of compensatory mitigation. This watershed approach considers the aquatic resource needs of and desired functions in the watershed as well as the importance of landscape position and resource type of compensatory mitigation for sustainability of aquatic resource functions within the watershed.

### Stream Restoration

At the upstream mitigation site, a portion of Palo Pinto Creek is currently degraded by the presence of a channel dam structure as well as agricultural land uses which have altered flows, eroded banks, and caused excessive sediment deposition. An ephemeral tributary to Palo Pinto Creek at the mitigation site has also been degraded by an earthen dam to create an impoundment. Furthermore, invasion by Ashe juniper and heavy cattle grazing has caused erosion, sedimentation, and degradation of the native plant community.

The Applicant proposes to restore approximately 1,557 LF of intermittent and ephemeral streams as mitigation for the proposed project. In the currently impounded and degraded streams, a natural channel will be restored by modifying in-channel structures so they will not impound flow, and selective re-grading of the channel to replicate natural contours similar to upstream and downstream segments. In addition to re-vegetation by the native seed bank and natural succession from the surrounding seed source, approximately 5 acres of riparian habitat along the stream restoration areas would be restored by planting grasses and forbs from seed in select, suitable areas of previously degraded portions of the riparian corridor and adjacent uplands. The Applicant would perform select removal of shrubs/brush to enhance the riparian buffer vegetation community. The Applicant would also exclude cattle from and protect the stream restoration areas as discussed in the enhancement section below. The stream restoration activities will provide in-kind mitigation by replacing the chemical, physical, and biological functions of the streams impacted by the proposed project within the same watershed.



### *Stream Restoration Practices*

Examples of stream restoration practices used during restoration actions are provided below from a USACE guidance document and focus on principles of fluvial geomorphology. Implementation of all the listed examples is likely not feasible or necessary for each case of stream restoration, and instead each location will be assessed and the appropriate practices will be applied as necessary. Upon approval of the proposed mitigation activities, HDR's water resource engineers with extensive experience in natural stream channel design would assess and design the proposed stream restoration segments.

- Riparian areas will be restored as soon as practicable by planting herbaceous vegetation.
- Restored streams will be constructed with slopes appropriate to soil conditions, engineering design, grade, and as necessary to reduce erosion.
- Stream banks will be terraced where appropriate in order to create broad floodplains for development of streamside vegetation and riparian systems.
- Boulder clusters using native rock will be located to provide reduced flow, increase microhabitats, and increase substrate diversity.
- Livestock will be excluded or managed to reduce impact to slopes or other sensitive locations to reduce adverse impacts that may occur close to or adjacent to streams.
- Re-grading and re-vegetation of previously constructed earthen embankments will be performed to reduce retention, restore flow, and minimize erosion and sedimentation.

### Stream Enhancement

The Applicant proposes stream enhancement activities on Palo Pinto Creek and tributaries at the upstream mitigation site. Palo Pinto Creek and tributaries at this site are degraded as a result of agricultural activities, including livestock grazing, which have impacted stream functions. The stream enhancement activities would include excluding livestock, removing invasive shrubs, and establishing native grasses and forbs.

The Applicant would also provide enhancement of the aquatic habitat in approximately 20,013 LF of Palo Pinto Creek and tributaries by excluding cattle from the riparian buffers using fencing in order to reduce the impacts of livestock accessing the streams. By reducing livestock access to the streams, the Applicant would enhance aquatic functions by reducing erosion and high nutrient loads and improving water quality and riparian habitat. The Applicant would construct fencing to eliminate livestock access to the streams and associated riparian buffer areas while minimizing future maintenance requirements. The riparian buffer of streams at the mitigation site have been invaded by Ashe juniper as a result of past land uses, and thus the Applicant proposed select removal of shrubs/brush to enhance the riparian buffer vegetation community. The stream enhancement areas (approximately 39 acres) would also be protected from unauthorized activities such as mowing, cutting, and herbicide application. In addition to re-vegetation by the native seed bank and natural succession from the surrounding seed source, the riparian habitat along the stream enhancement areas would be restored by planting native grasses and forbs from seed (including at least six species from the list below) in select, suitable areas of previously degraded portions of the riparian corridor and adjacent uplands.

#### Native Grass/Forb Seed List:

- Little bluestem (*Schizachyrium scoparium*)
- Big bluestem (*Andropogon gerardii*)
- Sideoats grama (*Bouteloua curtipendula*)
- Blue grama (*Bouteloua gracilis*)
- Buffalograss (*Buchloe dactyloides*)
- Curly mesquite (*Hilaria belangeri*)
- Texas cupgrass (*Eriochloa sericea*)
- Prairie wildrye (*Elymus canadensis*)
- Cane bluestem (*Bothriochloa barbinodis*)
- Maximillian sunflower (*Helianthus maximiliani*)
- Plains coreopsis (*Coreopsis tinctoria*)
- Prairie coneflower (*Ratibia columnifera*)

Monitoring and control of non-native/invasive species would be performed as necessary. The stream enhancement activities will promote ecological functions of the riparian buffer and in-stream habitat.

The benefits of livestock exclusion that promote stream enhancement include reducing herbivory, trampling, and water quality impacts. Enhancement activities also allow regeneration/succession of the native plant community and restoration of natural processes by removing a source of stress and impact. The need to plant trees is not anticipated because of the nearby, reliable seed source and natural succession. The stream enhancement activities will provide in-kind mitigation by replacing the chemical, physical, and biological functions of the streams impacted by the proposed project within the same watershed.

#### Stream Preservation

The Applicant will protect the intermittent (approximately 834 LF) and ephemeral (approximately 1,766 LF) streams within the proposed reservoir flood pool elevation as described in more detail below for the shoreline protection. Protecting stream and associated riparian habitat from future development and degradation will provide continuing benefits to the aquatic ecosystem including reducing sediment in the downstream reservoir, maintaining water quality, and sustaining nutrient cycles and organic matter inputs. The preservation of streams and associated riparian habitat adjacent to the proposed project would provide in-kind mitigation by protecting existing stream habitat and functions within the same watershed.

#### Lacustrine Shoreline Habitat Establishment and Protection

Land uses in the vicinity of the proposed project have not resulted in modification (i.e., channelization, relocation, or flood control efforts) to stream and river segments that is typical of broader floodplains in East and Central Texas. Therefore, combined with the relative scarcity of perennial waters in the region, potential large-scale stream restoration projects are not readily available to serve as a significant source of compensatory mitigation for the proposed project. In addition, the exceptional drought conditions of the region during the past several years have provided clear documentation of the variable climatic conditions and natural cycles that can severely limit the availability of aquatic habitat in the project area. By providing reasonably sustainable and reliable aquatic habitat, the proposed reservoir with its approximately 55,310 linear feet of lacustrine shoreline with natural substrate (excluding the existing and proposed dams and other infrastructure) and 650 acres of aquatic habitat, will

itself be a highly valuable mitigation measure for functional replacement of the impacted resources. In drought years when Palo Pinto Creek upstream of Lake Palo Pinto and Turkey Peak Reservoir ceases to flow, the proposed reservoir itself will serve as a refugium for most of the aquatic life species living along Palo Pinto Creek. Furthermore, the aquatic habitat established by the proposed reservoir follows a watershed approach for compensatory mitigation by maintaining and improving the quality and quantity of aquatic resources within the watershed, while providing sustainable and necessary aquatic resource functions important to the landscape. Additionally, the impacted reach of Palo Pinto Creek is an artificially perennial stream that has been influenced by non-required water supply releases from Lake Palo Pinto which have resulted in the stream experiencing no flow between about 10 and 13% of the time currently, as opposed to not flowing about 40% of the time historically. Therefore, since the primary impacts of the proposed downstream reservoir expansion are to an aquatic resource that is under artificial control and degraded from past land uses, the establishment of lacustrine shoreline provides appropriate functional replacement.

As a direct result of the proposed project, the Applicant will establish (i.e., create) a lacustrine aquatic resource that did not previously exist, which results in a gain in aquatic resource area and functions. At the conservation pool elevation of approximately 867 feet above mean sea level (ft-msl), the entire lacustrine resource establishment will cover approximately 650 acres. The proposed project is anticipated to establish approximately 55,310 linear feet of lacustrine shoreline with associated littoral and buffer habitats. The applicant proposes to limit most development, land uses, and clearing along the proposed shoreline to provide aquatic resource benefits. Thus, the lacustrine shoreline establishment and protection is anticipated to provide a portion of the functional replacement for aquatic resource impacts resulting from the proposed project.

In order to quantify the functional replacement of stream habitat by lacustrine shoreline, aquatic and wetland scientists employed by HDR have developed a process and methodology to evaluate the equivalent functional replacement associated with the establishment of lacustrine habitat as compensatory mitigation for stream habitats. This is described in more detail in a discussion of the lacustrine shoreline assessment and mitigation process, along with, project-specific information related to this process, that provides justification of the functional replacement as well as an ecological condition evaluation (see **Attachment I**).

Additionally, it is anticipated the shoreline will be conducive to the development of sufficient shallow areas at the various water surface elevations to result in fringe wetland habitats in the littoral zone (e.g., confluence of tributaries, upstream backwater areas, etc.) to functionally compensate for the 0.1 ac of wetlands that will be inundated. Therefore, no additional off-site wetland mitigation areas are proposed.

The Applicant proposes to manage and protect the lacustrine shoreline established by the proposed project to provide the benefits of the aquatic functions and ecological condition to the watershed. The Applicant proposes to limit most development and clearing of property acquired along the shoreline of the proposed reservoir through creation of a shoreline management and protection plan, as described in more detail in **Attachment I**. The Applicant will likely purchase the property outright to provide legal protection of this area (see **Part III, Section 8**).

## 6. Determination of Credits

The Applicant proposes to provide permittee-responsible mitigation using a watershed approach for adverse impacts to waters of the U.S. by establishing, restoring, enhancing, and preserving waters of the U.S. as described in **Part III, Section 5**. The determination of credits is described in more detail in **Attachment F**, and is based on 1) the net increase in ecological conditions of streams as demonstrated using TXRAM, 2) the functional replacement and ecological condition of the proposed lacustrine shoreline, and 3) the proposed stream preservation at the USACE-accepted ratio of 15:1 (not a requirement at the time of the permit application in 2009, but in accordance with current guidelines). An explanation of how the proposed mitigation will compensate for unavoidable impacts to aquatic resources resulting from the proposed project is provided in **Attachment F** by comparing the project impact "debits" and mitigation "credits."

The rationale for the determination of credits include: (1) assessment of the quantity and quality of impacted WOTUS, (2) the types of mitigation measures described in this plan and the anticipated functional "lift", and (3) other factors such as out-of-kind mitigation, temporal loss, failure risk, and local threats to the aquatic environment.

Mitigation credits as shown in **Attachment F** are appropriate for the proposed mitigation measures based on the following:

- Temporal loss of function will be minimized by contemporaneous mitigation with the proposed project impacts. Mitigation measures will be initiated concurrently with dam construction, to the extent practicable, and inundation by the reservoir will occur over time, when several mitigation measures have already started producing functional lift and replacement.
- Mitigation credits are based on an evaluation to determine the ecological lift and functional replacement of the proposed mitigation measures when compared to the quality of the impacted resources. Additional information is provided in **Attachment F**.
- Mitigation uses a watershed approach, thus the credits do not require any decrease for location in a different watershed or ecoregion.
- Mitigation measures include in-kind stream restoration and enhancement.
- Establishment of lacustrine shoreline aquatic habitat along the proposed reservoir provides functional replacement for similar structural and functional impacted stream habitat that is under existing artificial control and/or degraded by past land uses, as described in more detail in **Attachment I**.
- Mitigation has a high likelihood of success due to site characteristics and the mitigation work plan. The potential risk of failure for the proposed mitigation is diminished due to the presence and replication of existing, reliable hydrology, as well as the implementation of the proposed success criteria and management plan.
- The mitigation plan minimizes local threats which could affect the proposed mitigation measures. No activities will occur in the areas used as mitigation which could be detrimental or restrict the proposed mitigation from providing the anticipated ecological functions.

### Mitigation Credit Summary

Based on the proposed mitigation activities described above, the impacts to 44,738 LF of stream will be offset by establishment of approximately 55,310 LF of lacustrine shoreline,

restoration of 1,557 LF of stream, enhancement of 20,013 LF of stream, and preservation of approximately 2,600 LF of stream. As shown in **Table 3 of Attachment F**, total stream debits of 26,033 would be offset by total mitigation credits of 39,763. The mitigation credits were determined based on the process discussed above and described in more detail in **Attachment F**. Therefore, the proposed mitigation will provide the required compensation (i.e., mitigation credit) to offset unavoidable impacts to aquatic resources resulting from the proposed project.

#### Texas Rapid Assessment Method

Impacts to aquatic ecosystem functions are considered in the mitigation planning process to allow (1) adequate replacement of functions and (2) establishment, restoration, enhancement, or preservation of the required linear feet or acreage, in accordance with USACE requirements.

The Texas Rapid Assessment Method was published by the U.S. Army Corps of Engineers, Fort Worth District on March 24, 2011 (final draft version), as the preferred method to provide an evaluation of ecological condition of waters of the U.S. (i.e., wetlands and streams) within the Fort Worth District's jurisdiction. The method, although in final draft form, is available for immediate use and is expected to streamline and improve the process of impact assessment and mitigation calculation for Section 404 permitting. The TXRAM scores, in addition to linear feet units for stream impacts were used to determine debits.

TXRAM was performed for all impacted streams in the project area, and an overall score for each stream was calculated using the TXRAM scoring sheet (see **Attachment E** of this mitigation plan). Additionally, TXRAM was performed for the existing conditions of streams proposed for restoration/enhancement activities. TXRAM scores were also calculated for the mitigation streams following mitigation activities to determine the ecological lift demonstrated by the change in TXRAM score (see **Attachment E** of this mitigation plan).

In summary, the TXRAM evaluation assesses the conditional impacts to streams at the project area as well as the projected ecological lift to streams proposed for mitigation. The results of the TXRAM evaluation were used in the determination of mitigation requirements as discussed in **Attachment F**.

## 7. Maintenance Plan

Maintenance practices conducted by the Applicant following initial establishment, restoration, enhancement, and preservation of mitigation areas may include activities such as:

1. Annual monitoring of ecological conditions.
2. Annual visual monitoring for any impacts from unauthorized activities (i.e., grazing, off-road vehicles, cutting, trespassing).
3. Annual maintenance or repair of necessary mitigation activities (e.g., fencing) to ensure mitigation success.
4. Annual monitoring for growth of non-native/invasive species with control practices as necessary.
5. When applicable, erosion control measures and re-planting approved native vegetation to meet performance criteria.



## 8. Perpetual Site Protection Instrument

The Applicant will provide site protection for mitigation areas in accordance with regulatory requirements and the 2008 Mitigation Rule. Site protection will be accomplished when mitigation activities described in this mitigation plan are complete and have met performance standards. Site protection cannot be fully implemented until the project is initiated since the mitigation areas are not currently in place with property acquisition, survey, and mitigation work. The only exceptions to site protection for mitigation areas shall be easements in existence prior to authorization of the Individual Permit or new areas where owners of oil and gas mineral rights exercise drilling rights in the future.

The mitigation areas to be established will be within and near the proposed project area and designated, by the 2008 Mitigation Rule, as permittee-responsible mitigation. The on-site and upstream mitigation areas will occur on properties currently or to be owned in fee by District. As the owner in fee, the District will provide site protection in the form of conservation easements (when possible) or deed restrictions. The use of conservation easements will be pursued; however, this may not be a viable option in the short- or long-term if willing third-party conservation groups or other approved entities cannot be engaged. Drafts of both conservation easement and deed restriction documents will be provided to the USACE for review and approval, and final executed documents will be provided to the USACE upon completion. Conservation easements may not be possible due to the limited number of third parties who are willing to hold binding contracts necessary for long-term, i.e., "in perpetuity" protection. The District will investigate the possibility of utilizing an acceptable 501(c)(3) organization for a third-party holder of conservation easements on compensatory mitigation areas. Site protection restrictions shall not be removed or modified from any established instruments without written approval of the USACE, and conveyance of any interest in the property must be subject to the established instruments. The Applicant will provide details of site protection needs to the USACE within 365 days following initiation of construction for the proposed project. The protective covenant restrictions shall not be removed from the real estate instruments, conservation easements or transfer agreements, or modified, without written approval of the USACE, and conveyance of any interest in the property must be subject to the protective covenant restrictions.

## 9. Performance Standards

Performance standards for mitigation areas established, restored, enhanced, and preserved by the mitigation plan will ensure mitigation areas are functioning as the intended type of WOTUS and meeting the goals and objectives described in this mitigation plan.

The District will be responsible for maintaining mitigation areas to comply with performance standards until such time as District provides documentation to, and receives verification from, the USACE that aquatic resources in the mitigation areas are meeting the performance standards.

Key performance standards include:

1. Completion of adequate mitigation to satisfy the Objectives (see **Part III, Section 1**).
2. Completion of mitigation work plan elements located in **Part III, Section 5**.
3. Mitigation areas will meet specific success criteria for streams and reservoir shoreline as outlined below.
4. Mitigation streams will be monitored using an appropriate assessment method (e.g., TXRAM) at five years after mitigation activities to determine progress toward target "scores" for ecological lift, and mitigation "lift" scores will be 90 percent or higher on average of their target score.
5. Established lacustrine shoreline will be monitored using an appropriate assessment method (e.g., Lacustrine Shoreline Assessment Method) following reservoir completion to ensure continued progress toward target "scores" for ecological lift.
  - at 2 years following reservoir filling to at or near conservation pool level, mitigation "lift" scores will be 50 percent or higher on average of their target score
  - at 5 years following reservoir filling to at or near conservation pool level, mitigation "lift" scores will be 90 percent or higher on average of their target score
  - If abnormal conditions (drought or flood levels) inhibit the achievement of these percentages of the target scores, then re-evaluation of the target scores at the designated interval may be used for contingency and adaptive management to determine the mitigation credits as discussed in Attachment I
6. Mitigation areas will meet the general success criteria below.

### Success Criteria

The success criteria proposed in this document support the requirements of the 2008 Mitigation Rule.

### *Stream Channels*

1. Stream channels will be stable and not exhibit adverse impacts from erosion, head cutting, and excessive silt accumulation.
2. Riparian buffers will be established within the protected mitigation areas as:
  - a minimum of 25 feet on either side of established ephemeral streams
  - a minimum of 50 feet on either side of established intermittent streams

3. Five years after initiation of mitigation, a minimum ground cover of 75% with native grasses and forbs for areas with canopy cover less than 60%, and a minimum ground cover of 50% with native grasses and forbs for areas with canopy cover 60% and greater.

Variations to the above criteria may be necessary if justified by local conditions during the five-year monitoring periods. Plantings will be monitored and deficiencies rectified by replanting, controlling competing vegetation, guarding against herbivory, or installing temporary erosion control.

#### *Reservoir Shoreline*

1. Shoreline will not exhibit excessive bank erosion or silt accumulation.
2. Shoreline buffer will maintain native vegetation to control erosion and provide habitat for wildlife as discussed in the shoreline protection and management plan section of **Attachment I**, including limits on vegetation clearing and establishment of a conservation easement.
3. The three most dominant vegetation species along the shoreline must be native species.

#### *General Success Criteria*

1. Mitigation areas will have no excessive erosion or bare soils.
2. Sediment retention in stream channels will not accumulate to levels that would impair water quality or aquatic life movements.
3. Vegetation will be healthy and contribute to nutrient cycling, water quality, and wildlife habitat.
4. The establishment of approximately 55,310 LF of lacustrine shoreline aquatic habitat, restoration of 1,557 LF of stream, enhancement of 20,013 LF of stream, and preservation of approximately 2,600 LF of stream with associated riparian buffers within the mitigation areas.
5. Streams will be required to meet or exceed the proposed scores shown in **Attachment E** to demonstrate ecological lift based on TXRAM.
6. Reservoir shoreline will be required to meet or exceed the anticipated scores by category shown in **Attachment I** to demonstrate ecological lift based on an appropriate assessment method (e.g., Lacustrine Shoreline Assessment Method or similar)

Note: Target scores used in success criteria reflect the results of a TXRAM evaluation of existing and proposed conditions of mitigation streams and a similar conditional assessment (i.e., Lacustrine Shoreline Assessment Method) of reservoir shoreline habitat anticipated for the proposed project (see **Attachments E and I** of this mitigation plan for additional information on the evaluations).

## 10. Monitoring Requirements

The District will ensure sufficient financial resources are allocated to perform monitoring activities as noted in **Part III, Section 13**. The District will be responsible for monitoring and reporting.

### Self-Monitoring and Reporting

The District will establish and implement a self-monitoring program that includes the following actions as provided by the USACE in past authorizations of Section 404 permitting actions.

1. Designation, in writing, of a responsible party or position, who shall coordinate with the USACE on-site inspections and compliance with permit conditions; and
2. Implementation of a reporting program that includes submittal of written compliance reports to the USACE, due October 1 each year. These reports will outline compliance with the special conditions, summarize all activities that occurred during the reporting period, and provide notification of completion of all authorized work. These reports will document the activities that have occurred from June 1 of the preceding year to May 31 of the reporting year.

Compliance reports shall include at a minimum:

- a. the approximate acreage, location, type, and description of waters of the U.S. impacted during the reporting year;
- b. the approximate acreage, location, type, status, and completion date (actual or projected) of the ongoing mitigation that occurred during the reporting period;
- c. a description of the completed mitigation activities, including a map showing the location of waters of the U.S. established, restored, enhanced, or preserved and supporting documentation including vegetative species and planting rates;
- d. representative photographs of the progress and success of mitigation work accomplished under this permit; and
- e. a cumulative summary of impacted and mitigation waters of the U.S., categorized by type.

The District proposes to perform an appropriate assessment method (e.g., TXRAM or similar) on mitigation waters (streams and reservoir shoreline) in five years and update on approximately two-year increments until success criteria are achieved. Results would be included in the annual reporting discussed above.

Compliance reports are required even if no work is conducted during the reporting period. The District will submit compliance reports until the USACE has verified that all mitigation areas have met the standards of applicable special conditions.

## 11. Long-term Management Plan

The District will own the mitigation areas around the proposed reservoir, including the established lacustrine shoreline and stream preservation, and will manage them in accordance with the protection and management plan described in **Part III, Section 5** and **Attachment I**.

The District has an agreement to potentially transfer the upstream mitigation areas (approximately 21,570 LF of stream channels with approximately 44 acres of associated riparian buffers) and adjacent upland (approximately 401 acres of undeveloped non-mitigation areas) to Texas Parks and Wildlife Department for inclusion in the proposed Palo Pinto Mountains State Park. The long-term management plan for the mitigation areas will be the responsibility of TPWD and will follow the provisions of the mitigation plan and site protection for long-term sustainability of the restored and enhanced streams. The crossing of ephemeral stream MS-2 by an existing gravel road would have a 30-foot wide corridor that is excluded from site protection for TPWD to maintain access on the site.

General provisions for long-term management of mitigation areas located on District-owned properties include:

1. The mitigation areas will be retained and maintained in perpetuity predominantly in the vegetative and hydrologic condition described in the performance standards of this mitigation plan, and any activities (other than those specified in this mitigation plan) which may affect these conditions must be approved in writing by the USACE, Fort Worth District.
2. There shall be no filling, excavation, or alteration of the mitigation site that will affect the success criteria outlined in this mitigation plan unless approved in writing in advance by the USACE, Fort Worth District.
3. There shall be no livestock grazing within the mitigation areas except with written approval from the USACE, Fort Worth District, if necessary for adaptive management and in accordance with the mitigation performance standards and success criteria.
4. There shall be no mowing, shredding, clearing, or other vegetation disturbance activities within the mitigation areas except for control of non-native and invasive species or limited shoreline access as described in this plan.
5. There shall be no motor vehicles operated within the mitigation areas except for those required to perform permitted mitigation efforts (e.g., planting and erosion control) and only when soils are not at or near saturation.
6. There shall be no horseback riding, recreational ATV operation, or biking within the mitigation areas.
7. There shall be no development within the mitigation areas which alters the natural vegetative and hydrologic conditions of the mitigation areas except as described herein.
8. Any activities related to wildlife habitat management (including hunting) which do not jeopardize the mitigation performance standards are permitted.

9. Access is permitted to the USACE for the purpose of inspection, and to take actions including but not limited to scientific or educational observations and studies, and collection of samples.

No additional long-term management plan documentation is warranted.



## **12. Adaptive Management Plan**

Mitigation areas that result from this mitigation plan are vulnerable (but no more so than any other areas) to acts of nature such as wildfires, climatic instability, wildlife activities, and disease as well as unauthorized human activities that may cause the site to become non-compliant with the mitigation plan. Occurrence of such acts of nature following attainment of performance standards may require changes to the mitigation plan to allow for maintenance activities to offset and counteract negative impacts. Depending upon the circumstances, however, it may be appropriate to allow natural processes to continue, particularly when vegetation is expected to reestablish due to continued existence of seed sources, hydrology, and restrictions on incompatible land uses. As appropriate, the Applicant will discuss options and management decisions on such issues with the USACE.

### 13. Short-term and Long-term Financial Assurances

To ensure mitigation can be completed successfully, the District will develop sufficient financial assurances to meet regulatory requirements and guidance provided in the 2008 Mitigation Rule. Upon approval of the permit for the proposed project, an appropriate instrument, such as a performance bond or letter of credit, will be submitted to and approved as adequate by the USACE prior to impacts to WOTUS approved by the permit decision. As mitigation areas meet the required performance standards, they will be removed from the financial assurances amount calculation. Development of the financial assurance for mitigation areas will consider costs related to the following:

1. Engineering design.
2. Earth moving and construction.
3. Vegetative plantings/control.
4. Monitoring of mitigation areas in accordance with performance standards called out in **Part III, Section 9** of this mitigation plan.
5. Release from financial assurance requirements as performance standards are achieved.

**Part IV: Attachments**

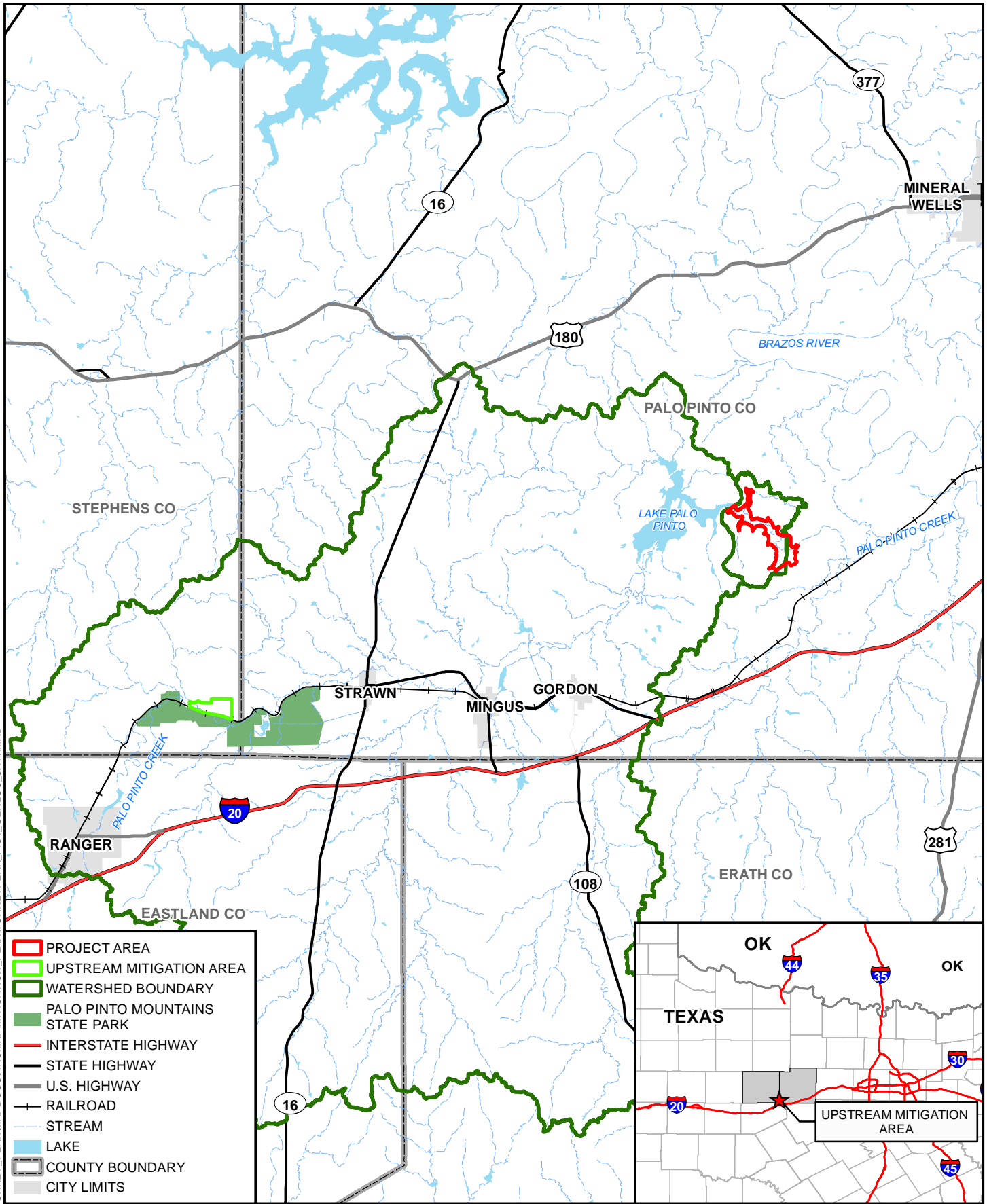
	Included
A. General Location Map	<input checked="" type="checkbox"/>
B. Delineation of Waters of the U.S., Including Wetlands	<input checked="" type="checkbox"/>
C. Site Photos	<input type="checkbox"/>
D. Plan Figures	<input checked="" type="checkbox"/>
E. Condition Assessment: Report on TXRAM for Streams	<input checked="" type="checkbox"/>
F. Debit / Credit Evaluation	<input checked="" type="checkbox"/>
G. Site Protection Instrument	<input type="checkbox"/>
H. Long-term Management Plan	<input type="checkbox"/>
I. Shoreline Assessment and Mitigation Evaluation	<input checked="" type="checkbox"/>
J. Upstream Mitigation Site Property Information	<input checked="" type="checkbox"/>

**End of Template**

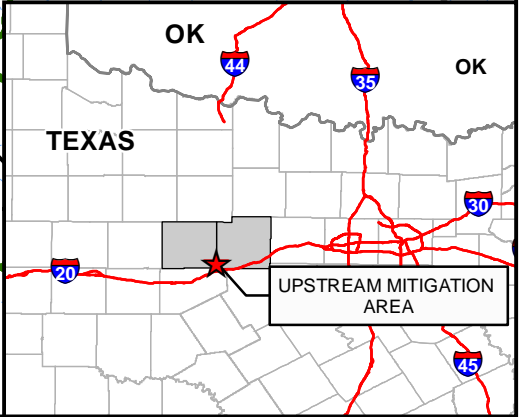
---

**Attachment A**  
**General Location Map**

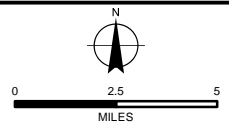
FILE:O:\94042\_037\_TURKEY\_PEAK\WAPDOCS\ARCMAP\MITIGATION\_PLAN\TURKEYPEAK\_FIG1\_GENLOC\_8X11.MXD



- PROJECT AREA
- UPSTREAM MITIGATION AREA
- WATERSHED BOUNDARY
- PALO PINTO MOUNTAINS STATE PARK
- INTERSTATE HIGHWAY
- STATE HIGHWAY
- U.S. HIGHWAY
- RAILROAD
- STREAM
- LAKE
- COUNTY BOUNDARY
- CITY LIMITS



**TURKEY PEAK  
MITIGATION PLAN  
GENERAL LOCATION**



**PALO PINTO COUNTY  
MUNICIPAL WATER  
DISTRICT NO. 1**



FEB 2015

FIGURE 1

## **Attachment B**

# **Delineation of Waters of the U.S., Including Wetlands**



---

**Delineation of Waters of the U.S.**

**Proposed Mitigation Site – Copeland Tract  
Stephens County, Texas**

**Prepared for:**

**Palo Pinto County Municipal Water District No. 1  
PO Box 387  
Mineral Wells, Texas 76068**

**Prepared by:**



**HDR Engineering, Inc.  
4401 West Gate Blvd., Suite 400  
Austin, Texas 78745**

**August 2014**

---

## Table of Contents

1.0	INTRODUCTION .....	1
2.0	STUDY AREA DESCRIPTION .....	1
3.0	WATERS OF THE U.S. DELINEATION .....	1
3.1	Methods.....	1
3.2	Results.....	2
4.0	SUMMARY .....	2
5.0	REFERENCES .....	2

### **List of Appendices**

Appendix A: Waters of the U.S. Delineation Map

## 1.0 INTRODUCTION

This report presents the results of a delineation of waters of the United States (U.S.), including wetlands, performed on an approximately 450-acre study area in Stephens County, Texas. The study area is located along Palo Pinto Creek north of the Union Pacific Railroad tracks and west of the town of Strawn, Texas.

The Palo Pinto County Municipal Water District No. 1 (District) is proposing restoration and enhancement measures on Palo Pinto Creek and tributaries in conjunction with the proposed construction of the Lake Palo Pinto Storage Restoration Project at Turkey Peak as a part of the revised mitigation plan for the Application for Department of the Army Individual Permit application.

The delineation and proposed jurisdictional determination of waters of the U.S., including wetlands was conducted by HDR Engineering, Inc. (HDR) for the District in support of the requirements of Section 404 of the Clean Water Act (CWA). A field survey for the following delineation was conducted on April 22–24, 2014, in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the Regional Supplement for the Great Plains Region (U.S. Army Corps of Engineers, 2010). A jurisdictional determination on the findings of this report is subject to the review and regulatory authority of the U.S. Army Corps of Engineers (USACE).

HDR also conducted a Texas Rapid Assessment Method (TXRAM) evaluation of the streams in the study area to assist the District in evaluating the proposed mitigation activities. The results of the TXRAM evaluation are presented in a separate report.

## 2.0 STUDY AREA DESCRIPTION

The study area is located west of the town of Strawn in Stephens County, Texas (**Appendix A, Figure 1**). The predominant land uses in the vicinity of the study area are agriculture, transportation, oil/gas development, and undeveloped. The study area has been subject to heavy agricultural use for livestock grazing. The vegetation in the study area contains both native and non-native species, and includes woods, brush, and open pastures. The study area is also crossed by several private gravel roads and oil/gas pipelines.

Palo Pinto Creek is a relatively permanent water (RPW) in the study area flows east and northeast into Lake Palo Pinto, and then from Lake Palo Pinto east to the Brazos River, approximately 29 aerial miles to the northeast of the study area.

## 3.0 WATERS OF THE U.S. DELINEATION

### 3.1 Methods

A recent topographic map of the study area and aerial photography were used to identify potential locations for waters of the U.S. and areas prone to wetland development. Waters of the U.S., including wetlands, were delineated on April 22–24, 2014, by HDR Environmental Scientists Ricky Wilson, James Thomas, and David Thomas. The survey was conducted in accordance with the USACE 1987 Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement for the Great Plains Region (USACE, 2010).

Based on the review of topographic maps and aerial photography, areas potentially containing waters of the U.S. were evaluated using routine on-site delineation methods. Data collected in the delineation was recorded using a sub-meter Geo XT Global Positioning System (GPS) unit and was mapped as a data layer using ArcGIS 10.0.

## 3.2 Results

### 3.2.1 Waters of the U.S.

Waters of the U.S. within the study area are described below. A delineation map for waters of the U.S. within the study area is provided in **Appendix A**.

Waters of the U.S. within the study area consist of nine streams and two on-channel channel impoundments (**Table 1**).

**Table 1. Waters of the U.S. within the Study Area**

Resource ID	Description	Average OHWM* (feet)	Classification	Linear Feet Within Study Area	Acreage Within Study Area
MS-1 (Palo Pinto Creek)	Intermittent Stream	30	RPW	5,565	3.83
MS-2	Ephemeral Stream	10	Non-RPW	2,399	0.55
MS-3	Ephemeral Stream	5	Non-RPW	1,948	0.22
MS-4	Ephemeral Stream	3	Non-RPW	2,139	0.15
MS-5	Ephemeral Stream	3	Non-RPW	1,969	0.14
MS-6	Ephemeral Stream	3	Non-RPW	3,836	0.26
MS-7	Ephemeral Stream	3	Non-RPW	1,812	0.12
MS-8	Ephemeral Stream	3	Non-RPW	730	0.05
MS-9	Intermittent Stream	10	RPW	521	0.12
OCI-1	Impoundment	-	RPW	-	1.22
OCI-2	Impoundment	-	RPW	-	0.50

\* OHWM – ordinary high water mark (average width)

## 4.0 SUMMARY

The study area contains two intermittent streams totaling 6,086 linear feet (3.95 acres), seven ephemeral streams totaling 14,833 linear feet (1.49 acres), and two on-channel impoundments totaling 1.72 acres that are waters of the U.S.

## 5.0 REFERENCES

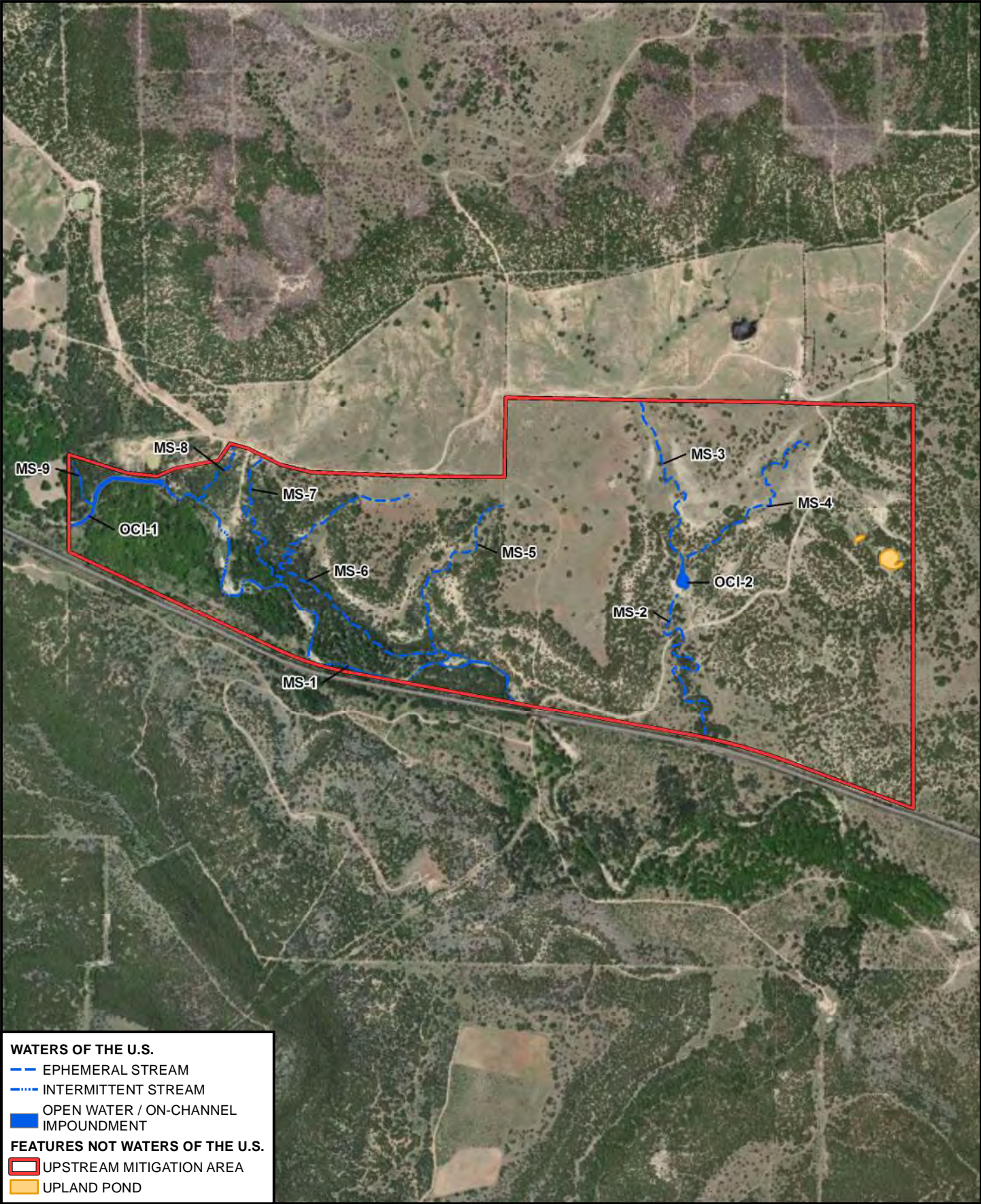
Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, Department of the Army, Waterways Experiment Station.

United States Army Corps of Engineers (USACE). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0)*, ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

**Appendix A:  
Waters of the U.S. Delineation Map**

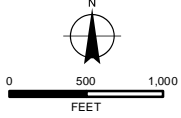


FILE:0:94042\_037\_TURKEY\_PEAK\MXD\DOC\SAR\CMAIP\MITIGATION\_PLAN\TURKEYPEAK\_FIG1\_WOTUS\_8X11.MXD



- WATERS OF THE U.S.**
- EPHEMERAL STREAM
  - - - - INTERMITTENT STREAM
  - OPEN WATER / ON-CHANNEL IMPOUNDMENT
- FEATURES NOT WATERS OF THE U.S.**
- UPSTREAM MITIGATION AREA
  - UPLAND POND

**TURKEY PEAK**  
 PROPOSED MITIGATION SITE - COPELAND TRACT  
 WATERS OF THE U.S.



**PALO PINTO COUNTY**  
**MUNICIPAL WATER**  
**DISTRICT NO. 1**



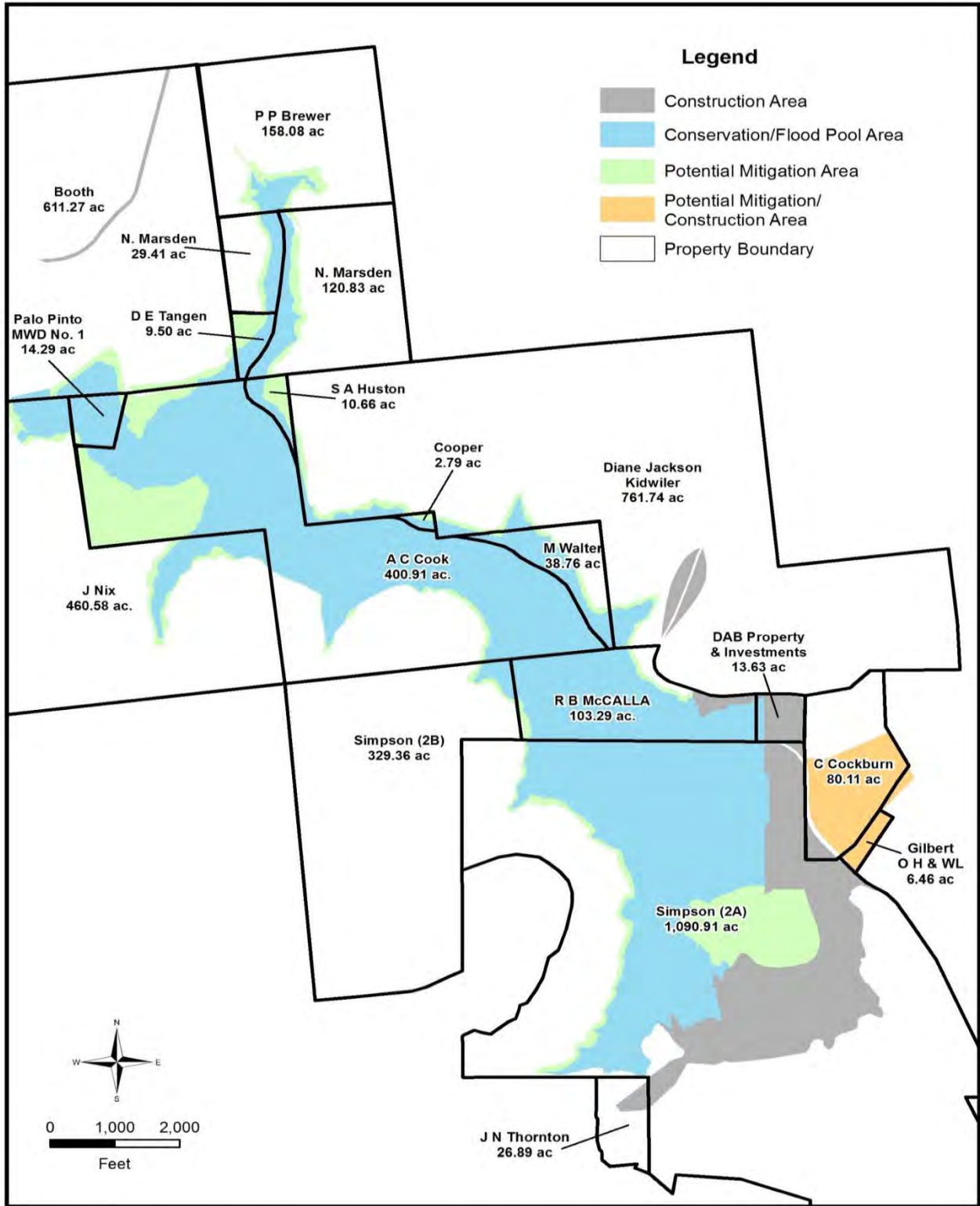
AUG 2014

FIGURE 1



**Appendix E**  
**Map of Reservoir showing Required Land**  
**and Easement Purchases**

**Figure 1**  
**Current Property Ownership**



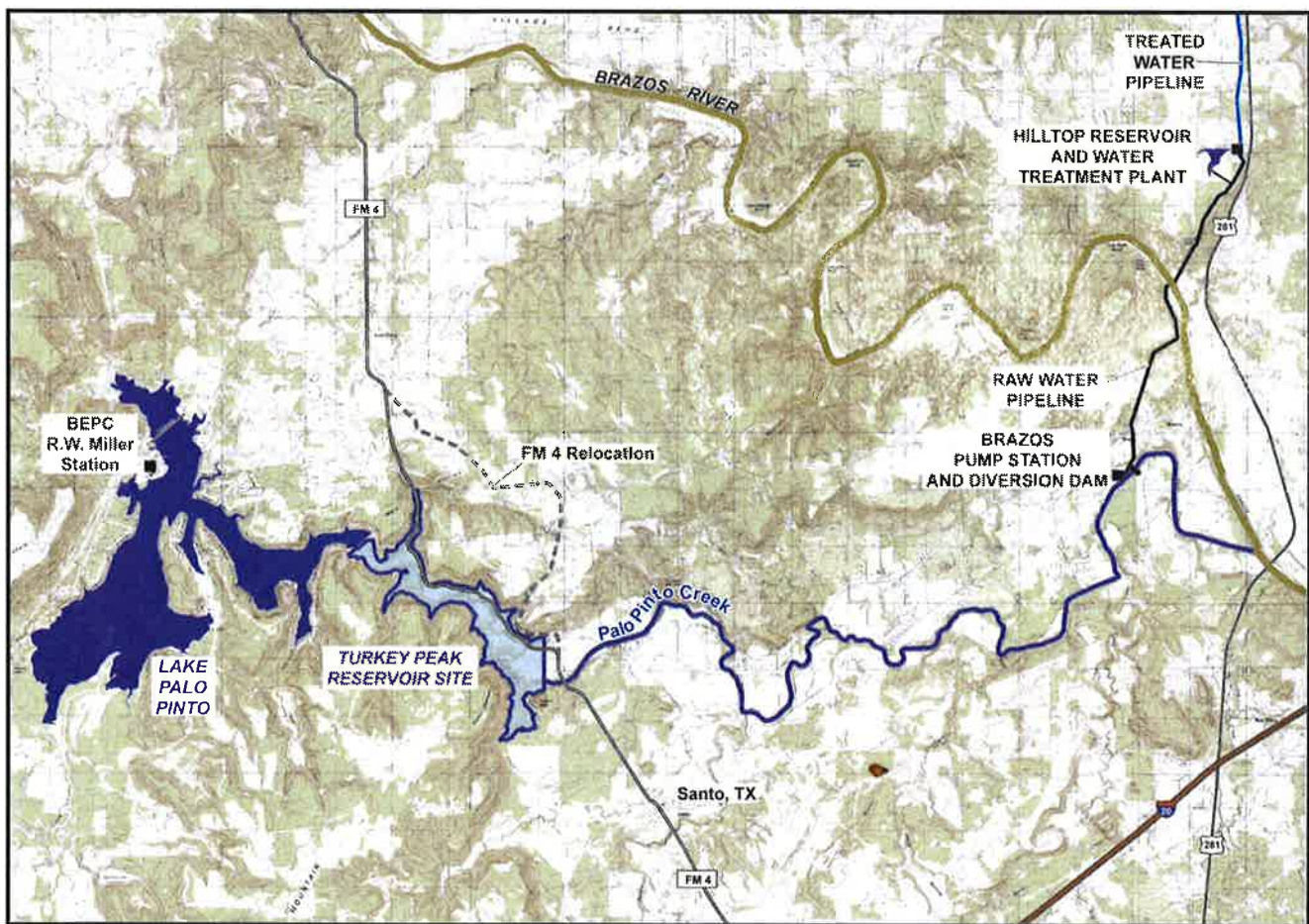
**Table 1  
Table of Current Property Ownership**

<b>Description of Land or Easement Permit</b>	<b>Entity from which the permit or right must be acquired</b>	<b>Acquired by Lease or Full Ownership</b>	<b>Expected Acquisition Date</b>	<b>To Be Funded by TWDB (Yes/No)</b>
Purchase (Fee Title)	Booth	9.60	2016 or 2017	Yes
Purchase (Fee Title)	Brewer, P P	13.84	2016 or 2017	Yes
Purchase (Fee Title)	Cockburn, C	4.18	2016 or 2017	Yes
Easement	Cockburn, C	50.0	2016 or 2017	Yes
Purchase (Fee Title)	Cook, Charles	305.36	2016 or 2017	Yes
Purchase (Fee Title)	Cooper	4.07	2016 or 2017	Yes
Easement	Gilbert, O H & W L	5.09	2016 or 2017	Yes
Purchase (Fee Title)	DAB Properties & investments	9.93	2016 or 2017	Yes
Purchase (Fee Title)	Huston, S A	11.17	2016 or 2017	Yes
Purchase (Fee Title)	Diane Jackson Kidwiler	47.65	2016 or 2017	Yes
Purchase (Fee Title)	Marsden, N M	28.08	2016 or 2017	Yes
Purchase (Fee Title)	McCalla, R B	95.58	2016 or 2017	Yes
Purchase (Fee Title)	Nix, J	29.13	2016 or 2017	Yes
Purchase (Fee Title)	Simpson	482.95	2016 or 2017	Yes
Purchase (Fee Title)	Tangen, D E	10.25	2016 or 2017	Yes
Purchase (Fee Title)	Thornton, J N	3.47	2016 or 2017	Yes
Purchase (Fee Title)	Walter, M	19.39	2016 or 2017	Yes

**Appendix F**  
**TWDB form WRD-253d**  
**Water Project Information**

Texas Water Development Board Water Project Information							
A. Project Name		B. Project No.		C. County		D. Regional Planning Group (A-P)	
E. Program(s)		F. Loan <input type="checkbox"/> / Grant <input type="checkbox"/> Amount:		G. Loan Term:			
H. Water Project Description: (Multiphase project, new or expansion; plant, well, storage, pump station, distribution system, etc)							
<b>Attach map of service area affected by Project or other documentation.</b>							
I. Is an Inter Basin Transfer potentially involved? Yes <input type="checkbox"/> No <input type="checkbox"/>				J. Is project located in a Groundwater District (If yes, identify District by name)? Yes <input type="checkbox"/> No <input type="checkbox"/>			
K. Projected Population from application for <b>at least a 20 year period. Attach justification and list service area populations if different from Planning Area.</b>	Year	Reference Year	2010	2020	2030	2040	
	Population Projection						
Project Design Year				Design Population			
L. Is the proposed project included in a current Regional Water Plan? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know <input type="checkbox"/> (If Yes, please specify on what page in the Regional Water Plan - Regional Water Plan Page Number: _____)							
M. What type of water source is <b>associated directly with the proposed project</b> ? Surface Water <input type="checkbox"/> Groundwater <input type="checkbox"/> Reuse <input type="checkbox"/>							
N. Will the project increase the volume of water supply? Yes <input type="checkbox"/> No <input type="checkbox"/>							
O. What volume of water is the project anticipated to deliver/ treat per year? _____ Acre-Feet/Year							
P. Current Water Supply Information							
Surface Water Supply Source / Provider Names		Certificate No.		Source County		Annual Volume and Unit	
Groundwater Source Aquifer		Well Field location		Source County		Annual Volume and Unit	
Q. Proposed Water Supply Associated Directly with the Proposed Project							
Surface Water Supply Source / Provider Names		Certificate No.		Source County		Annual Volume and Unit	
Groundwater Source Aquifer		Well Field location:		Source County		Annual Volume and Unit	
R. Consulting Engineer Name			Telephone No.		E-mail address		
S. Applicant Contact Name, Title			Telephone No.		E-mail address		

# Engineering Feasibility Report and Environmental Information Document for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)



May 2015

Prepared for:  
Palo Pinto County  
Municipal Water District No. 1





# ***Engineering Feasibility Report and Environmental Information Document for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)***

*Prepared for:*

**Palo Pinto County  
Municipal Water District No. 1  
and  
City of Mineral Wells**



*Prepared by:*



Texas Registered Engineering Firm F-754



*Kenneth L. Choffel*  
*5/27/2015*

**May 2015**

## **Table of Contents**

<b><u>Section</u></b>	<b><u>Page</u></b>	
1	Background and Description of the Project .....	1-1
2	Population, Water Demands and Supply, and Future Water Needs of the District .....	2-1
3	Comparison of Alternatives and Selection of Turkey Peak Reservoir.....	3-1
4	Environmental Information and Permitting Issues.....	4-1
4.1	Introduction.....	4-1
4.2	Project Description.....	4-1
4.3	Geologic Elements.....	4-2
4.4	Hydrological Elements.....	4-2
4.5	Floodplains and Wetlands.....	4-3
4.6	Climatic Elements.....	4-3
4.7	Biological Elements.....	4-4
4.7.1	Vegetation .....	4-4
4.7.2	Wildlife.....	4-5
4.7.3	Rare, Threatened, and Endangered Species .....	4-6
4.7.4	Water Quality .....	4-8
4.7.5	Aquatic Resources.....	4-9
4.7.6	Benthic Macroinvertebrates and Fish.....	4-9
4.8	Cultural Resources.....	4-9
4.9	Economic Conditions.....	4-10
4.10	Land Use .....	4-10
4.11	Site Assessment .....	4-11
4.12	Permitting and Regulatory Requirements.....	4-11
4.13	Land Acquisition Issues.....	4-12
4.14	Schedule of Environmental Studies and Permitting Activities.....	4-12
5	Project Costs and Schedule .....	5-1
6	Consistency with Brazos G Regional Water Plan .....	6-1
<b><u>Appendices</u></b>		
A	District’s Water Conservation and Drought Contingency Plan	
B	TCEQ Water Rights Permit (DRAFT)	
C	Professional Services Contract for Engineering and Permitting	
D	Section 404/401 Joint Application: Supplemental Documentation and Revised Mitigation Plan	
E	Map of Reservoir showing Required Land and Easement Purchases	
F	TWDB Form WRD-253d – Water Project Information	

### **List of Figures**

1-1	Project Location Map.....	1-2
2-1	Water Suppliers Service Area .....	2-1
2-2	Population Estimates for Palo Pinto and Parker Counties .....	2-2
2-3	Trends in Capacity of Lake Palo Pinto.....	2-5
2-4	Comparison of District’s Water Supply and Demands (Without Turkey Peak) .....	2-6
2-5	Comparison of District’s Water Supply and Demands (With Turkey Peak) .....	2-7
5-1	Preliminary Schedule for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir) (May 2015) .....	5-4

---

### **List of Tables**

<b><u>Table</u></b>	<b><u>Page</u></b>	
1-1	Turkey Peak Reservoir Site Initial Elevation-Area-Capacity .....	1-2
2-1	Population Estimates for Palo Pinto and Parker Counties .....	2-2
2-2	Water Demand and Supply Summary for District .....	2-4
4-1	Rare, Threatened, and Endangered Species of Palo Pinto County.....	4-7
5-1	Summary of Estimated Construction Costs.....	5-2
5-2	Summary of Estimated Project Costs for Turkey Peak Reservoir Project.....	5-3

## **Section 1**

### **Background and Description of the Project**

The Palo Pinto County Municipal Water District No. 1 (District) is the owner of Lake Palo Pinto dam and reservoir which was constructed in 1964. The District supplies water from the reservoir to the City of Mineral Wells, the Lake Palo Pinto Area Water Supply Corporation, and the Brazos Electric Power Cooperative (BEPC). Water for the City of Mineral Wells and its customers is released from the reservoir into Palo Pinto Creek where it travels about 16 miles to the District's diversion dam near the town of Brazos (see Figure 1-1). At this location water is diverted by the District's Brazos pump station for delivery to the Hilltop Reservoir located adjacent to the District's Hilltop Water Treatment Plant. The Lake Palo Pinto Area Water Supply Corporation diverts raw water directly from Lake Palo Pinto for subsequent treatment and municipal use. The BEPC diverts raw water directly from Lake Palo Pinto for industrial cooling purposes at their R.W Miller Steam-Electric Facility located on the western perimeter of Lake Palo Pinto as shown on Figure 1-1.

Under Certificate of Adjudication 12-4031 the District is authorized to store 44,100 acre-feet (acft) in the reservoir's conservation pool. A 1985 volumetric survey determined the reservoir's conservation capacity to be 27,650 acft and a recent 2007 volumetric survey by the TWDB indicated its capacity to be 26,480 acft or 60% of its authorized storage. By 2070 the capacity of the reservoir is estimated to be about 23,200 acft or less than 53% of its authorized capacity. Lake Palo Pinto's existing conservation pool has an average depth of about 12 feet.

Since the 1980's, the District has been investigating alternatives to restore the capacity of Lake Palo Pinto. Three highly efficient reservoir sites (i.e., small surface area with average depths of 36 to 66 feet) have been investigated and are shown on Figure 1-1. These sites include:

- Lake Palo Pinto Off-channel Reservoirs (Wilson and Kettle Hollow Reservoirs). These two sites are located just upstream of Lake Palo Pinto on tributary streams. Either of these projects would be constructed in two Phases. Phase 1 of each project would store 10,000 acft and Phase 2 enlargements of either site would increase storage to about 20,000 acft (effectively restoring the authorized storage volume of Lake Palo Pinto of 44,100 acft).

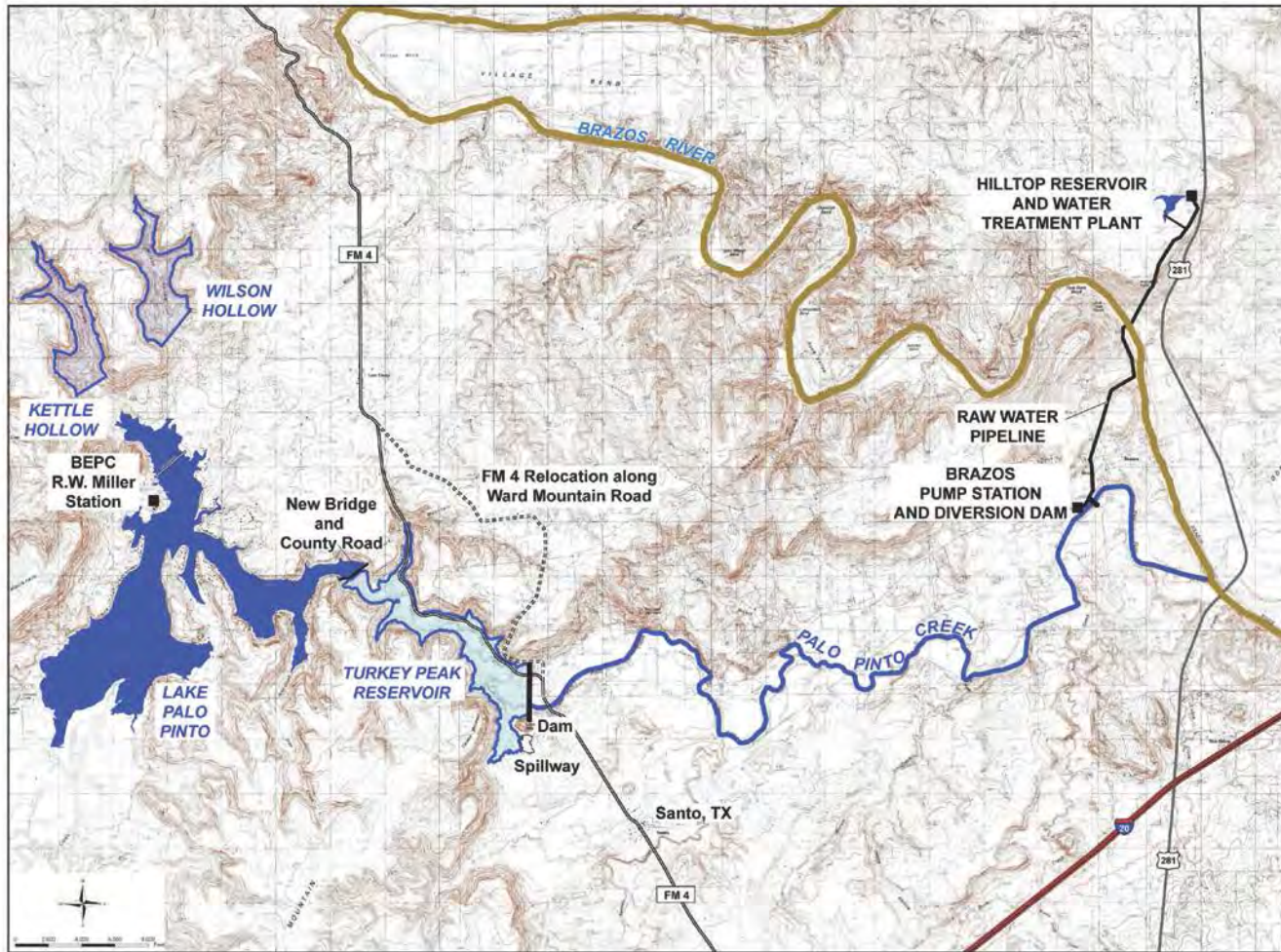


Figure 1-1. Project Location Map





- Turkey Peak Reservoir. This site is located just downstream of Lake Palo Pinto on Palo Pinto Creek and will initially store 22,577 acft (Table 1-1) and will increase 2020 water supplies of the District by 6,800 acft per year based on the recent 2012 to 2015 new critical drought. The Turkey Peak Dam and Reservoir project is also known as the Lake Palo Pinto Storage Restoration Project as it is effectively an enlargement of Lake Palo Pinto to fully restore its permitted capacity. The project includes the construction of a new dam on Palo Pinto Creek approximately 4 miles downstream of the existing Lake Palo Pinto Dam with both portions of the reservoir having the same conservation pool elevation (867.3 ft-msl). The project is described in more detail in the 2011 Brazos G Regional Water Plan (pages 4B.12-81 to 4B.12-98 - Volume II) and in the May 2015 Initially Prepared 2016 Brazos G Regional Water Plan (pages 4.13-1 to 4.13-18 - Volume II). The project will increase the conservation capacity of Lake Palo Pinto from 27,215 acft (2007 TWDB Volumetric Survey) to 49,792 ac-ft.
- This phase of the project includes land acquisition, final design, archeology recovery, and initial utility relocations beginning in 2016. The subsequent phase of the project (TWDB funds not currently being requested) includes construction of the following facilities beginning in about 2018: new dam and associated spillways, final utility and road relocations, and a new bridge and roadway across the existing Lake Palo Pinto Dam and Spillway.

**Table 1-1.  
Turkey Peak Reservoir Site  
Initial Elevation-Area-Capacity**

<b>Elevation (ft-msl)</b>	<b>Surface Area (acres)</b>	<b>Storage Capacity (acft)</b>
867*	648	22,577
860	605	18,216
850	534	12,590
840	455	7,682
830	316	3,769
820	123	1,306
810	61	468
800	29	97
790	0	0

\*Lake Palo Pinto conservation pool elevation.

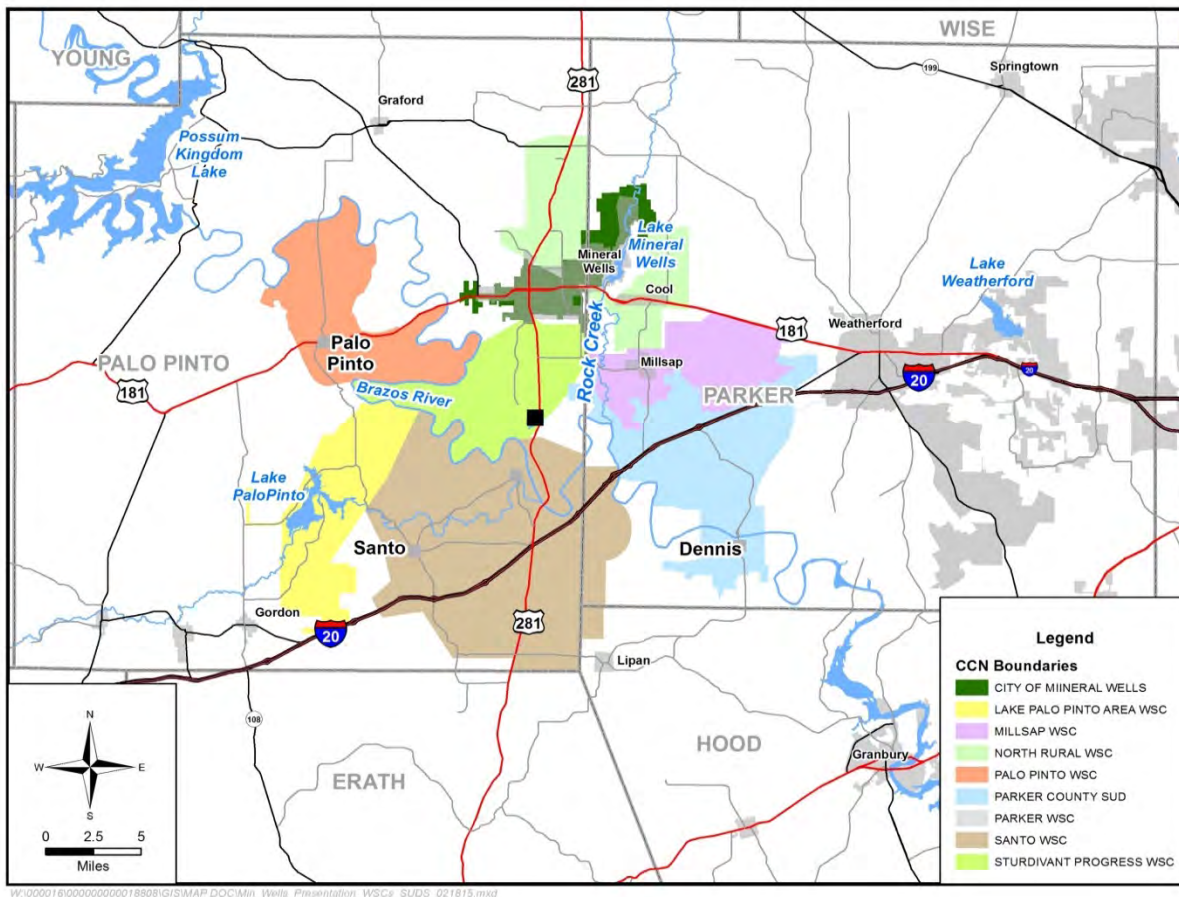


### **Summary of Recent Events**

- Environmental studies of the three alternative reservoir sites were performed to determine if any endangered species were present. These studies indicated that Golden-cheeked warblers were present at both the Wilson Hollow and Kettle Hollow sites but not at the Turkey Peak site.
- On October 31, 2008, the District and BEPC signed a new water supply contract under which the District agreed to supply BEPC 1,000 acft per year until December 31, 2028 with an option for BEPC to extend this supply and purchase up to an additional 3,000 acft per year from the Turkey Peak Project for a 40-year term after the new reservoir fills.
- The 2011 Brazos G Regional Water Plan (2011 Plan) and the 2012 State Water Plan include Turkey Peak Reservoir as a Recommended Water Management Strategy (WMS) for the District.
- In 2012, HDR Engineering, Inc. completed the preliminary design of the Turkey Peak project and prepared an updated project cost estimate which is the basis of costs presented in this report.
- The Initially Prepared 2016 Brazos G Regional Water Plan (2016 IPP) includes the Turkey Peak Reservoir as a Recommended Water Management Strategy for the District.
- On May 6, 2015 the Turkey Peak Project was ranked 6<sup>th</sup> for possible TWDB *SWIFT* funding and the District is submitting this updated Engineering Feasibility Report in support of the District's application.

## Section 2 Population, Water Demands and Supply, and Future Water Needs of the District

The District provides water to three entities including the City of Mineral Wells (City), the Lake Palo Pinto Area Water Supply Corporation (LPPAWSC) and the Brazos Electric Power Cooperative (BEPC). The City's service area includes portions of Palo Pinto and Parker Counties as shown in Figure 2-1. The City provides treated water to several Water Supply Corporations (WSC), Special Utility Districts (SUD), and the City of Graford. Population growth is occurring in both counties with Parker County experiencing very rapid growth as shown in Table 2-1 and Figure 2-2. Between 2010 and 2070 the population of Palo Pinto County is projected to increase by 34 percent from 28,111 to 37,579. During this same timeframe the population of Parker County is projected to increase from 116,927 to 629,277 an increase of 438 percent.

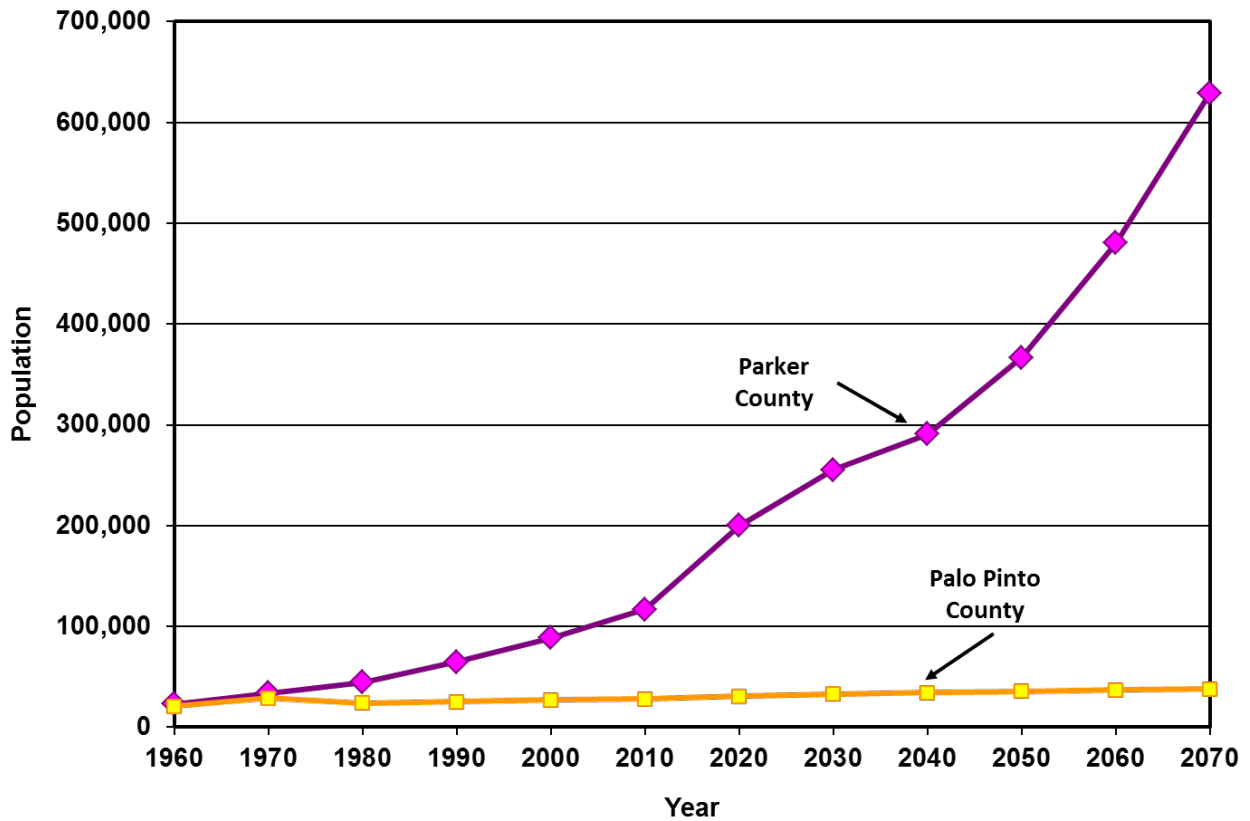


**Figure 2-1. Water Suppliers Service Areas**

**Table 2-1.**  
**Population Estimates for Palo Pinto and Parker Counties**

Year	Population			Combined Population Increase by
	Palo Pinto County	Parker County	Combined	Decade
2000 <sup>1</sup>	27,026	88,495	115,521	—
2010 <sup>2</sup>	28,111	116,927	145,038	29,517
2020 <sup>3</sup>	30,535	199,955	230,490	85,452
2030 <sup>3</sup>	32,771	255,133	287,904	57,414
2040 <sup>3</sup>	34,280	291,007	325,287	37,383
2050 <sup>3</sup>	35,675	366,596	402,271	76,984
2060 <sup>3</sup>	36,739	480,530	517,269	114,998
2070 <sup>3</sup>	37,579	629,277	666,856	149,587

<sup>1</sup>2000 U.S. Census Data.  
<sup>2</sup>2010 U.S. Census Data.  
<sup>3</sup>TWDB Estimates for 2017 State Water Plan.



**Figure 2-2. Population Estimates for Palo Pinto and Parker Counties**

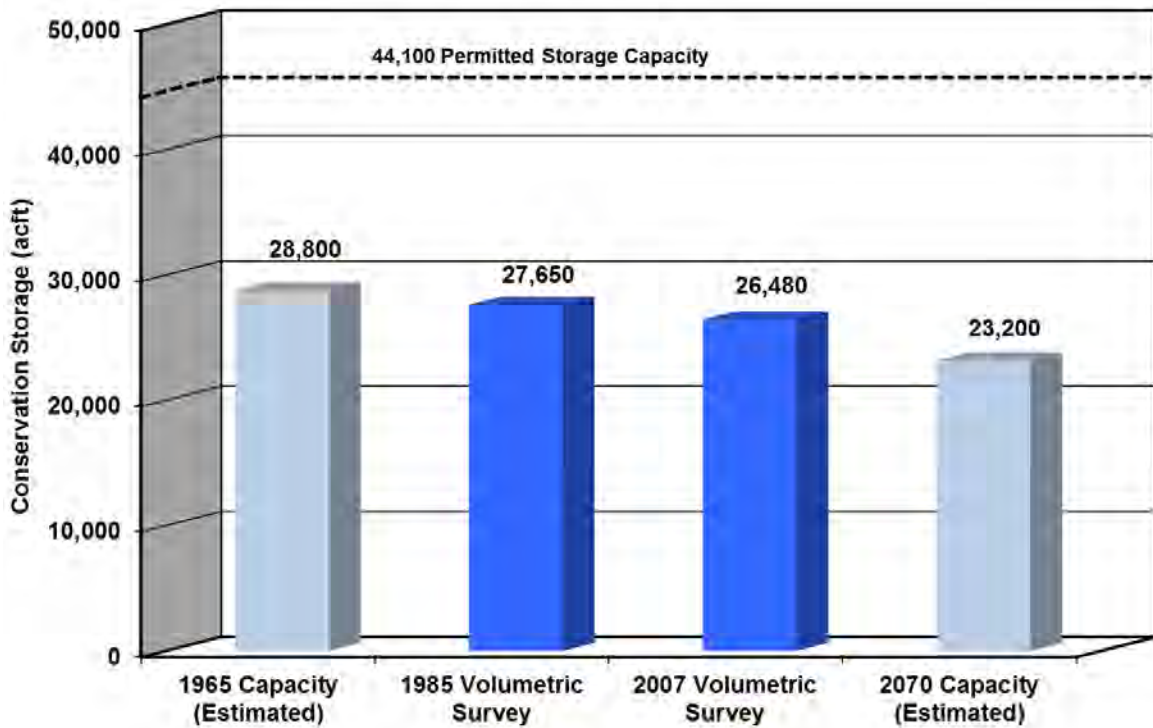
Water demand projections for the District as prepared by the Brazos G Regional Water Planning Group (BGRWPG) for the 2016 Brazos G Regional Water Plan (BGRWP) are summarized in Table 2-2 for the 2020 through 2070 timeframe. These projections include contracts that the District and/or City of Mineral Wells have with numerous Water Supply Corporations (WSC), Special Utility Districts (SUD), the City of Graford, and the Brazos Electric Power Cooperative (BEPC). As estimated by the BGRWPG, demands for the District's existing customers are anticipated to increase from 9,414 acft/yr in 2020 to 9,771 acft/yr in 2070. These amounts reflect a new water supply agreement between the District and BEPC. The new agreement provides BEPC with a total supply of 4,000 acft/yr upon the completion of the Turkey Peak Reservoir project, which is projected to occur by 2020. This new volume of supply exceeds BEPC's existing contract amount (1,000 acft/yr) by 3,000 acft/yr. The 2016 BGRWP also recommended a strategy for the District to meet irrigation needs projected by the TWDB in Palo Pinto County. When this additional volume of water is considered, the District's 2020 demand increases to 11,908 acft/yr and their 2070 demand increases to 11,959 acft/yr as shown in Table 2-2.

**Table 2-2.  
Water Demand and Supply Summary for the District**

<b>Major Water Contract Holders</b>	<b>Year (acft/yr)</b>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
City of Mineral Wells <sup>1</sup>	2,939	3,040	3,095	3,166	3,237	3,296
City of Graford	92	92	92	92	92	92
Palo Pinto County-Other	1,391	1,391	1,391	1,391	1,391	1,391
Parker County Other (Region C)	479	479	479	479	479	479
Palo Pinto County Manufacturing	10	10	10	10	10	10
Parker County Manufacturing (Region C)	25	25	25	25	25	25
Parker County SUD (Region C)	294	294	294	294	294	294
Millsap WSC (Region C)	184	184	184	184	184	184
Palo Pinto County Steam-Electric <sup>2</sup>	4,000	4,000	4,000	4,000	4,000	4,000
<b>Total Demand (BGRWP)</b>	<b>9,414</b>	<b>9,515</b>	<b>9,570</b>	<b>9,641</b>	<b>9,712</b>	<b>9,771</b>
Palo Pinto County Irrigation Demands (TWDB) <sup>3</sup>	2,494	2,392	2,299	2,260	2,222	2,188
<b>Total Demand (BGRWP with Irrigation)</b>	<b>11,908</b>	<b>11,907</b>	<b>11,869</b>	<b>11,901</b>	<b>11,934</b>	<b>11,959</b>
Notes:						
1 - Water demands include portions of the City in Palo Pinto and Parker Counties						
2 - Includes additional contract amount based on October 2008 contract between District and BEPC						
3 - Recommended strategy in 2016 BGRWP to meet irrigation needs						
<b>Existing &amp; Future Supply (2016 BGRWP)</b>	<b>Year (acft/yr)</b>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Lake Palo Pinto (2016 BGRWP 1940-1997) <sup>1</sup>	7,655	7,481	7,307	7,133	6,959	6,785
Lake Palo Pinto (Updated 2012-2015 Drought) <sup>2</sup>	5,200	5,080	4,960	4,840	4,720	4,600
Lake Palo Pinto with Turkey Peak (Updated 2012-2015 Drought) <sup>2</sup>	12,000	11,900	11,800	11,700	11,600	11,500
Notes:						
1 - The 2016 BGRWP yield is based on analysis of droughts occurring between 1940 and 1997; however recent drought occurring between May 2012 and October 2014 has reduced these yields by approximately 2,000 acft/yr.						
2 - Updated 6 month safe yield based on recent drought between 2012 and 2015						
<b>Projected Balance/(Shortage):</b>	<b>Year (acft/yr)</b>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Balance/(Shortage) - 2016 BGRWP without Turkey Peak	(4,214)	(4,435)	(4,610)	(4,801)	(4,992)	(5,171)
Balance/(Shortage) - 2016 BGRWP with Irrigation and without Turkey Peak	(6,708)	(6,827)	(6,909)	(7,061)	(7,214)	(7,359)
Balance/(Shortage) - 2016 BGRWP with Irrigation and with Turkey Peak	92	(7)	(69)	(201)	(334)	(459)

Yield studies of Lake Palo Pinto performed during the 2016 BGRWP (for the 1940 to 1997 period) indicate that the water supply available from Lake Palo Pinto is 7,665 acft/yr based on 2020 reservoir sediment conditions and will be reduced to 6,785acft/yr by 2070 as a result of reservoir sedimentation. These yields are 6 month safe yields which assume that during the critical month of the drought, the minimum storage in the reservoir is equal to 6 months of average diversions. During the critical month of the recent drought the minimum storage of Lake

Palo Pinto was about 4 months of water supply and confirmed that using a 6 month reserve is appropriate. A recent volumetric survey of Lake Palo Pinto performed by the TWDB indicates the reservoir has an average sedimentation rate of about 53 acft/yr and that between 1965 and 2070 (106 years) the capacity of the reservoir will be reduced by about 5,600 acft as shown in Figure 2-3.

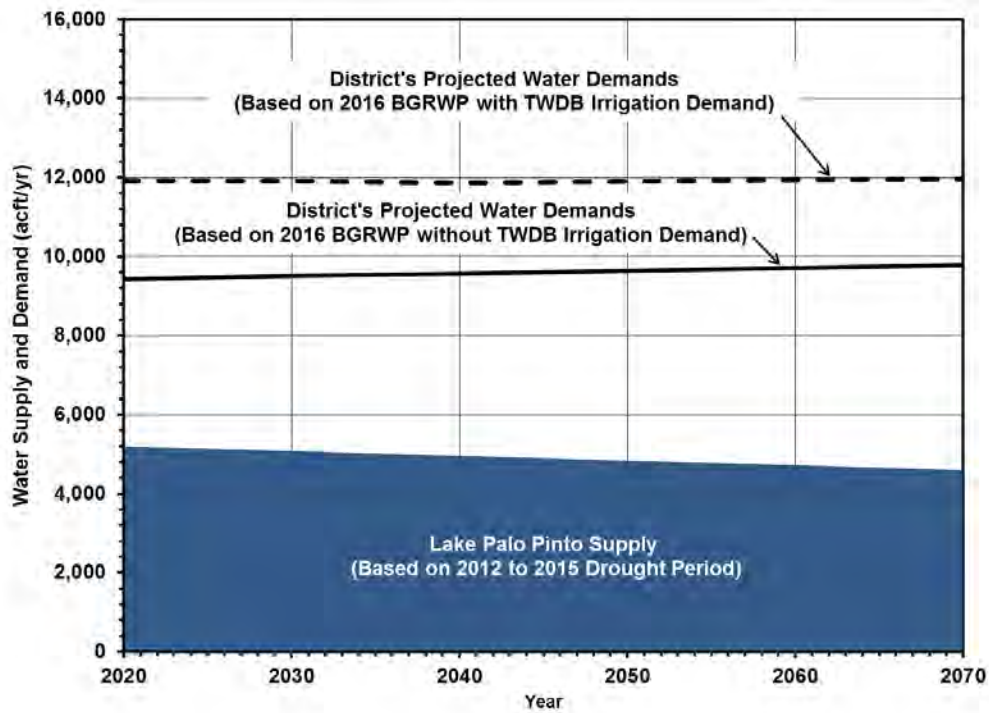


**Figure 2-3. Trends in Capacity of Lake Palo Pinto**

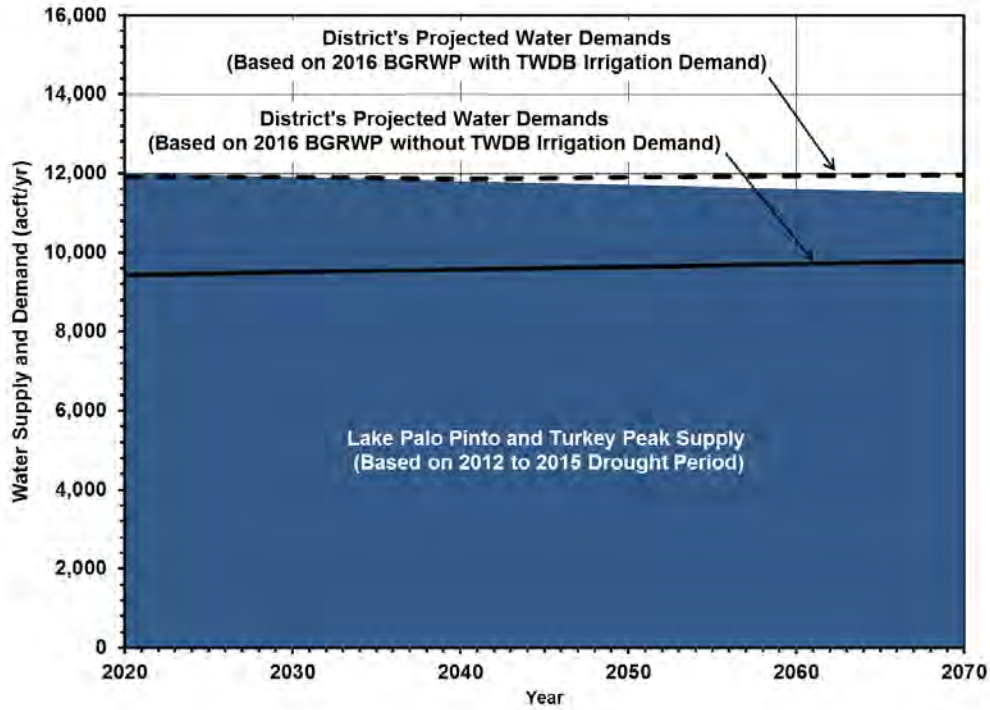
The 2016 BGRWP yield is based on analysis of droughts occurring between 1940 and 1997. However a recent drought occurring between May 2012 and May 2015 has reduced these yields. An updated yield analysis for Lake Palo Pinto using the most recent drought indicates that the 6 month safe yield is 5,200 acft/yr in 2020 and 4,600 acft/yr in 2070. Comparisons of the District’s future water demands with supplies available from Lake Palo Pinto based on the most recent yield analysis are shown on Figure 2-4 and Table 2-2. This figure shows that shortages will occur before 2020 and that by 2070, the District will need an additional water supply of 5,171 acft/yr. Comparison of the District’s future water demands with supplies available from both Lake Palo Pinto and Turkey Peak Reservoir are shown on Figure 2-5. This



figure shows that the District will have adequate supplies to meet needs of their existing customers but only about 79 percent of the 2016 BGRWP recommended TWDB irrigation demands after the Turkey Peak Reservoir project is constructed.



**Figure 2-4. Comparison of District's Water Supply and Demands (Lake Palo Pinto Without Turkey Peak)**



**Figure 2-5. Comparison of District's Water Supply and Demands (With Turkey Peak)**

### **Section 3**

## **Comparison of Alternatives and Selection of Turkey Peak Reservoir**

In 1986, the District performed an initial geotechnical investigation of the Turkey Peak Reservoir Dam site. The results of this investigation indicated that the dam site was suitable for the construction of an earthen embankment. Shortly after the 1986 investigation other needs of the District arose and the District put the Turkey Peak Reservoir Project on hold.

In 2004, the District was approached by BEPC about their need for additional water and the District re-initiated investigations of alternatives to restore the capacity of Lake Palo Pinto. This time, in addition to the Turkey Peak Reservoir site, the District also investigated the feasibility of reservoir sites on Wilson and Kettle Hollow as shown on Figure 1-1.

In 2006, the District undertook environmental studies to determine if endangered species were present at either the Wilson Hollow, Kettle Hollow, or the Turkey Peak Reservoir sites. The findings of these studies indicated that Golden-cheeked Warblers were present at both the Wilson and Kettle Hollow Sites but were not present at the Turkey Peak Reservoir site. Additionally in 2006 the District undertook an initial geotechnical investigation of the Wilson Hollow Reservoir site to determine its suitability as a reservoir site. The results of the geotechnical investigation indicated that although the site was suitable for a reservoir, the local sandstone, which would be needed to construct the dam, would require additional processing. The resulted in the cost of the Wilson Hollow Reservoir project increasing.

In 2007, the District reevaluated both the Turkey Peak and the Wilson Hollow projects and determined that the Turkey Peak Reservoir Project was the preferred project over the Wilson Hollow project for the following reasons: it provides significantly more water supply; it provides water at a lower unit cost; it does not impact Golden-cheeked Warblers; it does not require a new pump station to fill the reservoir; and with Lake Palo Pinto located upstream, its useful life will be greatly extended due to minimal sedimentation.

In February 2015, the District prepared and submitted to the US Army Corps of Engineers (USACE) a Supplemental Documentation and Revised Mitigation Plan for the District's Section 404/401 Joint Application: This document is included in Appendix D and contains an updated comparison of storage restoration alternatives for Lake Palo Pinto.

## **Section 4 Environmental Information and Permitting Issues**

### **4.1 Introduction**

The Turkey Peak Reservoir site is located in southeast Palo Pinto County approximately 13 miles southwest of Mineral Wells, Texas. The section of Palo Pinto Creek from a point immediately downstream of Lake Palo Pinto to its confluence with the Brazos River is approximately 18 miles long with the actual distance to be impacted by the proposed reservoir containing approximately 4 miles (see Figure 1-1). The Turkey Peak Dam is located approximately 2 miles northwest of the city of Santo and just upstream from the FM 4 bridge over Palo Pinto Creek.

The reservoir site is located within the Palo Pinto Mountains which stretch for 15 miles, running from a point in southwestern Palo Pinto County to the northeast to a point just south of the Brazos River. Elevations range from 800 to 1450 feet above mean sea level (ft-msl) within the county.

### **4.2 Project Description**

The proposed project includes the construction of a new dam on Palo Pinto Creek immediately downstream of Lake Palo Pinto. The new reservoir would have the same conservation pool level as Lake Palo Pinto and would effectively be an enlargement of Lake Palo Pinto. Only the existing dam at Lake Palo Pinto will separate the two reservoirs and a portion of the existing spillway is proposed to be removed so that when both portions of the combined reservoir are full, or nearly full, recreational boaters could access both portions of the reservoir. The new dam would impound a reservoir of about 648 surface acres at an operating elevation of 867.3 ft-msl and would contain about 22,577 ac-ft of water at this elevation. It is interesting to note that the Turkey Peak portion of the reservoir will provide approximately 83 percent of the storage volume as Lake Palo Pinto while inundating a land area that is less than 30 percent of the surface area of the existing lake. This results in the Turkey Peak portion of the new reservoir having an average depth of 36 feet with the Lake Palo Pinto portion having an average depth of about 12 feet.

The new project will be operated in the same manner as the existing lake with water supply releases for the City of Mineral Wells and their customers being made to Palo Pinto Creek for subsequent diversion at the District's diversion dam and pump station located about 12 river miles downstream of the new dam near the town of Brazos. This type of operation results in Palo Pinto Creek having flow down to the District's diversion dam about 90 percent of the time. Streamflow records indicate that prior to the construction of Lake Palo Pinto, Palo Pinto Creek was an intermittent stream.

#### **4.3 Geologic Elements**

The physiography of the region includes sandstone, conglomerate, mudstone, shale and limestone, in addition to fluvatile terrace deposits, and alluvium areas.<sup>1</sup> The topography ranges from flat to rolling, and from steeply to moderately sloped, with local shallow depressions in flood-prone areas along waterways.<sup>2</sup>

General soil map units in the project area include the Bosque-Santo and Bonti-Truce-Shatruce. Bosque-Santo soils are deep, nearly level to gently sloping, loamy soils, typically found on floodplains. These soils are well suited to rangeland uses and have a high potential for wildlife habitat. Bonti-Truce-Shatruce soils are moderately deep and deep, gently sloping to steep, loamy, stony, and bouldery upland soils.<sup>3</sup> These soils are found on gently sloping sandstone ridges and in narrow valleys where slopes range from one to 40 percent. Soils in this map unit are moderately well suited for use as pastureland and cropland, but not appropriate for urban uses. Limitations of this soil unit include stones, boulders and steep slopes in some areas.

#### **4.4 Hydrological Elements**

The Brazos River, a major regional water source, traverses Palo Pinto County from the northwest to southeast. The applicable stream segment for this project is segment 1206- Brazos River below Possum Kingdom Lake, defined as from a point 100 meters upstream of FM 2580 in Parker County to Morris Sheppard Dam in Palo Pinto County. Palo Pinto Creek is a direct tributary to the Brazos River. The natural drainage of Palo Pinto Creek has been modified by the

---

<sup>1</sup> Bureau of Economic Geology. 1972. Geologic Atlas of Texas, Abilene Sheet. University of Texas at Austin. Austin, Texas.

<sup>2</sup> Kier, R.S., L.E. Garner, and L.F. Brown, Jr., "Land Resources of Texas." Bureau of Economic Geology, University of Texas, Austin, Texas, 1977.

<sup>3</sup> Moore, J.D., *Soil Survey of Palo Pinto County, Texas*, United States Department of Agriculture, Soil Conservation Service, in cooperation with Texas Agricultural Experiment Station, 1981.

construction of Lake Palo Pinto and a diversion dam near its confluence with the Brazos River. Streamflow records on Palo Pinto Creek prior to the construction of Lake Palo Pinto indicate that the creek was previously intermittent with zero flow occurring about 41% of the time during the period of record from May 1951 through the end of 1963. Water supply releases from Lake Palo Pinto to the District's channel dam have resulted in this stream reach having flow about 90 percent of the time.

Within Palo Pinto County low escarpments cross the watershed, and the basins of the Brazos and its tributaries are deeply trenched and confined in narrow valleys with steep sides or bluffs. Two major reservoirs are present within the county; Possum Kingdom Reservoir situated on the Brazos River, and Lake Palo Pinto located on Palo Pinto Creek. No major or minor aquifers underlie the project area. The Trinity Aquifer, a major aquifer consisting of interbedded sandstone, sand, limestone, and shale of Cretaceous Age, lies east and south of the project area.<sup>4</sup>

#### **4.5 Floodplains and Wetlands**

Floodplains within the project area are generally found along Palo Pinto Creek, and contained within narrow valleys. Available floodplain information for Palo Pinto County from Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps show 100-year floodplain designations (Zone A) along the entire stream channel below Lake Palo Pinto. Limited wetlands are located along Palo Pinto Creek, and in shallow depressions in flood-prone areas.

#### **4.6 Climatic Elements**

The climate within the area is characterized as subtropical subhumid, with hot summers and dry winters. Average annual precipitation ranges between 28 and 32 inches<sup>5</sup> and is uniformly distributed throughout the year. Air quality in Palo Pinto County meets current National Ambient Air Quality Standards with prevailing winds generally blowing from the south.

---

<sup>4</sup> Texas Water Development Board (TWDB), Major and Minor Aquifers of Texas; Maps online at <http://www.twdb.state.tx.us/mapping/index.asp>, Accessed May 2008.

<sup>5</sup> Larkin, T.J., and G.W. Bomar, "Climatic Atlas of Texas," Texas Department of Water Resources, Austin, Texas, 1983.



## 4.7 Biological Elements

### 4.7.1 Vegetation

The proposed Turkey Peak Reservoir project lies in the Cross Timbers and Prairie Vegetational Area,<sup>6</sup> a region encompassing most of 29 counties in North Central Texas. This vegetational area contains a large area of closely associated prairie and woodland sites. The topography has rapid surface drainage and includes rolling, hilly, and deeply dissected areas. Differences in soils and topography within this area are reflected in sharp changes in vegetation cover. The physiognomy of the region is oak and juniper woods, and mixed grass prairie. Much of the native vegetation has been displaced by agriculture and development. Range management techniques including fire suppression; have contributed to the spread of invasive woody species and grasses. Farming and grazing practices have also reduced the abundance and diversity of wildlife in the region.<sup>7</sup> The proposed reservoir site is situated in the central portion of this vegetational area, between the Blackland Prairies immediately to the east, the Edwards Plateau to the south, and the Rolling Plains to the west.

Two major vegetation types occur in the general vicinity of the proposed project: Ashe Juniper Parks/Woods, and Oak-Mesquite-Juniper Parks/Woods.<sup>8</sup> Variations of these primary vegetation types occur with changes in the composition of woody and herbaceous species and physiognomy, and in response to localized conditions and specific range sites. Ashe Juniper Parks/Woods, occur principally on the slopes of hills in Palo Pinto County, and within the Turkey Peak Reservoir site are generally found from the Lake Palo Pinto dam to a point approximately 2 miles downstream along Palo Pinto Creek. Commonly found species within this vegetation type include: Ashe Juniper (*Juniperus ashei*), live oak (*Quercus virginiana*), Texas oak (*Q. texana*), cedar elm (*Ulmus crassifolia*), mesquite (*Prosopis glandulosa*), agarito (*Mahonia trifoliolata*), tasajillo (*Opuntia leptocaulis*), western ragweed (*Ambrosia cumanensis*), scurfpea (*Psoralea* spp.), little bluestem (*Schizachyrium scoparium*), sideoats grama (*Bouteloua curtipendula*), Texas wintergrass (*Nasella leucotricha*), silver bluestem (*Bothriochloa saccharoides*), hairy tridens (*Erioneuron pilosum*), tumblegrass (*Schedonnardus paniculatus*), and red three-awn (*Aristida purpurea* var. *longiseta*).

<sup>6</sup> Gould, F.W., G.O. Hoffman, and C.A. Rechenhain, Vegetational Areas of Texas, Texas A&M University, Texas Agriculture Experiment Station Leaflet No. 492, 1960.

<sup>7</sup> Telfair, R.C., "Texas Wildlife Resources and Land Uses," University of Texas Press, Austin, Texas, 1999.

<sup>8</sup> McMahan, C.A., R.F. Frye, and K.L. Brown, "The Vegetation Types of Texas," Texas Parks and Wildlife Department, Wildlife Division, Austin, Texas, 1984.

Oak-Mesquite-Juniper Parks/Woods, which occur as associations or as a mixture of individual (woody) species stands on uplands, are generally found from a point along Palo Pinto Creek 2 miles downstream of Lake Palo Pinto dam to the location of the proposed Turkey Peak Reservoir dam, a distance of about 2 miles. Species commonly found in this vegetation type include post oak (*Q. stellata*), Ashe juniper, shin oak (*Q. sinuata* var. *breviloba*), Texas oak, blackjack oak (*Q. marilandica*), live oak, cedar elm, agarito, soapberry (*Sapindus saponaria*), sumac (*Rhus* spp.), hackberry (*Celtis* spp.), Texas pricklypear (*Opuntia engelmannii* var. *lindheimeri*), Mexican persimmon (*Diospyros texana*), purple three-awn (*Aristida purpurea*), hairy grama (*Bouteloua hirsuta*), Texas grama (*B. texana*), sideoats grama, curly mesquite (*Hilaria belangeri*), and Texas wintergrass.

The bottomland woodlands occurring along Palo Pinto Creek are characterized by species such as American elm (*Ulmus americana*), slippery elm (*Ulmus rubra*), Texas sugarberry (*Celtis laevigata*), pecan (*Carya illinoensis*), and green ash (*Fraxinus pennsylvanica*), which are reaching the western most extensions of their range within this area.

#### 4.7.2 Wildlife

Palo Pinto County is included in the Texan Biotic Province as delineated by Blair<sup>9</sup> and modified by TPWD. This province includes bands of prairie and woodland that begin in South Central Texas and run north to Kansas. The Texan Biotic Province constitutes a broad ecotone between the forests in the eastern portion of this region and the western grasslands.

The wildlife habitat types of the study area coincide closely with the major plant community types present. The mountains and associated vegetation areas within the county are similar to that of the Edwards Plateau thus the wildlife fauna contains a substantial number of typical Balconian species. Therefore, the wildlife habitats and species of the study area represent a mixture of those typical of the surrounding areas.

Mammals typical of this province include the Virginia opossum (*Didelphis virginiana*), eastern mole (*Scalopus aquaticus*), fox squirrel (*Sciurus niger*), Louisiana pocket gopher (*Geomys breviceps*), fulvous harvest mouse (*Reithrodontomys fulvescens*), white-footed mouse (*Peromyscus leucopus*), hispid cotton rat (*Sigmodon hispidus*), eastern cottontail (*Sylvilagus*

<sup>9</sup> Blair, W. Frank. 1950. "The Biotic Provinces of Texas," Texas Journal of Science 2(1):93-117.

*floridanus*) and swamp rabbit (*S. aquaticus*). Animals typical of grasslands of this province include the 13-lined ground squirrel (*Spermophilus tridecemlineatus*), hispid pocket mouse (*Chaetodipus hispidus*), deer mouse (*Peromyscus maniculatus*) and black-tailed jackrabbit (*Lepus californicus*).

Typical anuran species to this province are the Hurter's spadefoot (*Scaphiopus holbrookii hurteri*), Gulf Coast toad (*Bufo valliceps*), Woodhouse's toad (*Bufo woodhousii*), gray treefrog (*Hyla versicolor/chrysoscelis*), green treefrog (*Hyla cinerea*), bullfrog (*Rana catesbeiana*), southern leopard frog (*Rana sphenoccephala*) and eastern narrowmouth toad (*Microhylla carolinensis*).

#### **4.7.3 Rare, Threatened, and Endangered Species**

A total of 21 species could potentially occur within the vicinity of the site that are state or federally listed as threatened or endangered, candidates for listing, or exhibit sufficient rarity to be listed as a species of concern. Table 4-1 includes a list of all the rare, threatened and endangered species within Palo Pinto County (TPWD, 2008). This grouping includes 2 reptiles, 10 birds, 3 mammals, 3 fishes, and 3 mollusk species.

Four bird species federally listed as threatened or endangered could occur in the project area. These include the black-capped vireo (*Vireo atricapillus*), golden-cheeked warbler (*Dendroica chrysoparia*), interior least tern (*Sterna antillarum athalassos*), and whooping crane (*Grus americana*). These bird species are all seasonal migrants that could pass through the project area. Environmental studies conducted in 2006 within the Wilson Hollow, Kettle Hollow and Turkey Peak Reservoir sites, indicated that there were no Golden-cheeked Warblers within the Turkey Peak project area but that the birds were present in the two more remote sites. It is not expected that any bird species would be directly affected by the proposed reservoir construction at the Turkey Peak site.

A special effort will be made to locate and identify habitat of the endemic, state-threatened Brazos water snake (*Nerodia harteri*). Occurrence of this species has been documented twice within 4 miles of Palo Pinto Creek. It has been observed at the mouth of Coffee Creek and the Brazos River located 0.4 mile downstream of the confluence of Palo Pinto Creek and the Brazos River and approximately 4 miles downstream of this confluence along the margins of the Brazos River.

**Table 4-1.  
Rare, Threatened, and Endangered Species of Palo Pinto County**

Scientific Name	Common Name	Summary of Habitat Preference	Federal/ State Status	Potential Occurrence
<b>Birds</b>				
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	Open county; cliffs	DL/E	Migrant
<i>Falco peregrinus tundrius</i>	Arctic Peregrine Falcon	Open county; cliffs	DL/T	Migrant
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Large Bodies of water with nearby resting sites	DL/T	Migrant
<i>Vireo atricapillus</i>	Black-capped Vireo	Oak-juniper woodlands with tree layer and open grassy spaces.	LE/E	Migrant*
<i>Dendroica chrysoparia</i>	Golden-cheeked Warbler	Juniper-oak woodlands.	LE/E	Migrant*
<i>Sterna antillarum athalassos</i>	Interior Least Tern	Nests along sand and gravel bars within braided streams and rivers.	LE/E	Migrant*
<i>Charadrius montanus</i>	Mountain Plover	Breeding-shortgrass plains and fields, plowed fields and sandy deserts	SOC	Migrant*
<i>Athene cunicularia hypugaea</i>	Western Burrowing Owl	Open grasslands, especially prairie, plains and savanna	SOC	Migrant*
<i>Grus americana</i>	Whooping Crane	Potential migrant	LE/E	Migrant
<b>Fishes</b>				
<i>Micropterus treculii</i>	Guadalupe bass	Endemic to perennial streams of Edward's Plateau.	SOC	X
<i>Notropis oxyrhynchus</i>	Sharpnose Shiner	Endemic to Brazos River drainage.	C/SOC	X
<i>Notropis buccula</i>	Smalleye Shiner	Endemic to upper Brazos River system.	C/SOC	X
<b>Mammals</b>				
<i>Canis lupus</i>	Gray Wolf	Extirpated.	LE/E	Historically occurred
<i>Spilogale putorius interrupta</i>	Plains Spotted Skunk	Open fields, prairies and croplands.	SOC	X
<i>Canis rufus</i>	Red Wolf	Extirpated.	LE/E	Historically occurred
<b>Reptiles</b>				
<i>Nerodia harteri</i>	Brazos Water Snake	Upper Brazos River drainage, in shallow water with rocky bottom.	SOC/T	X
<i>Phrynosoma cornutum</i>	Texas Horned Lizard	Varied, sparsely vegetated uplands, grass, cactus, brush	SOC/T	X
<b>Mollusks</b>				
<i>Tritogonia verrucosa</i>	Pistolgrip	Aquatic, stable substrate	SOC	X
<i>Arcidens confragosus</i>	Rock pocketbook	Aquatic: mud, sand and gravel substrates.	SOC	X
<i>Truncilla macrodon</i>	Texas fawnsfoot	Aquatic, intolerant of impoundment.	SOC	X

X = Occurs in county; \* Nesting migrant; may nest in the county.

Federal Status: LE-Listed Endangered; LT-Listed Threatened; DL-De-listed Endangered/Threatened; C-Candidate (USFWS has substantial information on biological vulnerability and threats to support proposing to list as endangered or threatened. Data are being gathered on habitat needs and/or critical habitat designations); SOC-Species of Concern (some information exists showing evidence of vulnerability, but is not listed).

State Status: E-Listed as Endangered by the State of Texas; T-Listed as Threatened by the State of Texas; SOC-Species of Concern (some information exists showing evidence of vulnerability, but is not listed).

Source: TPWD, Annotated County List of Rare Species for Palo Pinto County, (August 8, 2007).

The sharpnose shiner (*Notropis oxyrhynchus*) and the smalleye shiner (*Notropis buccula*) are two small, slender minnows endemic to the Brazos River Basin. In 2002, both species were placed on the FWS list as potential candidates for federal protection. Historically, these sympatric fish existed throughout the Brazos River and several of its major tributaries within the watershed. Current information indicates that the population of each species within the Upper Brazos River drainage occurring upstream of Possum Kingdom Reservoir is apparently stable, while the population within the middle and lower segments of the Brazos River Basin may exist only in remnant areas of suitable habitat. General habitat associations for both species include relatively shallow water of moderate currents flowing through broad and open sandy channels. Typical habitat is similar for both species and includes the often saline and turbid water of the Upper Brazos River. Although situated within the Brazos River watershed, the study area lies downstream of the current recorded distribution for these species, therefore the occurrence of both cyprinid species here is unlikely.

A search of the Texas Natural Diversity Database<sup>10</sup> revealed no documented occurrences of endangered or threatened species within the vicinity of the proposed Turkey Peak Reservoir. Although based on the best information available to TPWD, these data do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features in the project area. On-site evaluations will be required by qualified biologists to confirm the occurrence of sensitive species or habitats.

#### **4.7.4 Water Quality**

Overall quality of the water in the Upper Brazos River Basin is good. Threats to water quality in the Upper region include population growth, urban expansion, increasing industrial activities and drought.

The Brazos River below Possum Kingdom Lake (TCEQ Segment 1206) has concern for high temperatures in the upper portion of the river segment and public concerns for elevated total suspended solids (TSS). Lake Palo Pinto (TCEQ Segment 1230) has no impairments or concerns.

---

<sup>10</sup> Texas Parks and Wildlife Department (TPWD), Texas Natural Diversity Database, 2008.

#### **4.7.5 Aquatic Resources**

This project will likely benefit streamflows and water quality below the reservoir site as an increase in the quantity of median monthly flow will occur downstream as the City of Mineral Wells water demands, which determine release quantities, will gradually increase over time. Additionally, the reservoir will trap and/or dilute pollutants, providing some positive benefits to water quality immediately downstream. The project is expected to have negligible impacts to discharge downstream and water quality in the Brazos River.

Aquatic habitats in the 16-mile reach of Palo Pinto Creek between Lake Palo Pinto and the diversion dam have been enhanced by the release of stored water to supply the existing system. Palo Pinto Creek is an unclassified freshwater stream which is a tributary to the Brazos River. Within the project area the creek consists primarily of long pool areas. The presence of riffle habitats is very dependent upon the volume of water flowing down the creek.

#### **4.7.6 Benthic Macroinvertebrates and Fish**

Benthic macroinvertebrates inhabit a variety of substrates in streams and rivers, from the bottom sediments (silt, sand, gravel, cobble) to vegetation or debris piles along margins or in pools. The density and diversity of the benthic fauna of this region is influenced by the quality of the water in which they inhabit including substrate character, organic content of the substrate, persistence of water and predator-prey relationships.

The tree-lined banks of Palo Pinto creek contribute leafy detritus to the creek, and, eventually to the river. Detritus, in various stages of breakdown and decomposition, serves as an important food source to numerous aquatic macroinvertebrates. Macroinvertebrates are important in the diets of any fish, especially juveniles.

The geographic ranges of around 89 species of freshwater fish found in the Brazos River Basin include the immediate and surrounding area although based on size and habitat suitability, not all of these species would occur in each area.

#### **4.8 Cultural Resources**

A search of the Texas Archeological Sites Atlas database indicates that 99 archeological sites have been documented within the general vicinity of the proposed reservoir. Researchers from the University of Texas recorded 49 of these sites as part of the Village Bend archeological survey in 1980. These sites, which lie outside the currently proposed reservoir, represent a



variety of historic and prehistoric site types. The Intensive Archaeological Survey of the reservoir location conducted in March–June 2010 revealed historic and prehistoric archaeological deposits that would be affected by the proposed construction of the Turkey Peak Reservoir. Upon completion of the deep trenching and archaeological survey within the Turkey Peak project area, two prehistoric localities, 13 prehistoric sites, and one historic site had been recorded. Sites 41PP375, 41PP377, 41PP378, 41PP381, 41PP384, 41PP385, 41PP386, 41PP387, and 41PP388 are all recommended for further testing to establish National Register of Historic Places (NRHP) and State Archeological Landmark (SAL) eligibility. Sites 41PP376, 41PP379, 41PP380, 41PP381, and 41PP383 are recommended not eligible for inclusion in the NRHP or designation as a SAL, with no further work being necessary. By definition, Locality 1 and 2 fail to meet the criteria of a site and cannot be considered for NRHP or SAL eligibility.

Cultural resources that occur on public lands or within the Area of Potential Effect of publicly funded or permitted projects are governed by the Texas Antiquities Code (Title 9, Chapter 191, Texas Natural Resource Code of 1977), the National Historic Preservation Act (PL96-515), and the Archeological and Historic Preservation Act (PL93-291).

#### **4.9 Economic Conditions**

Lake Palo Pinto was initially constructed by the Palo Pinto County Municipal Water District No. 1 in the early 1960's. Shortly after the initial construction of the reservoir, the District entered into a water supply contract with Brazos Electric Power Cooperative (BEPC) and raised the conservation pool elevation. BEPC has recently extended their contract with the District to 40 years following the construction and filling of the Turkey Peak Reservoir which is expected to occur about 2020. Based on projected population increases in the District's service area and projected electrical generation needs by BEPC, increased water volumes will be needed by BEPC for industrial cooling purposes as the region grows.

#### **4.10 Land Use**

The general project vicinity consists of predominantly rural rangeland areas dominated by native and introduced vegetation species. On the eastern edge of the proposed reservoir area there is a small amount of pasture or crop area. Wooded areas are present along the bank of Palo Pinto Creek and in areas of higher elevation along slopes and ridges. Residential use of the area

is limited to scattered homes, with no commercial sites within the proposed reservoir area. There are no cemeteries or parks located within the project area.

#### **4.11 Site Assessment**

The proposed reservoir is located in a rural area of Palo Pinto County. The potential to encounter hazardous materials is low. A review of Leaking Petroleum Storage Tanks (LPST) at the Texas Commission on Environmental Quality (TCEQ) revealed no records of any LPSTs within the proposed reservoir site. No federal or state-listed Superfund sites are present in Palo Pinto County.

#### **4.12 Permitting and Regulatory Requirements**

The construction of the Turkey Peak Reservoir Project will require the following permits to be obtained:

- Texas Commission on Environmental Quality (TCEQ) Water Right and Storage permits (see Appendix B for copy of TCEQ DRAFT permit);
- U.S. Army Corps of Engineers (USACE) Permits (Section 401 / 404 of the Clean Water Act), will be required for discharges of dredge or fill into wetlands and waters of the U.S. for dam construction and other activities (see Appendix D for February 2015 Document titled “Section 401/404”);
- Texas Historical Commission (THC) permit for evaluation and recovery of cultural resources; and
- TCEQ administered Texas Pollutant Discharge Elimination System (TPDES) Storm Water Pollution Prevention Plan.

State and Federal permits may require the following studies and plans:

- Environmental assessment studies (these have been completed);
- Mitigation plan that could require acquisition and management of additional lands near TPWD’s planned Palo Pinto Mountains State Park;
- Flow releases downstream to maintain aquatic ecosystems (these are included in the TCEQ water rights permit); and
- Cultural resources testing to determine extent of cultural resource recovery and cataloging; requires coordination with the Texas Historical Commission and USACE.

#### **4.13 Land Acquisition Issues**

The construction of the Turkey Peak Reservoir Project will require the District to obtain additional land and easements including:

- Up to 1,300 acres of land will need to be acquired for reservoir construction and will include market transactions and, if necessary, eminent domain (See Appendix E for list of current property owners.);
- Rights-of-way and utility easements will be required for the relocation of FM 4 and associated utilities including Texas-New Mexico Power Company line; and
- Removal or relocations of residences, utilities, roads, or other structures will be required.

#### **4.14 Schedule of Environmental Studies and Permitting Activities**

Remaining environmental studies and permitting activities and associated dates include:

- Water Rights Permit – anticipated to be final in July 2015;
- Section 401/404 USACE Permit – anticipated to be final in December 2015;
- Testing and recovery of previously identified cultural resource sites will be performed in 2016 and 2017 as land is acquired;
- A final golden-cheeked warbler bird survey of the site will be performed prior to construction; and
- Aquatic life surveys at specific locations on Palo Pinto Creek will be performed in accordance with the Water Rights permit before and after reservoir construction.

## **Section 5**

### **Project Costs and Schedule**

Based on the preliminary design of the project, the project is currently planned to be constructed under one construction contract with three major work components. The first construction component includes work associated with the relocation of FM 4 and the upgrading of Ward Mountain Road. This work is currently being coordinated with the Texas Department of Transportation (TxDOT) and Palo Pinto County. The second construction component includes the construction of a new bridge and road at the existing Lake Palo Pinto dam and spillway. This work is being coordinated with Palo Pinto County. The third construction component includes the construction of the new Turkey Peak dam and spillways along with modifications to the existing Lake Palo Pinto dam and spillway. This work will be reviewed and coordinated with TCEQ's dam safety group.

Estimates of construction costs and contingencies for these three project components are shown in Table 5-1 and total \$52,305,000 based on 2012 estimated construction costs. In addition to construction costs, costs associated with project management, permitting, land acquisition, mapping and surveying, utility relocations, design, TxDOT plan review, financial services, and construction phase services will be required. These costs are summarized along with construction costs on Table 5-2 and inflated at an average annual rate of 3.5 percent. As shown on Table 5-2, the total project costs is estimated to be \$95,200,000.

The overall project schedule is shown in Figure 5-1. This figure shows that the permitting and preliminary design phases of the project should be completed by the end of 2015 and that the land acquisition, utility relocation, archeology recovery and final design phases of the project will begin in 2016 and be completed by the end of 2017. Construction of the three main project components is estimated to begin in 2018. Based on the sequencing of the three construction components, construction is estimated to be completed sometime in 2020.

**Table 5-1.**  
**Estimated Construction Costs for**  
**Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)**  
**(December 2012)**

<b>Description of Items for Ward Mountain Road</b>	<b>Cost</b>
Preparing ROW & Excavation (Roadway)	\$781,025
Embankment (Final) (Ord Comp) (TY B)	\$1,746,387
FL BS (Rdwy Del) (TY E GR 4) (Final Pos)	\$1,069,013
D-GR HMA (QCQA) TY-D SAC-A PG76-22	\$740,047
Mobilization	\$465,225
Barricades, Signs, and Traffic Handling	\$12,000
MTL W-Beam GD Fen (Tim Post)	\$57,500
Drainage	\$28,867
Signing & Marking	\$17,150
SWPPP	\$98,000
Miscellaneous Roadway	\$101,270
Subtotal	\$5,116,384
Contingencies (10%)	\$511,638
Total	\$5,628,022
<b>Description of Items for New Bridge and Road</b>	
Bridge	\$2,262,449
Roadway & Dam Modifications	\$1,118,015
Subtotal	\$3,380,464
Contingencies (10%)	\$338,046
Total	\$3,718,510
<b>Description of Items for TP Dam and Spillways</b>	
Mobilization & Care of Water & Startup	\$1,665,000
Cutoff Trench & Walls & Grouting	\$3,382,000
Embankment	\$6,812,722
Drains & Filters	\$1,361,500
Seeding & Irrigation	\$892,000
Outlet Works	\$642,075
Roller Compacted Concrete	\$6,280,545
Mass Concrete	\$100,000
Excavation	\$4,576,468
Reinforced Concrete	\$8,515,600
Riprap	\$2,435,500
Emergency Spillway Excavation	\$1,783,825
Palo Pinto Spillway Modifications	\$309,828
Outlet Modifications	\$47,937
Riprap Existing Dam	\$248,348
Subtotal	\$39,053,152
Contingencies (10%)	\$3,905,316
Total	\$42,958,468
<b>Total Construction Costs (All Three Components)</b>	<b>52,305,000</b>



**Table 5-2.**  
**Estimated Total Project Costs for**  
**Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)**  
**(May 2015 – TWDB SWIFT Application)**

	<i>Estimated Total Project Costs<sup>1</sup></i>	<i>Planning &amp; Permitting<sup>1</sup> (\$8,000,000 TWDB Loan/Grant)</i>	<i>Acquisition<sup>2</sup> (Needed 2016/17)</i>	<i>Design (Needed 2016/17)</i>	<i>Construction (Needed 2018/20)</i>
<b>Construction Costs</b>					
Construction	\$47,550,000				\$47,550,000
Construction Contingencies (10%)	4,755,000				4,755,000
<b>Total Construction Costs</b>	<b>52,305,000</b>				<b>\$52,305,000</b>
<b>Planning &amp; Permitting, Acquisition, and Design Costs</b>					
Water Rights (PM, Engineering, & Hydrology)	683,400	\$683,400			
Water Rights (Legal)	340,000	340,000			
Environmental Services (WR/404)	450,000	450,000			
Archaeological Services (404)	875,000	150,000		\$725,000	
Agency Coordination, & Alternatives, & Funding	780,000	780,000			
Legal Services (404)	50,000	50,000			
Land Acquisition	5,867,000		\$ 5,867,000		
Conservation Easements/Mitigation/Negotiation	2,900,000	550,000	1,404,000	946,000	
Contingencies	1,673,000	3,400	1,454,000	215,600	
Negotiations, Survey, Legal, Appraisals, & Title	792,000			792,000	
Mapping	\$118,000	118,000			
Geotechnical Investigations and Value Engineering	2,750,000	2,650,000		100,000	
Utility Surveys	20,000	20,000			
Utility Relocations & Negotiations	1,470,000	146,000	1,124,000	200,000	
Engineering Design/Bidding	3,349,000	1,459,200		1,889,800	
TxDOT Plan & Alternatives Review	124,000	124,000			
Water Rate/Misc. Financial/Spillway Model	300,000	300,000			
Miscellaneous Legal	100,000	100,000			
<b>Subtotal Planning &amp; Permitting, Acquisition, &amp; Design Cost</b>	<b>\$22,641,400</b>	<b>7,924,000</b>	<b>9,849,000</b>	<b>4,868,400</b>	
<b>Financial &amp; Construction Services Costs (Other than Actual Construction)</b>					
Construction Contract Administration	591,000				591,000
Resident Project Representative (RPR)	2,724,000				2,724,000
Materials Testing	680,000				680,000
<b>Subtotal Construction Services Costs</b>	<b>3,995,000</b>				<b>3,995,000</b>
Financial Services for Bond Issuance	947,000	76,000	114,000	57,000	700,000
<b>Sub-Totals</b>	<b>\$79,888,400</b>	<b>\$8,000,000</b>	<b>\$9,963,000</b>	<b>\$4,925,400</b>	<b>\$57,000,000</b>
<b>Contingencies (Inflation at 3.5% per year)</b>	<b>15,311,600</b>	<b>0</b>	<b>1,437,000 (~15%)</b>	<b>774,600 (~15%)</b>	<b>13,100,000 (~23%)</b>
<b>Total Project Costs</b>	<b>\$95,200,000</b>	<b>\$8,000,000</b>	<b>\$11,400,000</b>	<b>\$5,700,000</b>	<b>\$70,100,000</b>
<p>1. Based on December 2012 Project Cost Estimate as updated to reflect September 2014 project budget for the District's previous \$8M TWDB Planning Loan/Grant and 3.5% Annual Inflation.</p> <p>2. Acquisition: Includes purchase of project land, mitigation land and utility relocation cost.</p>					



**Figure 5-1**  
**Schedule for Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir)**  
**(May, 2015)**

Work Activities	2015				2016				2017				2018				2019				2020			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
<b>Project Funding</b>																								
<b>Permitting</b>																								
Process Water Rights Permit																								
Environmental Studies (Bird Survey)																								
Process 404 Permit																								
Archaeological Survey & Recovery																								
<b>Land Acquisition</b>																								
Meet with Property Owners																								
Obtain Rights of Entry																								
Property Surveys & Appraisals																								
Purchase Land																								
Purchase Conservation Easements																								
<b>Mapping, Surveys, &amp; Geotechnical Investigations</b>																								
Mapping & Utility Surveys																								
Geotechnical Investigations																								
<b>Agreements</b>																								
TxDOT & County																								
TNMPC																								
<b>Design &amp; Construction</b>																								
Final Design & Plan Approvals																								
Construction of Utility Relocations																								
Bidding																								
Construction of Dam, Roads & Bridge																								

## **Section 6**

### **Consistency with Brazos G Regional Water Plan**

Turkey Peak Reservoir is a recommended strategy in the 2011 Brazos G Regional Water Plan and is also included as a recommended strategy in the recently released Initially Prepared 2016 Brazos G Regional Water Plan.

## **Appendix A**

### **District's Water Conservation and Drought Contingency Plan**

## ***Palo Pinto County Municipal Water District No. 1 Water Conservation and Drought Contingency Plan***

### ***1.0 Introduction***

The Palo Pinto County Municipal Water District No. 1 (District) is a wholesale water provider and strives to provide a reliable water supply to its municipal and industrial customers. The objectives of the District's Water Conservation and Drought Contingency Plan are to establish short-term and long-term goals for conserving water and to identify procedures necessary to achieve water conservation goals and reductions in water use during drought conditions. The District has developed this Water Conservation and Drought Contingency Plan pursuant to the rules of the Texas Commission on Environmental Quality (TCEQ).

The District is a regional wholesale water provider currently serving three customers with raw water supplied from Lake Palo Pinto. These customers include the City of Mineral Wells (City), the Brazos Electric Power Co-operative (BEPC), and the Lake Palo Pinto Area Water Supply Corporation (Lake Palo Pinto Area WSC). The City provides treated water to its retail customers as well as seven wholesale water supply entities. All water provided by the District to the City and its customers is treated at the City's Hilltop Water Treatment Plant. BEPC uses raw water for steam-electric power generation at their RW Miller Station located on the shoreline of Lake Palo Pinto. Lake Palo Pinto Area WSC is a small water supply corporation and diverts raw water through an intake located on Lake Palo Pinto and treats it at their water treatment plant. The Lake Palo Pinto Area WSC provides a small amount of treated water supply to BEPC for use at their RW Miller Station for sanitary and drinking water purposes.

### ***2.0 Texas Commission on Environmental Quality Requirements***

The TCEQ requires that wholesale water providers file a water conservation and drought contingency plan pursuant to 30 TAC §288.5 and 30 TAC §288.22, respectively. The TCEQ further requires that a water conservation plan be filed for industrial uses pursuant to 30 TAC §288.3. As a wholesale water supplier, the District does not directly control the water use of its customers and does not have a direct relationship with retail water customers. Therefore, the District's water conservation and drought contingency provisions for its municipal customers are generally consistent with plans adopted by these municipal customers.

## 2.1 Water Conservation Plans

The Texas Commission on Environmental Quality (TCEQ) has developed guidelines and requirements for development of water conservation plans for wholesale water providers (Title 30, TAC §288.5) and for industrial use (Title 30, TAC §288.3). Pursuant to TCEQ rules, a “water conservation plan” is defined as “a strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing and recycling and reuse of water, and for preventing the pollution of water.”<sup>1</sup> The District’s water conservation plan requirements are in accordance with TCEQ guidelines, as provided below.

- 30 TAC §288.5 (1A): Description of District’s Service Area — This plan includes population and customer data, water use data, and water supply system data. The District does not provide wastewater services and this data is not included in the plan.
- 30 TAC §288.5 (1C): Specific, Quantified 5-Year and 10-Year Water Savings Targets — This plan includes per capita target goals for municipal use and maximum acceptable unaccounted-for-water and goals, and basis for development of goals.
- 30 TAC §288.5 (1D): Description of Practices and/or Devices Used to Account for Determining the Amount of Water Diverted from the Source of Supply.
- 30 TAC §288.5 (1E): Monitoring and Record Management Program for the District.
- 30 TAC §288.5 (1F): Metering, Leak Detection, and Repair Program for the District.
- TAC §288.5 (1G): Contract Requirements for Successive Customers.
- 30 TAC §288.5 (1I): Means of Implementation and Enforcement of the Plan.
- 30 TAC §288.5 (1J): Coordination with Regional Water Planning Groups for Consistency with Approved Regional Water Plans.
- 30 TAC §288.5 (2): Additional Conservation Strategies — This plan documents additional water conservation strategies pursued by the District customer’s including reuse and recycling programs. Additionally this plan outlines the recently renegotiated water supply contract between the District and BEPC which reduces BEPC’s maximum annual water use by over 40 percent.
- 30 TAC §288.5 (3)- Review and Update of Water Conservation Plan (on at least a 5-year basis).
- A reservoir operations plan (30 TAC §288.5 (1H)) is not applicable to the District.
- Pursuant to 30 TAC §288.3, in addition to the provisions of this water conservation plan, an industrial/mining water conservation plan provided by BEPC is included as part of the District’s plan and is included in Appendix A.

<sup>1</sup> Title 30, Texas Administrative Code, 288.1.

## **2.2 Drought Contingency Plan**

The TCEQ has developed rules for development of drought contingency plans for wholesale water providers in Title 30, TAC §288.22. A “drought contingency plan” is defined by TCEQ as “a strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies.”<sup>2</sup> The District’s drought contingency plan has been prepared in accordance with TCEQ guidelines, as provided below.

- 30 TAC §288.22 (a1): Provisions to Inform the Public and Wholesale Customers Regarding Preparation of the Plan.
- 30 TAC §288.22 (a2): Coordination with Regional Water Planning Groups.
- 30 TAC §288.22 (a3): Monitoring for Initiation and Termination of Drought Response Stages.
- 30 TAC §288.22 (a4): Identification of Drought or Emergency Response Stages (at least three).
- 30 TAC §288.22 (a5): Procedures to Follow for the Initiation or Termination of Drought Response Stages.
- 30 TAC §288.22 (a6): Specific, Quantified Targets for Water Use Reductions During Periods of Water Shortage and Drought.
- 30 TAC §288.22 (a7A&B): Specific Water Supply or Water Demand Management Measures to be Implemented During Each Stage of the Plan.
- 30 TAC §288.22 (a8): Provision for Contract Requirements for Successive Customers.
- 30 TAC §288.22 (a9): Procedures for Granting Variances to the Plan.
- 30 TAC §288.22 (a10): Procedures for Enforcement of Mandatory Water Use Restrictions including Specification of Penalties.
- 30 TAC §288.22 (b): Notification of Executive Director of Implementation of Mandatory Provisions of the Drought Contingency Plan.
- 30 TAC §288.22 (c): Review and Update of the Drought Contingency Plan.

## **3.0 Water Conservation Plan**

### **3.1 Description of the District’s Service Area**

The District was created in 1963 by the Legislature (Act 1961, 57th Leg., P. 945, Ch. 416, as amended), pursuant to Section 59 of Article XVI of the Constitution of the State of Texas and by Article 8280-258, Revised Civil Statutes of Texas, 1925, as amended. The District

<sup>2</sup> Title 30, Texas Administrative Code, 288.1.



operates as a conservation and reclamation district, and is authorized to acquire or construct within or without the boundaries of the District in Palo Pinto County or Eastland County, a dam or dams including all works, plants, and other facilities necessary or useful for the purpose of impounding, processing, and transporting water to cities and others for all useful purposes.

The District owns Lake Palo Pinto, which is used to supply water to its three customers. The original dam was constructed in 1964. In 1965, the dam and spillway were modified resulting in the current conservation pool elevation of 867 ft-msl. In June 2007, the TWDB completed a volumetric survey of the lake and determined the capacity of Lake Palo Pinto at 867 ft-msl to be 27,215 acft.<sup>3</sup> The District has water rights to store 44,100 ac-ft in Lake Palo Pinto and 24 ac-ft in the Channel Dam, and to divert up to 12,500 acft/yr from these reservoirs for municipal use and 6,000 ac-ft/yr from these reservoirs for industrial use.

### **3.1.1 Population and Customer Data**

The District's primary municipal customer is the City of Mineral Wells, which had an estimated population of 17,550<sup>4</sup> in 2008. The estimated year 2008 population of the City's seven wholesale customers and the Lake Palo Pinto Area WSC (taken from the Brazos G Regional Water Plan) is approximately 13,000.

### **3.1.2 Water Use Data**

In 2008, the District supplied 6,207 acft of raw water from Lake Palo Pinto for municipal and industrial uses. The majority of the raw water provided by the District is for municipal use by the City of Mineral Wells. The City of Mineral Wells operates one water treatment plant: Hilltop Water Treatment Plant (WTP). In addition to providing their own residents with treated drinking water, the City of Mineral Wells provides treated water supplies to four water supply corporations, two special utility districts and the City of Graford as shown in Figure 3-1.<sup>5</sup> Table 3-1 shows a summary of the previous 5 year water raw water use for all District customers. In 2008, total water use was 6,207 acft with the City and its customers using 5,258 acft (85%), BEPC using 850 acft (14%) and Lake Palo Pinto Area WSC using 99 acft (1%).

<sup>3</sup> Volumetric and Sedimentation Survey of Lake Palo Pinto, June 2007 Survey, TWDB Report, June 2008.

<sup>4</sup> The 2008 population was calculated based on population growth from 2006 to 2007 for the City of Mineral Wells from TWDB and Texas State Data Center population estimates, respectively. This population does not include the City of Mineral Wells wholesale customers.

<sup>5</sup> An indirect customer is a successive customer of the District's primary customers.

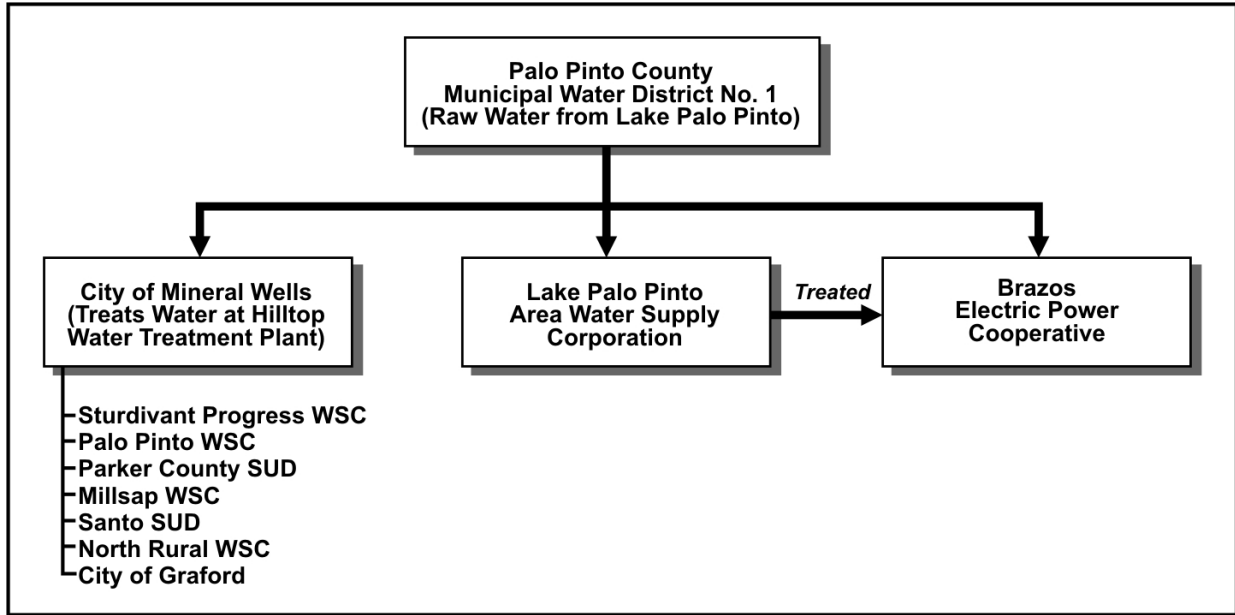


Figure 3-1. Palo Pinto County Municipal Water District No. 1 Customers

Table 3-1.  
Summary of Raw Water Use by  
District Customers for Previous 5 Years

Year	Raw Water Use (acft)			
	Total (acft)	BEPC* (acft)	City & Customers (acft)	Lake Palo Pinto Area WSC
2004	5,269	620	4,649	-
2005	6,841	1,504	5,274	63
2006	6,512	1,205	5,224	83
2007	5,153	517	4,561	75
2008	6,207	850	5,258	99

\*Use based on formula in October 2008 Contract.

3.1.3 Water Supply System Data

Figure 3-2 shows the service areas of municipal entities receiving water from Lake Palo Pinto in Palo Pinto, Parker and Hood Counties. All of these municipal entities are provided treated water through either the City of Mineral Wells or the Lake Palo Pinto Area WSC systems. The District does not maintain or operate water treatment or water distribution facilities.



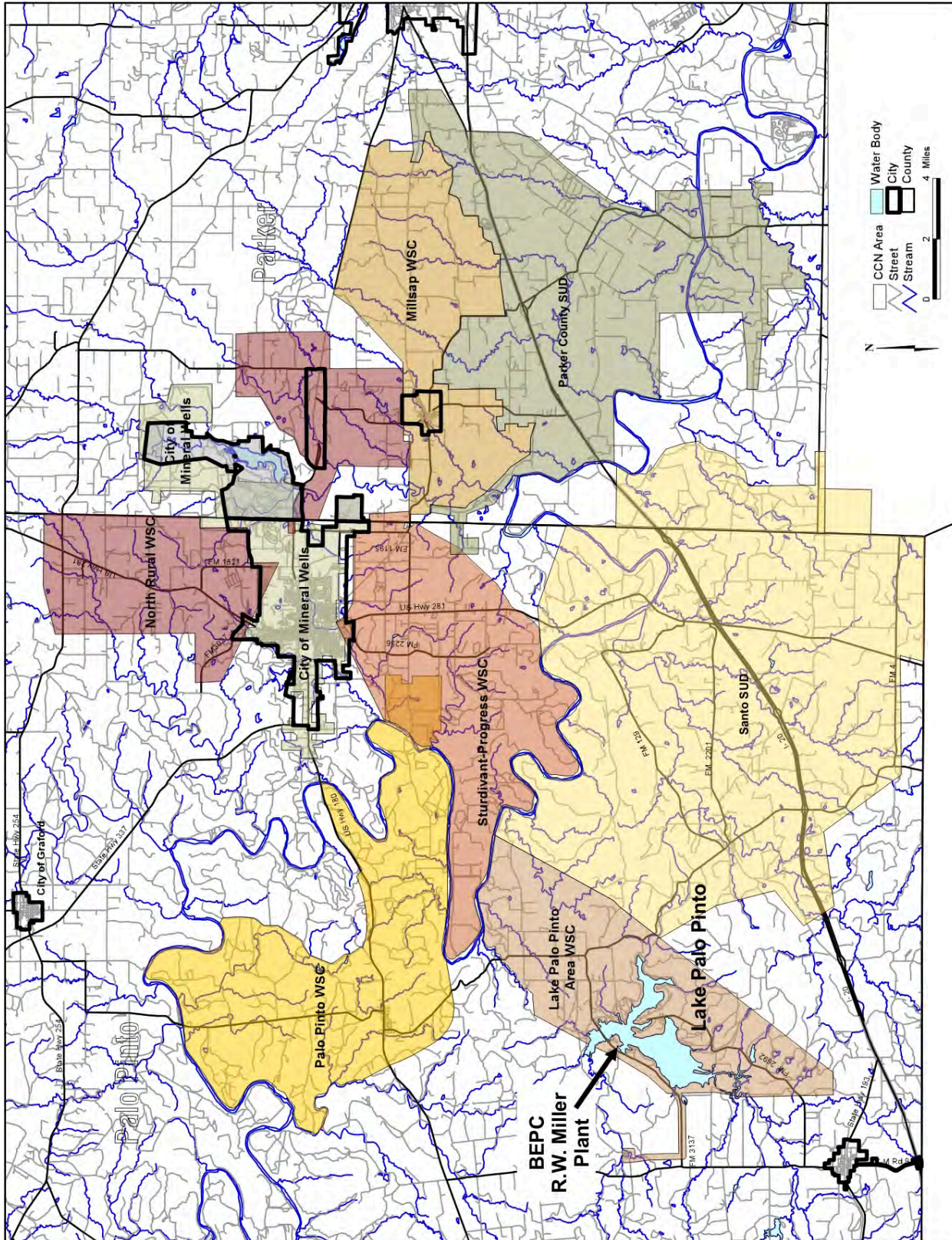


Figure 3-2. Service Area Map — BEPC, the City of Mineral Wells, and Water Supply Corporations

The District also provides raw water to BEPC for steam-electric power generation at their RW Miller Station. BEPC's RW Miller Station consists of (3) steam boiler units: Unit 1 - 75mw, Unit 2 - 120 mw, and Unit 3 - 208 mw. There are also (2) gas turbines Unit 4 - 104 mw and Unit 5 - 104 mw. The plant steam boiler units went online in 1968, 1972, and 1975 and the gas turbines were added in 1994. Cooling water for the steam boilers comes from Lake Palo Pinto through an intake structure and is pumped by the circulating water pumps through the units in a once-through cooling system. Water is also pumped from Lake Palo Pinto to an on site water treatment plant by the service water pumps. Cooling water is not required for the gas turbines, although water injection is used for NOx control on these units. Water is also used through the heat exchangers to dissipate heat and to cool motors. All water not consumed by process operations or evaporated during the heat exchanger process is returned to Lake Palo Pinto as return flow. The minimum elevation that BEPC can withdraw water from Lake Palo Pinto is approximately 850 ft-msl (about 15% of capacity) and their use would be significantly curtailed at this level.

#### **3.1.4 Wastewater Data**

The District does not operate wastewater facilities.

#### **3.1.5 Specific, Quantified 5-Year and 10-Year Water Savings Targets**

The District is a wholesale water provider and does not directly control the water use of its customers nor does it have a direct relationship with retail customers who are the ultimate users of the water. As strictly a wholesale water provider, the District encourages its customers to develop and implement 5-year and 10-year water savings targets based on their water conservation plans.

In August 2008, the Texas Water Development Board<sup>6</sup> recognized the water conservation efforts of the District with the "highest score based on achieving the greatest past reduction in per capita use." When compared to 22 other entities applying for TWDB assistance, the District's service area showed the greatest reduction in average per capita water use.

---

<sup>6</sup> Texas Water Development Board letter, "State Water Plan Projects and Requirements," August 18, 2008.



The specific, quantified 5-year and 10 year water savings targets for municipal users<sup>7</sup> who use on average more than 140 gallons per person per day are as follows:

- A. 0.25% per capita reduction per day for the first 5-year target.
- B. Additional 0.25% per capita reduction per day for the 10-year target.

On October 31, 2008, the District and BEPC renegotiated their water supply contract and reduced BEPC's annual maximum supply from 2,024 acft to 1,200 acft. All water not consumed by BEPC plant operations is returned to Lake Palo Pinto as return flow. Due to the age and layout of the RW Miller Station the BEPC routinely monitors and repairs any leaks in the cooling water system. Extensive data analysis is used to maintain proper water chemistry and pinpoint leaks in boiler and condenser tubes that lower overall performance. BEPC has identified water conservation goals and implemented water conservation practices (see Appendix A). The District encourages BEPC to pursue the goals they have identified. BEPC's new contract with the District requires BEPC to have master meters at the RW Miller Station tested each 12 months for accuracy and if not accurate to within 2 % then BEPC is responsible to either repair or replace the meter.

### **3.3 Description of Practices and/or Devices Used to Account for Determining the Amount of Water Diverted from the Source of Supply**

All diversions of water by the District's municipal customers will be metered or otherwise measured with an accuracy of 2% and reported to the District each January unless drought contingency triggers have been reached and water use is required to be reported at more frequent intervals. BEPC measures and accounts for the amount of water diverted by using master meters which must be maintained to an accuracy of 2% and pump curves.

### **3.4 Monitoring and Record Management Program**

As a wholesale water provider, the District has a monitoring and record management program to assure that its customers are charged appropriately for their water use. The program includes the following:

---

<sup>7</sup> City of Mineral Wells, "Water Conservation and Drought Contingency Plan for the City of Mineral Wells, Texas," Amended April 2005.

- District customers are required by January 31<sup>st</sup> of each year to document their previous year's water usage in a monthly water use summary or report. Additionally BEPC is required to report their monthly power generation in GW-h for Generating Units No. 1, 2 and 3.
- The District has the authority to schedule random readings of customer meters and all customers are required to furnish water use records upon request of the District. The District has the right to access customer meters upon 48 hours prior notice.
- The District requires its customers to furnish, install, test, operate, read and maintain meters. The District requires customers to test Master Meters for accuracy each 12 month period. If accuracy is found to be in excess of the required 2% limit, then the District requires customers to adjust the meter to register correctly and accuracy or to replace the meter. The District has the right to request customers to test Master Meters more frequently than once per year.

### **3.5 Metering, Leak Detection, and Repair Program**

The District encourages its customers to maintain a leak detection and repair program and to maintain careful inspection of raw water main pipes, distribution facilities, and to construct adequate system infrastructure sufficient to meet TCEQ requirements. The District requires all master meters of its customers to be calibrated once a year and to be accurate within 2%.

### **3.6 Contract Requirements for Successive Customers**

The District includes a requirement in every water supply contract entered into or renewed that each successive wholesale customer develop and implement a water conservation plan meeting the requirements of Title 30, Texas Administrative Code, 288.2. This requirement extends to each successive wholesale customer in the resale of water. Any political-subdivision and/or wholesale customer contracting for water from the District must have (1) an approved Texas Water Development Board Conservation and Drought Contingency Plan in effect or (2) must officially adopt applicable provisions of District's Water Conservation and Drought Contingency Plan. Upon each threshold condition, wholesale customers will be notified to implement their plan.



### **3.7 Means of Implementation and Enforcement**

This Water Conservation Plan is required to be followed by all District wholesale customers. Appendix B contains a copy of the resolution by the District Board of Directors adopting this Water Conservation Plan. Both the President of the District or Secretary of the District are authorized to implement and enforce this plan, to the extent provided herein with in the laws of the State of Texas.

### **3.8 Coordination with Regional Water Planning Groups**

The District's service area is located within the Brazos G and Region C Regional Water Planning Areas and the District is providing a copy of this water conservation plan to the Brazos G and Region C Planning Groups.

### **3.9 Additional Conservation Strategies**

The District encourages its water customers to conserve water and implement additional conservation strategies to meet targets and goals identified in their water conservation plans. The District supports their customers' implementation of water conservation strategies including:

- a. Funding education and information programs;
- b. Promoting retrofit programs to improve water-use efficiency in existing buildings;
- c. Promoting water recycling and reuse;
- d. Promoting water conserving landscaping; and
- e. Other water conservation practices identified by their customers.

### **3.10 Conservation-Oriented Water Rate Structure**

The District requires its customers to have either non-declining block rates or increasing block rates to encourage water conservation.

### **3.11 Review and Update of Water Conservation Plan**

The District will review and update its Water Conservation Plan, as appropriate, at least every 5 years from May 1, 2009. The update will include an assessment of previous 5-year and 10-year targets and any other new or updated information.

#### **4.0 Drought Contingency Plan**

The TCEQ requires that wholesale water providers file a drought contingency plan pursuant to 30 TAC 288.22. The District adopts the following Drought Contingency Plan to conserve the District's water supply and to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety, and to minimize the adverse impacts of water supply shortages or other water supply emergency conditions. The topics addressed in the District's Drought Contingency Plan are in accordance with TCEQ guidelines.

#### **4.1 Provisions to Inform the Public and Opportunity for Input**

The District provided the opportunity for public and wholesale customer input in the development of this drought contingency plan by the following means:

- Holding a public meeting on May 19, 2009 to actively inform the public and solicit input for preparation of the drought contingency plan.
- Providing the draft copy of the plan to the District's customers and making a draft copy of the plan available to anyone requesting a copy.
- Holding a public meeting on June 2, 2009 to solicit and receive public input prior to adoption of the drought contingency plan.

The provisions of this Drought Contingency Plan shall apply to all customers utilizing water provided by the District.

#### **4.2 Coordination with Regional Water Planning Groups**

The District's service area is located within the Brazos G and Region C Regional Water Planning Areas and the District will provide a copy of this Drought Contingency Plan to the Brazos G and Region C Planning Groups.

#### **4.3 Monitoring for Initiation and Termination of Drought Response Stages**

The District Secretary, or his/her designee(s), shall monitor water supply and/or demand conditions on a weekly basis and shall, in consultation with the City Manager of the City of Mineral Wells or his/her designee, determine when conditions warrant initiation or termination of each stage of the Plan. Customer notification of the initiation or termination of drought response stages will be made by mail or telephone. The news media will also be informed.

The District will periodically provide wholesale water customers with information about the Plan, including information about the conditions for initiating or terminating trigger stages and the drought response measures to be implemented in each stage. This information will be provided by means of providing a copy of the Plan to its customers.

The District Secretary, or his/her designee(s), is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The District Secretary, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan. The District Secretary, or his/her designee, will coordinate the on-going implementation of the plan with the City Manager of Mineral Wells.

#### **4.4 Identification of Drought or Emergency Response Stages**

The District Secretary, or his/her designee(s), shall monitor water supply and/or demand conditions and, in accordance with the criteria for the four trigger stages set forth below, shall determine that mild, moderate, or severe water shortage conditions exist or that an emergency condition exists and shall implement action according to this plan.

The triggering criteria described below are based on a statistical analysis of the vulnerability of the water source during a repeat of the drought-of-record. Official weather forecasts are to be considered in the initiation and termination of triggering conditions.

#### **4.5 Procedures to Follow for Initiation and Termination of Drought Response Stages**

##### **4.5.1 Stage 1 — Mild Water Shortage Conditions**

Initiation — The District will recognize that a mild water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than elevation 860 ft-msl (about 50% of storage capacity).

Requirements for Termination — Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. The District will notify its customers and the news media of the termination of Stage 1 in the same manner as the notification of initiation of Stage 1 of the Plan.

#### **4.5.2 Stage 2— Moderate Water Shortage Conditions**

Initiation — The District will recognize that a moderate water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than elevation 858 ft-msl (about 40% of storage capacity).

Requirements for Termination — Stage 2 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. The District will notify its customers and the news media of the termination of Stage 2 in the same manner as the notification of initiation of Stage 2 of the Plan.

#### **4.5.3 Stage 3 — Severe Water Shortage Conditions**

Initiation — The District will recognize that a severe water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than elevation 856 ft-msl (about 30% of storage capacity).
2. Mechanical failure of equipment.

Requirements for Termination — Stage 3 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. The District will notify its customers and the news media of the termination of Stage 3 in the same manner as the notification of initiation of Stage 3 of the Plan.

#### **4.5.4 Stage 4 — Emergency Water Shortage Conditions**

Initiation — The District will recognize that an emergency water shortage condition exists when:

1. Water system is contaminated either accidentally or intentionally. Emergency condition is reached immediately upon detection.
2. Water system failure from acts of God (tornadoes, hurricanes) or man. Emergency condition is reached immediately upon detection.
3. Notification to customers will be enacted at once and periodic updates will be conveyed through the news media on progress of emergency water conditions.

Requirements for Termination — After the emergency situation has been resolved, the District will notify its customers and the news media of the termination of Stage 4.

#### **4.6 Specific, Quantified Targets for Water Use Reductions During Periods of Water Shortage and Drought**

##### **4.6.1 Stage 1— Mild Water Shortage Conditions**

Goal: Achieve a voluntary 10% reduction in municipal water use.

##### **4.6.2 Stage 2 — Moderate Water Shortage Conditions**

Goal: Achieve an additional 10% reduction in municipal water use.

##### **4.6.3 Stage 3 — Severe Water Shortage Conditions**

Goal: Achieve a 25% reduction in municipal water use.

#### **4.7 Specific Water Supply or Demand Management Measures to be Implemented During Each Stage of the Plan**

##### **4.7.1 Stage 1— Mild Water Shortage Conditions**

1. Supply Management Measures:
  - a. Monitor Lake Palo Pinto levels.
  - b. Monitor water releases from Lake Palo Pinto to minimize operational spills at the District's Channel Dam on Palo Pinto Creek.
2. Demand Management Measures:
  - a. The District Secretary, or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate voluntary measures to reduce water use, and to implement Stage I of the customer's drought contingency plan.
  - b. The District Secretary, or his/her designee(s), will coordinate with the City Manager of Mineral Wells and designate an information person.
  - c. Advise public of condition and publicize availability of information from the information center and encourage voluntary reduction of water use.
  - d. Monitor system and work with City staff to make adjustments as required to meet changing conditions.
  - e. The District Secretary, or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/ or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

#### **4.7.2 Stage 2 - Moderate Water Shortage Conditions**

1. Supply Management Measures:
  - a. Monitor Lake Palo Pinto levels.
  - b. Monitor water releases from Lake Palo Pinto to minimize operational spills at the District's Channel Dam on Palo Pinto Creek
2. Demand Management Measures:

The District Secretary, or his/her designee(s), on identifying moderate water shortage conditions, shall initiate Stage 2 curtailment. Listed action is compulsory on users and is intended to prohibit non-essential water use. ("Non-essential Water Use" will be defined consistent with the City of Mineral Wells plan.)

- a. The District Secretary, or his/her designee(s), will monitor system function. A rate surcharge may be implemented by the District on excessive water users.
- b. The District Secretary, or his/her designee(s), will initiate weekly contact with wholesale water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.
- c. The District Secretary, or his/her designee(s), will instruct wholesale water customers to initiate mandatory measures to reduce non-essential water use and implement Stage 2 of the customer's drought contingency plan,
- d. The District Secretary, or his/her designee(s), will initiate preparations for the implementation of pro rata curtailment of water diversions, and/or deliveries by preparing monthly water usage allocation baseline for each wholesale customer according to the procedures specified in Section 4.7.5 of the Plan.
- e. The District Secretary, or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and customer information on water conservation measures and practices.

#### **4.7.3 Stage 3 Severe Water Shortage Conditions**

1. Supply Management Measures:
  - a. Monitor Lake Palo Pinto levels.
  - b. Monitor water releases from Lake Palo Pinto to minimize operational spills at the District's Channel Dam on Palo Pinto Creek.



- c. Investigate alternative water sources which might be available for purposes of supplemental supply if drought conditions continue to worsen, such as obtaining supplemental water from the Brazos River.
2. Demand Management Measures:

The District Secretary, or his/her designee(s), shall initiate Stage 3 curtailment upon existence of severe conditions as determined. The District Secretary, or his/her designee(s), in coordination with the City Manager of Mineral Wells will restrict the use of water for certain municipal water use activities consistent with the requirements of the City's plan.

- a. The District Secretary, or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will instruct that wholesale water customers initiate additional mandatory measures to reduce non-essential water use and implement Stage 3 of customer's drought contingency plan.
- b. The District Secretary, or his/her designee(s), will initiate pro rata curtailment of water diversion and/or deliveries for each municipal wholesale customer.
- c. The District Secretary, or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

#### **4.7.4 Stage 4 — Emergency Water Shortage Conditions**

Whenever emergency water shortage conditions exist as defined above in Section 4.5.4, the District Secretary, or his/her designee(s), shall:

1. Assess the severity of the problem and identify the actions needed and time required to solve the problem.
2. Inform the City Manager of Mineral Wells and other responsible official of each wholesale water customer by telephone or in person and suggest actions, as appropriate, to alleviate problems and notification to the public to reduce water use until service is restored.
3. If appropriate, notify city, county, and/or state emergency response officials for assistance.
4. Undertake necessary actions, including repairs and/or clean up as needed.
5. Prepare a post-event assessment report on the incident and critique of emergency response procedures and actions.

#### **4.7.5 Pro-Rata Water Allocation For Stage 3 or Stage 4 Conditions**

In the event of a drought of greater severity than that previously experienced, or if for any other reason water in the District's care becomes in short supply, the District may fairly and equitably apportion and ration the available water supply among its customers.

If Stage 3 — Severe Water Shortage Conditions criteria specified in Section 4.5 have been met, the District Secretary, or his/her designee(s), is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039 and according to the following water allocation policies and procedures:

- A. A wholesale customer's monthly allocation shall be a percentage of the customer's water usage baseline. The percentage will be set by resolution of the Board based on the District Secretary's, or his/her designee(s), assessment of the severity of the water shortage condition and the need to curtail water diversions and/or deliveries and may be adjusted periodically by resolution of the Board, as conditions warrant. Once pro rata allocation is in effect, water diversions by or deliveries to each wholesale customer shall be limited to the allocation established for each month.
- B. A monthly water usage allocation shall be established by the District Secretary, or his/her designee(s), for each wholesale customer. The wholesale customer's water usage baseline will be computed on the average water usage by month for the 5-year period as shown in the example given below. If the wholesale water customer's billing history is less than 5-years, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exist.
- C. The District Secretary, or his/her designee(s), shall provide notice, by certified mail, to each wholesale customer informing them of their monthly water usage allocations and shall notify the news media and the executive director of the TCEQ upon initiation of pro rata allocation.
- D. Upon request of the customer or at the initiative of the District Secretary, or his/her designee(s), the allocation may be reduced or increased, if, (1) the designated period does not accurately reflect the wholesale customer's normal water usage; (2) the customer agrees to transfer part of its allocation to another wholesale customer; or (3) other objective evidence demonstrates that the designated allocation is inaccurate or not appropriate under present conditions. A customer may appeal an allocation established hereunder to the District Board.

**Example Calculation of Monthly Allocation for a Hypothetical Wholesale Water Customer**

	2000	2001	2002	2003	2004	Sum	Avg.	Allocation Percentage	Monthly Allocation
Jan	43.335	44.638	47.571	48.222	50.829	234.269	46.919	75%	35.189
Feb	37.470	39.751	43.335	43.335	47.896	211.787	42.357	75%	31.931
Mar	42.357	48.874	47.571	48.548	51.806	239.156	47.897	75%	35.841
Apr	42.357	54.413	54.739	51.155	60.929	263.267	52.784	75%	39.751
May	52.132	49.526	58.232	59.626	55.716	275.323	55.065	75%	41.380
Jun	73.637	59.952	56.042	66.794	81.131	337.230	67.446	75%	50.503
Jul	76.569	89.276	75.592	102.309	80.153	423.900	84.715	75%	63.536
Aug	72.333	66.143	67.120	109.803	100.680	416.080	83.086	75%	62.233
Sep	64.839	52.132	63.862	74.614	64.514	319.961	63.862	75%	74.896
Oct	53.761	56.042	64.188	53.761	60.278	288.030	57.671	75%	43.335
Nov	45.290	46.267	48.548	49.851	52.784	242.740	48.548	75%	36.493
Dec	46.267	46.593	48.874	50.829	53.761	245.999	49.200	75%	36.818
Total	650.023	653.607	675.112	759.175	760.152		760.152		
*Units in Million Gallons									

**4.7.6 Utilization of Alternative Water Sources (Upon approval by the Executive Director)**

In the event the District determines that the supply available from Lake Palo Pinto may not be adequate to meet the needs of the District’s customers, the District, after consultation with the City Manager of the City of Minerals Wells, will pursue the development of a supplemental water supply source. Previously the City and District have made tentative arrangements with the Brazos River Authority for the purchase of raw water from the Brazos River or its tributaries. Since the water quality of the Brazos River exceeds drinking water standards for dissolved solids, chlorides and sulfates, it will be necessary for this water to be treated to remove a portion of the dissolved minerals. The location of this diversion point, treatment process and point of entry into the City’s system will be determined prior to the diversion of any water and, if necessary, the District will obtain approval of TCEQ’s Executive Director prior to implementation.

**4.8 Provision for Contract Requirements for Successive Customers**

The District will include a requirement in every water supply contract entered into or renewed after official adoption of the drought contingency plan, and including contract extension, that each successive wholesale customer develop and implement a drought

conservation plan meeting the requirements of Title 30, TAC §288.22. This requirement will extend to each successive wholesale customer in the resale of water.

#### **4.9 Procedures for Granting Variances to the Plan**

The District Secretary, or his/her designee(s) may, in writing, grant a variance to the pro rata water allocation policies provided by this Drought Contingency Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met.

1. Compliance with this Drought Contingency Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect,
2. Alternate methods can be implemented which will achieve the same level of reduction in water use.

Customers requesting a variance from the provisions of this Drought Contingency Plan shall file a petition for variance with the District Secretary within 5 days after pro rata allocation has been invoked. All petitions for variance shall be reviewed by the District Secretary, or his/her designee(s), and shall include the following:

1. Name and address of the petitioner(s).
2. Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established above in Section 4.7 adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with the Ordinance.
3. Description of the relief requested.
4. Period of time for which the variance is sought.
5. Alternative measures the petitioner is taking or purpose to take to meet the intent of this Plan and the compliance date.
6. Other pertinent information.

Any variance granted by the District Secretary shall be subject to the following conditions, unless waived or modified by the Board :

1. Variances granted shall include a timetable for compliance.
2. Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance. Initial decisions regarding a petition for variance may be appealed to the Board of the Directors of the District.

#### **4.10 Procedures for Enforcement of Mandatory Water Use Restrictions including Specification of Penalties**

The District may, without liability, curtail partially or wholly the amount of raw water delivered to its primary customers, during times of drought, or under other conditions when it is necessary to curtail deliveries for the District to maintain the operational stability of its raw water supply.

During any period when pro rata allocation of available water supply is in effect, the District may require wholesale customers to pay the following surcharge on excess water diversions and/or deliveries.

1. 1.5 times the normal water charge per thousand-gallon for water diversions and/or deliveries in excess of the monthly allocation up through 5% above the monthly allocation.
2. 2.0 times the normal water charge per thousand gallon for water diversions and/or deliveries in excess of the monthly allocation from 5% through 10% above the monthly allocation.
3. 2.5 times the normal water charge per thousand-gallon for water diversions and/or deliveries in excess of the monthly allocation from 10% through 15% above the monthly allocation.
4. 3.0 times the normal water charge per thousand-gallon for water diversions and/or deliveries more than 15% above the monthly allocation.
5. The above surcharge shall be cumulative.

#### **4.11 Notification of Executive Director of TCEQ of Implementation of Mandatory Provisions of the Drought Contingency Plan**

The District shall notify the Executive Director of TCEQ within 5 business days of the implementation of any mandatory provisions of the drought contingency plan.

#### **4.12 Review and Update of the Drought Contingency Plan**

Per TCEQ rules, the District will review and update, as appropriate, the drought contingency plan, at least every 5 years, based on new or updated information, such as adoption or revision of the Brazos G and/or Region C Regional Water Plan.

## **Appendix B**

### **TCEQ Water Rights Permit (DRAFT)**



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## AMENDMENT TO A CERTIFICATE OF ADJUDICATION

CERTIFICATE NO. 12-4031A

TYPE § 11.122

Owner:	Palo Pinto County Municipal Water District No. 1	Address:	P.O. Box 387 Mineral Wells, Texas 76068
Filed:	November 25, 2009	Granted:	
Purpose:	Municipal and Industrial	County:	Palo Pinto
Watercourse:	Tributaries of Palo Pinto Creek and Palo Pinto Creek, tributary of the Brazos River	Watershed:	Brazos River Basin

WHEREAS, Certificate of Adjudication No. 12-4031 authorizes Palo Pinto County Municipal Water District No. 1 (District or Owner) to maintain two existing dams and reservoirs on Palo Pinto Creek, tributary of the Brazos River, Brazos River Basin, in Palo Pinto County; and

WHEREAS, under Certificate of Adjudication No. 12-4031, the District is authorized to impound not to exceed 44,100 acre-feet of water in Lake Palo Pinto and to impound not to exceed 24 acre-feet of water in a second reservoir on Palo Pinto Creek downstream of Lake Palo Pinto; and

WHEREAS, Certificate of Adjudication No. 12-4031 also authorizes the District to divert and use not to exceed 12,500 acre-feet of water per year for municipal purposes and 6,000 acre-feet of water per year for industrial purposes from the perimeters of these reservoirs at a maximum combined diversion rate of 85.00 cfs (38,250 gpm); and

WHEREAS, Certificate of Adjudication No. 12-4031 contains multiple special conditions and time priorities; and

WHEREAS, in 2007 the Texas Water Development Board (TWDB) performed a volumetric survey of Lake Palo Pinto (Volumetric and Sedimentation Survey of Lake Palo Pinto, June 2007 Survey, TWDB) which determined the storage of Lake Palo Pinto to be 27,215 acre-feet; and

WHEREAS, the District seeks to amend Certificate of Adjudication No. 12-4031 to authorize the construction and maintenance of a new dam (Turkey Peak Dam), located approximately 4 miles downstream of the existing Lake Palo Pinto Dam on Palo Pinto Creek, which would restore the authorized capacity of Lake Palo Pinto, as enlarged, and increase the storage capacity of such Lake, as enlarged, by 5,692 acre-feet, for an authorized maximum total storage of 49,792 acre-feet of water; and

WHEREAS, the District is not requesting a new appropriation of water and indicates that the additional water to support the proposed increase in storage capacity will be charged against **the District's existing diversion rights under the certificate; and**

WHEREAS, the intersection of the centerline of the principal spillway with the centerline of the proposed dam is located 10.5 miles south southeast from Palo Pinto, bearing S 36.5° W, 1,125 feet from the northeast corner of the W.M. Logan Survey, Abstract No. 294, also being at Latitude 32.626047° N, Longitude 98.235357° W; and

WHEREAS, the District also seeks to authorize the diversion of water from anywhere on the perimeter of Lake Palo Pinto, as enlarged; and

WHEREAS, on October 23, 1962, the Texas Water Commission granted **the District's** application for a water right, Permit No. 2031, authorizing the District to (i) impound 34,250 acre-feet of water in Lake Palo Pinto and (ii) divert 16,000 acre-feet of water (10,000 acre-feet for municipal use; 6,000 acre-feet for industrial use) per year from such Lake, with the limitation that only 16,000 acre-feet of water can be collectively diverted from Lake Palo Pinto and Lake Mineral Wells per year; and

WHEREAS, on December 3, 1964, the Texas Water Commission granted an amendment to Permit No. 2031-A, **increasing the District's right to divert water** from Lake Palo Pinto from 16,000 acre-feet per year to 18,500 acre-feet per year; however, such permit amendment failed to include a modification to a limitation in Permit No. 2031 so as to increase the limitation on such annual diversion rights from Lake Palo Pinto (combined with diversions from Lake Mineral Wells) from 16,000 acre-feet per year to 18,500 acre-feet per year; and

WHEREAS, on May 1, 1972, the Texas Water Rights Commission issued an order certifying that under Permit No. 2031-A, the District is authorized to maintain a reservoir (Lake Palo Pinto) having an impounding capacity of 44,100 acre-feet of water and the diversion and use therefrom of 18,500 acre-feet of water per annum for municipal and industrial uses; and

WHEREAS, in this Application, the District requests to correct the error in Special Condition 5.D., changing **the aforementioned limitation on the District's** annual diversion rights out of Lake Palo Pinto, combined with diversions from Lake Mineral Wells, from **"16,000 acre-feet" to "18,500 acre-feet"; and**

WHEREAS, the Texas Commission on Environmental Quality (Commission) finds that jurisdiction over the application is established; and

WHEREAS, the District submitted the ***Lake Palo Pinto Storage Restoration Project at Turkey Peak Palo Pinto County, Texas*** mitigation plan, which was accepted and approved by the Executive Director; and

WHEREAS, the District submitted the ***Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan***, which was accepted and approved by the Executive Director; and

WHEREAS, the District submitted the ***2011 Palo Pinto County Municipal Water District No. 1 Turkey Peak Reservoir Project Monitoring Program for Palo Pinto Creek***, which was accepted and approved by the Executive Director; and

WHEREAS, this amendment, if granted, is subject to the requirements and orders of the Brazos River Watermaster; and

WHEREAS, no requests for a contested case hearing were received for this application; and

WHEREAS, the Executive Director recommends that Special Conditions be included in the amendment; and

WHEREAS, the Commission has complied with the requirements of the Texas Water Code and Rules of the Texas Commission on Environmental Quality in issuing this amendment;

NOW, THEREFORE, this amendment to Certificate of Adjudication No. 12-4031, designated Certificate of Adjudication No. 12-4031A, is issued to the Palo Pinto County Municipal Water District No. 1, subject to the following terms and conditions:

1. IMPOUNDMENT

In lieu of IMPOUNDMENT paragraph 1.A of Certificate of Adjudication No. 12-4031, Owner is now authorized to maintain the existing dam on Palo Pinto Creek creating Lake Palo Pinto, and construct and maintain a new dam (Turkey Peak Dam) enlarging Lake Palo Pinto and impound therein a maximum total of 49,792 acre-feet of water. The intersection of the centerline of the principal spillway with the centerline of Turkey Peak Dam is located S 36.5° W, 1,125 feet from the northeast corner of the W.M. Logan Survey, Abstract No. 294, also being at Latitude 32.626047° N, Longitude 98.235357° W.

2. DIVERSION

A. In addition to the previous diversion authorizations, Owner is also authorized to divert from the perimeter of Lake Palo Pinto, as enlarged by Turkey Peak Dam.

B. Maximum combined rate of 85 cfs (38,250 gpm).

3. PRIORITY DATE

**The time priority of Owner's right is** November 25, 2009 for the storage of an additional 5,692 acre-feet of water in Lake Palo Pinto, as enlarged by Turkey Peak Dam. However, the time priority for the water to initially fill and maintain such additional storage shall be the priority dates established in Section 4. of Certificate of Adjudication No. 12-4031.

4. CONSERVATION

Owner shall implement water conservation plans that provide for the utilization of those practices, techniques, and technologies that reduce or maintain the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, or prevent the pollution of water, so that a water supply is made available for future or alternative uses. Such plans shall include a requirement that in every wholesale water contract entered into, on or after the effective date of this amendment, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures. If the customer intends to resell the water, then the contract for resale of the water must

have water conservation requirements so that each successive wholesale customer in the resale of the water be required to implement water conservation measures.

5. SPECIAL CONDITIONS

- A. In lieu of SPECIAL CONDITION 5.D. of Certificate of Adjudication No. 12-4031, Owner shall not divert any water from Lake Palo Pinto, as enlarged by Turkey Peak Dam, when said diversion will result in there being diverted from Lake Palo Pinto, as enlarged by Turkey Peak Dam, in combination with diversions from Lake Mineral Wells which is authorized under Certificate of Adjudication 12-4039, more than 18,500 acre-feet of water per calendar year.
- B. Owner shall account for the water needed to support the increase in storage capacity (5,692 acre-feet) with **Owner's existing diversion rights authorized under this certificate** in accordance with the most recently approved *Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan*.
- C. Owner shall only impound water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Dam, as authorized by this amendment, in accordance with the most recently approved *Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan*. Owner shall maintain said plan in electronic format and make the data available to the Executive Director upon request. Any modifications to the *Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan* shall be approved by the Executive Director. Only modifications that have the effect of changing a term in the amendment must be in the form of an amendment to the certificate. Should Owner fail to maintain the accounting plan or timely notify the Executive Director of any modifications to the plan, Owner shall immediately cease impoundment of water as authorized in Paragraph 1. IMPOUNDMENT, and either apply to amend the certificate or voluntarily forfeit the amendment. Owner shall provide prior notice to the Executive Director of any proposed modifications of the accounting plan and provide copies of the appropriate documents effectuating such changes.
- D. All mitigation plans and monitoring required herein shall comply with conditions set forth in 33 United States Code §1341, commonly known as the federal Clean Water Act (CWA), §401 and 30 Texas Administrative Code (TAC) §279. Mitigation and monitoring plans shall also comply with §404 of the CWA.
- E. Impoundment of water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Dam, as authorized under this amendment, is contingent upon implementation of the approved *Lake Palo Pinto Storage Restoration Project at Turkey, Peak Palo Pinto County, Texas* mitigation plan. **Owner's continued authorization for impoundment of such water under this Certificate is contingent upon timely completion of implementation in accordance with the terms of the approved mitigation plan.** Modifications or changes to the plan must be approved by the Executive Director. Only modifications that would result in a change to a certificate term must be in the form of an amendment to the certificate.
- F. Owner shall construct and operate a multilevel outlet tower and regulate releases to help ensure that water released from the reservoir maintains existing temperature criterion and presumed Aquatic Life Use designations for Palo Pinto Creek down to the **District's channel dam** in accordance with 30 TAC §§307.4 and 307.7. Owner

shall monitor water quality in accordance with March **2011 Palo Pinto County Municipal Water District No. 1 Turkey Peak Reservoir Project Monitoring Program for Palo Pinto Creek.**

- G. Owner shall conduct additional baseline Aquatic Life Monitoring and water quality monitoring studies twice during the year prior to construction of the project and twice a year for three years following the deliberate impoundment of water in Lake Palo Pinto, as enlarged by Turkey Peak Dam. All Aquatic Life Monitoring and *in situ* measurements of water quality shall be consistent with the **March 2011 Palo Pinto County Municipal Water District No. 1 Turkey Peak Reservoir Project Monitoring Program for Palo Pinto Creek** and follow TCEQ protocols set forth in the most recently approved Surface Water Quality Monitoring Procedures.
- H. Owner shall submit to the Executive Director, a summary report documenting all monitoring activities. The report shall contain a description of the field work; assessment of water quality, fish, and macroinvertebrate communities; and the biological metric scoring criteria used to assess compliance with the Aquatic Life Use designations of Palo Pinto Creek. In the event Aquatic Life Use designations of Palo Pinto Creek are not supported, the report will identify remedial management strategies, subject to Executive Director approval, to meet the designated aquatic life uses.
- I. Owner is not required to release stored water to meet the environmental flow requirements in this amendment. All requirements for pass through of inflows are limited to the volume of calculated inflows. Calculated inflows are the portion of inflows into Lake Palo Pinto that are attributable to the increased drainage area at Turkey Peak Dam, as determined in the **Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan.**
- J. Owner shall determine compliance with the requirement to pass reservoir inflows up to the applicable subsistence or base flow values based on measured flows at the outlet works of Turkey Peak Dam.
- K. Owner shall document compliance with the terms and conditions of this amendment relating to environmental flow requirements in the most recently approved **Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan.**
- L. Impoundment of water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Reservoir, shall be authorized when calculated inflows, exceed the following values subject to the requirements of SPECIAL CONDITIONS M., N. and O., below.

Season	Month	Subsistence Flow (cfs)	Base Flows (cfs)		
			Dry	Average	Wet
Winter	January	1	1	2	3
	February	1	1	2	3
Spring	March	1	1	2	4
	April	1	1	2	4
	May	1	1	2	4
	June	1	1	2	4
Summer	July	1	1	2	4

	August	1	1	2	4
	September	1	1	2	4
	October	1	1	2	4
Winter	November	1	1	2	3
	December	1	1	2	3

- M. Owner shall not impound water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Reservoir, authorized by this amendment if the calculated inflows are below the applicable subsistence flow.
- N. If the calculated inflow is greater than the applicable base flow for the season and hydrologic condition, Owner may impound water in the additional 5,692 acre-feet of storage in Lake Palo Pinto, as enlarged by Turkey Peak Reservoir, authorized by this amendment unless the calculated inflow falls below the applicable base flow value for that hydrologic condition.
- O. The hydrologic condition for the applicable season shall be determined in accordance with the most recently approved ***Lake Palo Pinto Enlargement (Turkey Peak Dam) Accounting Plan***.
- P. Owner shall install a measuring device which accounts for, within 5% accuracy, the quantity of water diverted from Palo Pinto Creek. Owner shall allow representatives of the TCEQ Brazos River Watermaster reasonable access to the property to inspect the measuring device.
- Q. Owner shall contact the Brazos River Watermaster prior to diversion of water authorized in the certificate.

6. TIME LIMITATIONS

- A. Construction of the new dam and modifications to the existing dam must be in accordance with the plans and specifications approved by the Executive Director. Construction of the facility without final approval of the plans and specifications is a violation of the authorization.
- B. Construction shall begin within two years of issuance of this amendment and be completed within five years of the issuance of this amendment, unless Owner applies for and is subsequently granted an extension of time before the expiration of these time limitations.
- C. Failure to commence construction of the new dam and modification of the existing dam within the period stated above shall subject all rights to this amendment to forfeiture, subject to notice and hearing. After beginning construction, failure to timely construct the new dam and modification of the existing dam stated above shall subject this amendment to cancellation in whole or in part, subject to notice and hearing.

This amendment is issued subject to all terms, conditions and provisions contained in Certificate of Adjudication No. 12-4031, except as specifically amended herein.

This amendment is issued subject to all superior and senior water rights in the Brazos River Basin.



Owner agrees to be bound by the terms, conditions and provisions contained herein and such agreement is a condition precedent to the granting of this amendment.

All other matters requested in the application which are not specifically granted by this amendment are denied.

This amendment is issued subject to the Rules of the Texas Commission on Environmental Quality and to the right of continuing supervision of State water resources exercised by the Commission.

---

For the Commission

ISSUED:

DRAFT

## **Appendix C**

### **Professional Services Contract for Engineering and Permitting**

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law. This Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (No. C-700, 2002 Edition) of the Engineers Joint Contract Documents Committee. Their provisions are interrelated, and a change in one may necessitate a change in the other.

# STANDARD FORM OF AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES



Issued and Published Jointly by  
**National Society of  
Professional Engineers**  
*Professional Engineers in Private Practice*



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*a practice division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

---

AMERICAN COUNCIL OF ENGINEERING COMPANIES

---

AMERICAN SOCIETY OF CIVIL ENGINEERS

National Society of Professional Engineers  
1420 King Street, Alexandria, VA 22314

American Council of Engineering Companies  
1015 15th Street N.W., Washington, DC 20005

American Society of Civil Engineers  
1801 Alexander Bell Drive, Reston, VA 20191-4400

TABLE OF CONTENTS

	<u>Page</u>
ARTICLE 1 - SERVICES OF ENGINEER .....	1
1.01 Scope.....	1
ARTICLE 2 - OWNER'S RESPONSIBILITIES.....	1
2.01 General.....	1
ARTICLE 3 - SCHEDULE FOR RENDERING SERVICES.....	1
3.01 Commencement .....	1
3.02 Time for Completion.....	1
ARTICLE 4 - INVOICES AND PAYMENTS .....	2
4.01 Invoices.....	2
4.02 Payments.....	2
ARTICLE 5 - OPINIONS OF COST .....	2
5.01 Opinions of Probable Construction Cost .....	2
5.02 Opinions of Total Project Costs.....	2
ARTICLE 6 - GENERAL CONSIDERATIONS.....	2
6.01 Standards of Performance.....	2
6.02 Design without Construction Phase Services .....	3
6.03 Use of Documents.....	3
6.04 Insurance.....	4
6.05 Suspension and Termination.....	4
6.06 Controlling Law.....	5
6.07 Successors, Assigns, and Beneficiaries .....	5
6.08 Dispute Resolution.....	6
6.09 Environmental Condition of Site .....	6
6.10 Indemnification and Mutual Waiver .....	6
6.11 Miscellaneous Provisions .....	7
ARTICLE 7 - DEFINITIONS .....	7
7.01 Defined Terms .....	7
ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS.....	8
8.01 Exhibits Included .....	8
8.02 Total Agreement .....	9
8.03 Designated Representatives .....	9

STANDARD FORM OF AGREEMENT  
BETWEEN OWNER AND ENGINEER  
FOR  
PROFESSIONAL SERVICES

THIS IS AN AGREEMENT effective as of May 30 , 2008 ("Effective Date") between  
Palo Pinto County Municipal Water District No. 1 ("Owner") and  
HDR Engineering, Inc. ("Engineer").

Owner intends to obtain permits and land necessary for the construction of Turkey Peak Dam and Reservoir and associated relocations and to construct the Turkey Peak Dam and Reservoir and associated relocations.

Owner and Engineer agree as follows:

**ARTICLE 1 - SERVICES OF ENGINEER**

**1.01 Scope**

A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

**ARTICLE 2 - OWNER'S RESPONSIBILITIES**

**2.01 General**

A. Owner shall have the responsibilities set forth herein and in Exhibit B.

B. Owner shall pay Engineer as set forth in Exhibit C.

C. Owner shall be responsible for, and Engineer may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by Owner to Engineer pursuant to this Agreement. Engineer may use such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement.

**ARTICLE 3 - SCHEDULE FOR RENDERING SERVICES**

**3.01 Commencement**

A. Engineer shall begin rendering services as of the Effective Date of the Agreement.

**3.02 Time for Completion**

A. Engineer shall complete its obligations within a reasonable time. Specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided in Exhibit A, and are hereby agreed to be reasonable.

B. If, through no fault of Engineer, such periods of time or dates are changed, or the orderly and continuous progress of Engineer's services is impaired, or Engineer's services are delayed or suspended, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

C. If Owner authorizes changes in the scope, extent, or character of the Project, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

D. Owner shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Engineer's performance of its services.

E. If Engineer fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted, then Owner shall be entitled to the recovery of direct damages resulting from such failure.

## ARTICLE 4 - INVOICES AND PAYMENTS

---

### 4.01 Invoices

A. *Preparation and Submittal of Invoices.* Engineer shall prepare invoices in accordance with its standard invoicing practices and the terms of Exhibit C. Engineer shall submit its invoices to Owner on a monthly basis. Invoices are due and payable within 30 days of receipt.

### 4.02 Payments

A. *Application to Interest and Principal.* Payment will be credited first to any interest owed to Engineer and then to principal.

B. *Failure to Pay.* If Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, then:

1. amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day; and

2. Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Owner has paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension.

C. *Disputed Invoices.* If Owner contests an invoice, Owner may withhold only that portion so contested, and must pay the undisputed portion. Owner shall promptly notify Engineer of the disputed item and request either clarification or that remedial action be taken. After a disputed item has been settled, Engineer shall include the disputed item on a subsequent regularly scheduled invoice or on a special invoice for the disputed item only.

D. *Legislative Actions.* If after the Effective Date of the Agreement any governmental entity takes a legislative action that imposes taxes, fees, or charges on Engineer's services or compensation under this Agreement, then the Engineer may invoice such new taxes, fees, or charges as a Reimbursable Expense to which a factor of 1.0 shall be applied. Owner shall pay such invoiced new taxes, fees, and charges; such payment shall be in addition to the compensation to which Engineer is entitled under the terms of Exhibit C.

## ARTICLE 5 - OPINIONS OF COST

---

### 5.01 Opinions of Probable Construction Cost

A. Engineer's opinions of probable Construction Cost are to be made on the basis of Engineer's experience and qualifications and represent Engineer's best judgment as an experienced and qualified professional generally familiar with the construction industry. However, since Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer. If Owner wishes greater assurance as to probable Construction Cost, Owner shall employ an independent cost estimator as provided in Exhibit B.

### 5.02 Opinions of Total Project Costs

A. The services, if any, of Engineer with respect to Total Project Costs shall be limited to assisting the Owner in collating the various cost categories which comprise Total Project Costs. Engineer assumes no responsibility for the accuracy of any opinions of Total Project Costs.

## ARTICLE 6 - GENERAL CONSIDERATIONS

---

### 6.01 Standards of Performance

A. The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with Engineer's services.

B. Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct any such deficiencies in technical accuracy without additional compensation except to the extent such corrective action is directly attributable to deficiencies in Owner-furnished information.

C. Engineer may employ such Consultants as Engineer deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objections by Owner.



D. Subject to the standard of care set forth in paragraph 6.01.A, Engineer and its Consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

E. Engineer and Owner shall comply with applicable Laws and Regulations and Owner-mandated standards that Owner has provided to Engineer in writing. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the Effective Date of this Agreement may be the basis for modifications to Owner's responsibilities or to Engineer's scope of services, times of performance, and compensation.

G. Engineer shall not be required to sign any documents, no matter by whom requested, that would result in the Engineer having to certify, guarantee, or warrant the existence of conditions whose existence the Engineer cannot ascertain. Owner agrees not to make resolution of any dispute with the Engineer or payment of any amount due to the Engineer in any way contingent upon the Engineer signing any such documents.

H. The General Conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (No. C-700, 2002 Edition) unless both parties mutually agree to use other General Conditions.

I. Engineer shall not at any time supervise, direct, or have control over Contractor's work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to the Contractor's work in progress, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.

J. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform the Work in accordance with the Contract Documents.

K. Engineer shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any of their agents or employees or of any other persons (except Engineer's own employees and its Consultants) at the Site or otherwise furnishing or performing any Work; or for any decision made on interpretations or

clarifications of the Contract Documents given by Owner without consultation and advice of Engineer.

#### **6.02 Design without Construction Phase Services**

A. If Engineer's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, then (1) Engineer's services under this Agreement shall be deemed complete no later than the end of the Bidding or Negotiating Phase; (2) Engineer shall have no design or shop drawing review obligations during construction; (3) Owner assumes all responsibility for the application and interpretation of the Contract Documents, contract administration, construction observation and review, and all other necessary Construction Phase engineering and professional services; and (4) Owner waives any claims against the Engineer that may be connected in any way thereto.

#### **6.03 Use of Documents**

A. All Documents are instruments of service in respect to this Project, and Engineer shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of the Engineer) whether or not the Project is completed. Owner shall not rely in any way on any Document unless it is in printed form, signed or sealed by the Engineer or one of its Consultants.

B. A party may rely that data or information set forth on paper (also known as hard copies) that the party receives from the other party by mail, hand delivery, or facsimile, are the items that the other party intended to send. Files in electronic media format of text, data, graphics, or other types that are furnished by one party to the other are furnished only for convenience, not reliance by the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

C. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any transmittal errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files.

D. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of such documents resulting from the use of software application

packages, operating systems, or computer hardware differing from those used by the documents' creator.

E. Owner may make and retain copies of Documents for information and reference in connection with use on the Project by Owner. Engineer grants Owner a license to use the Documents on the Project, extensions of the Project, and other projects of Owner, subject to the following limitations: (1) Owner acknowledges that such Documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project or on any other project without written verification or adaptation by Engineer; (2) any such use or reuse, or any modification of the Documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to Engineer's Consultants; (3) Owner shall indemnify and hold harmless Engineer and Engineer's Consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification without written verification, completion, or adaptation by Engineer; (4) such limited license to Owner shall not create any rights in third parties.

F. If Engineer at Owner's request verifies or adapts the Documents for extensions of the Project or for any other project, then Owner shall compensate Engineer at rates or in an amount to be agreed upon by Owner and Engineer.

#### 6.04 Insurance

A. Engineer shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Engineer shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Engineer.

B. Owner shall cause Engineer and Engineer's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by Owner which are applicable to the Project.

C. Owner shall require Contractor to purchase and maintain general liability and other insurance in accordance with the requirements of paragraph 5.04 of the "Standard General Conditions of the Construction Contract," (No. C-700, 2002 Edition) as prepared by the Engineers Joint Contract Documents Committee and to cause Engineer and Engineer's Consultants to be listed as additional insureds with respect to such liability and other insurance purchased and maintained by Contractor for the Project.

D. Owner and Engineer shall each deliver to the other certificates of insurance evidencing the coverages indicated in Exhibit G. Such certificates shall be furnished prior to commencement of Engineer's services and at renewals thereafter during the life of the Agreement.

E. All policies of property insurance relating to the Project shall contain provisions to the effect that Engineer's and Engineer's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against Engineer or its Consultants, or any insureds or additional insureds thereunder.

F. At any time, Owner may request that Engineer or its Consultants, at Owner's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective than those specified in Exhibit G. If so requested by Owner, and if commercially available, Engineer shall obtain and shall require its Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by Owner, and Exhibit G will be supplemented to incorporate these requirements.

#### 6.05 Suspension and Termination

##### A. Suspension.

By Owner: Owner may suspend the Project upon seven days written notice to Engineer.

By Engineer: If Engineer's services are substantially delayed through no fault of Engineer, Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement.

B. *Termination.* The obligation to provide further services under this Agreement may be terminated:

##### 1. For cause,

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

##### b. By Engineer:

1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or

2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control.

3) Engineer shall have no liability to Owner on account of such termination.

c. Notwithstanding the foregoing, this Agreement will not terminate under paragraph 6.05.B.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience,

a. By Owner effective upon Engineer's receipt of notice from Owner.

C. *Effective Date of Termination.* The terminating party under paragraph 6.05.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files. Upon payment due for services performed prior to the effective date of termination, Engineer shall deliver or otherwise make available to Owner all documents, data, drawings, specifications, reports, estimates, summaries, notes, and other information and materials as may have been produced or accumulated by Engineer in performing this Agreement.

D. *Payments Upon Termination.*

1. In the event of any termination under paragraph 6.05, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination. Upon making such payment, Owner shall have the limited right to the use of Documents, at Owner's sole risk, subject to the provisions of paragraph 6.03.E.

2. In the event of termination by Owner for convenience or by Engineer for cause, Engineer shall be entitled, in addition to invoicing for those items identified in paragraph 6.05.D.1; to invoice Owner and to payment of a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with Engineer's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit C.

## 6.06 Controlling Law

A. This Agreement is to be governed by the law of the state in which the Project is located.

## 6.07 Successors, Assigns, and Beneficiaries

A. Owner and Engineer each is hereby bound and the partners, successors, executors, administrators and legal representatives of Owner and Engineer (and to the extent permitted by paragraph 6.07.B the assigns of Owner and Engineer) are hereby bound to the other party to this Agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.

B. Neither Owner nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, claims arising out of this Agreement or moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

C. Unless expressly provided otherwise in this Agreement:

1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Engineer to any Contractor, Contractor's subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them.

2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party.

3. Owner agrees that the substance of the provisions of this paragraph 6.07.C shall appear in the Contract Documents.

#### 6.08 Dispute Resolution

A. Owner and Engineer agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to invoking the procedures of Exhibit H or other provisions of this Agreement, or exercising their rights under law.

B. If the parties fail to resolve a dispute through negotiation under paragraph 6.08.A, then either or both may invoke the procedures of Exhibit H. If Exhibit H is not included, or if no dispute resolution method is specified in Exhibit H, then the parties may exercise their rights under law.

#### 6.09 Environmental Condition of Site

A. Owner has disclosed to Engineer in writing the existence of all known and suspected Asbestos, PCBs, Petroleum, Hazardous Waste, Radioactive Material, hazardous substances, and other Constituents of Concern located at or near the Site, including type, quantity, and location.

B. Owner represents to Engineer that to the best of its knowledge no Constituents of Concern, other than those disclosed in writing to Engineer, exist at the Site.

C. If Engineer encounters an undisclosed Constituent of Concern, then Engineer shall notify (1) Owner and (2) appropriate governmental officials if Engineer reasonably concludes that doing so is required by applicable Laws or Regulations.

D. It is acknowledged by both parties that Engineer's scope of services does not include any services related to Constituents of Concern. If Engineer or any other party encounters an undisclosed Constituent of Concern, or if investigative or remedial action, or other professional services, are necessary with respect to disclosed or undisclosed Constituents of Concern, then Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until Owner: (1) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Constituents of Concern; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.

E. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Engineer's services under this Agreement, then the

Engineer shall have the option of (1) accepting an equitable adjustment in its compensation or in the time of completion, or both; or (2) terminating this Agreement for cause on 30 days notice.

F. Owner acknowledges that Engineer is performing professional services for Owner and that Engineer is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, which are or may be encountered at or near the Site in connection with Engineer's activities under this Agreement.

#### 6.10 Indemnification and Mutual Waiver

A. *Indemnification by Engineer.* To the fullest extent permitted by law, Engineer shall indemnify and hold harmless Owner, and Owner's officers, directors, partners, agents, consultants, and employees from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Engineer or Engineer's officers, directors, partners, employees, or Consultants. The indemnification provision of the preceding sentence is subject to and limited by the provisions agreed to by Owner and Engineer in Exhibit I, "Allocation of Risks," if any.

B. *Indemnification by Owner.* To the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer, Engineer's officers, directors, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Owner or Owner's officers, directors, partners, agents, consultants, or employees, or others retained by or under contract to the Owner with respect to this Agreement or to the Project.

C. *Environmental Indemnification.* In addition to the indemnity provided under paragraph 6.10.B of this

Agreement, and to the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer and its officers, directors, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals, and all court, arbitration, or other dispute resolution costs) caused by, arising out of, relating to, or resulting from a Constituent of Concern at, on, or under the Site, provided that (i) any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this paragraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.

D. *Percentage Share of Negligence.* To the fullest extent permitted by law, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.

E. *Mutual Waiver.* To the fullest extent permitted by law, Owner and Engineer waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project.

#### 6.11 Miscellaneous Provisions

A. *Notices.* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, by facsimile, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

B. *Survival.* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.

C. *Severability.* Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Engineer, who agree that the Agreement shall be reformed to replace such stricken

provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

D. *Waiver.* A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement. One or more waivers by either party of any provision, term, condition or covenant shall not be constructed as a waiver of a subsequent breach of the same by the other party.

E. *Accrual of Claims.* To the fullest extent permitted by law, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of Substantial Completion.

### ARTICLE 7 - DEFINITIONS

---

#### 7.01 Defined Terms

A. Wherever used in this Agreement (including the Exhibits hereto) terms (including the singular and plural forms) printed with initial capital letters have the meanings indicated in the text above or in the exhibits; in the following provisions; or in the "Standard General Conditions of the Construction Contract," prepared by the Engineers Joint Contract Documents Committee (No. C-700, 2002 Edition):

1. *Additional Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 2, of this Agreement.

2. *Basic Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 1, of this Agreement.

3. *Construction Cost*--The cost to Owner of those portions of the entire Project designed or specified by Engineer. Construction Cost does not include costs of services of Engineer or other design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, or Owner's costs for legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with the Project, or the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement. Construction Cost is one of the items comprising Total Project Costs.

4. *Constituent of Concern*--Any substance, product, waste, or other material of any nature whatsoever (including, but not limited to, Asbestos, Petroleum, Radioactive Material, and PCBs) which is

or becomes listed, regulated, or addressed pursuant to [a] the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); [b] the Hazardous Materials Transportation Act, 49 U.S.C. §§1801 et seq.; [c] the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); [d] the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; [e] the Clean Water Act, 33 U.S.C. §§1251 et seq.; [f] the Clean Air Act, 42 U.S.C. §§7401 et seq.; and [g] any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

5. *Consultants*--Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer's independent professional associates, consultants, subcontractors, or vendors.

6. *Documents*--Data, reports, Drawings, Specifications, Record Drawings, and other deliverables, whether in printed or electronic media format, provided or furnished in appropriate phases by Engineer to Owner pursuant to this Agreement.

7. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings are not Drawings as so defined.

8. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

9. *Reimbursable Expenses*--The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic and Additional Services for the Project.

10. *Resident Project Representative*--The authorized representative of Engineer, if any, assigned to assist Engineer at the Site during the Construction Phase. The Resident Project Representative will be Engineer's agent or employee and under Engineer's supervision. As used herein, the term Resident Project Representative includes any assistants of Resident Project Representative agreed to by Owner. The duties and responsibilities of the Resident Project Representative, if any, are as set forth in Exhibit D.

11. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

12. *Total Project Costs*--The sum of the Construction Cost, allowances for contingencies, and the total costs of services of Engineer or other design professionals and consultants, together with such other Project-related costs that Owner furnishes for inclusion, including but not limited to cost of land, rights-of-way, compensation for damages to properties, Owner's costs for legal, accounting, insurance counseling and auditing services, interest and financing charges incurred in connection with the Project, and the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement.

## ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS

---

### 8.01 Exhibits Included

A. Exhibit A, "Engineer's Services," consisting of 8 pages.

B. Exhibit B, "Owner's Responsibilities," consisting of 2 pages.

C. Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses," consisting of 3 pages.

D. Exhibit D, "Duties, Responsibilities and Limitations of Authority of Resident Project Representative," consisting of 4 pages.

E. Exhibit E, "Notice of Acceptability of Work," consisting of 2 pages.

F. Exhibit F, Not Used.

G. Exhibit G, "Insurance," consisting of 1 page.

H. Exhibit H, "Dispute Resolution," consisting of 1 page.

I. Exhibit I, "Allocation of Risks," consisting of 1 page.

J. Exhibit J, Not Used.

K. Exhibit K, "Amendment to Standard Form of Agreement," consisting of 2 pages.



## **8.02 Total Agreement**

A. This Agreement (consisting of pages 1 to 10 inclusive, together with the exhibits identified above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument based on the format of Exhibit K to this Agreement.

## **8.03 Designated Representatives**

A. With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of Owner under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of each respective party.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

Owner:

Earl Medlin

By: Earl Medlin

Title: President

Date Signed: May 30, 2008

Address for giving notices:

P.O. Box 387

Mineral Wells, TX 76068

Designated Representative (see paragraph 8.03.A):

Scott Blasor

Title: Secretary

Phone Number: 940-328-7712

Facsimile Number: 940-328-7725

E-Mail Address: ppcmwd\_1@yahoo.com

Engineer:

Kelly Kaatz

By: Kelly Kaatz, P.E.

Title: Senior Vice President

Date Signed: 6-9-08

Engineer License or Certificate No. 75421

State of: Texas

Address for giving notices:

4401 West Gate Blvd.

Suite 400

Austin, TX 78745-1469

Designated Representative (see paragraph 8.03.A):

Kenneth Choffel, P.E.

Title: Senior Vice President

Phone Number: 512-912-5131

Facsimile Number: 512-912-5158

E-Mail Address: ken.choffel@hdrinc.com

This is **EXHIBIT A**, consisting of 8 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008

Engineer's Services

---

Article 1 of the Agreement is amended and supplemented to include the following agreement of the parties. Engineer shall provide Basic and Additional Services as set forth below.

PART 1 – BASIC SERVICES

A1.01 Permitting Phase

A. Engineer shall:

1. Consult with Owner to define and clarify Owner's requirements for the Project and available data.
2. Advise Owner of any need for Owner to provide data or services of the types described in Exhibit B.
3. All work under the Permitting Phase will be performed as Additional Services.

A1.02 Preliminary Design Phase

A. After acceptance by Owner of the Environmental and Alternatives Reports and any other deliverables as described in Exhibit B, selection by Owner of a recommended solution and indication of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner, and upon written authorization from Owner, Engineer shall:

1. Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, outline specifications, and written descriptions of the Project. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project designed or specified by Engineer.
2. Coordinate the services of subconsultants to perform field surveys, geotechnical investigations and topographic and utility mapping for design purposes. Utility mapping will be based upon information obtained from utility owners.
3. Advise Owner if additional reports, data, information, or services of the types described in Exhibit B are necessary and assist Owner in obtaining such reports, data, information, or services.
4. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost, and assist Owner in collating the various cost categories which comprise Total Project Costs.
5. Furnish 5 review copies of the Preliminary Design Phase documents and any other deliverables to Owner within 9 months of authorization to proceed with this phase, and review them with Owner. Within 30 calendar days of receipt, Owner shall submit to Engineer any comments regarding the Preliminary Design Phase documents and any other deliverables.
6. Revise the Preliminary Design Phase documents and any other deliverables in response to Owner's comments, as appropriate, and furnish to Owner 15 copies of the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables within 60 calendar days after receipt of Owner's comments.

B. Engineer's services under the Preliminary Design Phase will be considered complete on the date when the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables have been delivered to Owner.

#### A1.03 Final Design Phase

A. After acceptance by Owner of the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and any other deliverables subject to any Owner-directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon written authorization from Owner, Engineer shall:

1. Prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor. If appropriate, Specifications shall conform to the 16-division format of the Construction Specifications Institute.
2. Provide technical criteria, written descriptions, and design data for Owner's use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design of the Project; assist Owner in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities.
3. Advise Owner of any adjustments to the opinion of probable Construction Cost known to Engineer.
4. Prepare and furnish Bidding Documents for review by Owner, its legal counsel, and other advisors within 9 months of authorization to proceed with this phase and assist Owner in the preparation of other related documents. Within 30 days of receipt, Owner shall submit to Engineer any comments and, subject to the provisions of paragraph 6.01.G, instructions for revisions.
5. Revise the Bidding Documents in accordance with comments and instructions from the Owner, as appropriate, and submit 15 final copies of the Bidding Documents, a revised opinion of probable Construction Cost, and any other deliverables to Owner within 45 calendar days after receipt of Owner's comments and instructions.

B. Engineer's services under the Final Design Phase will be considered complete on the date when the submittals required by paragraph A1.03.A.5 have been delivered to Owner.

C. In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime contract, or if Engineer's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast-tracking), Owner and Engineer shall, prior to commencement of the Final Design Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding or Negotiating, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts. This schedule is to be prepared and included in or become an amendment to Exhibit A whether or not the work under such contracts is to proceed concurrently.

D. The number of prime contracts for Work designed or specified by Engineer upon which the Engineer's compensation has been established under this Agreement is three (3). If more prime contracts are awarded, Engineer shall be entitled to an equitable increase in its compensation under this Agreement.

#### A1.04 Bidding or Negotiating Phase

A. After acceptance by Owner of the Bidding Documents and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by Owner to proceed, Engineer shall:

1. Assist Owner in advertising for and obtaining bids or proposals for the Work and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend pre-Bid conferences, if any, and receive and process contractor deposits or charges for the Bidding Documents.
2. Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.

3. Provide information or assistance needed by Owner in the course of any negotiations with prospective contractors.

4. Consult with Owner as to the acceptability of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors for those portions of the Work as to which such acceptability is required by the Bidding Documents.

5. Attend the Bid opening, prepare Bid tabulation sheets, and assist Owner in evaluating Bids or proposals and in assembling and awarding contracts for the Work.

B. The Bidding or Negotiating Phase will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective contractors.

#### A1.05 Construction Phase

A. Upon successful completion of the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall:

1. *General Administration of Construction Contract.* Consult with Owner and act as Owner's representative as provided in the General Conditions. The extent and limitations of the duties, responsibilities, and authority of Engineer as assigned in the General Conditions shall not be modified, except as Engineer may otherwise agree in writing. All of Owner's instructions to Contractor will be issued through Engineer, which shall have authority to act on behalf of Owner in dealings with Contractor to the extent provided in this Agreement and the General Conditions except as otherwise provided in writing.

2. *Resident Project Representative (RPR).* Provide the services of an RPR at the Site to assist the Engineer and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth in Exhibit D. The furnishing of such RPR's services will not limit, extend, or modify Engineer's responsibilities or authority except as expressly set forth in Exhibit D.

3. *Selecting Independent Testing Laboratory.* Assist Owner in the selection of an independent testing laboratory to perform the services identified in Exhibit B, paragraph B2.01.0.

4. *Pre-Construction Conference.* Participate in a Pre-Construction Conference prior to commencement of Work at the Site.

5. *Schedules.* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.

6. *Baselines and Benchmarks.* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed.

7. *Visits to Site and Observation of Construction.* In connection with observations of Contractor's Work while it is in progress:

a. Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary, to observe as an experienced and qualified design professional the progress and quality of Contractor's executed Work. Such visits and observations by Engineer, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of Contractor's Work in progress or to involve detailed inspections of Contractor's Work in progress beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and observations, Engineer will determine in general if the Work is proceeding in accordance with the Contract Documents, and Engineer shall keep Owner informed of the progress of the Work.

b. The purpose of Engineer's visits to, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Engineer shall not, during such visits or as a result of such observations of Contractor's Work in progress, supervise, direct, or have control over Contractor's Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety on the Site, for safety precautions and programs incident to Contractor's Work, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work. Accordingly, Engineer neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.

8. *Defective Work.* Engineer will have the authority to reject Contractor's Work while it is in progress if, on the basis of Engineer's observations, Engineer believes that such Work will not produce a completed Project that conforms generally to the Contract Documents or that it will threaten the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. However, neither Engineer's authority to reject Work nor Engineer's decision to exercise or not exercise such authority shall give rise to a duty or responsibility of the Engineer to Contractors, Subcontractors, material and equipment suppliers, their agents or employees, or any other person(s) or entities performing any of the Work, including but not limited to any duty or responsibility for Contractors' or Subcontractors' safety precautions and programs incident to the Work.

9. *Clarifications and Interpretations; Field Orders.* Issue necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of Contractor's work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Engineer may issue Field Orders authorizing minor variations in the Work from the requirements of the Contract Documents.

10. *Change Orders and Work Change Directives.* Recommend Change Orders and Work Change Directives to Owner, as appropriate, and prepare Change Orders and Work Change Directives as required.

11. *Shop Drawings and Samples.* Review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.

12. *Substitutes and "or-equal."* Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor, but subject to the provisions of paragraph A2.02.A.2 of this Exhibit A.

13. *Inspections and Tests.* Require such special inspections or tests of Contractor's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents. Engineer's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. Engineer shall be entitled to rely on the results of such tests.

14. *Disagreements between Owner and Contractor.* Render formal written decisions on all duly submitted issues relating to the acceptability of Contractor's work or the interpretation of the requirements of the Contract Documents pertaining to the execution, performance, or progress of Contractor's Work; review each duly submitted Claim by Owner or Contractor, and in writing either deny such Claim in whole or in part, approve such Claim, or decline to resolve such Claim if Engineer in its discretion concludes that to do so would be inappropriate. In rendering



such decisions, Engineer shall be fair and not show partiality to Owner or Contractor and shall not be liable in connection with any decision rendered in good faith in such capacity.

15. *Applications for Payment.* Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:

a. Determine the amounts that Engineer recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the quality of such Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe Contractor's Work. In the case of unit price work, Engineer's recommendations of payment will include final determinations of quantities and classifications of Contractor's Work (subject to any subsequent adjustments allowed by the Contract Documents).

b. By recommending any payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment including final payment will impose on Engineer responsibility to supervise, direct, or control Contractor's Work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the Work in progress, materials, or equipment has passed to Owner free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid.

16. *Contractor's Completion Documents.* Receive, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Contract Documents, certificates of inspection, tests and approvals, Shop Drawings, Samples and other data approved as provided under paragraph A1.05.A.11, and the annotated record documents which are to be assembled by Contractor in accordance with the Contract Documents to obtain final payment. The extent of such review by Engineer will be limited as provided in paragraph A1.05.A.11.

17. *Substantial Completion.* Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with Owner and Contractor, conduct an inspection to determine if the Work is substantially complete. If after considering any objections of Owner, Engineer considers the Work substantially complete, Engineer shall deliver a certificate of Substantial Completion to Owner and Contractor.

18. *Final Notice of Acceptability of the Work.* Conduct a final inspection to determine if the completed Work of Contractor is acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide a notice in the form attached hereto as Exhibit E (the "Notice of Acceptability of Work") that the Work is acceptable (subject to the provisions of paragraph A1.05.A.15.b) to the best of Engineer's knowledge, information, and belief and based on the extent of the services provided by Engineer under this Agreement.

B. *Duration of Construction Phase.* The Construction Phase will commence with the execution of the first construction Contract for the Project or any part thereof and will terminate upon written recommendation by Engineer for final payment to Contractors. If the Project involves more than one prime contract as indicated in paragraph A1.03.C, Construction Phase services may be rendered at different times in respect to the separate contracts. Subject to the provisions

of Article 3, Engineer shall be entitled to an equitable increase in compensation if Construction-Phase services are required after the original date for final completion of the Work as set forth in the construction Contract.

C. *Limitation of Responsibilities.* Engineer shall not be responsible for the acts or omissions of any Contractor, or of any subcontractors, suppliers, or other individuals or entities performing or furnishing any of the Work. Engineer shall not be responsible for the failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.

#### A1.06 Post-Construction Phase

A. Upon written authorization from Owner, Engineer, during the Post-Construction Phase, shall:

1. Provide assistance in connection with the adjusting of Project equipment and systems.
2. Assist Owner in training Owner's staff to operate and maintain Project equipment and systems.
3. Assist Owner in developing procedures for control of the operation and maintenance of, and record keeping for Project equipment and systems.
4. Together with Owner, visit the Project to observe any apparent defects in the Work, assist Owner in consultations and discussions with Contractor concerning correction of any such defects, and make recommendations as to replacement or correction of Defective Work, if present.
5. Assist Owner with instrumentation readings or obtain services of subconsultant to obtain instrumentation readings.
6. In company with Owner or Owner's representative, provide an inspection of the Project within one month before the end of the Correction Period to ascertain whether any portion of the Work is subject to correction.

B. The Post-Construction Phase services may commence during the Construction Phase and, if not otherwise modified in this Exhibit A, will terminate at the end of the Construction Contract's correction period.

#### PART 2 -- ADDITIONAL SERVICES

A2.01. Engineer shall furnish or obtain from others Additional Services of the types listed below.

1. Preparation of applications and supporting documents for private or governmental grants, loans, or advances in connection with the Project; preparation or review of environmental assessments and impact statements; preparation of applications and supporting documents associated with the State water rights and Federal section 404 permitting; attending meetings and responding to agency requests associated with permitting efforts; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; preparation of Environmental and Alternatives Reports for TxDOT, TCEQ, TWDB, USACE or other agencies, and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
2. Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by Owner or others.
3. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer or its design requirements including, but not limited to, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date of this Agreement or are due to any other causes beyond Engineer's control.

4. Services resulting from Owner's request to evaluate alternative solutions.
5. Services required as a result of Owner's request to assist with property acquisition and negotiations with property owners.
6. Providing renderings or models for Owner's use.
7. Undertaking investigations and studies including, but not limited to, detailed consideration of operations, maintenance, and overhead expenses; the preparation of feasibility studies, cash flow and economic evaluations, rate schedules, and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing, and assisting Owner in obtaining process licensing; detailed quantity surveys of materials, equipment, and labor; and audits or inventories required in connection with construction performed by Owner.
8. Furnishing services of Engineer's Consultants for other than Basic Services.
9. Services attributable to more prime construction contracts than specified in paragraph A1.03.C.
10. Services during out-of-town travel required of Engineer other than for visits to the Site or Owner's office.
11. Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructability review requested by Owner; and performing or furnishing services required to revise studies, reports, Drawings, Specifications, or other Bidding Documents as a result of such review processes.
12. Preparing additional Bidding Documents or Contract Documents for alternate bids or prices requested by Owner for the Work or a portion thereof.
13. Determining the acceptability of substitute materials and equipment proposed during the Bidding or Negotiating Phase when substitution prior to the award of contracts is allowed by the Bidding Documents.
14. Assistance in connection with Bid protests, rebidding, or renegotiating contracts for construction, materials, equipment, or services.
15. Providing construction surveys and staking to enable Contractor to perform its work other than as required under paragraph A1.05.A.5, and any type of property surveys or related engineering services needed for the transfer of interests in real property; and providing other special field surveys.
16. Providing Construction Phase services beyond the original date for final completion of the Work.
17. Providing assistance in responding to the presence of any Constituent of Concern at the Site, in compliance with current Laws and Regulations.
18. Preparing and furnishing to Owner Record Drawings showing appropriate record information based on Project annotated record documents received from Contractor.
19. Preparation of operation and maintenance manuals.
20. Preparing to serve or serving as a consultant or witness for Owner in any litigation, arbitration, or other dispute resolution process related to the Project.
21. Providing more extensive services required to enable Engineer to issue notices or certifications requested by Owner.
22. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.
23. Services in connection with Work Change Directives and Change Orders to reflect changes requested by Owner.

24. Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitute materials or equipment other than "or-equal" items; and services after the award of the Construction Contract in evaluating and determining the acceptability of a substitution which is found to be inappropriate for the Project or an excessive number of substitutions.

25. Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of materials, equipment, or energy shortages.

26. Additional or extended services during construction made necessary by (1) emergencies or acts of God endangering the Work, (2) the presence at the Site of any Constituent of Concern, (3) Work damaged by fire or other cause during construction, (4) a significant amount of defective, neglected, or delayed work by Contractor, (5) acceleration of the progress schedule involving services beyond normal working hours, or (6) default by Contractor.

27. Services (other than Basic Services during the Post-Construction Phase) in connection with any partial utilization of any part of the Work by Owner prior to Substantial Completion.

28. Evaluating an unreasonable claim or an excessive number of claims submitted by Contractor or others in connection with the Work.

29. Services during the Construction Phase rendered after the date stated in A1.05.B.

30. Services required as a result of Owner's providing incomplete or incorrect Project information to Engineer.

This is **EXHIBIT B**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Owner's Responsibilities

---

Article 2 of the Agreement is amended and supplemented to include the following agreement of the parties.

B2.01 In addition to other responsibilities of Owner as set forth in this Agreement, Owner shall at its expense:

A. Provide Engineer with all criteria and full information as to Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which Owner will require to be included in the Drawings and Specifications; and furnish copies of Owner's standard forms, conditions, and related documents for Engineer to include in the Bidding Documents, when applicable.

B. Furnish to Engineer any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.

C. Following Engineer's assessment of initially-available Project information and data and upon Engineer's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable Engineer to complete its Basic and Additional Services. Such additional information or data would generally include the following:

1. Property descriptions.
2. Zoning, deed, and other land use restrictions.
3. Property, boundary, easement, right-of-way, topographic, utility, and other special surveys or data, including establishing relevant reference points.
4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
5. Environmental assessments, audits, investigations, and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas except as prepared by Engineer under Exhibit A, Part 2, Additional Services.
6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.

D. Give prompt written notice to Engineer whenever Owner observes or otherwise becomes aware of the presence at the Site of any Constituent of Concern, or of any other development that affects the scope or time of performance of Engineer's services, or any defect or nonconformance in Engineer's services, the Work, or in the performance of any Contractor.

E. Authorize Engineer to provide Additional Services as set forth in Part 2 of Exhibit A of the Agreement as required.

F. Arrange for safe access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services under the Agreement.

G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Engineer (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as Owner deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.

H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by Engineer and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.

I. Provide, as required for the Project:

1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
2. Legal services with regard to issues pertaining to the Project as Owner requires or deems appropriate, Contractor raises, or Engineer reasonably requests, including but not limited to the review of Contract Documents supplied by Engineer.
3. Such auditing services as Owner requires to ascertain how or for what purpose Contractor has used the moneys paid.
4. Placement and payment for advertisement for Bids in appropriate publications.

J. Advise Engineer of the identity and scope of services of any independent consultants employed by Owner to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructability review.

K. Furnish to Engineer data as to Owner's anticipated costs for services to be provided by others (including, but not limited to, accounting, bond and financial, independent cost estimating, insurance counseling, and legal advice) for Owner so that Engineer may assist Owner in collating the various cost categories which comprise Total Project Costs.

L. If Owner designates a construction manager or an individual or entity other than, or in addition to, Engineer to represent Owner at the Site, define and set forth as an attachment to this Exhibit B the duties, responsibilities, and limitations of authority of such other party and the relation thereof to the duties, responsibilities, and authority of Engineer.

M. If more than one prime contract is to be awarded for the Work designed or specified by Engineer, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of Engineer as an attachment to this Exhibit B that is to be mutually agreed upon and made a part of this Agreement before such services begin.

N. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment inspections.

O. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of Samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of Owner, prior to their incorporation into the Work with appropriate professional interpretation thereof.

P. Provide Engineer with the findings and reports generated by the entities providing services to Owner pursuant to this paragraph.



This is **EXHIBIT C**, consisting of 3 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

Payments to Engineer for Services and Reimbursable Expenses

Article 2 of the Agreement is amended and supplemented to include the following agreement of the parties:

ARTICLE 2 -- --Owner's Responsibilities

C2.01 Compensation For Basic Services (other than Resident Project Representative and Post-Construction) -- Percentage of Construction Cost Method of Payment

A. Owner shall pay Engineer for Basic Services set forth in Exhibit A, except for services of Engineer's Resident Project Representative and Post-Construction Phase services, if any, as follows:

1. *General.* An amount equal to 8.0 percent of the Construction Cost for Contract No. 1 for the relocation of Farm to Market Road 4; 13.0 percent of the Construction Cost for Contract No. 2 for the new bridge and roadway relocation at the existing dam; 7.0 percent of the Construction Cost for Contract No. 3 for the Turkey Peak dam and spillways. This amount includes compensation for Engineer's Services including labor, overhead, profit, and Reimbursable Expenses.

2. As a basis for payment to Engineer, Construction Cost will be based on one or more of the following determinations with precedence in the order listed for Work designed or specified by Engineer:

a. For Work designed or specified and incorporated in the completed Project, the actual final cost of the work performed by Contractor and paid by Owner.

b. For Work designed or specified but not constructed, the lowest bona fide Bid received from a qualified bidder for such Work; or, if the Work is not bid, the lowest bona fide negotiated proposal for such Work.

c. For Work designed or specified but not constructed upon which no such Bid or proposal is received, Engineer's most recent opinion of probable Construction Cost.

d. Labor furnished by Owner for the Project will be included in the Construction Cost at current market rates including a reasonable allowance for overhead and profit. Materials and equipment furnished by Owner will be included at current market prices.

e. No deduction is to be made from Engineer's compensation on account of any penalty, liquidated damages, or other amounts withheld from payments to Contractor(s).

3. Progress payments:

a. The portion of the amounts billed for Engineer's services which is on account of the Percentage of Construction Cost will be based upon Engineer's estimate of the proportion of the total services actually completed during the billing period to the Percentage of Construction Cost.

b. Upon conclusion of each phase of Basic Services, Owner shall pay such additional amount, if any, as may be necessary to bring total compensation paid during such phase on account of the percentage of Construction Cost to the following estimated percentages of total compensation payable on account of the percentage of Construction Cost for all phases of Basic Services:

Preliminary Design Phase	40%
Final Design Phase	40%
Bidding or Negotiating Phase	5%
Construction Phase	15%

c. Engineer may alter the distribution of compensation between individual phases of the work noted herein but shall not exceed the total percent fee unless approved in writing by the Owner.

C2.04 Compensation For Resident Project Representative and Post-Construction Basic Services -- Standard Hourly Rates Method of Payment

A. Owner shall pay Engineer for Resident Project Representative and Post-Construction Basic Services as follows:

1. *Resident Project Representative Services.* For services of Engineer's Resident Project Representative, if any, under paragraph A1.05A of Exhibit A, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all Resident Project Representative services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any. The total compensation under this paragraph will be negotiated during the Bidding Phase of each Construction Contract.

2. *Post-Construction Phase Services.* For Post-Construction Phase services under paragraph A1.06 of Exhibit A, an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.

B. Compensation For Reimbursable Expenses

1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under paragraph C2.01, and are directly related to the provision of Resident Project Representative or Post-Construction Basic Services, Owner shall pay Engineer for all expenses multiplied by a factor of 1.10.

2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; expenses incurred for computer time and the use of other highly specialized equipment, subsistence and transportation of Resident Project Representative and assistants; toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A, and, if authorized in advance by Owner, overtime work requiring higher than regular rates.

3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be those internal expenses related to the Resident Project Representative or Post-Construction Basic Services that are actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to such services, both multiplied by a factor of 1.10.

C. Other Provisions Concerning Payment Under this Paragraph C2.04

1. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 1.05.

2. Factors. The external Reimbursable Expenses and Engineer's Consultant's factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.

3. Estimated Compensation Amounts

a. Engineer's estimate of the amounts that will become payable for specified services are only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.

b. When estimated compensation amounts have been stated herein and it subsequently becomes apparent to Engineer that a compensation amount thus estimated will be exceeded, Engineer shall give Owner written

notice thereof. Promptly thereafter Owner and Engineer shall review the matter of services remaining to be performed and compensation for such services. Owner shall either agree to such compensation exceeding said estimated amount or Owner and Engineer shall agree to a reduction in the remaining services to be rendered by Engineer, so that total compensation for such services will not exceed said estimated amount when such services are completed. If Engineer exceeds the estimated amount before Owner and Engineer have agreed to an increase in the compensation due Engineer or a reduction in the remaining services, the Engineer shall be paid for all services rendered hereunder.

4. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.

#### C2.05 Compensation For Additional Services

A. Owner shall pay Engineer for Additional Services as follows:

1. *General.* For services of Engineer's employees engaged directly on the Project pursuant to paragraph A2.01 or A2.02 of Exhibit A, except for services as a consultant or witness under paragraph A2.01.A.20, an amount equal to the cumulative hours charged to the Project by each Engineer's employees times the Engineer's applicable Salary Costs times a factor of 2.3, plus related Reimbursable Expenses and Engineer's Consultant's charges, if any.

B. Compensation For Reimbursable Expenses

1. For those Reimbursable Expenses that are not accounted for in the compensation for Basic Services under paragraph C2.01 and are directly related to the provision of Additional Services, Owner shall pay Engineer for all expenses multiplied by a factor of 1.10.

2. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; expenses incurred for computer time and the use of other highly specialized equipment, toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A, and, if authorized in advance by Owner, overtime work requiring higher than regular rates.

3. The amounts payable to Engineer for Reimbursable Expenses, if any, will be the Additional Services-related internal expenses actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to Additional Services, both multiplied by a factor of 1.1.

C. Other Provisions Concerning Payment For Additional Services

1. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 1.05.

2. Factors. The external Reimbursable Expenses and Engineer's Consultant's factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.

3. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.

This is **EXHIBIT D**, consisting of 4 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Duties, Responsibilities, and Limitations of Authority of Resident Project Representative

---

Paragraph 1.01.A of the Agreement is amended and supplemented to include the following agreement of the parties:

D1.01 Resident Project Representative

A. Engineer shall furnish a Resident Project Representative (“RPR”), assistants, and other field staff to assist Engineer in observing progress and quality of the Work. The RPR, assistants, and other field staff under this Exhibit D may provide full time representation or may provide representation to a lesser degree.

B. Through such additional observations of Contractor’s work in progress and field checks of materials and equipment by the RPR and assistants, Engineer shall endeavor to provide further protection for Owner against defects and deficiencies in the Work. However, Engineer shall not, during such visits or as a result of such observations of Contractor’s work in progress, supervise, direct, or have control over the Contractor’s Work nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to the Contractor’s work in progress, for any failure of Contractor to comply with Laws and Regulations applicable to Contractor’s performing and furnishing the Work, or responsibility of construction for Contractor’s failure to furnish and perform the Work in accordance with the Contract Documents. In addition, the specific terms set forth in section A.1.05 of Exhibit A of the Agreement are applicable.

C. The duties and responsibilities of the RPR are as follows:

1. *General:* RPR is Engineer’s agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR’s actions. RPR’s dealings in matters pertaining to the Contractor’s work in progress shall in general be with Engineer and Contractor, keeping Owner advised as necessary. RPR’s dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner with the knowledge of and under the direction of Engineer.

2. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.

3. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.

4. *Liaison:*

a. Serve as Engineer’s liaison with Contractor, working principally through Contractor’s superintendent, assist in providing information regarding the intent of the Contract Documents.

b. Assist Engineer in serving as Owner’s liaison with Contractor when Contractor’s operations affect Owner’s on-Site operations.

c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.

5. *Interpretation of Contract Documents:* Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.

6. *Shop Drawings and Samples:*

a. Record date of receipt of Samples and approved Shop Drawings.

b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.

c. Advise Engineer and Contractor of the commencement of any portion of the Work requiring a Shop Drawing or Sample submittal for which RPR believes that the submittal has not been approved by Engineer.

7. *Modifications:* Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.

8. *Review of Work and Rejection of Defective Work:*

a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.

b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

9. *Inspections, Tests, and System Startups:*

a. Consult with Engineer in advance of scheduled major inspections, tests, and systems startups of important phases of the Work.

b. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.

c. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to Engineer.

10. *Records:*

a. Maintain at the Site orderly files for correspondence, reports of job conferences, reproductions of original Contract Documents including all Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports, Shop Drawing and Sample submittals received from and delivered to Contractor, and other Project-related documents.

b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer.

c. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, subcontractors, and major suppliers of materials and equipment.

- d. Maintain records for use in preparing Project documentation.
- e. Upon completion of the Work, furnish original set of all RPR Project documentation to Engineer.

11. *Reports:*

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Furnish to Engineer and Owner copies of all inspection, test, and system start-up reports.
- d. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Constituent of Concern.

12. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

13. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

14. *Completion:*

- a. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
- b. Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

D. Resident Project Representative shall not:

- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
- 2. Exceed limitations of Engineer's authority as set forth in the Agreement or the Contract Documents.
- 3. Undertake any of the responsibilities of Contractor, subcontractors, suppliers, or Contractor's superintendent.
- 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.
- 5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.



6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

This is **EXHIBIT E**, consisting of 2 pages, referred to in and part of the **Agreement** between **Owner and Engineer for Professional Services** dated May 30, 2008.

---

NOTICE OF ACCEPTABILITY OF WORK

---

PROJECT:

OWNER:

OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION:

EFFECTIVE DATE OF THE CONSTRUCTION AGREEMENT:

CONSTRUCTION CONTRACT DATE:

ENGINEER:

---

To:

OWNER

And To:

CONTRACTOR

From:

ENGINEER

---

The Engineer hereby gives notice to the above Owner and Contractor that the completed Work furnished and performed by Contractor under the above Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated \_\_\_\_\_, \_\_\_\_\_, and the terms and conditions set forth on the reverse side of this Notice.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Dated: \_\_\_\_\_

(Reverse side of Notice)

**CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK**

The Notice of Acceptability of Work ("Notice") on the front side of this sheet is expressly made subject to the following terms and conditions to which all persons who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the professional judgment of Engineer.
3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the date hereof.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner and under the Construction Contract referred to on the front side of this Notice, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement and Construction Contract.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract referred to on the front side of this Notice, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents.

**EXHIBIT F - Not Used**

This is **EXHIBIT G**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Insurance

---

G6.04 Insurance

A. The limits of liability for the insurance required by paragraph 6.04.A and 6.04.B of the Agreement are as follows:

1. By Engineer:

a. Workers' Compensation:	Statutory
b. Employer's Liability --	
1) Each Accident:	<u>\$500,000</u>
2) Disease, Policy Limit:	<u>\$500,000</u>
3) Disease, Each Employee:	<u>\$500,000</u>
c. General Liability --	
1) General Aggregate:	<u>\$1,000,000</u>
2) Each Occurrence (Bodily Injury and Property Damage):	<u>\$1,000,000</u>
d. Excess or Umbrella Liability --	
1) Each Occurrence:	<u>\$1,000,000</u>
2) General Aggregate:	<u>\$1,000,000</u>
e. Automobile Liability --	
1) Bodily Injury:	
a) Each Accident	<u>\$1,000,000</u>
2) Property Damage:	
a) Each Accident	<u>\$1,000,000</u>
f. Professional Liability --	
1) Each Claim Made	<u>\$1,000,000</u>
2) General Aggregate:	<u>\$1,000,000</u>

B. Additional Insureds

1. The Owner shall be listed on Engineer's general liability policy as provided in paragraph 6.04.A.

This is **EXHIBIT H**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Dispute Resolution

---

Paragraph 6.08 of the Agreement is amended and supplemented to include the following agreement of the parties:

H6.09 Dispute Resolution

A. Mediation. Owner and Engineer agree that they shall first submit any and all unsettled claims, counterclaims, disputes, and other matters in question between them arising out of or relating to this Agreement or the breach thereof (“Disputes”) to mediation. If such mediation is unsuccessful in resolving a Dispute, then (a) the parties may mutually agree to a dispute resolution of their choice, or (b) either party may seek to have the Dispute resolved by a court of competent jurisdiction.



This is **EXHIBIT I**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated May 30, 2008.

Allocation of Risks

---

Paragraph 6.11 of the Agreement is amended and supplemented to include the following agreement of the parties:

16.11.B Limitation of Engineer's Liability

1. *Exclusion of Special, Incidental, Indirect, and Consequential Damages.* To the fullest extent permitted by law, and notwithstanding any other provision in the Agreement, consistent with the terms of paragraph 6.11.E the Engineer and Engineer's officers, directors, partners, employees, agents, and Engineer's Consultants, or any of them, shall not be liable to Owner or anyone claiming by, through, or under Owner for any special, incidental, indirect, or consequential damages whatsoever arising out of, resulting from, or in any way related to the Project or the Agreement from any cause or causes, including but not limited to any such damages caused by the negligence, professional errors or omissions, strict liability, breach of contract, or warranties, express or implied, of Engineer or Engineer's officers, directors, partners, employees, agents, or Engineer's Consultants, or any of them.

**EXHIBIT J – Not Used**

This is EXHIBIT K, consisting of 1 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

**AMENDMENT TO OWNER-ENGINEER AGREEMENT**

1. Background Data:

- a. Effective Date of Owner-Engineer Agreement: \_\_\_\_\_
- b. Owner: \_\_\_\_\_
- c. Engineer: \_\_\_\_\_
- d. Project: \_\_\_\_\_

2. Nature of Amendment [Check those that are applicable and delete those that are inapplicable.]

- \_\_\_\_\_ Additional Services to be performed by Engineer
- \_\_\_\_\_ Modifications to Services of Engineer
- \_\_\_\_\_ Modifications to Responsibilities of Owner
- \_\_\_\_\_ Modifications to Payment to Engineer
- \_\_\_\_\_ Modifications to Time(s) for rendering Services
- \_\_\_\_\_ Modifications to other terms and conditions of the Agreement

3. Description of Modifications

Attachment 1, "Modifications"  
[List other Attachments, if any]

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is \_\_\_\_\_.

OWNER:

ENGINEER:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Date Signed: \_\_\_\_\_

This is **Attachment 1**, consisting of 1 pages, to Amendment No. \_\_\_\_\_, dated \_\_\_\_\_.

**Modifications**

[Include the following paragraphs that are appropriate and delete those not applicable to this amendment. Refer to paragraph numbers used in the Agreement or a previous amendment for clarity with respect to the modifications to be made. Use paragraph numbers in this document for ease of reference herein and in future correspondence or amendments.]

1. Engineer shall perform the following Additional Services:
  
2. The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows:
  
3. The responsibilities of Owner are modified as follows:
  
4. For the Additional Services or the modifications to services set forth above, Owner shall pay Engineer the following additional or modified compensation:
  
5. The schedule for rendering services is modified as follows:
  
6. Other portions of the Agreement (including previous amendments, if any) are modified as follows:

This is EXHIBIT K, consisting of 2 pages, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated May 30, 2008.

*No. 1*  
**AMENDMENT TO OWNER-ENGINEER AGREEMENT**

1. Background Data:

- a. Effective Date of Owner-Engineer Agreement: May 30, 2008
- b. Owner: Palo Pinto County Municipal Water District No. 1
- c. Engineer: HDR Engineering, Inc
- d. Project: Turkey Peak Dam and Reservoir

2. Nature of Amendment:

- 1) Additional Services to be performed by Engineer
- 2) Modifications to Payment to Engineer

3. Description of Modifications

Attachment 1, Modifications (1 page)  
Attachment 2, HDR Technical Memorandum – Potential Cost Reduction Measures (12/3/2012; 3 pages)

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is December 5, 2014.

OWNER:

ENGINEER:

David R. Turk  
By: DAVID R. TURK  
Title: PRESIDENT  
Date Signed: 12/5/14

Kelly J. Kaatz  
By: Kelly J. Kaatz, P.E.  
Title: Senior Vice President  
Date Signed: 12/1/14

This is Attachment 1, consisting of 1 page, to Amendment No. 1, dated December 5, 2014.

#### Modifications

1. Engineer shall perform the following Additional Services:

The Engineer will perform Value Engineering (VE) analyses of the Project generally as described in December 3, 2012 Technical Memorandum (TM) prepared by the Engineer entitled "Potential Cost Reduction Measures". During the Preliminary Design of the Project, the Engineer incorporated many of the cost reduction measures as described in the TM including the development of a physical spillway model by Utah State University that resulted in the dam and spillway being moved downstream and closer to FM 4 (revised dam alignment). For the VE analyses, the Engineer will evaluate the revised dam alignment and other potential cost reduction measures as identified in the TM to determine: 1) if they are feasible; 2) how much, if any, risk they could potentially add to the safe operation of the facilities; and 3) the estimated cost reduction potential of each item, if incorporated in the design of the Project. The Engineer will prepare a TM describing the analyses and will include recommendations as to which design modifications should be incorporated. The Engineer will prepare a new Project construction cost estimate to determine the estimated reduction in costs.

To provide data to support the VE analyses at the new dam site, the Engineer will obtain the services of a Geotechnical firm with drilling and materials testing capabilities to perform a Phase 3 Geotechnical Investigation. The Engineer will provide an on-site representative during the on-site drilling and sampling operations of the Geotechnical firm. The Geotechnical firm will be required to produce a Data Report that will summarize the findings of the Phase 3 Geotechnical Investigation. This Data Report will be used by the Engineer during the VE analyses.

2. For the Additional Services set forth above, Owner shall pay Engineer the following additional compensation:

Owner will pay the Engineer for the above described Additional Services in accordance with the terms of Section C2.05 of this Agreement (Page 3 of Exhibit C "Compensation for Additional Services"). The estimated cost of these services is \$1,400,000 and this amount will not be exceeded without additional authorization from the Owner.

3. The schedule for rendering these services is approximately 12 months.
4. Other portions of the Agreement (including previous amendments, if any) are modified as follows:

Based on the revised dam alignment and the Phase 3 Geotechnical Investigation, the results of the VE analyses are anticipated to result in the modification or removal of project elements that were designed and incorporated in the Preliminary Design of the Project by the Engineer. Because the Engineer has previously performed design work on these project elements, the Engineer's payment for Basic Services for the Preliminary Design Phase will now be fixed based on 40% of the Engineer's Basic Services Fee as computed using the December 2012 Construction Cost estimate without contingencies. This Preliminary Design Phase compensation will not be revised up or down in the future. The Engineer's compensation for Basic Services for the other Phases of the Project will still be based on 60% of the Engineer's Basic Services Fee as computed based on Construction Costs for the remaining Phases of the Project (i.e. Final Design, Bidding or Negotiating, and Construction).

To: Ken Choffel, P.E., Project Manager	
From: Rich Shoemaker, P.E.	Project: Turkey Peak Dam & Reservoir
CC:	
Date: December 3, 2012	Job No: 120507

**RE: Potential Cost Reduction Measures**

Ten potential cost reduction measures were identified and discussed during the second internal Independent Technical Review meeting (May 2-3, 2012) for Turkey Peak Dam. These ideas are listed below along with comments as to how they were addressed during preliminary design of the project.

1. Maximize use of required excavation (downstream random zone, emergency spillway fill along upstream and downstream edges, flatten saddle dam slopes, stability toe berms at maximum section):
  - a. This was addressed and has been incorporated into the embankment configuration, emergency spillway layout, and saddle dam slopes.
2. Lower top of dam by widening emergency spillway:
  - a. This was addressed; the spillway was widened from 800 to 1,100 feet and resulted in the ability to lower the dam crest elevation (see Item 3).
3. Perform detailed wave and freeboard analyses to lower top of dam elevation:
  - a. This analysis was performed and, when combined with the results of widening the emergency spillway, the top of dam was lowered 3.5 feet from 894 to 890.5 ft-msl.
4. Reduce construction risk via design measures:
  - a. This was addressed by examining historic flood flows for Palo Pinto Creek and establishing the size and number of diversion conduits in the RCC dam and providing additional flood storage in Lake Palo Pinto by allowing the use 2-ft high flashboards on top of the spillway crest at Lake Palo Pinto.
5. Reduce length of RCC bulkheads (non-overflow gravity ends of RCC structure):
  - a. No further reduction in length of the originally conceived 200-ft long bulkhead sections was possible in order to maintain 3H:1V vegetated downstream and 2.5H:1V riprap protected upstream slopes for the embankment wrap around at each end of the RCC structure. The required 200-ft length is being dictated by the depth of excavation for the structure and the lowest gate elevation (818 feet) at the intake tower incorporated into the upstream face of the RCC dam to the left (north) of the 500-ft wide spillway.
6. Stilling basin hydraulic criteria:
  - a. The stilling basin length and type for preliminary design was established based on hydraulic computations and empirical relationships. A physical model study is recommended prior to final design to optimize the dimensions and type of stilling basin, as well as the spillway discharge channel.
7. Reduce foundation grouting in non-critical areas:
  - a. In preliminary design phase an exploratory curtain grouting program was developed for the entire dam foundation. Opportunities to reduce this should be explored during the final design.



8. Consider eliminating a drainage gallery in the RCC dam section:
  - a. The drainage gallery was eliminated during preliminary design by increasing the structure's mass with an RCC heel section in front of the dam from the foundation surface up to elevation 820 ft. Curtain grouting will be performed beneath the RCC dam/spillway to reduce seepage and potential uplift pressures. An under-drain system will also be installed in the foundation rock beneath the leveling concrete and stilling basin slab to control seepage and reduce uplift pressures.
9. Slurry cutoff wall versus deep excavated and backfilled cutoff trench:
  - a. After discussions during preliminary design, this type of cutoff wall was not considered because of the potential for settlement in the alluvium beneath the embankments, particularly the soft, loose recent alluvium in the creek area and differential settlement concerns at the steep right (south) abutment contact. Removal and replacement of a substantial amount of the recent and terrace alluvium beneath the dam was deemed necessary to reduce long-term settlement of the embankment(s) and the potential for excessive differential settlement at the maximum section in the creek area and adjacent to the south abutment. (Note: This should be further evaluated during final design.) There are also complications associated with tying the slurry cutoff wall into the ends of the RCC bulkheads, as well as concerns about differential settlement between the embankment and RCC structure at the transition sections. Additionally, the quantity (square feet) of slurry wall cutoff that would be required is fairly small, and the high cost of mobilization for construction would drive up the unit price. Therefore, the relative cost savings compared to excavation and replacement is not likely to be significant.
10. Homogeneous versus zoned embankment:
  - a. It is believed that sufficient quantities of lean and sandy clay materials exist in the proposed borrow areas and required excavations to design and construct a zoned embankment dam with a central clay core.

The above list was not considered to be exhaustive at the time it was developed and additional potential cost reduction measures should be considered during the final design phase. After completing preliminary designs for various project elements and developing the opinions of probable construction cost, there appears to be a limited number of potential design modifications that would have a significant impact on reducing construction costs. The following items should be investigated during final design to determine their potential for reducing the estimated construction cost:

1. Conduct a physical model study of the RCC dam/spillway to examine and optimize: a) the steps on the 0.85H:1V overflow slope for energy dissipation; b) the length and type of stilling basin; c) the height of the stilling basin training walls; and d) the configuration of the spillway discharge channel considering the effects of anticipated high tail water levels. Potential cost reduction: \$100,000 to \$300,000.
2. Reduce the amount of rock excavation currently proposed to achieve an acceptable foundation surface for the RCC dam/spillway. Additional geotechnical investigations will be required to evaluate the continuity of a thin clay seam(s) near the upper portion of the Dobbs Valley sandstone immediately below the Goen limestone, which is currently dictating a substantial amount of rock excavation, followed by replacement of the excavated volume with leveling concrete and RCC. Potential cost reduction: \$1,000,000 to \$1,500,000.
3. Consider less costly alternatives for the upstream and downstream concrete facing elements on the RCC dam/spillway. These two items combined account for approximately \$6,000,000 of the current estimated construction cost of the RCC structure. Potential cost reduction: \$1,000,000 to \$1,500,000.

4. Optimize the dimensions (volume) of the RCC dam/spillway by performing additional detailed (possibly 3-D) stability analyses using shear strength parameters derived from direct shear testing of rock cores at and below the proposed foundation surface. Potential cost reduction unknown; depends on the results of direct shear testing and stability analyses.
5. Perform a detailed thermal (cracking) analysis of the RCC structure to minimize the number of crack inducers required in the dam/spillway. Potential cost reduction: \$250,000.
6. Perform trial RCC mix designs using aggregate from at least three potential sources and various amounts of Portland cement and fly ash to determine the total cementitious content and blend required for each source to produce RCC with the desired compressive strength, unit weight and durability properties. Potential cost reduction unknown; depends strictly on the results of mix design testing (aggregate cost and cementitious material requirements) and how that compares to preliminary design assumptions.
7. Optimize the structural design of the stilling basin retaining walls and their footings. Reduce the stilling basin slab thickness from 3 to 2 feet. Potential cost reduction: \$250,000 to \$400,000.
8. Limit the locations for curtain grouting in the dam foundation to the abutments and beneath the RCC dam/spillway. Potential cost reduction: \$250,000.
9. Perform on-site testing of foundation materials using test-pits to reduce the amount of general excavation beneath the shells of the embankment dams. Also evaluate a combination of excavation and ground improvement such as deep dynamic compaction or vibro-compaction. Potential cost reduction: \$0 to \$2,000,000.
10. Reduce the amount of excavation in the spillway discharge channel by optimizing dimensions of spillway stilling basin and discharge channel during physical model testing. Potential cost reduction: \$250,000 to \$500,000.
11. Reduce thickness of rock riprap slope protection layer from 24 to 21 inches on upstream face of Turkey Peak Dam and downstream slope of Lake Palo Pinto Dam. Also consider adding riprap to upper slope of Lake Palo Pinto Dam to reduce District's maintenance costs. Potential cost reduction: \$50,000 to \$250,000.
12. Reduce amount of rock riprap placed in spillway discharge channel as a result of reduced channel dimensions determined by physical model study: Potential cost reduction: \$250,000.
13. Allow flexibility in construction sequencing to reduce the amount of double handling of material from required excavations. This flexibility would probably be best achieved by having a single construction contract for the entire project. A single contract will also help to reduce the overall risk to the Owner of a contractor not finishing part of the work on-time. Potential cost reduction: \$500,000 to \$1,000,000.
14. As part of the Phase 3 geotechnical investigation, investigate areas near the project to determine if a suitable quantity of quality rock can be located that contractor could process on site for use as: riprap and associated base material; road base material; RCC and /or concrete aggregate; and other potential uses. Potential savings: \$500,000 to \$1,000,000.
15. As part of the Phase 3 geotechnical investigation, evaluate moving the main dam alignment downstream and purchase the old Shirley Henry property. If foundation conditions are determined to be acceptable, this could result in significantly reducing the volume of dam embankment material and foundation preparation necessary to construct the North dam embankment. Potential cost savings: \$1,000,000 to \$3,000,000.
16. As part of the Phase 3 geotechnical investigation, evaluate the use of clay seepage blankets on each abutment in place of the cut-off walls. Potential cost savings: \$400,000 to \$600,000

Summary of Potential Cost Savings during Final Design: \$5,800,000 (sum of above minimums)

## **Appendix D**

### **Section 404/401 Joint Application: Supplemental Documentation and Revised Mitigation Plan**

**Section 401 / 404 Joint Application:  
Supplemental Documentation and Revised Mitigation Plan**

**Lake Palo Pinto  
Storage Restoration Project at Turkey Peak  
Palo Pinto County, Texas**

**U.S. Army Corps of Engineers, Project Number 2009-00264**

**Prepared for:  
Palo Pinto County Municipal Water District No. 1**

**Prepared by:  
HDR Engineering, Inc.**

**February 2015**



February 27, 2015

Mr. David Madden  
Regulatory Division (CESWF-DE-R)  
Fort Worth District  
U.S. Army Corps of Engineers (USACE)  
819 Taylor Street, Room 3A37  
P.O. Box 17300  
Fort Worth, TX 76102-0300

**Re:** SWF-2009-00264, Lake Palo Pinto Storage Restoration Project at Turkey Peak,  
Palo Pinto County, Texas

Dear Mr. Madden:

On behalf of our client the Palo Pinto County Municipal Water District No. 1 (Applicant), HDR Engineering Inc. (HDR) submits the enclosed supplemental information to the Individual Permit application for the Lake Palo Pinto Storage Restoration Project at Turkey Peak. The Application for a Department of the Army Individual Permit was submitted to the Fort Worth District of the USACE on July 9, 2009 to initiate the process for approval to impact waters of the U.S., including wetlands, under Section 404 of the Clean Water Act. A conceptual mitigation plan was subsequently submitted in June 2011. Following coordination with the USACE, including comments to the conceptual mitigation plan, and a meeting with Texas Parks and Wildlife Department; the enclosed supplemental information was prepared which includes a revised mitigation plan. The supplemental package also includes updated information on the purpose and need considering the on-going record drought that has seriously impacted local water supplies, as well as documentation of the environmental effects and public interest review factors for the proposed project.

We are requesting your expedient review of this submittal since the Texas Commission on Environmental Quality is currently considering the final draft of the water rights permit on the project. If you have any questions or need additional information, please contact me by phone at 512-912-5129 or e-mail at [james.thomas@hdrinc.com](mailto:james.thomas@hdrinc.com). I appreciate your time and attention to this project of regional importance.

Respectfully,

James Thomas, PWS, CWB  
HDR Engineering, Inc.

Enclosure

Cc: Scott Blasor, PPCMWD No. 1  
Ken Choffel, HDR

## **Turkey Peak Reservoir – Supplement to Individual Permit Application SWF-2009-00264**

The Palo Pinto County Municipal Water District No. 1 (hereinafter referred to as the District or Applicant) operates the existing Lake Palo Pinto in Palo Pinto County, Texas. The Applicant proposes to construct the Lake Palo Pinto Storage Restoration Project at Turkey Peak (herein referred to as proposed project or reservoir). The Application for a Department of the Army Individual Permit (IP) was submitted to the Fort Worth District of the U.S. Army Corps of Engineers (USACE) on July 9, 2009 to initiate the process for approval to impact waters of the U.S., including wetlands (WOTUS), under Section 404 of the Clean Water Act (CWA). A conceptual mitigation plan was subsequently submitted in June 2011. Through discussions with the USACE, including comments to the conceptual mitigation plan and a meeting with Texas Parks and Wildlife Department, supplemental information was prepared and is presented herein. An outline of the supplemental information is listed below.

1. Updated information on purpose and need
  - a. Information on power plant demand/intake level
  - b. Related information on drought and lake level
  - c. Updated supply/demand information
2. Alternatives analysis information
  - a. Includes Hilltop reservoir expansion
  - b. Includes percentage of other sites with GCW habitat
  - c. Additional evaluation to justify the project as LEDPA (quantifying logistical/environmental limits of other sites)
3. Updated design sheets for key elements
4. Updated impacts (linear feet of stream, particularly Palo Pinto Creek below dam)
5. Information on 20 public interest review factors
6. Information to address TPWD comments/concerns/input related to:
  - a. Upland wildlife habitat (WHAP and other information)
  - b. Reservoir clearing plan (for navigation) review
  - c. Recreation access
  - d. Shoreline buffer protection (development restrictions related to mitigation credit).
7. Revised Mitigation Plan
  - a. Updated debit and credit calculations (using conditional assessments)
  - b. Ecological preference for on-site/near-site as opposed to mitigation bank
  - c. Additional information to justify reservoir shoreline credit including expanding reservoir shoreline conservation area (functional replacement for stream, benefits of limiting development).
  - d. Additional information/updates on environmental flows, such as flow variability, timing, water quality (DO), following TCEQ requirements.
  - e. Additional compensatory mitigation for stream channel functions with assessment of stream ecological lift using TXRAM.
  - f. Site protection/conservation easement information

Purpose and Need – Updated

The purpose of the proposed project is to capture and store water from the Palo Pinto Creek watershed to restore the permitted storage capacity of Lake Palo Pinto. The need for the proposed project is to fulfill current and future water supply demands in the region for the District’s existing and future customers.

The need for the proposed project is driven by demand for water and the available supply based on: 1) population growth, 2) power generation, and 3) Lake Palo Pinto yield.

*Population Growth*

The District supplies water to the City of Mineral Wells (City), the Lake Palo Pinto Area Water Supply Corporation, and other water supply corporations and utility districts in Palo Pinto and Parker counties that are customers of the City. The population growth for the District, and subsequent water demand, is expected to increase in the timeframe from present to year 2070. The population of the District’s service area, as included in the 2016 Brazos G Regional Water Plan (BGRWP), is projected to increase from 37,964 in 2020 to 44,730 by 2070, an increase of about 18% (Table 1).

**Table 1. Population Projections for the District**

<i>Entity</i>	<i>Year</i>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Mineral Wells <sup>1</sup>	18,026	19,161	19,913	20,600	21,108	21,492
Graford <sup>1</sup>	635	681	713	742	764	781
Parker County SUD <sup>2</sup>	2,766	2,850	2,890	2,909	2,917	2,919
County - Other (Palo Pinto) <sup>1</sup>	11,432	12,270	12,834	13,357	13,756	14,071
County - Other (Parker) <sup>2</sup>	5,105	5,236	5,343	5,429	5,457	5,468
<b>Total Population</b>	<b>37,964</b>	<b>40,198</b>	<b>41,693</b>	<b>43,037</b>	<b>44,001</b>	<b>44,730</b>
Notes:						
<sup>1</sup> Population served estimate is entire population for that entity.						
<sup>2</sup> Population served estimate is a portion of entire population for that entity. Calculated based on supply provided from the District.						

*Power Generation*

The District supplies water to the Brazos Electric Power Cooperative (BEPC) for industrial cooling purposes at their R.W. Miller Steam-Electric Facility located on the western perimeter of Lake Palo Pinto (LPP). The BEPC is a non-profit electric cooperative which provides electric service to its member cooperatives and their member/owners in 66 counties in Texas. Raw water is diverted directly from Lake Palo Pinto using an intake at elevation 852 feet above mean sea level (ft-msl), which is approximately 15 feet below the conservation pool of LPP. In the summer of 2014 the power plant had to shut down its generation units for the first time since their construction in the 1960’s. The current water level of LPP (846.9 ft-msl as of February 11, 2015) continues to prohibit the operation of BEPC’s power generation



units at LPP. Raw water for cooling is critical to maintain operation of the BEPC facility for production of reliable electricity for 66 counties in Texas, including Palo Pinto County. Thus the proposed project is necessary for the energy needs of the surrounding area. In addition, there are significant adverse impacts related to socioeconomic conditions, such as direct and indirect job loss—not only at the BEPC facility but the associated community and suppliers—associated with this water demand. Furthermore, the District and BEPC have a water supply agreement for an additional 3,000 acre-feet/year (ac-ft/yr).

*Demand*

Based on the needs described above, the District’s demand for water are projected to increase from 9,414 ac-ft/yr in 2020 to 9,771 ac-ft/yr in 2070, an increase of about 4% (Table 2).

**Table 2. Water Demand Projection for the District (ac-ft/yr)**

<i>Entity</i>	<i>Year (ac-ft/yr)</i>					
	<i>2020</i>	<i>2030</i>	<i>2040</i>	<i>2050</i>	<i>2060</i>	<i>2070</i>
City of Mineral Wells <sup>1</sup>	5,164	5,265	5,320	5,391	5,462	5,521
City of Mineral Wells <sup>2</sup>	2,939	3,040	3,095	3,166	3,237	3,296
City of Graford	92	92	92	92	92	92
Palo Pinto WSC (Palo Pinto C-O)	179	179	179	179	179	179
Santo SUD (Palo Pinto C-O)	331	331	331	331	331	331
Sturdivant-Progress WSC (Palo Pinto C-O)	307	307	307	307	307	307
North Rural WSC (Palo Pinto C-O)	324	324	324	324	324	324
Palo Pinto County Manufacturing	10	10	10	10	10	10
Parker County SUD (Region C)	294	294	294	294	294	294
Millsap WSC (Region C)	184	184	184	184	184	184
Parker County Other (Region C)	479	479	479	479	479	479
Parker County Manufacturing (Region C)	25	25	25	25	25	25
Lake Palo Pinto Area WSC (Palo Pinto C-O)	250	250	250	250	250	250
Palo Pinto County Steam-Electric (BEPC)	1,000	1,000	1,000	1,000	1,000	1,000
Additional Steam-Electric (BEPC) <sup>3</sup>	3,000	3,000	3,000	3,000	3,000	3,000
<b>Total Demand</b>	<b>9,414</b>	<b>9,515</b>	<b>9,570</b>	<b>9,641</b>	<b>9,712</b>	<b>9,771</b>

Notes:

<sup>1</sup> Mineral Wells meets its own water demand and sells to other customers in Palo Pinto and Parker Counties.

<sup>2</sup> Water demands are after conservation savings and include portions of the City in Palo Pinto and Parker Counties.

<sup>3</sup> Additional contract amount based on October 2008 contract between District and BEPC.

*Lake Palo Pinto Yield*

Prior to the recent drought, the safe yield (with a 6-month storage reserve) available from LPP was estimated to be reduced to 6,785 ac-ft/yr by 2070 as a result of sedimentation. However, the yield of

Lake Palo Pinto, and thus the existing water supply for the District, has been significantly diminished by the recent drought. In the past 16 years, the level of Lake Palo Pinto has dropped below the 33% storage level of 857 ft-msl four times for 628 days (10.7% of the time over the last 16 years). However, during the recent drought, which began in May 2012, the level of Lake Palo Pinto has been below the 33% storage level for about 440 days or about 43% of the time since November 29, 2013. As of February 11, 2015, the storage in Lake Palo Pinto is only 9% full at a level of 846.9 ft-msl. The recent drought occurring since May 2012 and has reduced the safe yield of Lake Palo Pinto by approximately 2,000 ac-ft/yr. As of February 2015, this drought continues.

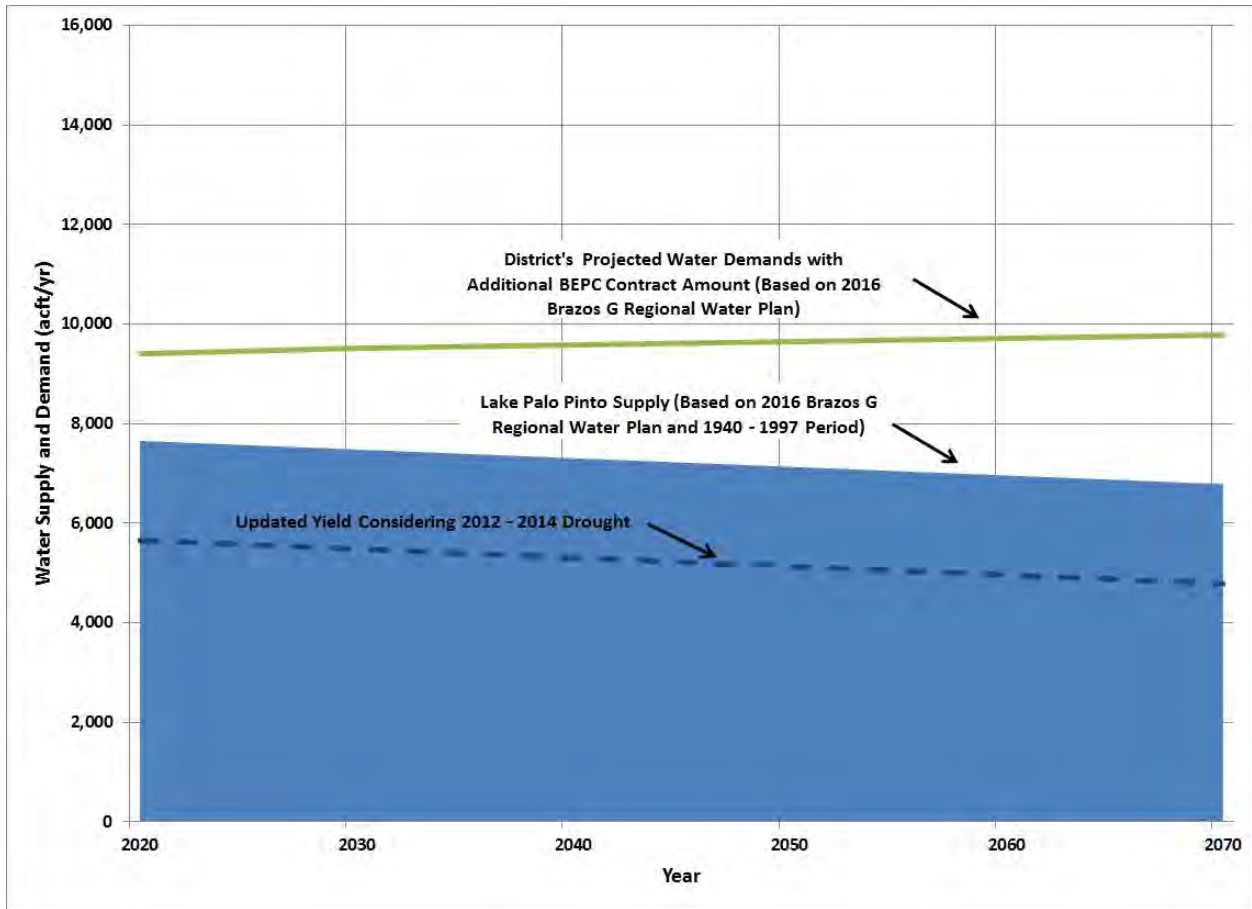
**Supply**

Based on the impacts to the District’s water supply described above, the anticipated supply in 2070 without the proposed project is about 4,785 ac-ft/yr, when considering the recent drought reduction of about 2,000 ac-ft/yr to the previous LPP yield of 6,785 ac-ft/yr. When compared to demands, the need for the project occurs prior to 2020. By 2070, the District is expected to need approximately 4,986 ac-ft/yr to meet the projected shortage when accounting for the drought yield reduction of about 2,000 ac-ft/yr (Table 3 and Figure 1). The proposed project will meet the District’s projected needs through 2070 by providing an additional supply of about 7,600 ac-ft/yr.

**Table 3. Water Demand and Supply Summary for the District (ac-ft/yr)**

	<b>Year</b>					
	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
<b>Projected Demands:</b>						
Total Water Demand	9,414	9,515	9,570	9,641	9,712	9,771
	<b>Year</b>					
<b>Existing Supply (2016 BGRWP)</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Lake Palo Pinto <sup>1</sup>	7,655	7,481	7,307	7,133	6,959	6,785
	<b>Year</b>					
<b>Projected Balance/(Shortage):</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
Balance/(Shortage) - BGRWP with October 2008 BEPC Contract <sup>2</sup>	(1,759)	(2,034)	(2,263)	(2,508)	(2,753)	(2,986)
Notes:						
<sup>1</sup> - Yields are based on analysis of droughts occurring between 1940 and 1997; however the recent drought occurring between May 2012 and October 2014 has reduced the yield of LPP by approximately 2,000 ac-ft/yr. As of February 2015, this drought continues.						
<sup>2</sup> - Based on the new drought, these shortages would be increased by approximately 2,000 ac-ft/yr.						

**Figure 1. District's Water Supply and Demand Summary Chart**



Since the Joint 401 / 404 Joint Permit Application for the proposed project submitted on July 2009, the District has initiated implementation of an unplanned, temporary project as part of their drought contingency efforts. The District has approved the advancement of a temporary reverse osmosis (RO) treatment project and short term water purchase contract using Brazos River water and transported by pipe to the Hilltop Reservoir. Since the RO project is only a temporary/short term water supply option (as it has an extremely high operating costs and the District cannot obtain a long-term contract for water from the Brazos River Authority as they currently do not have availability), it does not affect the water supply need for the proposed project.

## Alternatives Analysis - Updated

### *Overview*

In response to the purpose and need described in the previous section, the District performed an alternatives analysis to evaluate the reasonable range of alternatives, including the proposed project. The alternatives analysis includes six alternative storage sites for a reservoir, as well as expansion of the District's existing Hilltop Reservoir, and the option to raise the Lake Palo Pinto water level by 5.5 feet. These alternatives were considered based on their technological and economic feasibility as well as their potential environmental impacts. Several factors were used to evaluate practicability, including but not limited to the anticipated economic outcome of each alternative, environmental impacts, public impacts, logistical impacts to the reservoir operation, and technological limitations. A summary of the evaluation for the seven alternative sites that meet the purpose and need for the project is presented in Table 4. The table includes the potential reservoir capacity, surface area, average depth, length of stream impacts, length of new pipeline required, and other factors that affect practicability (impacts to endangered species, other economic and engineering factors).

### *Alternatives Eliminated Based on Purpose and Need*

The following describes alternatives that were evaluated but eliminated from further consideration since they do not meet the need for the project.

Expanding the existing Hilltop Reservoir at the District's Water Treatment Plant would provide approximately 1,921 ac-ft/yr of additional storage or less than 10% of the storage provided by Turkey Peak. Since this reservoir has a very limited watershed and is supplied by pumping from the District's diversion dam on Palo Pinto Creek, it does not provide a meaningful increase to the District's water supply. Thus, this alternative does not meet the need for the project of restoring the allocated storage capacity for Lake Palo Pinto necessary to meet the District's long term water supply demands.

### *No Action Alternative*

Section 404(b)(1) guidelines require the Applicant to evaluate alternatives that would involve no discharges of dredged or fill material into waters of the U.S., including wetlands, and the evaluation of the No Action Alternative satisfies this requirement. Under the No Action Alternative, it is assumed the USACE would deny the District's application for an Individual Permit under Section 404 of the Clean Water Act. As a result, the proposed Turkey Peak Reservoir would not be constructed, and the potential impacts to the natural or human environment identified for the proposed alternative would not occur. Under this scenario, implementation of the No Action Alternative would not meet the purpose and need for the project. Under the No Action Alternative, the District would not be able to meet existing or future municipal and power generation demands in the region. Additionally, water supply would decrease due to continued reservoir sedimentation and potential drought, resulting in significant adverse socio-economic impacts.

**Table 4. Comparison of Alternative Storage Sites**

<b>Storage Site</b>	<b>Capacity (acre-feet)</b>	<b>Surface Area (acres)</b>	<b>Average Depth (feet)</b>	<b>Approximate Length of Stream Impacts (Miles)*</b>	<b>Approximate Length of New Pipeline Required (Miles)</b>	<b>Meets Purpose-Need and Practicable (Yes or No)</b>	<b>Other Factors Affecting Practicability</b>
Turkey Peak (Proposed)	22,577	648	35	8.58	None	Yes	<ul style="list-style-type: none"> <li>• No impacts to federally listed species</li> <li>• No pump station and pipeline required</li> <li>• Lowest unit cost</li> <li>• Minimizes indirect effects due to expansion of existing reservoir</li> </ul>
Kettle Hollow	22,000	422	52	4.14	0.87	No	<ul style="list-style-type: none"> <li>• Golden-cheeked Warblers at site</li> <li>• Requires pump station and pipeline</li> <li>• Requires processing of sandstone for dam</li> </ul>
Wilson Hollow	16,885	379	45	3.91	0.65	No	<ul style="list-style-type: none"> <li>• Golden-cheeked Warblers at site</li> <li>• Requires pump station and pipeline</li> <li>• Requires processing of sandstone for dam</li> </ul>

<b>Storage Site</b>	<b>Capacity (acre-feet)</b>	<b>Surface Area (acres)</b>	<b>Average Depth (feet)</b>	<b>Approximate Length of Stream Impacts (Miles)*</b>	<b>Approximate Length of New Pipeline Required (Miles)</b>	<b>Meets Purpose-Need and Practicable (Yes or No)</b>	<b>Other Factors Affecting Practicability</b>
Raise Lake Palo Pinto by 5.5 feet	16,885	1,343	12.6	21.41**	11.63	No	<ul style="list-style-type: none"> <li>• Impacts 695 acres more than Turkey Peak</li> <li>• Impacts to existing homes, utilities, power plant, and FM 3237</li> <li>• Requires modification or replacement of existing dam</li> <li>• Less efficient (increased evaporation rates) than Turkey Peak</li> <li>• Requires new pipeline</li> <li>• Higher water per unit cost than Turkey Peak</li> <li>• Increased stream impacts to unmodified segments</li> </ul>
Kickapoo Site	22,577	1,305	17	19.16	16.93	No	<ul style="list-style-type: none"> <li>• Impacts 657 acres more than Turkey Peak</li> <li>• Requires new pipeline</li> <li>• Increased stream impacts to unmodified segments</li> <li>• Requires new water right and contract with Brazos River Authority to compensate for water supply impacts</li> </ul>

<b>Storage Site</b>	<b>Capacity (acre-feet)</b>	<b>Surface Area (acres)</b>	<b>Average Depth (feet)</b>	<b>Approximate Length of Stream Impacts (Miles)*</b>	<b>Approximate Length of New Pipeline Required (Miles)</b>	<b>Meets Purpose-Need and Practicable (Yes or No)</b>	<b>Other Factors Affecting Practicability</b>
Keechi Site	22,577	1,045	22	14.60	14.96	No	<ul style="list-style-type: none"> <li>• Impacts 397 acres more than Turkey Peak</li> <li>• Requires new pipeline</li> <li>• Increased stream impacts to unmodified segments</li> <li>• Requires new water right and contract with Brazos River Authority to compensate for water supply impacts</li> </ul>
Sanchez Site	20,540	812	25	13.31	17.84	No	<ul style="list-style-type: none"> <li>• Impacts 164 acres more than Turkey Peak</li> <li>• Requires new pipeline\</li> <li>• Increased stream impacts to unmodified segments</li> <li>• Requires new water right and contract with Brazos River Authority to compensate for water supply impacts</li> </ul>

\* Approximate stream length based on USGS 1:24,000 quad maps, except for Turkey Peak site which is based on field delineation.

\*\* Includes 15.76 mi of indirect functional stream impacts to Palo Pinto Creek downstream of existing dam due to reduction of releases from LPP outlet valve to offset inefficiency effect on yield.



### *Alternatives Eliminated Based on Practicability*

The following describes alternatives eliminated because they were determined not to be practicable based on cost, technological, and logistical factors in light of the overall project purpose (see Attachment A for locations of alternatives).

The Kettle Hollow and Wilson Hollow alternative sites occur upstream of the northern arm of the existing Lake Palo Pinto. Separately, each site would impact less area and waters of the U.S. than the Turkey Peak site. However, these alternative sites would require the construction of a pump station and pipeline to transfer water from Lake Palo Pinto to fill either site. By releasing water to Lake Palo Pinto, these alternative sites would not require construction of additional pipeline to transfer water to a treatment location. A geotechnical investigation of the Wilson Hollow site indicated that although this site was suitable for construction of a reservoir, the local sandstone (needed for construction of the dam) would require significant processing resulting in significant additional construction material costs. While the alternative sites would potentially meet the purpose and need for the project (not considering the effects of the recent drought on their yields), a biological survey in 2006 for the golden-cheeked warbler (*Dendroica chrysoparia*), a federal endangered species, identified nesting populations of warblers in approximately 15% of the Kettle Hollow (10 territories) and approximately 20% of Wilson Hollow (14 territories) alternative sites. Due to the presence of the golden-cheeked warbler and the extent of adverse impacts of the reservoir to confirmed nesting habitat, the Kettle Hollow and Wilson Hollow alternatives were determined to be not practicable and dropped from further consideration.

Raising the conservation pool of Lake Palo Pinto by 5.5 feet would restore the storage capacity of the lake. However, raising the level of Lake Palo Pinto would impact the 1,343-acre area around the lake that has been developed and currently contains numerous homes and their associated utilities as well as an electric power plant which would need to be modified at a substantial cost. In addition, the Farm-to-Market Road 3137 causeway over the lake would have to be raised. This alternative would also require the current Lake Palo Pinto dam and spillway to be redesigned and modified or rebuilt in order to retain the additional water. This alternative would include the construction of a pipeline from Lake Palo Pinto to an existing water pipeline that transports water to the Hilltop water treatment plant in order to eliminate channel losses, and would not require amendment of the District's existing water rights. The pipeline would eliminate the annual loss of approximately 2,000 ac-ft of water to the bed and banks in Palo Pinto Creek. Lastly, this alternative would store water less efficiently and would impact 695 acres more land than the Turkey Peak site. For example, the combined surface area and storage volume of LPP and Turkey Peak Reservoir is 2,824 acres and 49,792 acre feet (ac-ft), respectively. Raising the conservation level of Lake Palo Pinto by 5.5 feet would provide conservation pool storage of 44,100 ac-ft (or 5,692 ac-ft or 11.4% less than the combined storage of LPP and Turkey Peak) and would result in Lake Palo Pinto having a surface area of 3,519 acres which is 695 acres or 24.6% more than the combined surface area of LPP and Turkey Peak. When comparing the surface areas of both projects storing a total of 44,100 ac-ft the difference is even more dramatic as the combined surface area of LPP and Turkey Peak is only 2,731 acres compared to 3,519 acres for a raised LPP level. This results in an increase in surface area of 788 acres or a 28.8% increase. The efficiency of the Turkey Peak site is significant both in terms of conserving water by reducing evaporation as well as reducing the footprint

and impact of the project. Due to these factors, the alternative to raise the conservation pool level of LPP by 5.5 feet is not practicable and was dropped from further consideration.

The Kickapoo, Keechi, and Sanchez alternative sites would impact more area and waters of the U.S. than the Turkey Peak site. These sites are outside of the Palo Pinto Creek watershed and would require a new water right permit with the TCEQ, and a contract, which includes a subordination agreement, with Brazos River Authority to compensate for water supply impacts for the downstream senior rights. In addition, these sites would require the construction of a new pipeline to transport water to the Hilltop water treatment plant. The additional cost of new reservoir and pipeline construction limits the practicability of these alternative sites. Due to cost and environmental impact, these alternatives were determined to be not practicable and dropped from further consideration.

#### *Proposed Alternative – Turkey Peak Site*

The District's proposed alternative is the expansion of Lake Palo Pinto at the Turkey Peak Reservoir site to meet the purpose and need for the project. The Turkey Peak site is an efficient alternative to meet water supply needs while maximizing yield and minimizing evaporative loss and stream impacts. The Turkey Peak site would store as much or more acre-feet of water than the other alternative sites but cover less surface area than all the alternative sites except for the Wilson and Kettle Hollow sites. The average depth of the Turkey Peak site is also greater than all the alternative sites except for the Wilson and Kettle Hollow sites. These features make the Turkey Peak site the most efficient site (that avoids impacts to golden-cheeked warblers) in terms water storage and evaporative loss. The Turkey Peak site would not require construction of a pump station to fill the reservoir as would the Wilson and Kettle Hollow Sites. The Turkey Peak site provides water at a lower unit cost than the other alternatives, and with Lake Palo Pinto located upstream and capturing the bulk of the sediment, its useful life will be greatly extended. Therefore, the Turkey Peak site is the proposed alternative.

The Turkey Peak site would impact less surface area and waters of the U.S. (stream) compared to three of the alternative sites (Kickapoo, Keechi, and Sanchez) and the option to raise the Lake Palo Pinto water level by 5.5 feet. The Turkey Peak alternative also avoids habitat for the golden-cheeked warbler found at two of the alternative sites (Wilson Hollow and Kettle Hollow). The Turkey Peak site is located on a reach of Palo Pinto Creek directly downstream of the existing Lake Palo Pinto. Palo Pinto Creek has artificial perennial flow due to releases from Lake Palo Pinto. The habitat along Palo Pinto Creek has also been partially converted from forest to rangeland with pecan trees or improved pasture. The Turkey Peak site would primarily impact a stream that has already been modified by past development, hydrologic modification, and land use. Any of the other alternatives would result in modification of stream segments with unmodified stream flows.

The Turkey Peak site (proposed alternative) minimizes impacts to surface area, waters of the U.S., and a federal endangered species to the extent practicable while providing the lowest unit cost to meet the purpose and need for the project. Therefore, the proposed Turkey Peak site is the least environmentally damaging practicable alternative.

### Updated Design Exhibits

Additional geotechnical and engineering following the submittal of the permit application in July 2009 has resulted in minor changes of the design of the dam, spillway, and outlet works of the proposed project, which have further minimized the potential adverse affects to the aquatic environment. Design exhibits showing the updated plans are attached (Attachment B), and an updated impact assessment is included below.

Table of Waters of the U.S. Impacted by the Proposed Project – Updated

The following table provides an updated impact assessment, based on the updated project design (see included exhibits) that generally decreases the permanent impacts to Palo Pinto Creek from the previous information.

**Table 5. Waters of the U.S. Impacted by the Proposed Project**

Waterbody ID <sup>1</sup>	Resource Type <sup>2</sup>	Impact Type <sup>3</sup>	Linear Feet of Impact	Acres of Impact	Cubic Yards of Material to be Discharged	Activity Type <sup>4</sup>
S-1	PS (artificial)	D/P, I/P	22,300	12.80	10,115	DC, IN, Other
S-2	IS	I/P	4,785	1.65	0	IN
S-3	ES	I/P	1,230	0.14	0	IN
S-4	ES	I/P	1,177	0.08	0	IN
S-5	ES	I/P	239	0.02	0	IN
S-6	ES	I/P	1,394	0.06	0	IN
S-7	ES	I/P	221	0.01	0	IN
S-8	ES	I/P	1,021	0.07	0	IN
S-9	ES	I/P	4,243	0.29	0	IN
S-10	ES	I/P	4,843	1.33	0	IN
S-11	ES	I/P	554	0.06	0	IN
S-12	ES	I/P	64	0.01	0	IN
S-13	IS	I/P	1,151	0.66	0	IN
S-14	ES	I/P	345	0.02	0	IN
S-15	ES	I/P	1,070	0.07	0	IN
S-16	IS	D/P	101	0.03	224	Other
W-1	NFW	I/P	-	0.02	0	IN
W-2	NFW	I/P	-	0.08	0	IN
OCI-2	I	***	-	***	0	IN
NFW subtotal	-	-	-	0.10	0	-
PS subtotal	-	-	22,300	12.80	10,416	-
IS subtotal	-	-	6,037	2.34	224	-
ES subtotal	-	-	16,401	2.16	0	-
I subtotal	-	-	-	0	0	-
TOTAL	-	-	44,738	17.40	10,640	-

<sup>1</sup> Waterbody ID may be the name of a feature or an assigned label such as “W-1” for a wetland.

<sup>2</sup> Resource Types: NFW – Non-forested wetland, FW – Forested wetland, PS – Perennial Stream, IS – Intermittent Stream, ES – Ephemeral Stream, I – Impoundment

<sup>3</sup> Impact Types: D/P – Direct\* and Permanent, D/T – Direct and Temporary, I/P – Indirect\*\* and Permanent, I/T – Indirect and Temporary

\* Direct impacts are here defined as those adverse affects caused by the proposed activity, such as discharge or excavation.

\*\* Indirect impacts are here defined as those adverse affects caused subsequent to the proposed activity, such as flooding or effects of drainage on adjacent waters of the U.S.

\*\*\* 0.78 acre of impoundment will not receive discharge of fill and function will not be altered by inundation

<sup>4</sup> Activity Types: DC – Dam Construction, IN – Inundation, or Other (see Box 7 of original permit application dated July 2009)

## Information for Public Interest Review Factors

The following information provides a discussion of the expected impacts, reasonably foreseeable cumulative adverse effects, as well as the expected benefits likely to result from the proposed project for each of the public interest review factors from 33 CFR 320.4(a)(1).

1. **Conservation (33 CFR 320.4[a])**: The preferred alternative minimizes impacts to waters of the U.S., uplands, and endangered species habitat compared to other alternatives. Additionally, based on the surface area to volume ratio, the project is the most efficient alternative for minimizing evaporative water loss. Other alternatives would require construction of new pump stations and pipelines increasing energy use over the project life (estimated at 2070) compared to the preferred alternative which uses existing infrastructure.

During construction, the project proposes the use of sediment control structures and best management practices to minimize the contribution of solids to streams located downstream of the project. During construction, the temporary sediment control structures may include, but not be limited to, temporary silt basins, ditches, straw/hay bale fencing, and cloth filter fences. Measures proposed to be taken to control drainage around, over and through the dam construction would include the construction of appropriately designed sediment ditches, diversion ditches, culverts, flumes, drains and silt catchment basins. Additionally, measures proposed to be taken to minimize additional contributions of suspended solids into the aquatic environment would include timely construction and maintenance of sediment control structures combined with revegetation of disturbed areas. The effects below the dam would be limited by compliance with TCEQ discharge permit limits for suspended solids and settleable solids. Based on our evaluation of all available information, it appears unlikely the project will result in any adverse effects on human use characteristics such as recreational and commercial fisheries, water-related recreation, aesthetics, local, state, or national parks. Additionally, no human health effects are anticipated as a result of the proposed project.

2. **Economics (33 CFR 320.4(q)) and Energy Needs**: Clifton Karnei, General Manager, Brazos Electric Power Cooperative, Inc.(BEPC), stated in a response to the Public notice issued for the project, beneficial for the growth, economy, and energy needs of the surrounding area. BEPC is a non-profit electric cooperative that provides electric service to its member cooperatives and their member/owners in 66 counties in Texas. Its R. W. Miller power generation station depends on water from the Palo Pinto County Municipal Water District No. 1 (applicant) and this project will facilitate continued electricity production necessary for those counties, including Palo Pinto County. Money saved by BEPC's customers, due to the production of reliable and affordable electricity, will be passed on to local businesses in the area of this proposed project. The project will also be a source of income to workers and businesses in the area while the new dam is being constructed.

3. **Aesthetics (33 CFR 320.4(a))**: The proposed project will be constructed immediately downstream of an existing lake in an area of gently rolling topography. The vegetation and terrain around the proposed lake expansion will be maintained as a natural buffer to an elevation approximately 33 feet above the conservation pool around a majority of the reservoir. The project will typically have a water surface elevation about the same as the existing water supply lake. The visual impacts from the proposed project will not greatly alter the aesthetic values of this area.
4. **Wetlands (33 CFR 320.4 (b))**: 0.10 acres of wetlands will be impacted by this project. The impacts to these wetlands will be mitigated for with a combination of seasonally to permanently flooded lacustrine wetlands within shallow areas of the proposed reservoir. While an exact surface area of lacustrine wetlands cannot be determined, based on an evaluation of topography and soils in the future littoral zone it is estimated the project will support in excess of 1 acre of lacustrine wetlands, or a ratio of more than 10:1. The wetlands will be included in the proposed lake shore buffer protected through a conservation easement.
5. **Historic, Cultural, Scenic Resources and Recreational Values (33 CFR 320.4(a) and EO 13175)**: The National Register of Historic Places (NRHP) has been consulted and no NRHP eligible properties are listed in the permit area. An archeological survey, from the applicant, was submitted to the Fort Worth District Regulatory Division on April 29, 2009. Cultural resources identified during the survey, which included deep excavations for pre-historic conditions assessment will be tested, documented and recovered as required by the USACE and State Historic Preservation Officer (SHPO). A special permit condition would be included in the permit that specifies the completion of coordination and mitigation for compliance with Section 106 of the National Historic Preservation Act such that impacts to cultural resources are considered and addressed.

If a permit is issued for this project, it will contain the following General Condition: "If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places." This General Condition ensures that the applicant is aware of the process to notify the Corps if any historic or archeological remains are encountered during any construction activities authorized by any issued permit.

The project is not expected to result in adverse effects to scenic or recreational resources. The additional surface area will result in a benefit for recreation from increased access to water resources.

6. **Flood Hazards and Floodplain Values (33 CFR 320.4(l) and E.O. 11988)**: The 100-year flood pool elevation for Turkey Peak Reservoir is estimated to be approximately 874.9 ft-msl. A concrete intake structure with water control gates at multiple levels would be constructed to release

stored water through a 48-inch diameter outlet pipe in the base of the dam. The pipe would discharge reservoir releases to the spillway stilling basin which will flow into Palo Pinto Creek. The reservoir in the vicinity of the intake structure would have a maximum normal depth of approximately 49 feet.

To pass expected high flow events, the dam will be constructed with service and auxiliary spillways. The service spillway for the new dam would be 520 feet wide and constructed using concrete. The spillway structure would be comprised of a concrete crest at an elevation of 867.3 ft-msl, a sloping chute, and a stilling basin at the bottom of the spillway to dissipate flow energy. Concrete side walls would contain flood flows through the service spillway. An excavated, rock and/or riprap lined outfall channel with 3H:1V side slopes would convey flow from the downstream end of the service spillway channel approximately 1,400 feet to Palo Pinto Creek.

An auxiliary spillway to pass extreme floods in excess of the 100-year event would be constructed approximately 2,000 feet south of the dam in a topographic saddle immediate south of Turkey Peak. This spillway would consist of an approximately 1,100-foot wide excavated channel in the native earth and rock with a crest elevation of approximately 876 ft-msl. An earthen training berm would need to be constructed along the south edge of the auxiliary spillway to direct extreme flood flows away from an adjacent property and towards the natural draw downstream of the spillway, which flows back to Palo Pinto Creek near FM 4. The inside 3H:1V slope of the berm would be lined with rock and/or vegetation to prevent erosion of the berm. Two other shallow topographic saddles are present southwest of the auxiliary spillway. To prevent extreme flood flows from escaping the reservoir at these locations, small earth fill dams would be constructed across these saddles. The crest of the saddle dams would be 15 feet wide and built to the same top elevation as the main dam, approximately 890 ft-msl.

The applicant contacted Mr. Barry Gill, Palo Pinto County Floodplain Administrator, and informed him of the changes in flood levels associated with the project. Mr. Gill did not express any concerns, regarding the change in flood levels, during this communication or during the Public Comment period.

No other comments regarding Flood Hazards and Floodplain Values were received during the Public Comment period.

7. **Water Supply and Conservation (33 CFR 320.4 (m))**: The proposed Turkey Peak Reservoir is designed to fulfill current and future area water supply needs by capturing the water needed to restore the permitted storage capacity of Lake Palo Pinto.

In 2008 the Turkey Peak Reservoir Water Management Strategy (WMS) was officially approved by the Texas Water Development Board and is included in the State Water Plan as a Recommended WMS. The District supplies water to the City of Mineral Wells (City), the Lake



Palo Pinto Area Water Supply Corporation, the Brazos Electric Power Cooperative, and other water supply corporations and utility districts in Palo Pinto and Parker counties that are customers of the City. The District's service area includes portions of Palo Pinto and Parker counties.

The population of the District projected in the 2016 Brazos G Regional Water Plan for the 2020 to 2070 timeframe will increase from 37,964 in 2020 to 44,730 by 2070 – an increase of about 18 percent. Water demand projections for the District as prepared by the Brazos G Regional Water Planning Group (Brazos G) for the 2020 through 2070 timeframe show that demands are anticipated to increase from 9,414 acre-feet per year in 2020 to 9,771 acre-feet per year in 2070. Yield studies of Lake Palo Pinto performed during preparation of the 2006 Brazos G Plan indicate that the water supply available from Lake Palo Pinto will be reduced to about 6,785 acre-feet per year by 2070 as a result of sedimentation. However, based on the recent drought that occurred between May 2012 and October 2014, this yield has been reduced by about 2,000 ac-ft/yr. This drought continues as of February 2015. Comparisons of the District's existing water demands with existing supplies available from Lake Palo Pinto show that the District currently has a water supply shortage. These comparisons also show that by 2070, the District will need an additional water supply of approximately 4,986 acre-feet per year. The proposed Turkey Peak Reservoir is expected to increase the yield of the District's reservoirs by about 7,600 acre-feet per year. This amount of additional supply will meet the District's future needs through at least 2070. Additional information on the District's supply and demand can be found in the submitted supplemental to the USACE Permit Application, which is located in this project's administrative record (AR).

8. **Needs and Welfare of People (33 CFR Part 320.4 (a) and EO 12898)**: Please see Economics and Water Supply and Conservation sections. If approved, the project will be a reliable source of drinking water for the area and provide cooling water for electricity to be generated for BEPC customers. Reliable electricity and a source of future drinking water will benefit the residents within the service area of this project in the future.
9. **Navigation (33 CFR 320.4 (o))**: Navigable streams are not located within the proposed project site; therefore, the project will not have any effects related to navigation.
10. **Property Ownership (33 CFR 320.4 (g))**: All areas proposed to be utilized by the proposed project are or will be owned by the applicant for the use as a storage restoration and supply lake.
11. **Food and Fiber Production, Soils and Prime Farmland (33 CFR 320.4 (a))**: There are no areas within the proposed project site associated with food and fiber production. Therefore, no impacts on food and fiber production would occur as a result of this project.

12. **Air Quality**: The project would result in temporary air quality impacts during construction of the proposed dam. The effects would be associated with the storage and use of gas and diesel to operate equipment and the release of fugitive dust associated with the construction of the dam. The applicant proposes to utilize best management practices (BMPs) to reduce the impacts to the air quality around the proposed site during the construction phase of this project.
13. **Shore Erosion and Accretion (33CFR 320.4)**: To help prevent erosion, the new dam will be constructed with a primary service spillway and an auxiliary spillway to prevent erosion of the structure and downstream of the structure during flood events. The service spillway for the new dam would be 520 feet wide and constructed using concrete. The spillway structure would be comprised of an upstream concrete crest at elevation about 867.3 ft-msl, a sloping chute, and a stilling basin at the bottom of the spillway to dissipate flow energy. Concrete side walls would contain flood flows through the service spillway. An excavated, rock and/or riprap lined outfall channel with 3H:1V side slopes would convey flow from the downstream end of the service spillway channel approximately 1,400 feet to Palo Pinto Creek.

An auxiliary spillway to pass extreme floods in excess of the 100-year event would be constructed approximately 2,000 feet south of the dam in a topographic saddle immediate south of Turkey Peak. This spillway would consist of an approximately 1,100-foot wide excavated channel in the native earth and rock with a crest elevation of approximately 876 ft-msl. An earthen training berm would need to be constructed along the south edge of the auxiliary spillway to direct extreme flood flows away from an adjacent property and towards the natural draw downstream of the spillway, which flows back to Palo Pinto Creek near FM 4. The inside 3H:1V slope of the berm would be lined with rock or vegetated to prevent erosion of the berm. Two other shallow topographic saddles are present southwest of the auxiliary spillway. To prevent extreme flood flows from escaping the reservoir at these locations, small earth fill dams would be constructed across these saddles. The crest of the saddle dams would be 15 feet wide and built to the same top elevation as the main dam, approximately 890 ft-msl. The upstream slopes of the main dam would be protected from erosion using a layer of rock riprap on gravel bedding up to the elevation of the 100-year flood. All slopes not covered with concrete or rock riprap would be top soiled, seeded with a native warm-season grass mixture, and covered with a biodegradable soil retention blanket to prevent erosion. Bank stabilization would be constructed in Palo Pinto Creek from the outlet structure below the dam to the existing FM 4 bridge as necessary to provide erosion protection.

The shoreline condition will be managed through the implementation of a buffer of 33 feet (vertical) above the conservation pool, resulting in an average horizontal buffer of approximately 140 feet. The vegetation buffer will be protected through a conservation easement. The easement conditions may allow adjacent landowners to clear no more than a cumulative total of 10 percent of the woody vegetation between the conservation pool and their property. Additionally, improvements for access across the buffer must be constructed of

wood or pervious materials. No permanent bulkheads or large concrete structures will be allowed in the buffer area.

14. **Traffic/Transportation Patterns (33 CFR 320.4 (a))**: The impoundment of the proposed Turkey Peak Reservoir would necessitate the closure of 4.5 miles of FM 4 and a county road near the Lake Palo Pinto dam that serves residents on the south side of the lake. In response to the proposed project, TXDOT has agreed to transfer a 4.5 mile section of FM 4 between FM 3137 and the FM 4 bridge over Palo Pinto Creek to Palo Pinto County. When construction of the proposed dam begins, approximately 4.5 miles of FM 4 and county roads would be closed. Ward Mountain Road would be upgraded to county road standards to accommodate the traffic that would be transferred onto it because of the closure of FM 4. This could require expanding the width of Ward Mountain Road from 20 feet wide to 24 feet wide, in addition to minor extensions of any existing culverts and drainage structures. The new road over the existing Lake Palo Pinto dam and the new bridge across the existing 550-foot wide spillway would be 24 feet wide and paved. To connect existing county roads with the new road across the existing dam, 0.75 mile of new county road would be constructed in an upland area between Lake View Drive and Brown Road.
15. **Land Use (33 CFR 320.4 (a))**: Existing land uses are primarily agriculture, rural residence, and undeveloped. The land in the proposed project area will be converted from upland areas to inundated lake areas. The proposed project will change land use in this area, and may increase property values on adjacent upland areas. No comments were received during the Public Comment period regarding the adverse effects on any local land zoning requirements.
16. **Safety (33 CFR 320.4 (a))**: Design plans for the proposed dam will be reviewed by Texas Commission on Environmental Quality (TCEQ) to ensure compliance with Texas dam safety program. The structure was designed by a professional engineer and will be constructed with appropriately sized spillways to eliminate the risk of overtopping and compromise of the structure during expected high flow events.
17. **Mineral Needs (33 CFR 320.4 (a))**: Other than on-site materials which may be used to construct the dam and associated facilities, there are no plans to extract and remove minerals (gravel, sand, peat, rock and precious metals) from the proposed project site. The only removal of streambed material will be for the excavation accompanying construction of the dam foundation and associated facilities.
18. **Noise (33 CFR 320.4 (a))**: The project would result in increased noise emissions associated with construction of the proposed dam and removal of the existing structure. Light truck and vehicle traffic in and around the proposed project site would generate a sound level of approximately 70-75 decibels which is comparable to human conversation levels. The increased noise would be of minimal effect outside the permit area, and would be for a short time during construction activities.

19. **Water Quality (33 CFR 320.4 (d)):** The applicant has submitted an individual water quality certification to Texas Commission on Environmental Quality (TCEQ) for this project. This project exceeds the limits under TCEQ's Tier I water quality certifications for projects impacting waters in the state of Texas. Proposed best management practices and the spillway design with multi-level outlet design will minimize water quality impacts during construction and improve downstream water temperature and dissolved oxygen levels during operation.
20. **Fish and Wildlife Values (33 CFR 320.4 [c] and Endangered Species Act):** Wildlife habitat changes associated with construction of the proposed project would be permanent in the project area. An evaluation following the Wildlife Habitat Appraisal Procedure was performed for the proposed project and was included in the water rights amendment application. This evaluation found that based on the acres of different habitat (cover/vegetation) types in the project area, and the average habitat quality score of each type, the total habitat units inundated by the project is 361.7. Based on a review of the habitat protected and enhanced by the proposed project and its associated mitigation plan, the total increase of habitat units resulting from the proposed mitigation for the project are anticipated to exceed the net loss of habitat units from project construction, and be of similar habitat types. Furthermore, the upland habitats impacted by the proposed project are relatively abundant in downstream and adjacent areas that will not be impacted by the proposed project, and these areas (some protected by the proposed project) will remain. The aquatic resources and their associated riparian/buffer areas that currently exist in the proposed project area and provide habitat for aquatic, amphibian and terrestrial species would be replaced by creation, restoration, and enhancement of aquatic resources by the proposed project and its associated mitigation plan.

The U.S. Fish and Wildlife Service (USFWS) commented during the Public Notice that a "not likely to adversely affect" determination for Black-capped Vireo (*Vireo atricapilla*) and the Golden-cheeked Warbler (*Dendroica chrysoparia*) be conducted. In particular, the USFWS requested an analysis of the presence/absence surveys in suitable habitat for these species at least one year prior to construction initiation.

No potential or suitable habitat for the Black-capped Vireo occurs within or adjacent to the proposed project.

A survey for the Golden-cheeked Warbler conducted in 2006 in the proposed project area did not observe this federally endangered species, and also found that the proposed project area lacks appropriate habitat for the golden-cheeked warbler. The report detailing the findings of the 2006 survey was submitted to the USACE on December 3, 2008. During informal Section 7 consultation discussions, the USFWS requested one additional pre-construction survey of the project area to confirm absence of Golden-cheeked Warbler. The applicant proposes to conduct the survey after the Water Rights and Section 404 permits are authorized and at least one year prior to construction initiation.

The state threatened Brazos water snake (*Nerodia harteri harteri*) discontinuously inhabits a limited segment of the upper Brazos River drainage in north central Texas. Preferred habitat for the species includes areas of shallow water flowing over a rocky bottom (i.e., a riffle) and adjacent rocky shorelines. During a survey along Palo Pinto Creek within the proposed project

area in May 2009, the Brazos water snake was not observed and it was found that the proposed project area lacks suitable habitat for this species. No sightings of federal-listed threatened or endangered species or species of special concern have occurred or were recorded within the limits of the proposed project area during environmental baseline studies, field reconnaissance, and initial reviews.

21. **Recreation (33 CFR 320.4):** Currently there is one public boat ramp located on the existing portion of Lake Palo Pinto. When water is within 3 feet of the conservation pool level, boats will be able to move between the existing Lake Palo Pinto area and the new inundated lake area. The Applicant is considering the installation of a controlled-access boat ramp to be installed off of Ward Mountain Road.

Information Related to Texas Parks and Wildlife Department Comments and Coordination

The following information is provided regarding specific areas of concern, comment, or coordination with Texas Parks and Wildlife Department (TPWD) for the Proposed Project.

1. Upland Wildlife Habitat

In response to the public notice, TPWD stated that the project should address upland habitat impacts by compensating for these in the mitigation plan. An evaluation following the Wildlife Habitat Appraisal Procedure (WHAP), which was developed by TPWD, was performed for the proposed project and was included in the water rights amendment application. This evaluation found that based on the acres of different habitat (cover/vegetation) types in the project area, and the average habitat quality score of each type, the total habitat units inundated by the project is 361.7 (Table 6). Based on a review of the habitat protected and enhanced by the proposed project and its associated mitigation plan, the total increase of habitat units resulting from the proposed mitigation for the project are anticipated to exceed the net loss of habitat units from project construction, and be of similar habitat types (Tables 7–9). Furthermore, the upland habitats impacted by the proposed project are relatively abundant in downstream and adjacent areas that will not be impacted by the proposed project, and these areas (some protected by the proposed project) will remain. Thus the proposed project has sufficiently compensated for upland habitat impacts.

**Table 6. Inundation by Reservoir as Included in Water Rights Amendment Application**

Cover / Vegetation Type	Average Habitat Quality Score	Estimated Acres of Cover / Vegetation Type	Habitat Units
Pasture	0.33	61.68	20.35
Brush	0.46	32.37	14.89
Floodplain Savannah	0.66	98.45	64.98
Woods	0.56	233.97	131.02
Bottomland Forest	0.75	164.29	123.22
Wetland Areas	0.6	0.43	0.26
Quarry	0.17	12.51	2.13
Urban	0.03	30.9	0.93
Water	0.31	12.63	3.92
<b>TOTAL</b>		647.2	<b>361.7</b>

**Table 7. Proposed Reservoir and Buffers**

Cover / Vegetation Type	Average Habitat Quality Score	Estimated Acres of Cover / Vegetation Type	Habitat Units
Brush	0.46	10	4.6
Woods	0.56	170	95.2
Water	0.31	648	200.88
<b>TOTAL</b>		828	<b>300.68</b>

Note: Average habitat quality score for each vegetation type taken from scores for WHAP at project site in Water Rights Amendment Application

**Table 8. Existing on 450-Acre Mitigation Area, Stephens County**

Cover / Vegetation Type	Average Habitat Quality Score	Estimated Acres of Cover / Vegetation Type	Habitat Units
Pasture	0.42	128	53.76
Brush	0.38	246	93.48
Woods	0.56	59	34.81
Water	0.31	12	3.72
Un-vegetated / Road	0	5	0
<b>TOTAL</b>		450	<b>185.77</b>

**Table 9. Proposed on 450-Acre Mitigation Area, Stephens County**

Cover / Vegetation Type	Average Habitat Quality Score	Estimated Acres of Cover / Veg Type	Habitat Units
Grassland	0.59	135	79.65
Brush	0.55	233	128.15
Woods	0.67	65	43.55
Water	0.31	12	3.72
Un-vegetated / Road	0	5	0
<b>TOTAL</b>		450	<b>255.07</b>

2. Reservoir Clearing Plan

A 2009 reservoir clearing plan was developed and submitted by the Applicant as part of the Joint Application. After meeting with TPWD and USACE staff, the Applicant now proposes to minimize clearing of habitat in the reservoir to promote the development of aquatic habitat. The Applicant will only clear the portions of the reservoir footprint needed for construction including borrow areas. If the District decides to grant current and future landowners adjacent to the reservoir use of the shoreline areas, the District will only authorize the clearing of woody snags on up to 10% of the shoreline frontage to a depth of approximately 847 ft-msl. Additionally, if the District decides to grant shoreline access easements, these agreements will not allow permanent bulkheads or large concrete structures to be constructed within the buffer area or conservation pool by adjacent private landowners.

3. Recreation Access

The Applicant proposes to maintain recreational access through the normal pool connection between the existing Palo Pinto Lake and the Turkey Peak portion of the reservoir. This connection will allow for boats to move between the two reservoir pools when the lakes are not more than about 3 feet below their conservation pool levels. The Applicant is considering the installation of a controlled-access boat ramp to be installed off of Ward Mountain Road.

4. Shoreline Protection

As discussed in the revised mitigation plan (included as separate document), the Applicant proposed to protect the existing, natural habitats along the proposed reservoir shoreline to limit



development and enhance the quality of the aquatic habitat that is created by the project. The shoreline protection plan, as detailed in the revised mitigation plan, is based on literature review, evaluation of site conditions, and coordination with stakeholders, including TPWD.

### Revised Mitigation Plan

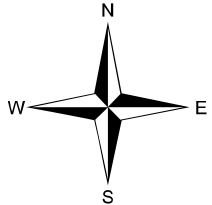
The Applicant developed a revised mitigation plan based on feedback from the USACE and other agencies, the evaluation of practicable alternatives for mitigation activities, and utilizing the Fort Worth District template for a mitigation plan to fulfill the requirements on the 2008 mitigation rule. The revised mitigation plan is presented as a separate document to replace the conceptual mitigation plan dated June 2011 (see Attachment C).

**Attachment A – Alternatives Evaluation Exhibit (no changes)**

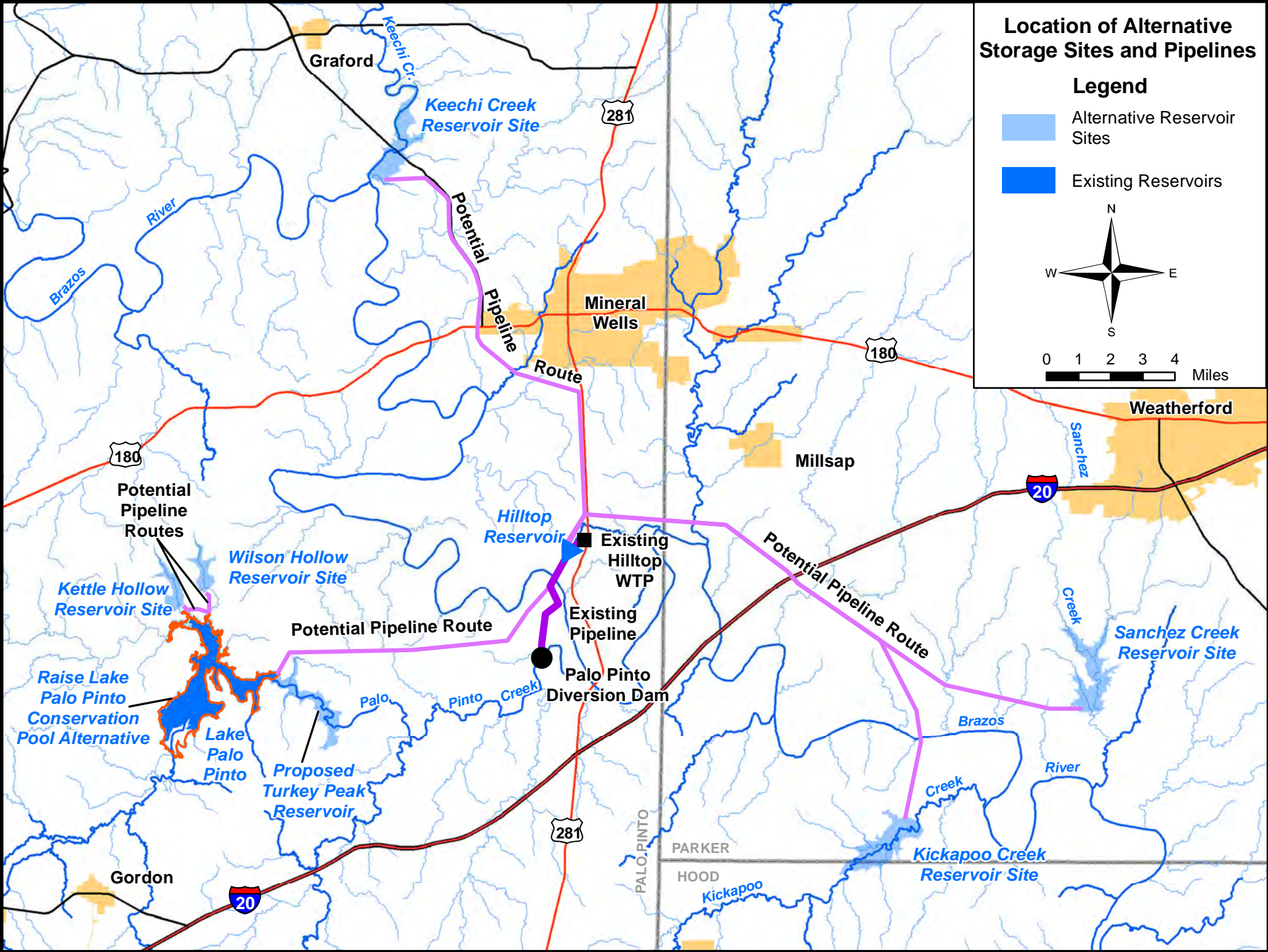
# Location of Alternative Storage Sites and Pipelines

## Legend

- Alternative Reservoir Sites
- Existing Reservoirs



0 1 2 3 4 Miles



**Attachment B – Updated Project Design Exhibits**



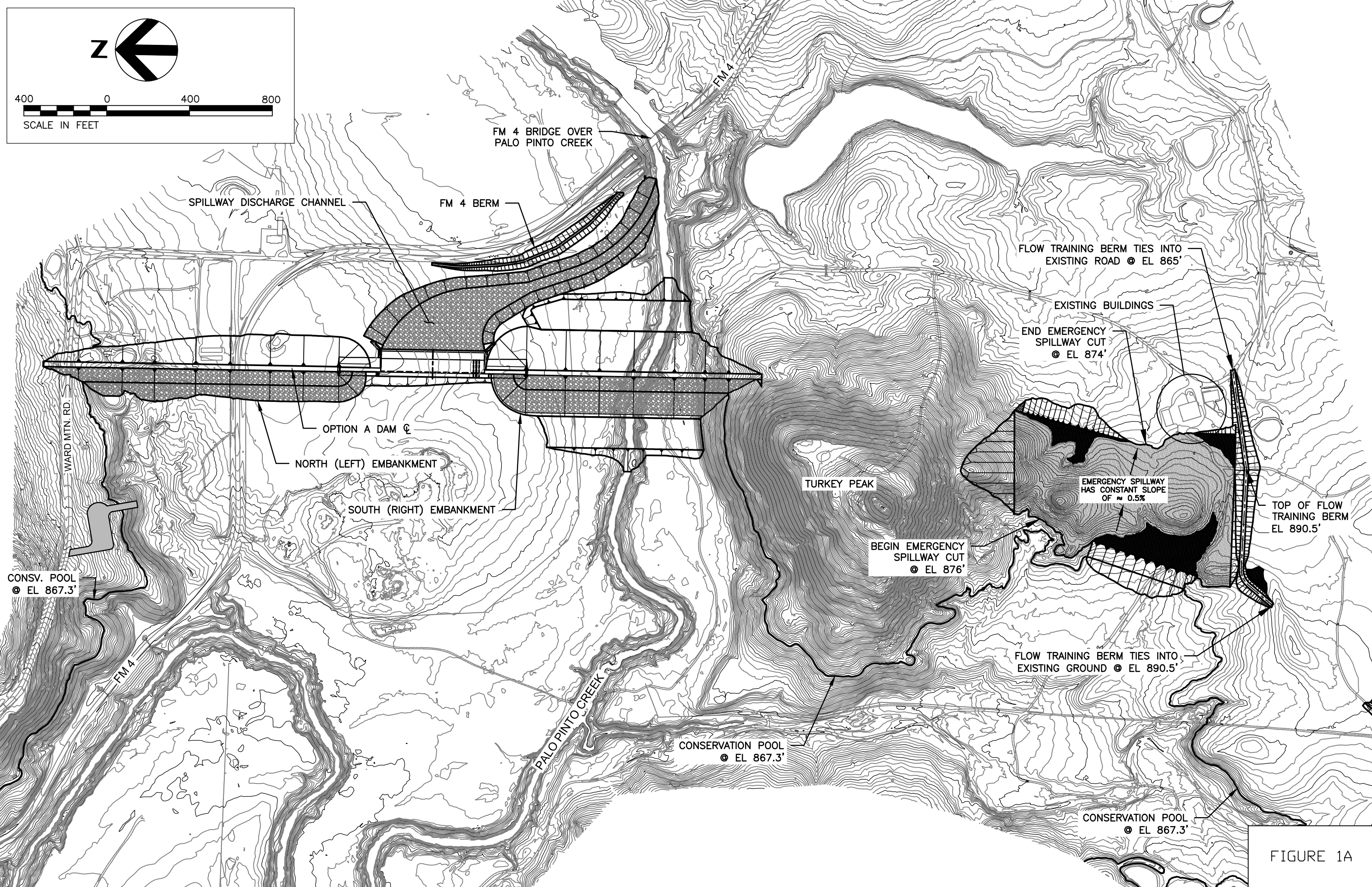
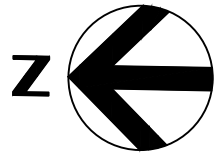
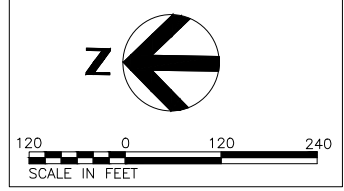
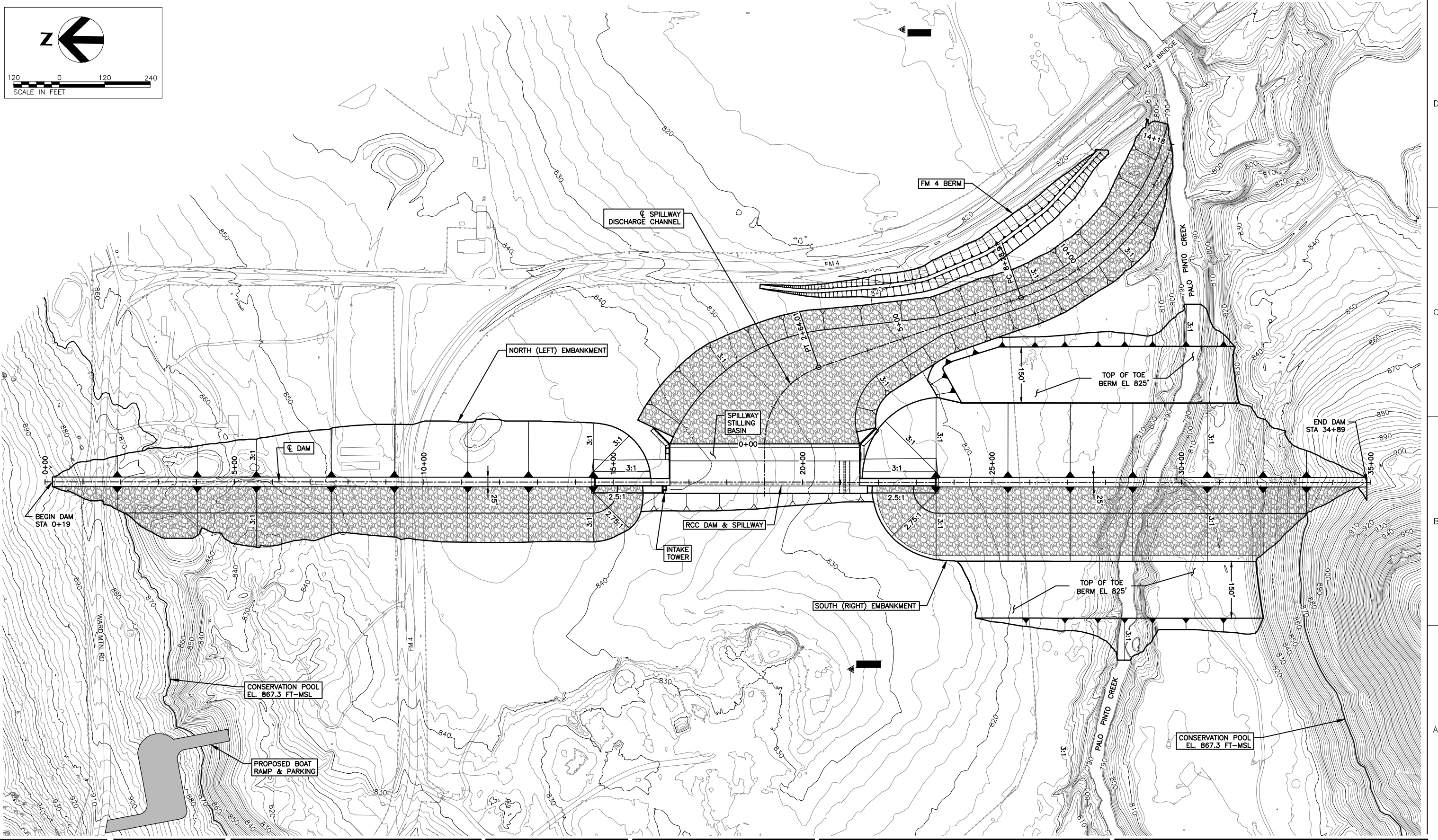


FIGURE 1A





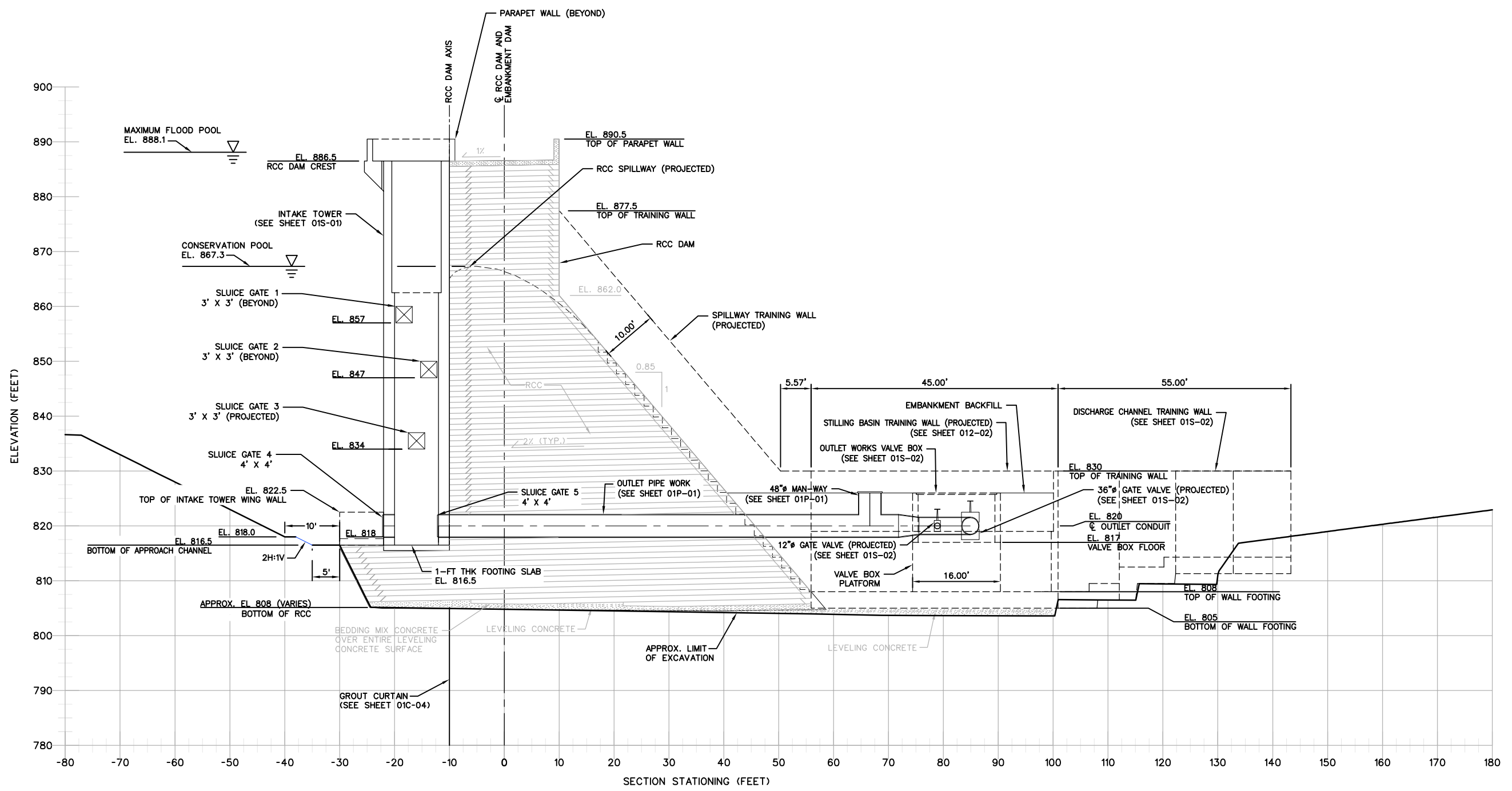
PROJECT NUMBER	00000000120507
ISSUE	A
DATE	11/30/2012
DESCRIPTION	FOR PRELIMINARY ENGINEERING REPORT

PROJECT MANAGER	K. CHOFFEL P.E.
DESIGNED BY	R. SHOEMAKER P.E.
DRAWN BY	C. AMARAL

**PALO PINTO COUNTY  
 MUNICIPAL WATER DISTRICT No. 1**  
 Mineral Wells, TX  
  
**TURKEY PEAK DAM &  
 RESERVOIR PROJECT**

	FILENAME	O4C-01.dwg	SHEET
	SCALE	1"=120'	O4C-01





SECTION STA 15+85.25  
SCALE: 1"=10'



HDR Engineering, Inc.

ISSUE	DATE	DESCRIPTION
A	11/30/2012	FOR PRELIMINARY ENGINEERING REPORT

PROJECT MANAGER	K. CHOFFEL P.E.
DESIGNED BY	K. FERGUSON P.E.
DRAWN BY	D. WOOD
PROJECT NUMBER	00000000120507

THIS DRAWING HAS BEEN PREPARED UNDER THE AUTHORITY OF KEITH A. FERGUSON TEXAS P.E. NO. 70650 DATE: NOV. 30, 2012 FOR THE SOLE PURPOSE OF INCLUSION IN PRELIMINARY ENGINEERING REPORT

IT IS NOT TO BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSE.

**PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1**  
Mineral Wells, TX

**TURKEY PEAK DAM &  
RESERVOIR PROJECT**

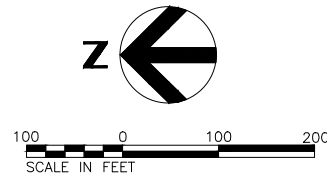
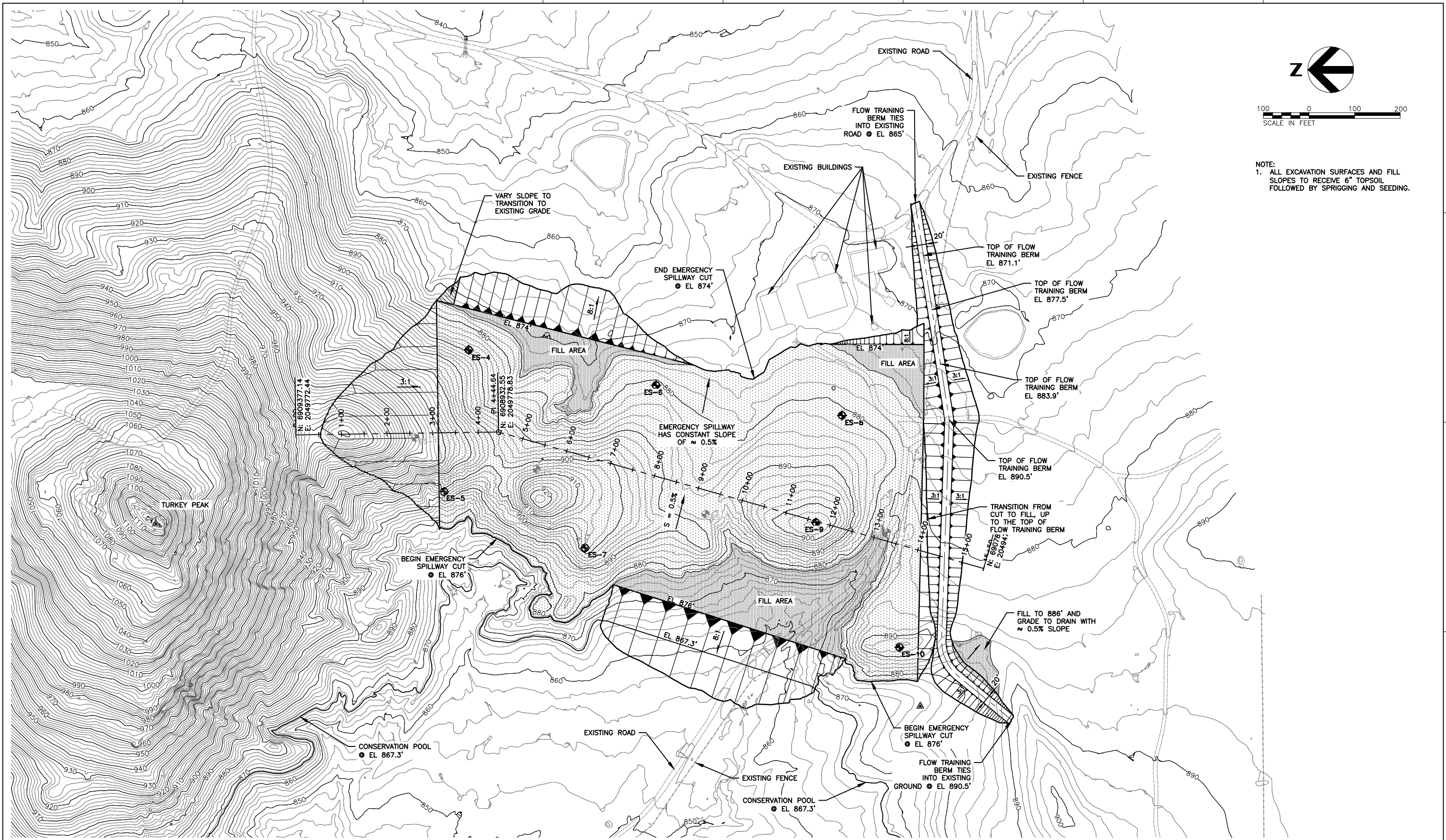
**TURKEY PEAK DAM  
SECTION - RCC AT OUTLET WORKS**

0 1" 2"

FILENAME 01C-23.dwg  
SCALE 1"=10'

SHEET  
01C-23

C:\Pwworking\da\064629\02C-01 & 02C-03.dwg, 02C-01, 2/25/2015 5:01:32 PM, camara



NOTE:  
1. ALL EXCAVATION SURFACES AND FILL SLOPES TO RECEIVE 6" TOPSOIL FOLLOWED BY SPRIGGING AND SEEDING.



HDR Engineering, Inc.

ISSUE	DATE	DESCRIPTION
A	11/30/2012	FOR PRELIMINARY ENGINEERING REPORT

PROJECT MANAGER	K. CHOFFEL P.E.
DESIGNED BY	R. SHOEMAKER P.E.
DRAWN BY	C. AMARAL
PROJECT NUMBER	00000000120507

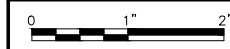
THIS DRAWING HAS BEEN PREPARED UNDER THE AUTHORITY OF RICHARD A. SHOEMAKER TEXAS P.E. NO. 64598 DATE: NOV. 30, 2012 FOR THE SOLE PURPOSE OF INCLUSION IN PRELIMINARY ENGINEERING REPORT

IT IS NOT TO BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSE.

**PALO PINTO COUNTY  
MUNICIPAL WATER DISTRICT No. 1  
Mineral Wells, TX**

**TURKEY PEAK DAM &  
RESERVOIR PROJECT**

**TURKEY PEAK DAM EMERGENCY SPILLWAY  
PLAN - SITE OVERVIEW**



FILENAME 02C-01 & 02C-03.dwg  
SCALE 1"=100'

SHEET  
02C-01

**Attachment C – Revised Mitigation Plan**

# **PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

## ***REVISED MITIGATION PLAN***

### **APPLICATION FOR DEPARTMENT OF THE ARMY INDIVIDUAL PERMIT**

**Palo Pinto County Municipal Water District No. 1  
Proposed Lake Palo Pinto Storage Restoration Project at Turkey Peak**

**USACE Project No. SWF-2009-00264**

**February 2015**

**Prepared for:  
Palo Pinto County Municipal  
Water District No. 1  
PO Box 387  
Mineral Wells, Texas 76068**

**Prepared by:  
HDR Engineering, Inc.  
4401 West Gate, Suite 400  
Austin, TX 78757**

# Mitigation Plan

## Part I: Project Information

Project Name: **Lake Palo Pinto Storage Restoration Project at Turkey Peak**

SWF Permit No.: **SWF-2009-00264**

Project Location: **Northwest of Santo, Texas**

Mitigation Site Location(s) (if different): **On-site and west of Strawn, Texas**

Watershed(s): **Palo Pinto Creek**

County or Counties: **Palo Pinto and Stephens Counties, Texas**

*Note to Reader: The mitigation plan that follows is prepared in accordance with and follows the Fort Worth District recommended format posted on the District's webpage (as of July 28, 2014).*

The Palo Pinto County Municipal Water District No. 1 (hereinafter referred to as the District or Applicant) operates the existing Lake Palo Pinto in Palo Pinto County, Texas. The Applicant proposes to construct the Lake Palo Pinto Storage Restoration Project at Turkey Peak (herein referred to as proposed project or reservoir). This revised mitigation plan is submitted as an update to the Application for Department of the Army Individual Permit (IP) provided to the Fort Worth District of the U.S. Army Corps of Engineers (USACE) on July 9, 2009 to initiate the process for approval to impact waters of the U.S., including wetlands (WOTUS), under Section 404 of the Clean Water Act (CWA), and also as a revision to the conceptual mitigation plan subsequently submitted in June 2011.

Additional detailed background information is contained in a separate permit amendment application for water right held by the District that was submitted to the Texas Commission on Environmental Quality (TCEQ) on January 30, 2009.

This mitigation plan is a required attachment of the larger IP application, which is paired with the water rights permit amendment application. With this in mind, the mitigation plan is designed to reflect the requirements of both Section 404 of the CWA and TCEQ regulations, including the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (Federal Register Vol. 73, No. 70; April 10, 2008) [hereafter referred to as the 2008 Mitigation Rule]. This document and the water rights permit amendment application should be reviewed together since various parts of each document rely on the information in the other. Incorporation of information by reference between documents is warranted, acceptable, and expected due to the size of the individual documents in question. Reproduction of all these documents for incorporation into the mitigation plan or IP application is not required by the USACE, is not practical, and is not required under National Environmental Policy Act (NEPA).

## **Part II: Avoidance and Minimization**

### **1. Avoidance**

Impacts to waters of the U.S. (WOTUS) were avoided to the maximum extent practicable through the reservoir site selection screening process and design measures utilized for the expansion of storage volume. An alternatives analysis was performed for seven storage sites identified as potential locations for the expansion of current surface water storage. Additional information on comparison of alternatives is found in Attachment F of the IP document, the water rights permit amendment application, and other supporting and supplemental documentation. This analysis shows the proposed project is the least environmentally damaging practicable alternative.

## 2. Minimization

The Applicant will take appropriate and practicable on-site measures in the design and operational plans for the proposed project in order to minimize adverse impacts to waters of the U.S. that can not be reasonably avoided. These measures will include, but are not limited to, water quality protection and maintenance of pool habitat and aeration downstream of the outlet works channel as well as maintaining existing downstream flows.

Best Management Practices (BMPs) will be used to control erosion and sedimentation during construction of the proposed project and to control total suspended solids following construction. Areas temporarily disturbed by construction will be re-contoured and re-vegetated as appropriate to minimize adverse impacts to water quality. The Applicant has prepared the TCEQ Tier II 401 Certification Questionnaire and Alternatives Analysis Checklist for Clean Water Act Section 401 water quality certification (included in the Individual Permit application submitted to the USACE on July 9, 2009).

The Applicant will include design measures and implement BMPs within the proposed project area to enhance water quality in the aquatic ecosystem of Palo Pinto Creek downstream. The design and construction of a multi-level outlet tower for water release will maintain acceptable dissolved-oxygen (DO) levels and water quality downstream of the proposed reservoir. The outlet works will include 4 gates with their invert elevations set 10, 20, 34 and 49 feet below the reservoir's conservation level. This measure will assure that water is released from the top 15 feet of the reservoir regardless of the lake level to maintain acceptable DO and temperature levels and minimize the adverse impacts associated with releasing water from the bottom portion of the 70 feet deep conservation pool. The water quality benefits of the multi-level outlet tower are anticipated to increase DO levels above acceptable levels approximately 11–17% of the time above the existing releases from Lake Palo Pinto which has a fixed outlet set at an elevation which is 32 feet below the reservoir's conservation level (see December 23, 2010, memo to TCEQ which was also submitted to the USACE).

The Applicant proposes to provide for the continued maintenance of the existing channel dam located downstream of the FM 4 bridge and the proposed outlet channel. In addition to providing a pool habitat, the existing channel dam will serve as a drop structure and provide additional aeration to the water released to Palo Pinto Creek. This will further minimize adverse impacts to the existing aquatic environment downstream of the new dam. The section of Palo Pinto Creek between the proposed outlet works and the existing Farm-to-Market Road (FM) 4 bridge will be protected from erosion, as appropriate, to minimize the impacts from high velocity water in the spillway channel.

To minimize impacts to Palo Pinto Creek downstream of the proposed project, the Applicant proposes flow releases so that the stream will experience a flow regime that mimics existing conditions. The Applicant will compute daily reservoir inflows and track seasonal drought conditions (wet, average, and dry) for the middle Brazos Basin as computed by the Palmer Hydrological Drought Index (PHDI). Inflows originating in the 7 square mile contributing drainage area below the existing Lake Palo Pinto dam will be computed as 1.5% of the total inflow (7 square miles is 1.5% of the total drainage area of the proposed Turkey Peak Reservoir). Inflows originating in the 7 square miles will be subject to in-stream flow requirements and the District will release 4 cubic feet per second (cfs) during wet conditions, 2 cfs during average conditions, and 1 cfs during dry conditions to satisfy base-flow requirements.



If the inflow originating in the 7 square miles is less than the base-flow requirements, the District will release half of the difference between the inflow rate and 1 cfs to satisfy subsistence flow requirements. Separate from the environmental flow requirements and to accommodate downstream senior water right holders, the District will release inflows at rates up 170 cfs within a 4-day period to satisfy priority calls. Reservoir spills will still occur from the uncontrolled spillway when the reservoir is full. This flow regime provides minimal change to how the existing stream reach receives flow today.

The proposed flow releases will minimize adverse impacts to Palo Pinto Creek downstream of the proposed project by maintaining flows within the stream and enhancing water quality. This action will also minimize impacts by continuing flow variability, and transferring organic matter and nutrients required for the maintenance of a healthy aquatic ecosystem. This activity will be performed by the Applicant based on reservoir operations and reported in accordance with the water rights authorization from the TCEQ.

## **Part III: Compensatory Mitigation**

### **1. Goals and Objectives**

The goals of the proposed mitigation plan include:

1. Avoid and minimize impacts to waters of the U.S. caused by the proposed project to the maximum extent practicable.
2. Provide for the replacement of the chemical, physical, and biological functions of the WOTUS that will be lost or degraded as a result of the proposed project.
3. Provide for the establishment, restoration, enhancement, and preservation of aquatic resources within the watershed in order to sustain the ecological functions and aesthetic values of aquatic communities within the landscape of the proposed project.

The proposed mitigation plan includes the following objectives:

1. The restoration of approximately 1,557 linear feet (LF) of stream channels with associated riparian buffers in a mitigation area upstream of the proposed reservoir within the Palo Pinto Creek watershed;
2. The enhancement of approximately 20,013 LF of stream channels with associated riparian buffers in a mitigation area upstream of the proposed reservoir within the Palo Pinto Creek watershed;
3. The preservation of approximately 2,600 LF of stream channels with associated riparian buffers adjacent to the proposed reservoir;
4. The establishment of approximately 55,310 LF of lacustrine shoreline aquatic habitat along the littoral zone of the proposed reservoir with associated riparian buffer habitat up to an elevation that is approximately 33 feet in elevation above the conservation pool of about 867 feet above mean sea level for approximately 95% of the shoreline;
5. The development of a shoreline management and protection plan so that the established lacustrine shoreline habitat achieves sustainability and will limit the amount of maintenance required by repairing and mimicking ecological functions of sediment transport/development, energy dissipation, groundwater interaction, surface water storage/transport, geomorphic/topographic development, nutrient/chemical cycling, carbon/organic matter cycling, biodiversity support and landscape corridors. This plan shall include a limitation of native vegetation clearing and restriction on bulk heading shoreline areas, except where needed to protect infrastructure as shown in the plan.

## 2. Site Selection

Based on the scale and nature of the proposed project, the Applicant plans to provide compensatory mitigation by permittee-responsible mitigation under a watershed approach consistent with the 2008 Final Compensatory Mitigation Rule. The proposed compensatory mitigation measures and site selection consider the practicability and capability for offsetting impacts to aquatic resource functions in the vicinity of the project given the geologic and land use constraints. This includes likelihood for ecological success and sustainability; logistical and local stakeholder factors; location and significance in the watershed; and potential cost of the mitigation measures. The proposed measures for compensatory mitigation use the principles of a watershed approach to the extent practicable in order to maintain and improve the quality and quantity of aquatic resources within the watershed by strategic selection of compensatory mitigation. This watershed approach considers the aquatic resource needs of, and desired functions in, the watershed as well as the importance of landscape position and resource type of compensatory mitigation for sustainability of aquatic resource functions within the watershed. Mitigation sites were selected based on their hydrologic and ecological potential to maximize the likelihood of enhancing naturally, self-sustaining aquatic resources in the watershed.

In addition to on-site mitigation measures, a 450-acre upstream mitigation site along Palo Pinto Creek and several tributaries, 19 miles southwest of the project area, was identified based on the occurrence in the Palo Pinto Creek watershed, proximity to the proposed Palo Pinto Mountains State Park (i.e., protected conservation area), and property availability (see Figure 1 in **Attachment A**). Given the current condition and previous land uses, this upstream mitigation site provides an opportunity to restore stream habitat and enhance the quality of aquatic resources within the local watershed with high likelihood of success. The watershed of the area immediately surrounding this upstream mitigation site is rural and primarily undeveloped, with the exception of agricultural (i.e., grazing and pond construction) activities. Given the watershed characteristics and potential for natural hydrology and native vegetation at this mitigation site, the selection of this upstream mitigation site is practicable for promoting successful, self-sustaining mitigation.

Several alternatives for compensatory mitigation were also considered for the proposed action. First the potential to enhance the portion of Palo Pinto Creek downstream of the project area including livestock exclusion to enhance both stream and riparian habitat conditions. However, due to the number of landowners over the length of Palo Pinto Creek and fencing installation and maintenance requirements resulted in a determination that this alternative was not practicable.

Additionally, the use of "entrepreneurial" mitigation bank credits was considered but is not proposed in this mitigation plan. There is one mitigation bank with a service area that includes the proposed project (see table below), but use of mitigation bank credits is not practicable due to the cost per credit based on current mitigation bank pricing, which would be an excessive burden on the Applicant, a public entity and their water customers, considering the practicability and ecological benefit of enhancing aquatic resources in the same watershed as the proposed action.

Mitigation Bank	Credit Type	Service Area	Distance (Aerial Miles)
Fall Off Creek	Legacy Stream credits only	Secondary	98

The use of the proposed mitigation sites is environmentally preferable for functional replacement and is anticipated to provide sufficient compensatory mitigation. Additionally, the use of mitigation measures outlined in **Part III, Section 5** (Mitigation Work Plan) of this document, along with an Adaptive Management Plan, will maximize the likelihood of establishing ecologically self-sustaining aquatic resources.

The Applicant and their customers (consisting largely of local residents) have experienced increased operational and infrastructure expenditures as the result of conservation and emergency drought response projects in the recent past. The use of the proposed Palo Pinto Creek upstream mitigation site will meet the 2008 Mitigation Rule requirements, reduce the financial burden on the residents, and allow the enhancement of natural resources in the watershed (i.e., downstream portions of Palo Pinto State Park), that will be accessible to the stakeholders.

### **3. Liens, Easements or Encumbrances**

Liens, easements or encumbrances on the mitigation sites are not anticipated to impact the mitigation activities and success criteria based on the Applicants planning described below.

Based on the Title Commitment for the upstream mitigation site, approximately 11 pipeline and utility easements may occur in portions of the site. Most of the easements allow access to the site, and may have ended due to lack of use. Only two pipeline easements are evident and in use based on the survey of the site, and these do not have a specified width, therefore the assumption for these easements is that maintenance would occur within 15 feet of the existing pipeline. Portions of the aquatic resources used as mitigation that are within these existing pipeline easements and encumbrances are not included in the determination of credits described herein and as shown on Figure 2-2 in **Attachment D**. Information on the liens, easements, and encumbrances for the on-site mitigation on property acquired by the District for the proposed project will be provided to the USACE during the real-estate acquisition process.

Mineral resources, including natural gas and oil, may exist under the mitigation sites. The District would not own subsurface mineral rights, and cannot control a mineral owner's access to those minerals. However, the District will endeavor to work with mineral rights owners and lessees prior to the further development of mineral resources. The District would provide guidelines and identify areas that are away from the aquatic resources and associated buffers utilized as mitigation in order that development of mineral rights avoids and minimizes impacts to the mitigation sites to the extent practicable.

The exploration for, and production and transportation for, subsurface mineral resources beneath the mitigation sites is acceptable provided the amount of ground disturbing activities and surface alterations are minimized to the maximum extent practicable; activities are conducted in a manner that minimizes adverse environmental impacts; impacted areas are restored to pre-existing conditions as soon as practicable; reasonable and appropriate compensatory mitigation is achieved; and the entity conducting the activities complies with all applicable regulatory requirements, including Section 404 of the CWA. The District will work with the entity conducting the activity to replace/restore aquatic resources used as mitigation depending on the extent and location of adverse impacts associated with mineral exploration and/or extraction activities, as determined by the USACE.

The District will maintain right-of-entry and control as necessary for mitigation through ownership of properties in fee or by leases/easements as discussed in more detail in **Part III, Section 8**.

## 4. Baseline Information / Site History

### Ecological Conditions for the Impact Site

A summary of ecological conditions for the proposed project impact site is provided below. The delineation of the waters of the U.S. found in Attachment C of the Individual Permit application provides detailed descriptions of the aquatic resources, existing vegetation, surrounding land uses, and local geology and soils within the project area, which is the site of impacts and mitigation (i.e., on-site). Ecological condition for streams at the impact site was determined by using the Texas Rapid Assessment Method (TXRAM) and can be found in **Attachment E** of this mitigation plan.

The following information summarizes the existing conditions at the impact site, including the artificial and degraded quality of the impacted waters of the U.S., as it relates to the determination of mitigation requirements. Waters of the U.S. in the proposed project area include Palo Pinto Creek, a historically intermittent stream prior to the construction of Lake Palo Pinto which is now artificially maintained as perennial through non-required water-supply releases, and secondarily from flow of intermittent and ephemeral tributaries. Two small non-forested wetlands and an on-channel impoundment also occur within the proposed project area. The waters of the U.S. impacted for construction of the proposed project and inundation at the conservation pool elevation include 44,738 LF of stream and 0.1 acre of wetland. A 0.78-acre on-channel impoundment within the proposed project area will not receive discharge of fill and will not have permanent impacts as a result of inundation. Prior to the construction of Lake Palo Pinto, Palo Pinto Creek experienced no flow about 40% of the time based on flows recorded at the USGS stream gage near Santo, Texas which is located about 10 miles downstream of Lake Palo Pinto. At present, Palo Pinto Creek downstream of Lake Palo Pinto experiences no flow between about 10 and 13% of the time. In addition, the high aquatic life use within Palo Pinto Creek that has resulted from the District's historic non-required water supply releases has been accompanied by a reduction in the floodplain connectivity of the stream. The development of Lake Palo Pinto upstream has likely caused the channel of Palo Pinto Creek below the existing dam to become wider and more incised than it was historically. This has subsequently reduced the effective floodplain and limited the riparian corridor to an average of 150–200 feet wide. Thus, the floodplain and riparian functions along Palo Pinto Creek downstream of Lake Palo Pinto are reduced compared to the historical condition of this stream and the natural condition of other streams in the vicinity.

### Ecological Conditions for the On-site Mitigation

The ecological conditions for the on-site mitigation are generally similar to the existing vegetation, surrounding land uses, and local geology and soils within the project area, which is the site of impacts discussed above (and described in the delineation of the waters of the U.S. found in Attachment C of the Individual Permit application). Furthermore, a description of the proposed ecological conditions of the on-site mitigation by establishment of lacustrine shoreline aquatic habitat with associated buffers is described in **Attachment I**.

### Ecological Conditions for the Upstream Mitigation Site

At the mitigation site along Palo Pinto Creek and tributaries that is upstream of the proposed project (i.e., impact area), the streams and riparian buffers are currently degraded due to past agricultural land uses, such as cattle grazing. Additionally, in Palo Pinto Creek, a channel dam

structure was built presumably for historic water supply to serve rail and/or oil and gas operations which creates an impoundment of the channel. An earthen dam was also constructed on an ephemeral tributary to create an impoundment for livestock. Along the majority of Palo Pinto Creek and tributaries, the riparian corridor has been invaded by Ashe juniper (*Juniperus ashei*) and subject to heavy cattle grazing that has caused erosion, sedimentation, and degradation of the native plant community. A delineation of waters of the U.S. for the upstream mitigation site is in **Attachment B**.

Representative ecological condition for streams within the proposed upstream mitigation site was determined by using TXRAM and can be found in **Attachment E** of this mitigation plan.

A Phase I Environmental Site Assessment was performed for the District by Adams Environmental, Inc. dated May 23, 2014. A summary of the results from this report are provided below, with historic aerial images and site photos from the report provided in **Attachment J**. Based on site reconnaissance and research and review of available historic and physical setting information, the upstream mitigation site was historically used for ranching and oil and gas exploration and production. Remnants of a reported oil refinery seen in the 1947 aerial photograph but not apparent in subsequent photographs were observed along the southern boundary of the eastern half of the site, as evidenced by dilapidated foundations and concrete footings. No evidence of stained soils, unusual odors, stressed or dead vegetation, or other indicators of media contamination was observed at these locations, and there was no definitive historical evidence that an actual refinery was located on the site. These remnant foundations do not occur within the riparian buffers of the proposed stream mitigation segments. There are records of seventeen oil/gas wells recorded on the site. Ten of these are plugged, four were recorded as dry holes, one as a permitted location, one unaccounted oil well (identified in database, but could not be verified at coordinates), and one oil/gas well (identified in database, but could not be verified at coordinates). Surface features indicating the locations of several well sites were observed at the time of the site reconnaissance; however, a majority of the wells were no longer visible or were not located at the coordinates listed within the records, and no evidence of active wells occurs within the site. Two small diameter crude oil and natural gas pipelines traverse the eastern half of the subject property. As discussed in **Part III, Section 3**, the portions of stream within pipeline easements are not included in the mitigation credits calculation. No additional investigations of potential impacts associated with the oil/gas activity and production sites and pipelines were recommended. No other regulated facilities, evidence of hazardous substances, or recognized environmental conditions were found on the site. Therefore, the upstream mitigation site is suitable and ecologically preferable for the proposed mitigation activities described herein.



## 5. Mitigation Work Plan

The Applicant proposes on-site and near-site mitigation measures under a watershed approach to compensate for the unavoidable impacts to waters of the U.S. caused by the proposed project. The following mitigation work plan describes the proposed mitigation by activity type. These activities include stream restoration, enhancement, and preservation as well as lacustrine shoreline habitat establishment and protection. A figure illustrating the mitigation plan is shown in **Attachment D**, Figure 2. It is anticipated that the proposed mitigation work plan described below will achieve the goals and objectives of this mitigation plan by providing the functional replacement value for unavoidable adverse impacts to the aquatic ecosystem.

The proposed compensatory mitigation measures consider the practicability and capability for offsetting impacts to aquatic resource functions in the vicinity of the project given the geologic and land use constraints. This includes the likelihood for ecological success and sustainability, the location and significance in the watershed, and the potential cost of the mitigation measures. The proposed measures for compensatory mitigation use the principles of a watershed approach to the extent practicable in order to maintain and improve the quality and quantity of aquatic resources within the watershed by strategic selection of compensatory mitigation. This watershed approach considers the aquatic resource needs of and desired functions in the watershed as well as the importance of landscape position and resource type of compensatory mitigation for sustainability of aquatic resource functions within the watershed.

### Stream Restoration

At the upstream mitigation site, a portion of Palo Pinto Creek is currently degraded by the presence of a channel dam structure as well as agricultural land uses which have altered flows, eroded banks, and caused excessive sediment deposition. An ephemeral tributary to Palo Pinto Creek at the mitigation site has also been degraded by an earthen dam to create an impoundment. Furthermore, invasion by Ashe juniper and heavy cattle grazing has caused erosion, sedimentation, and degradation of the native plant community.

The Applicant proposes to restore approximately 1,557 LF of intermittent and ephemeral streams as mitigation for the proposed project. In the currently impounded and degraded streams, a natural channel will be restored by modifying in-channel structures so they will not impound flow, and selective re-grading of the channel to replicate natural contours similar to upstream and downstream segments. In addition to re-vegetation by the native seed bank and natural succession from the surrounding seed source, approximately 5 acres of riparian habitat along the stream restoration areas would be restored by planting grasses and forbs from seed in select, suitable areas of previously degraded portions of the riparian corridor and adjacent uplands. The Applicant would perform select removal of shrubs/brush to enhance the riparian buffer vegetation community. The Applicant would also exclude cattle from and protect the stream restoration areas as discussed in the enhancement section below. The stream restoration activities will provide in-kind mitigation by replacing the chemical, physical, and biological functions of the streams impacted by the proposed project within the same watershed.

### *Stream Restoration Practices*

Examples of stream restoration practices used during restoration actions are provided below from a USACE guidance document and focus on principles of fluvial geomorphology. Implementation of all the listed examples is likely not feasible or necessary for each case of stream restoration, and instead each location will be assessed and the appropriate practices will be applied as necessary. Upon approval of the proposed mitigation activities, HDR's water resource engineers with extensive experience in natural stream channel design would assess and design the proposed stream restoration segments.

- Riparian areas will be restored as soon as practicable by planting herbaceous vegetation.
- Restored streams will be constructed with slopes appropriate to soil conditions, engineering design, grade, and as necessary to reduce erosion.
- Stream banks will be terraced where appropriate in order to create broad floodplains for development of streamside vegetation and riparian systems.
- Boulder clusters using native rock will be located to provide reduced flow, increase microhabitats, and increase substrate diversity.
- Livestock will be excluded or managed to reduce impact to slopes or other sensitive locations to reduce adverse impacts that may occur close to or adjacent to streams.
- Re-grading and re-vegetation of previously constructed earthen embankments will be performed to reduce retention, restore flow, and minimize erosion and sedimentation.

### Stream Enhancement

The Applicant proposes stream enhancement activities on Palo Pinto Creek and tributaries at the upstream mitigation site. Palo Pinto Creek and tributaries at this site are degraded as a result of agricultural activities, including livestock grazing, which have impacted stream functions. The stream enhancement activities would include excluding livestock, removing invasive shrubs, and establishing native grasses and forbs.

The Applicant would also provide enhancement of the aquatic habitat in approximately 20,013 LF of Palo Pinto Creek and tributaries by excluding cattle from the riparian buffers using fencing in order to reduce the impacts of livestock accessing the streams. By reducing livestock access to the streams, the Applicant would enhance aquatic functions by reducing erosion and high nutrient loads and improving water quality and riparian habitat. The Applicant would construct fencing to eliminate livestock access to the streams and associated riparian buffer areas while minimizing future maintenance requirements. The riparian buffer of streams at the mitigation site have been invaded by Ashe juniper as a result of past land uses, and thus the Applicant proposed select removal of shrubs/brush to enhance the riparian buffer vegetation community. The stream enhancement areas (approximately 39 acres) would also be protected from unauthorized activities such as mowing, cutting, and herbicide application. In addition to re-vegetation by the native seed bank and natural succession from the surrounding seed source, the riparian habitat along the stream enhancement areas would be restored by planting native grasses and forbs from seed (including at least six species from the list below) in select, suitable areas of previously degraded portions of the riparian corridor and adjacent uplands.

#### Native Grass/Forb Seed List:

- Little bluestem (*Schizachyrium scoparium*)
- Big bluestem (*Andropogon gerardii*)
- Sideoats grama (*Bouteloua curtipendula*)
- Blue grama (*Bouteloua gracilis*)
- Buffalograss (*Buchloe dactyloides*)
- Curly mesquite (*Hilaria belangeri*)
- Texas cupgrass (*Eriochloa sericea*)
- Prairie wildrye (*Elymus canadensis*)
- Cane bluestem (*Bothriochloa barbinodis*)
- Maximillian sunflower (*Helianthus maximiliani*)
- Plains coreopsis (*Coreopsis tinctoria*)
- Prairie coneflower (*Ratibia columnifera*)

Monitoring and control of non-native/invasive species would be performed as necessary. The stream enhancement activities will promote ecological functions of the riparian buffer and in-stream habitat.

The benefits of livestock exclusion that promote stream enhancement include reducing herbivory, trampling, and water quality impacts. Enhancement activities also allow re-generation/succession of the native plant community and restoration of natural processes by removing a source of stress and impact. The need to plant trees is not anticipated because of the nearby, reliable seed source and natural succession. The stream enhancement activities will provide in-kind mitigation by replacing the chemical, physical, and biological functions of the streams impacted by the proposed project within the same watershed.

#### Stream Preservation

The Applicant will protect the intermittent (approximately 834 LF) and ephemeral (approximately 1,766 LF) streams within the proposed reservoir flood pool elevation as described in more detail below for the shoreline protection. Protecting stream and associated riparian habitat from future development and degradation will provide continuing benefits to the aquatic ecosystem including reducing sediment in the downstream reservoir, maintaining water quality, and sustaining nutrient cycles and organic matter inputs. The preservation of streams and associated riparian habitat adjacent to the proposed project would provide in-kind mitigation by protecting existing stream habitat and functions within the same watershed.

#### Lacustrine Shoreline Habitat Establishment and Protection

Land uses in the vicinity of the proposed project have not resulted in modification (i.e., channelization, relocation, or flood control efforts) to stream and river segments that is typical of broader floodplains in East and Central Texas. Therefore, combined with the relative scarcity of perennial waters in the region, potential large-scale stream restoration projects are not readily available to serve as a significant source of compensatory mitigation for the proposed project. In addition, the exceptional drought conditions of the region during the past several years have provided clear documentation of the variable climatic conditions and natural cycles that can severely limit the availability of aquatic habitat in the project area. By providing reasonably sustainable and reliable aquatic habitat, the proposed reservoir with its approximately 55,310 linear feet of lacustrine shoreline with natural substrate (excluding the existing and proposed dams and other infrastructure) and 650 acres of aquatic habitat, will

itself be a highly valuable mitigation measure for functional replacement of the impacted resources. In drought years when Palo Pinto Creek upstream of Lake Palo Pinto and Turkey Peak Reservoir ceases to flow, the proposed reservoir itself will serve as a refugium for most of the aquatic life species living along Palo Pinto Creek. Furthermore, the aquatic habitat established by the proposed reservoir follows a watershed approach for compensatory mitigation by maintaining and improving the quality and quantity of aquatic resources within the watershed, while providing sustainable and necessary aquatic resource functions important to the landscape. Additionally, the impacted reach of Palo Pinto Creek is an artificially perennial stream that has been influenced by non-required water supply releases from Lake Palo Pinto which have resulted in the stream experiencing no flow between about 10 and 13% of the time currently, as opposed to not flowing about 40% of the time historically. Therefore, since the primary impacts of the proposed downstream reservoir expansion are to an aquatic resource that is under artificial control and degraded from past land uses, the establishment of lacustrine shoreline provides appropriate functional replacement.

As a direct result of the proposed project, the Applicant will establish (i.e., create) a lacustrine aquatic resource that did not previously exist, which results in a gain in aquatic resource area and functions. At the conservation pool elevation of approximately 867 feet above mean sea level (ft-msl), the entire lacustrine resource establishment will cover approximately 650 acres. The proposed project is anticipated to establish approximately 55,310 linear feet of lacustrine shoreline with associated littoral and buffer habitats. The applicant proposes to limit most development, land uses, and clearing along the proposed shoreline to provide aquatic resource benefits. Thus, the lacustrine shoreline establishment and protection is anticipated to provide a portion of the functional replacement for aquatic resource impacts resulting from the proposed project.

In order to quantify the functional replacement of stream habitat by lacustrine shoreline, aquatic and wetland scientists employed by HDR have developed a process and methodology to evaluate the equivalent functional replacement associated with the establishment of lacustrine habitat as compensatory mitigation for stream habitats. This is described in more detail in a discussion of the lacustrine shoreline assessment and mitigation process, along with, project-specific information related to this process, that provides justification of the functional replacement as well as an ecological condition evaluation (see **Attachment I**).

Additionally, it is anticipated the shoreline will be conducive to the development of sufficient shallow areas at the various water surface elevations to result in fringe wetland habitats in the littoral zone (e.g., confluence of tributaries, upstream backwater areas, etc.) to functionally compensate for the 0.1 ac of wetlands that will be inundated. Therefore, no additional off-site wetland mitigation areas are proposed.

The Applicant proposes to manage and protect the lacustrine shoreline established by the proposed project to provide the benefits of the aquatic functions and ecological condition to the watershed. The Applicant proposes to limit most development and clearing of property acquired along the shoreline of the proposed reservoir through creation of a shoreline management and protection plan, as described in more detail in **Attachment I**. The Applicant will likely purchase the property outright to provide legal protection of this area (see **Part III, Section 8**).

## 6. Determination of Credits

The Applicant proposes to provide permittee-responsible mitigation using a watershed approach for adverse impacts to waters of the U.S. by establishing, restoring, enhancing, and preserving waters of the U.S. as described in **Part III, Section 5**. The determination of credits is described in more detail in **Attachment F**, and is based on 1) the net increase in ecological conditions of streams as demonstrated using TXRAM, 2) the functional replacement and ecological condition of the proposed lacustrine shoreline, and 3) the proposed stream preservation at the USACE-accepted ratio of 15:1 (not a requirement at the time of the permit application in 2009, but in accordance with current guidelines). An explanation of how the proposed mitigation will compensate for unavoidable impacts to aquatic resources resulting from the proposed project is provided in **Attachment F** by comparing the project impact "debits" and mitigation "credits."

The rationale for the determination of credits include: (1) assessment of the quantity and quality of impacted WOTUS, (2) the types of mitigation measures described in this plan and the anticipated functional "lift", and (3) other factors such as out-of-kind mitigation, temporal loss, failure risk, and local threats to the aquatic environment.

Mitigation credits as shown in **Attachment F** are appropriate for the proposed mitigation measures based on the following:

- Temporal loss of function will be minimized by contemporaneous mitigation with the proposed project impacts. Mitigation measures will be initiated concurrently with dam construction, to the extent practicable, and inundation by the reservoir will occur over time, when several mitigation measures have already started producing functional lift and replacement.
- Mitigation credits are based on an evaluation to determine the ecological lift and functional replacement of the proposed mitigation measures when compared to the quality of the impacted resources. Additional information is provided in **Attachment F**.
- Mitigation uses a watershed approach, thus the credits do not require any decrease for location in a different watershed or ecoregion.
- Mitigation measures include in-kind stream restoration and enhancement.
- Establishment of lacustrine shoreline aquatic habitat along the proposed reservoir provides functional replacement for similar structural and functional impacted stream habitat that is under existing artificial control and/or degraded by past land uses, as described in more detail in **Attachment I**.
- Mitigation has a high likelihood of success due to site characteristics and the mitigation work plan. The potential risk of failure for the proposed mitigation is diminished due to the presence and replication of existing, reliable hydrology, as well as the implementation of the proposed success criteria and management plan.
- The mitigation plan minimizes local threats which could affect the proposed mitigation measures. No activities will occur in the areas used as mitigation which could be detrimental or restrict the proposed mitigation from providing the anticipated ecological functions.

### Mitigation Credit Summary

Based on the proposed mitigation activities described above, the impacts to 44,738 LF of stream will be offset by establishment of approximately 55,310 LF of lacustrine shoreline,

restoration of 1,557 LF of stream, enhancement of 20,013 LF of stream, and preservation of approximately 2,600 LF of stream. As shown in **Table 3 of Attachment F**, total stream debits of 26,033 would be offset by total mitigation credits of 39,763. The mitigation credits were determined based on the process discussed above and described in more detail in **Attachment F**. Therefore, the proposed mitigation will provide the required compensation (i.e., mitigation credit) to offset unavoidable impacts to aquatic resources resulting from the proposed project.

#### Texas Rapid Assessment Method

Impacts to aquatic ecosystem functions are considered in the mitigation planning process to allow (1) adequate replacement of functions and (2) establishment, restoration, enhancement, or preservation of the required linear feet or acreage, in accordance with USACE requirements.

The Texas Rapid Assessment Method was published by the U.S. Army Corps of Engineers, Fort Worth District on March 24, 2011 (final draft version), as the preferred method to provide an evaluation of ecological condition of waters of the U.S. (i.e., wetlands and streams) within the Fort Worth District's jurisdiction. The method, although in final draft form, is available for immediate use and is expected to streamline and improve the process of impact assessment and mitigation calculation for Section 404 permitting. The TXRAM scores, in addition to linear feet units for stream impacts were used to determine debits.

TXRAM was performed for all impacted streams in the project area, and an overall score for each stream was calculated using the TXRAM scoring sheet (see **Attachment E** of this mitigation plan). Additionally, TXRAM was performed for the existing conditions of streams proposed for restoration/enhancement activities. TXRAM scores were also calculated for the mitigation streams following mitigation activities to determine the ecological lift demonstrated by the change in TXRAM score (see **Attachment E** of this mitigation plan).

In summary, the TXRAM evaluation assesses the conditional impacts to streams at the project area as well as the projected ecological lift to streams proposed for mitigation. The results of the TXRAM evaluation were used in the determination of mitigation requirements as discussed in **Attachment F**.

## 7. Maintenance Plan

Maintenance practices conducted by the Applicant following initial establishment, restoration, enhancement, and preservation of mitigation areas may include activities such as:

1. Annual monitoring of ecological conditions.
2. Annual visual monitoring for any impacts from unauthorized activities (i.e., grazing, off-road vehicles, cutting, trespassing).
3. Annual maintenance or repair of necessary mitigation activities (e.g., fencing) to ensure mitigation success.
4. Annual monitoring for growth of non-native/invasive species with control practices as necessary.
5. When applicable, erosion control measures and re-planting approved native vegetation to meet performance criteria.



## 8. Perpetual Site Protection Instrument

The Applicant will provide site protection for mitigation areas in accordance with regulatory requirements and the 2008 Mitigation Rule. Site protection will be accomplished when mitigation activities described in this mitigation plan are complete and have met performance standards. Site protection cannot be fully implemented until the project is initiated since the mitigation areas are not currently in place with property acquisition, survey, and mitigation work. The only exceptions to site protection for mitigation areas shall be easements in existence prior to authorization of the Individual Permit or new areas where owners of oil and gas mineral rights exercise drilling rights in the future.

The mitigation areas to be established will be within and near the proposed project area and designated, by the 2008 Mitigation Rule, as permittee-responsible mitigation. The on-site and upstream mitigation areas will occur on properties currently or to be owned in fee by District. As the owner in fee, the District will provide site protection in the form of conservation easements (when possible) or deed restrictions. The use of conservation easements will be pursued; however, this may not be a viable option in the short- or long-term if willing third-party conservation groups or other approved entities cannot be engaged. Drafts of both conservation easement and deed restriction documents will be provided to the USACE for review and approval, and final executed documents will be provided to the USACE upon completion. Conservation easements may not be possible due to the limited number of third parties who are willing to hold binding contracts necessary for long-term, i.e., "in perpetuity" protection. The District will investigate the possibility of utilizing an acceptable 501(c)(3) organization for a third-party holder of conservation easements on compensatory mitigation areas. Site protection restrictions shall not be removed or modified from any established instruments without written approval of the USACE, and conveyance of any interest in the property must be subject to the established instruments. The Applicant will provide details of site protection needs to the USACE within 365 days following initiation of construction for the proposed project. The protective covenant restrictions shall not be removed from the real estate instruments, conservation easements or transfer agreements, or modified, without written approval of the USACE, and conveyance of any interest in the property must be subject to the protective covenant restrictions.

## 9. Performance Standards

Performance standards for mitigation areas established, restored, enhanced, and preserved by the mitigation plan will ensure mitigation areas are functioning as the intended type of WOTUS and meeting the goals and objectives described in this mitigation plan.

The District will be responsible for maintaining mitigation areas to comply with performance standards until such time as District provides documentation to, and receives verification from, the USACE that aquatic resources in the mitigation areas are meeting the performance standards.

Key performance standards include:

1. Completion of adequate mitigation to satisfy the Objectives (see **Part III, Section 1**).
2. Completion of mitigation work plan elements located in **Part III, Section 5**.
3. Mitigation areas will meet specific success criteria for streams and reservoir shoreline as outlined below.
4. Mitigation streams will be monitored using an appropriate assessment method (e.g., TXRAM) at five years after mitigation activities to determine progress toward target "scores" for ecological lift, and mitigation "lift" scores will be 90 percent or higher on average of their target score.
5. Established lacustrine shoreline will be monitored using an appropriate assessment method (e.g., Lacustrine Shoreline Assessment Method) following reservoir completion to ensure continued progress toward target "scores" for ecological lift.
  - at 2 years following reservoir filling to at or near conservation pool level, mitigation "lift" scores will be 50 percent or higher on average of their target score
  - at 5 years following reservoir filling to at or near conservation pool level, mitigation "lift" scores will be 90 percent or higher on average of their target score
  - If abnormal conditions (drought or flood levels) inhibit the achievement of these percentages of the target scores, then re-evaluation of the target scores at the designated interval may be used for contingency and adaptive management to determine the mitigation credits as discussed in Attachment I
6. Mitigation areas will meet the general success criteria below.

### Success Criteria

The success criteria proposed in this document support the requirements of the 2008 Mitigation Rule.

#### *Stream Channels*

1. Stream channels will be stable and not exhibit adverse impacts from erosion, head cutting, and excessive silt accumulation.
2. Riparian buffers will be established within the protected mitigation areas as:
  - a minimum of 25 feet on either side of established ephemeral streams
  - a minimum of 50 feet on either side of established intermittent streams

3. Five years after initiation of mitigation, a minimum ground cover of 75% with native grasses and forbs for areas with canopy cover less than 60%, and a minimum ground cover of 50% with native grasses and forbs for areas with canopy cover 60% and greater.

Variations to the above criteria may be necessary if justified by local conditions during the five-year monitoring periods. Plantings will be monitored and deficiencies rectified by replanting, controlling competing vegetation, guarding against herbivory, or installing temporary erosion control.

#### *Reservoir Shoreline*

1. Shoreline will not exhibit excessive bank erosion or silt accumulation.
2. Shoreline buffer will maintain native vegetation to control erosion and provide habitat for wildlife as discussed in the shoreline protection and management plan section of **Attachment I**, including limits on vegetation clearing and establishment of a conservation easement.
3. The three most dominant vegetation species along the shoreline must be native species.

#### *General Success Criteria*

1. Mitigation areas will have no excessive erosion or bare soils.
2. Sediment retention in stream channels will not accumulate to levels that would impair water quality or aquatic life movements.
3. Vegetation will be healthy and contribute to nutrient cycling, water quality, and wildlife habitat.
4. The establishment of approximately 55,310 LF of lacustrine shoreline aquatic habitat, restoration of 1,557 LF of stream, enhancement of 20,013 LF of stream, and preservation of approximately 2,600 LF of stream with associated riparian buffers within the mitigation areas.
5. Streams will be required to meet or exceed the proposed scores shown in **Attachment E** to demonstrate ecological lift based on TXRAM.
6. Reservoir shoreline will be required to meet or exceed the anticipated scores by category shown in **Attachment I** to demonstrate ecological lift based on an appropriate assessment method (e.g., Lacustrine Shoreline Assessment Method or similar)

Note: Target scores used in success criteria reflect the results of a TXRAM evaluation of existing and proposed conditions of mitigation streams and a similar conditional assessment (i.e., Lacustrine Shoreline Assessment Method) of reservoir shoreline habitat anticipated for the proposed project (see **Attachments E and I** of this mitigation plan for additional information on the evaluations).

## 10. Monitoring Requirements

The District will ensure sufficient financial resources are allocated to perform monitoring activities as noted in **Part III, Section 13**. The District will be responsible for monitoring and reporting.

### Self-Monitoring and Reporting

The District will establish and implement a self-monitoring program that includes the following actions as provided by the USACE in past authorizations of Section 404 permitting actions.

1. Designation, in writing, of a responsible party or position, who shall coordinate with the USACE on-site inspections and compliance with permit conditions; and
2. Implementation of a reporting program that includes submittal of written compliance reports to the USACE, due October 1 each year. These reports will outline compliance with the special conditions, summarize all activities that occurred during the reporting period, and provide notification of completion of all authorized work. These reports will document the activities that have occurred from June 1 of the preceding year to May 31 of the reporting year.

Compliance reports shall include at a minimum:

- a. the approximate acreage, location, type, and description of waters of the U.S. impacted during the reporting year;
- b. the approximate acreage, location, type, status, and completion date (actual or projected) of the ongoing mitigation that occurred during the reporting period;
- c. a description of the completed mitigation activities, including a map showing the location of waters of the U.S. established, restored, enhanced, or preserved and supporting documentation including vegetative species and planting rates;
- d. representative photographs of the progress and success of mitigation work accomplished under this permit; and
- e. a cumulative summary of impacted and mitigation waters of the U.S., categorized by type.

The District proposes to perform an appropriate assessment method (e.g., TXRAM or similar) on mitigation waters (streams and reservoir shoreline) in five years and update on approximately two-year increments until success criteria are achieved. Results would be included in the annual reporting discussed above.

Compliance reports are required even if no work is conducted during the reporting period. The District will submit compliance reports until the USACE has verified that all mitigation areas have met the standards of applicable special conditions.

## 11. Long-term Management Plan

The District will own the mitigation areas around the proposed reservoir, including the established lacustrine shoreline and stream preservation, and will manage them in accordance with the protection and management plan described in **Part III, Section 5** and **Attachment I**.

The District has an agreement to potentially transfer the upstream mitigation areas (approximately 21,570 LF of stream channels with approximately 44 acres of associated riparian buffers) and adjacent upland (approximately 401 acres of undeveloped non-mitigation areas) to Texas Parks and Wildlife Department for inclusion in the proposed Palo Pinto Mountains State Park. The long-term management plan for the mitigation areas will be the responsibility of TPWD and will follow the provisions of the mitigation plan and site protection for long-term sustainability of the restored and enhanced streams. The crossing of ephemeral stream MS-2 by an existing gravel road would have a 30-foot wide corridor that is excluded from site protection for TPWD to maintain access on the site.

General provisions for long-term management of mitigation areas located on District-owned properties include:

1. The mitigation areas will be retained and maintained in perpetuity predominantly in the vegetative and hydrologic condition described in the performance standards of this mitigation plan, and any activities (other than those specified in this mitigation plan) which may affect these conditions must be approved in writing by the USACE, Fort Worth District.
2. There shall be no filling, excavation, or alteration of the mitigation site that will affect the success criteria outlined in this mitigation plan unless approved in writing in advance by the USACE, Fort Worth District.
3. There shall be no livestock grazing within the mitigation areas except with written approval from the USACE, Fort Worth District, if necessary for adaptive management and in accordance with the mitigation performance standards and success criteria.
4. There shall be no mowing, shredding, clearing, or other vegetation disturbance activities within the mitigation areas except for control of non-native and invasive species or limited shoreline access as described in this plan.
5. There shall be no motor vehicles operated within the mitigation areas except for those required to perform permitted mitigation efforts (e.g., planting and erosion control) and only when soils are not at or near saturation.
6. There shall be no horseback riding, recreational ATV operation, or biking within the mitigation areas.
7. There shall be no development within the mitigation areas which alters the natural vegetative and hydrologic conditions of the mitigation areas except as described herein.
8. Any activities related to wildlife habitat management (including hunting) which do not jeopardize the mitigation performance standards are permitted.

9. Access is permitted to the USACE for the purpose of inspection, and to take actions including but not limited to scientific or educational observations and studies, and collection of samples.

No additional long-term management plan documentation is warranted.

## **12. Adaptive Management Plan**

Mitigation areas that result from this mitigation plan are vulnerable (but no more so than any other areas) to acts of nature such as wildfires, climatic instability, wildlife activities, and disease as well as unauthorized human activities that may cause the site to become non-compliant with the mitigation plan. Occurrence of such acts of nature following attainment of performance standards may require changes to the mitigation plan to allow for maintenance activities to offset and counteract negative impacts. Depending upon the circumstances, however, it may be appropriate to allow natural processes to continue, particularly when vegetation is expected to reestablish due to continued existence of seed sources, hydrology, and restrictions on incompatible land uses. As appropriate, the Applicant will discuss options and management decisions on such issues with the USACE.



### **13. Short-term and Long-term Financial Assurances**

To ensure mitigation can be completed successfully, the District will develop sufficient financial assurances to meet regulatory requirements and guidance provided in the 2008 Mitigation Rule. Upon approval of the permit for the proposed project, an appropriate instrument, such as a performance bond or letter of credit, will be submitted to and approved as adequate by the USACE prior to impacts to WOTUS approved by the permit decision. As mitigation areas meet the required performance standards, they will be removed from the financial assurances amount calculation. Development of the financial assurance for mitigation areas will consider costs related to the following:

1. Engineering design.
2. Earth moving and construction.
3. Vegetative plantings/control.
4. Monitoring of mitigation areas in accordance with performance standards called out in **Part III, Section 9** of this mitigation plan.
5. Release from financial assurance requirements as performance standards are achieved.

**Part IV: Attachments**

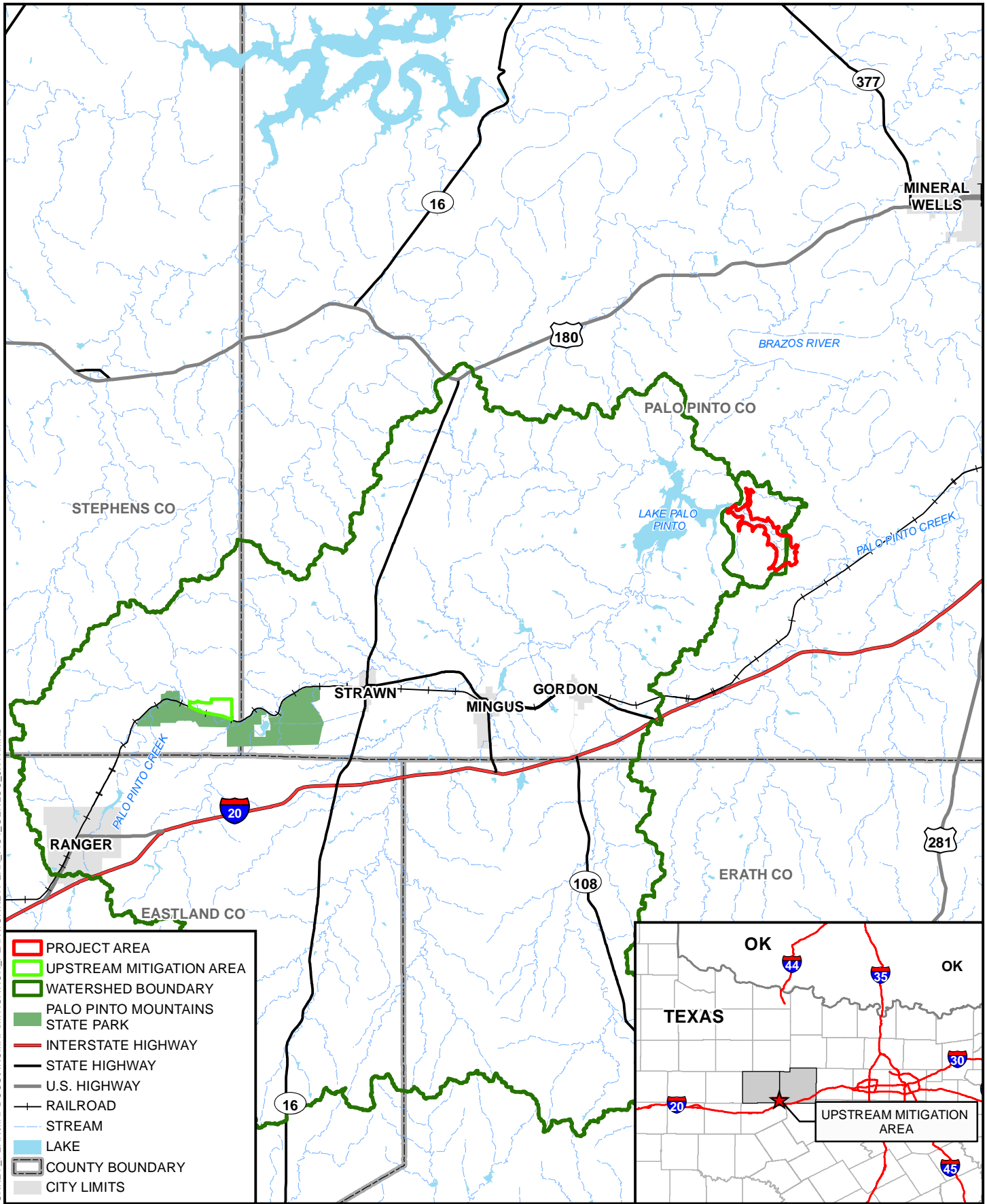
	Included
A. General Location Map	<input checked="" type="checkbox"/>
B. Delineation of Waters of the U.S., Including Wetlands	<input checked="" type="checkbox"/>
C. Site Photos	<input type="checkbox"/>
D. Plan Figures	<input checked="" type="checkbox"/>
E. Condition Assessment: Report on TXRAM for Streams	<input checked="" type="checkbox"/>
F. Debit / Credit Evaluation	<input checked="" type="checkbox"/>
G. Site Protection Instrument	<input type="checkbox"/>
H. Long-term Management Plan	<input type="checkbox"/>
I. Shoreline Assessment and Mitigation Evaluation	<input checked="" type="checkbox"/>
J. Upstream Mitigation Site Property Information	<input checked="" type="checkbox"/>

**End of Template**

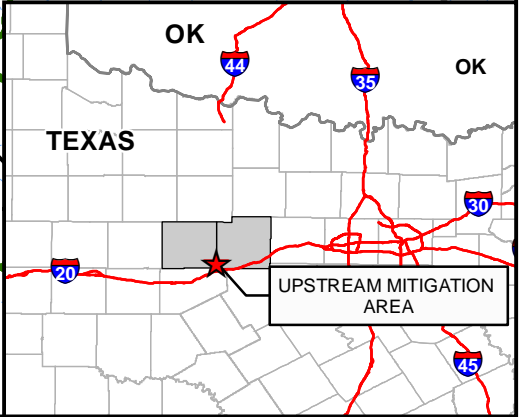
---

**Attachment A**  
**General Location Map**

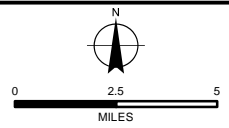
FILE:0:194042\_037\_TURKEY\_PEAK\WAPDOCS\ARCMAP\MITIGATION\_PLAN\TURKEYPEAK\_FIG1\_GENLOC\_8X11.MXD



- PROJECT AREA
- UPSTREAM MITIGATION AREA
- WATERSHED BOUNDARY
- PALO PINTO MOUNTAINS STATE PARK
- INTERSTATE HIGHWAY
- STATE HIGHWAY
- U.S. HIGHWAY
- RAILROAD
- STREAM
- LAKE
- COUNTY BOUNDARY
- CITY LIMITS



**TURKEY PEAK  
MITIGATION PLAN  
GENERAL LOCATION**



**PALO PINTO COUNTY  
MUNICIPAL WATER  
DISTRICT NO. 1**



FEB 2015

FIGURE 1

## **Attachment B**

# **Delineation of Waters of the U.S., Including Wetlands**

---

**Delineation of Waters of the U.S.**

**Proposed Mitigation Site – Copeland Tract  
Stephens County, Texas**

**Prepared for:**

**Palo Pinto County Municipal Water District No. 1  
PO Box 387  
Mineral Wells, Texas 76068**

**Prepared by:**



**HDR Engineering, Inc.  
4401 West Gate Blvd., Suite 400  
Austin, Texas 78745**

**August 2014**

---

## Table of Contents

1.0	INTRODUCTION .....	1
2.0	STUDY AREA DESCRIPTION .....	1
3.0	WATERS OF THE U.S. DELINEATION .....	1
3.1	Methods.....	1
3.2	Results.....	2
4.0	SUMMARY .....	2
5.0	REFERENCES .....	2

### **List of Appendices**

Appendix A: Waters of the U.S. Delineation Map



## 1.0 INTRODUCTION

This report presents the results of a delineation of waters of the United States (U.S.), including wetlands, performed on an approximately 450-acre study area in Stephens County, Texas. The study area is located along Palo Pinto Creek north of the Union Pacific Railroad tracks and west of the town of Strawn, Texas.

The Palo Pinto County Municipal Water District No. 1 (District) is proposing restoration and enhancement measures on Palo Pinto Creek and tributaries in conjunction with the proposed construction of the Lake Palo Pinto Storage Restoration Project at Turkey Peak as a part of the revised mitigation plan for the Application for Department of the Army Individual Permit application.

The delineation and proposed jurisdictional determination of waters of the U.S., including wetlands was conducted by HDR Engineering, Inc. (HDR) for the District in support of the requirements of Section 404 of the Clean Water Act (CWA). A field survey for the following delineation was conducted on April 22–24, 2014, in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the Regional Supplement for the Great Plains Region (U.S. Army Corps of Engineers, 2010). A jurisdictional determination on the findings of this report is subject to the review and regulatory authority of the U.S. Army Corps of Engineers (USACE).

HDR also conducted a Texas Rapid Assessment Method (TXRAM) evaluation of the streams in the study area to assist the District in evaluating the proposed mitigation activities. The results of the TXRAM evaluation are presented in a separate report.

## 2.0 STUDY AREA DESCRIPTION

The study area is located west of the town of Strawn in Stephens County, Texas (**Appendix A, Figure 1**). The predominant land uses in the vicinity of the study area are agriculture, transportation, oil/gas development, and undeveloped. The study area has been subject to heavy agricultural use for livestock grazing. The vegetation in the study area contains both native and non-native species, and includes woods, brush, and open pastures. The study area is also crossed by several private gravel roads and oil/gas pipelines.

Palo Pinto Creek is a relatively permanent water (RPW) in the study area flows east and northeast into Lake Palo Pinto, and then from Lake Palo Pinto east to the Brazos River, approximately 29 aerial miles to the northeast of the study area.

## 3.0 WATERS OF THE U.S. DELINEATION

### 3.1 Methods

A recent topographic map of the study area and aerial photography were used to identify potential locations for waters of the U.S. and areas prone to wetland development. Waters of the U.S., including wetlands, were delineated on April 22–24, 2014, by HDR Environmental Scientists Ricky Wilson, James Thomas, and David Thomas. The survey was conducted in accordance with the USACE 1987 Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement for the Great Plains Region (USACE, 2010).

Based on the review of topographic maps and aerial photography, areas potentially containing waters of the U.S. were evaluated using routine on-site delineation methods. Data collected in the delineation was recorded using a sub-meter Geo XT Global Positioning System (GPS) unit and was mapped as a data layer using ArcGIS 10.0.

## 3.2 Results

### 3.2.1 Waters of the U.S.

Waters of the U.S. within the study area are described below. A delineation map for waters of the U.S. within the study area is provided in **Appendix A**.

Waters of the U.S. within the study area consist of nine streams and two on-channel channel impoundments (**Table 1**).

**Table 1. Waters of the U.S. within the Study Area**

Resource ID	Description	Average OHWM* (feet)	Classification	Linear Feet Within Study Area	Acreage Within Study Area
MS-1 (Palo Pinto Creek)	Intermittent Stream	30	RPW	5,565	3.83
MS-2	Ephemeral Stream	10	Non-RPW	2,399	0.55
MS-3	Ephemeral Stream	5	Non-RPW	1,948	0.22
MS-4	Ephemeral Stream	3	Non-RPW	2,139	0.15
MS-5	Ephemeral Stream	3	Non-RPW	1,969	0.14
MS-6	Ephemeral Stream	3	Non-RPW	3,836	0.26
MS-7	Ephemeral Stream	3	Non-RPW	1,812	0.12
MS-8	Ephemeral Stream	3	Non-RPW	730	0.05
MS-9	Intermittent Stream	10	RPW	521	0.12
OCI-1	Impoundment	-	RPW	-	1.22
OCI-2	Impoundment	-	RPW	-	0.50

\* OHWM – ordinary high water mark (average width)

## 4.0 SUMMARY

The study area contains two intermittent streams totaling 6,086 linear feet (3.95 acres), seven ephemeral streams totaling 14,833 linear feet (1.49 acres), and two on-channel impoundments totaling 1.72 acres that are waters of the U.S.

## 5.0 REFERENCES

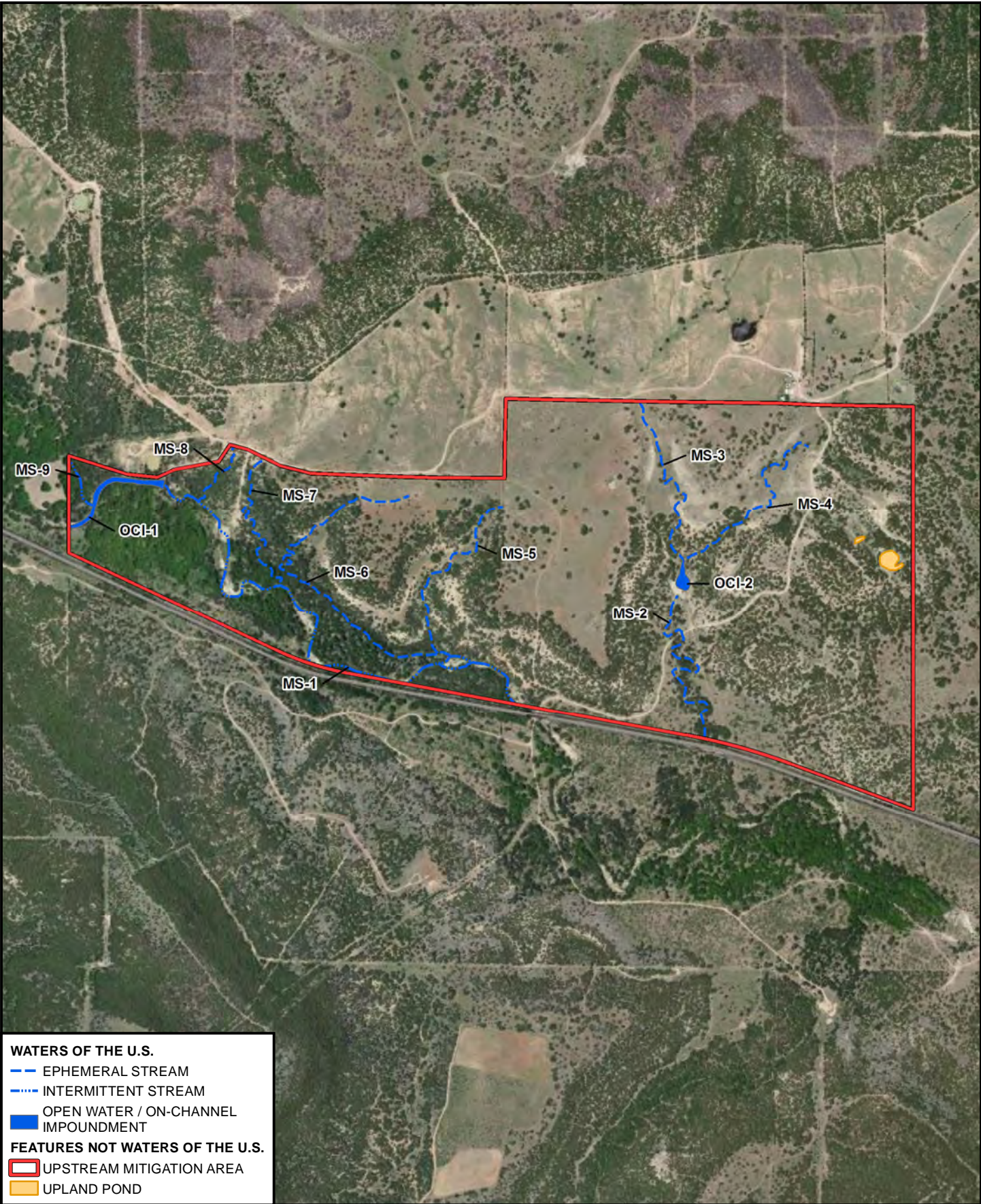
Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, Department of the Army, Waterways Experiment Station.

United States Army Corps of Engineers (USACE). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0)*, ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

**Appendix A:  
Waters of the U.S. Delineation Map**

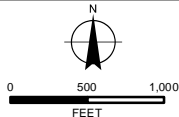


FILE:0:194042\_037\_TURKEY\_PEAK\MAPDOCS\ARCMAP\MITIGATION\_PLAN\TURKEYPEAK\_FIG1\_WOTUS\_8X11.MXD



- WATERS OF THE U.S.**
- EPHEMERAL STREAM
  - - - INTERMITTENT STREAM
  - OPEN WATER / ON-CHANNEL IMPOUNDMENT
- FEATURES NOT WATERS OF THE U.S.**
- UPSTREAM MITIGATION AREA
  - UPLAND POND

**TURKEY PEAK**  
 PROPOSED MITIGATION SITE - COPELAND TRACT  
 WATERS OF THE U.S.



**PALO PINTO COUNTY**  
**MUNICIPAL WATER**  
**DISTRICT NO. 1**



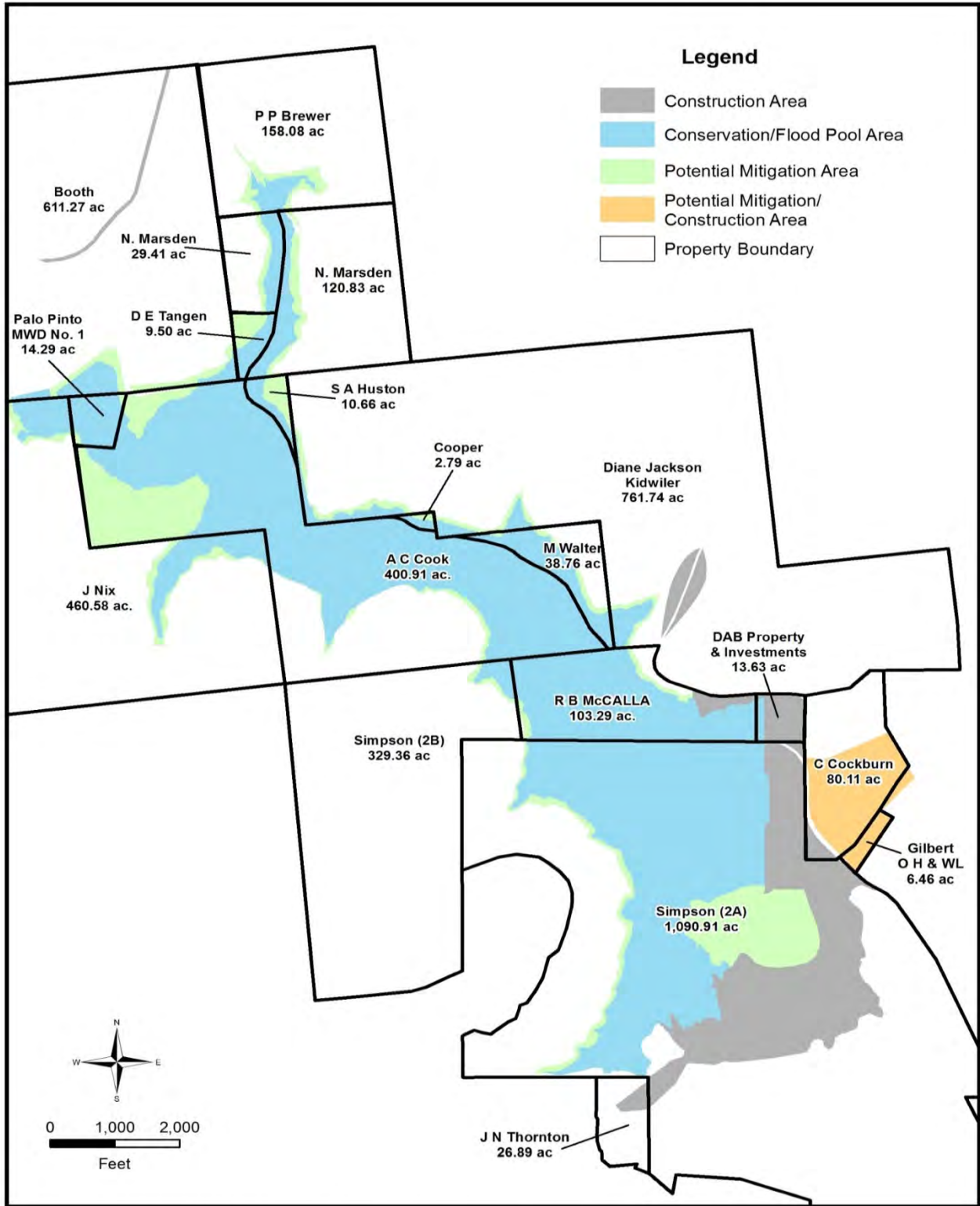
AUG 2014

FIGURE 1

**Appendix E**  
**Map of Reservoir showing Required Land**  
**and Easement Purchases**



**Figure 1**  
**Current Property Ownership**



**Table 1  
Table of Current Property Ownership**

<b>Description of Land or Easement Permit</b>	<b>Entity from which the permit or right must be acquired</b>	<b>Acquired by Lease or Full Ownership</b>	<b>Expected Acquisition Date</b>	<b>To Be Funded by TWDB (Yes/No)</b>
Purchase (Fee Title)	Booth	9.60	2016 or 2017	Yes
Purchase (Fee Title)	Brewer, P P	13.84	2016 or 2017	Yes
Purchase (Fee Title)	Cockburn, C	4.18	2016 or 2017	Yes
Easement	Cockburn, C	50.0	2016 or 2017	Yes
Purchase (Fee Title)	Cook, Charles	305.36	2016 or 2017	Yes
Purchase (Fee Title)	Cooper	4.07	2016 or 2017	Yes
Easement	Gilbert, O H & W L	5.09	2016 or 2017	Yes
Purchase (Fee Title)	DAB Properties & investments	9.93	2016 or 2017	Yes
Purchase (Fee Title)	Huston, S A	11.17	2016 or 2017	Yes
Purchase (Fee Title)	Diane Jackson Kidwiler	47.65	2016 or 2017	Yes
Purchase (Fee Title)	Marsden, N M	28.08	2016 or 2017	Yes
Purchase (Fee Title)	McCalla, R B	95.58	2016 or 2017	Yes
Purchase (Fee Title)	Nix, J	29.13	2016 or 2017	Yes
Purchase (Fee Title)	Simpson	482.95	2016 or 2017	Yes
Purchase (Fee Title)	Tangen, D E	10.25	2016 or 2017	Yes
Purchase (Fee Title)	Thornton, J N	3.47	2016 or 2017	Yes
Purchase (Fee Title)	Walter, M	19.39	2016 or 2017	Yes

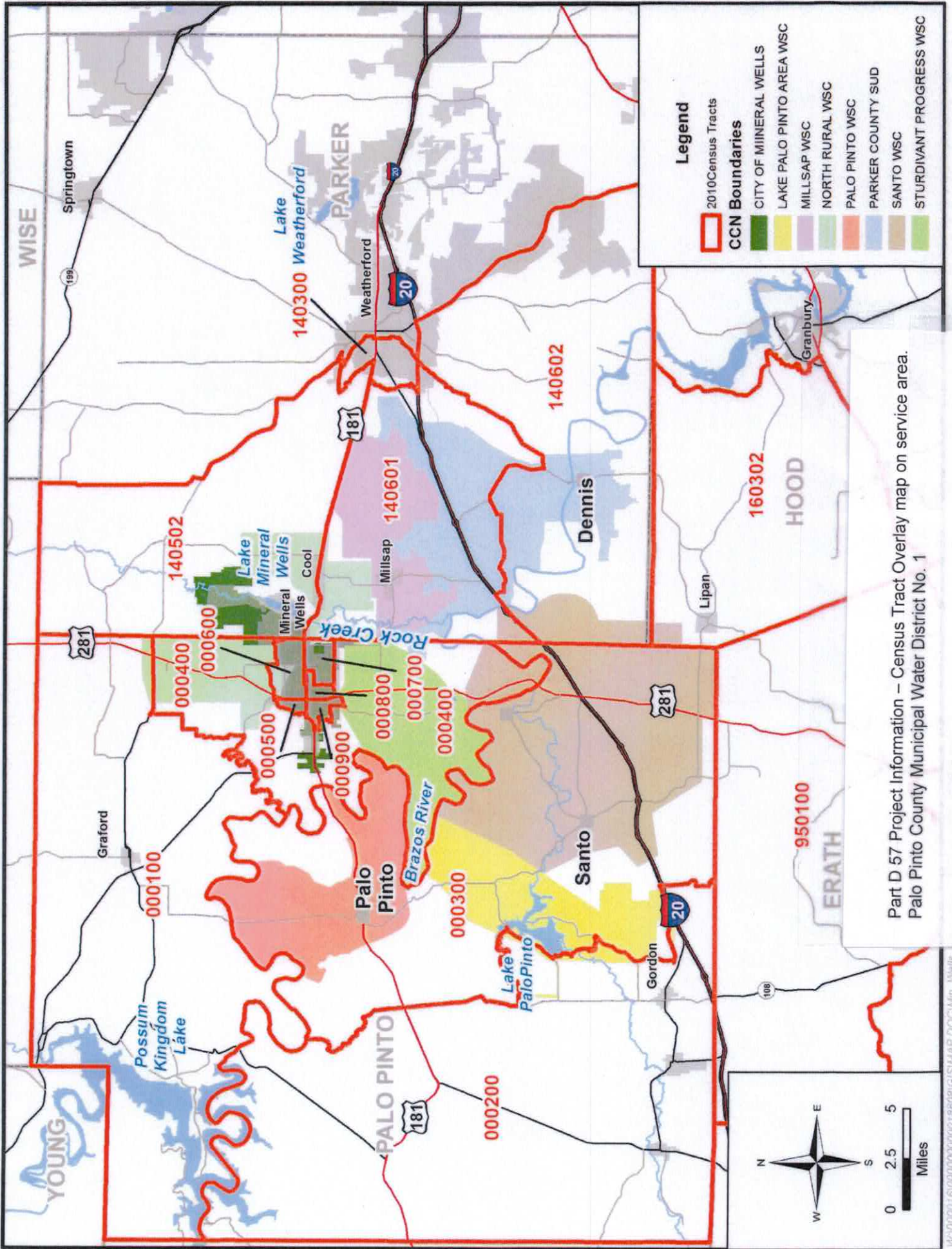


**Appendix F**  
**TWDB form WRD-253d**  
**Water Project Information**

Texas Water Development Board Water Project Information							
A. Project Name		B. Project No.		C. County		D. Regional Planning Group (A-P)	
E. Program(s)		F. Loan <input type="checkbox"/> / Grant <input type="checkbox"/> Amount:		G. Loan Term:			
H. Water Project Description: (Multiphase project, new or expansion; plant, well, storage, pump station, distribution system, etc)							
<b>Attach map of service area affected by Project or other documentation.</b>							
I. Is an Inter Basin Transfer potentially involved? Yes <input type="checkbox"/> No <input type="checkbox"/>				J. Is project located in a Groundwater District (If yes, identify District by name)? Yes <input type="checkbox"/> No <input type="checkbox"/>			
K. Projected Population from application for <b>at least a 20 year</b> period. <b>Attach justification and list service area populations if different from Planning Area.</b>	Year	Reference Year	2010	2020	2030	2040	
	Population Projection						
Project Design Year				Design Population			
L. Is the proposed project included in a current Regional Water Plan? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know <input type="checkbox"/> (If Yes, please specify on what page in the Regional Water Plan - Regional Water Plan Page Number: _____)							
M. What type of water source is <b>associated directly with the proposed project</b> ? Surface Water <input type="checkbox"/> Groundwater <input type="checkbox"/> Reuse <input type="checkbox"/>							
N. Will the project increase the volume of water supply? Yes <input type="checkbox"/> No <input type="checkbox"/>							
O. What volume of water is the project anticipated to deliver/ treat per year? _____ Acre-Feet/Year							
P. Current Water Supply Information							
Surface Water Supply Source / Provider Names		Certificate No.		Source County		Annual Volume and Unit	
Groundwater Source Aquifer		Well Field location		Source County		Annual Volume and Unit	
Q. Proposed Water Supply Associated Directly with the Proposed Project							
Surface Water Supply Source / Provider Names		Certificate No.		Source County		Annual Volume and Unit	
Groundwater Source Aquifer		Well Field location:		Source County		Annual Volume and Unit	
R. Consulting Engineer Name			Telephone No.		E-mail address		
S. Applicant Contact Name, Title			Telephone No.		E-mail address		

TRT	TRTKEY	FIPS	County
950100	1951	143	Erath
160302	3266	221	Hood
000200	3994	363	Palo Pinto
000300	3995	363	Palo Pinto
000800	4000	363	Palo Pinto
000900	4001	363	Palo Pinto
000700	3999	363	Palo Pinto
000600	3998	363	Palo Pinto
000500	3997	363	Palo Pinto
000400	3996	363	Palo Pinto
000100	3993	363	Palo Pinto
140502	4020	367	Parker
140602	4022	367	Parker
140300	4011	367	Parker
140601	4021	367	Parker

Part D 57 Project Information – Census Tracts  
Palo Pinto County Municipal Water District No. 1



Part D 57 Project Information – Census Tract Overlay map on service area.  
 Palo Pinto County Municipal Water District No. 1

PROJECT BUDGET - Palo Pinto County Municipal Water District No. 1				
Uses	Taxable Part	Tax Exempt Part	Other Funds	Total Cost
<b>Construction</b>				
Construction	\$0	\$0	\$0	\$0
<b>Subtotal Construction</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Basic Engineering Fees</b>				
Planning +	\$0	\$0	\$0	\$0
Design	\$913,461	\$1,260,539	\$0	\$2,174,000
Construction Engineering	\$0	\$0	\$0	\$0
<b>Basic Engineering Other</b>				
**	\$0	\$0	\$0	\$0
<b>Subtotal Basic Engineering Fees</b>	<b>\$913,461</b>	<b>\$1,260,539</b>	<b>\$0</b>	<b>\$2,174,000</b>
<b>Special Services</b>				
Application	\$0	\$0	\$0	\$0
Environmental	\$350,426	\$483,574	\$0	\$834,000
Water Conservation Plan	\$0	\$0	\$0	\$0
I/I Studies/Sewer	\$0	\$0	\$0	\$0
Surveying	\$182,776	\$252,224	\$0	\$435,000
Geotechnical	\$48,320	\$66,680	\$0	\$115,000
Testing	\$0	\$0	\$0	\$0
Permits	\$0	\$0	\$0	\$0
Inspection	\$0	\$0	\$0	\$0
O&M Manual	\$0	\$0	\$0	\$0
Project Management (by engineer)	\$0	\$0	\$0	\$0
Pilot Testing	\$0	\$0	\$0	\$0
Water Distribution	\$0	\$0	\$0	\$0
<b>Other - Utility Relocations &amp; Negotiations</b>				
	\$639,927	\$883,073	\$0	\$1,523,000
<b>Subtotal Special Services</b>	<b>\$1,221,450</b>	<b>\$1,685,550</b>	<b>\$0</b>	<b>\$2,907,000</b>
<b>Other</b>				
Administration	\$0	\$0	\$0	\$0
Land/Easements	\$3,514,347	\$4,849,653	\$0	\$8,364,000
Water Rights Purchase (If Applicable)	\$0	\$0	\$0	\$0
Capacity Buy-In (If Applicable)	\$0	\$0	\$0	\$0
Project Legal Expenses	\$58,404	\$80,596	\$0	\$139,000
<b>Other - Appraisals, Title, &amp; Negotiations</b>				
	\$598,750	\$826,250	\$0	\$1,425,000
<b>Subtotal Other Services</b>	<b>\$4,171,502</b>	<b>\$5,756,498</b>	<b>\$0</b>	<b>\$9,928,000</b>
<b>Fiscal Services</b>				
Financial Advisor	\$33,719	\$46,531	\$0	\$80,250
Bond Counsel	\$33,278	\$45,922	\$0	\$79,200
Issuance Cost	\$7,011	\$9,674	\$0	\$16,685
Bond Insurance/Surety	\$0	\$0	\$0	\$0
Fiscal/Legal	\$2,231	\$3,079	\$0	\$5,310
Capitalized Interest	\$0	\$0	\$0	\$0
Bond Reserve Fund	\$0	\$0	\$0	\$0
Loan Origination Fee	\$0	\$0	\$0	\$0
<b>Other - Misc.</b>				
	\$84	\$116	\$0	\$200
<b>Subtotal Fiscal Services</b>	<b>\$76,323</b>	<b>\$105,322</b>	<b>\$0</b>	<b>\$181,645</b>
<b>Contingency</b>				
Contingency	\$802,264	\$1,107,091	\$0	\$1,909,355
<b>Subtotal Contingency</b>	<b>\$802,264</b>	<b>\$1,107,091</b>	<b>\$0</b>	<b>\$1,909,355</b>
<b>TOTAL COSTS</b>	<b>\$7,185,000</b>	<b>\$9,915,000</b>	<b>\$0</b>	<b>\$17,100,000</b>




RESOLUTION AUTHORIZING THE ISSUANCE AND OF PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 REVENUE BONDS, SERIES 2015A; PRESCRIBING THE FORM AND TERMS OF SAID BONDS; PROVIDING FOR THE SECURITY AND PAYMENT THEREOF; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT

THE STATE OF TEXAS §  
COUNTIES OF PALO PINTO AND PARKER §  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 §

WHEREAS, Palo Pinto County Municipal Water District No. 1 (the "Issuer") was created by Article 8280-258, V.A.T.C.S., as amended, as revised by Chapter 49 of the Texas Water Code ("Act") as a Conservation and Reclamation District, pursuant to Article 16, Section 59 of the Texas Constitution; and

WHEREAS, the Issuer has currently outstanding the following revenue bonds, to-wit:

Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bond, (Tax Exempt) Series 2009A, dated April 1, 2009 ("Series 2009A Bonds"); and

Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bond, (Taxable) Series 2009B", dated April 1, 2009 ("Series 2009B Bonds");

Palo Pinto County Municipal Water District No. 1 Revenue Refunding Bonds, Series 2011, dated October 1, 2011 ("Series 2011 Bonds");

WHEREAS, the Issuer has determined to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir), including land acquisition, final design, archeological recovery and initial utility relocations; and

WHEREAS, it is further deemed advisable by the Board of Directors of the Issuer to issue and deliver to the Texas Water Development Board the Bonds authorized by this Resolution and the Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Taxable Series 2015B ("Series 2015B Bonds"), in the principal amount of \$7,185,000, to be authorized by Resolution concurrently herewith pursuant to Article 8280-258 V.A.T.C.S. and Chapter 49 of the Texas Water Code; and

WHEREAS, it is hereby officially found and determined that public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1:

ARTICLE I

DEFINITION OF TERMS

Section 1. DEFINITIONS. Unless otherwise expressly provided or unless the context clearly requires otherwise in this Resolution, the following terms shall have the meanings specified below:

(a) "Act" shall mean Article 8280-258, as amended, of V.A.T.C.S., as revised by Chapter 49 of the Texas Water Code.

(b) "Additional Bonds" shall mean any bonds authorized by Article VIII of this Resolution.

- (c) "Board of Directors" or "Board" shall mean the Board of Directors of the Issuer.
- (d) "Bond" or "Bonds" shall mean the Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Series 20015A, authorized by this Resolution.
- (e) "Certified Public Accountant" shall mean any certified public accountant of such suitable experience and qualifications, not regularly in the employ of the Issuer, selected by the Issuer.
- (f) "City" shall mean the City of Mineral Wells, Texas.
- (g) "Completion Bonds" shall mean bonds issued by the Issuer for completion of the construction of the Project upon approval of the Texas Water Development Board.
- (h) "Contract" or "Water Purchase Contract" shall mean the contract with the City for the sale of water to the City, dated as of July 10, 1981, as supplemented, and modified as of December 10, 1992, November 1, 2001, October 1, 2002, April 1, 2009, November 8, 2011, and in connection with the issuance of the Bonds.
- (i) "Default" or "Event of Default" shall mean the failure by the Issuer to pay the principal of or the interest on any bond herein authorized as the same shall become due; or the failure by the issuer to perform any of the agreements or covenants on its party (other) than its agreement to pay the principal of and interest on the Bonds (which failure shall have continued for a period of thirty days after written notice of such failure has been given to the Issuer by the Paying Agent/Registrar or the owner or holder of any Bond).
- (j) "Depository" shall mean the bank or banks which the Issuer selects (whether one or more) in accordance with law, as its Depository.
- (k) "Fiscal Year" shall mean each twelve month period, beginning October 1 and ending September 30 of each year.
- (l) "Improvement Bonds" shall mean bonds issued for improvements, betterment, additions to, or extensions and replacements of the work and facilities of the Issuer.
- (m) "Independent Consulting Engineer" shall mean the engineer or engineering firm at the time employed by the Issuer under the provisions of Section 9(h) of this Resolution.
- (n) "Investment" shall mean cash, investments, or any combination of the foregoing.
- (o) "Issuer" shall mean Palo Pinto County Municipal Water District No. 1, and any other public body or agency at any time succeeding to the property and principal rights, powers and obligations of said Issuer.
- (p) "Operation and Maintenance Expenses" shall mean the reasonable and necessary cost of ordinary maintenance and operation of the Issuer and its facilities and all other properties and works of the Issuer, includes without limiting the generality of the foregoing (1) premiums on any insurance policies of every kind and nature; (2) administrative, legal, and other overhead expenses of the Issuer; and (3) charges and expenses of the Paying Agent/Registrar and the Depository.
- (q) "Outstanding" when used with respect to Parity Obligations shall mean, as of the date of determination, all Parity Obligations theretofore delivered, except:



(1) Parity Obligations theretofore canceled and delivered to the Board or delivered to the Paying Agent or the Registrar for cancellation;

(2) Parity Obligations deemed paid pursuant to the provisions of any resolution authorizing the issuance of Parity Obligations;

(3) Parity Obligations upon transfer of or in exchange for and in lieu of which other Parity Obligations have been authenticated and delivered pursuant to this Resolution; and

(4) Parity Obligations under which the obligations of the Board have been released, discharged, or extinguished in accordance with the terms thereof;

(r) "Parity Obligations" shall mean the Outstanding Series 2009A Bonds, the Outstanding Series 2009B Bonds, the Outstanding Series 2011 Bonds, the Outstanding Series 2015B Bonds, the Bonds and Additional Bonds.

(s) "Pledged Revenues" shall mean those Revenues not used to pay Operation and Maintenance Expenses and pledged herein to the payment of the Bonds in the manner as set forth in Section 6 of this Resolution.

(t) "Rating Agency" shall mean any nationally recognized securities rating agency which has assigned, at the request of the Issuer, a rating to the Bonds.

(u) "Refunding Bonds" shall mean bonds issued to refund all or any part of the Issuer's outstanding Bonds.

(v) "Reserve Fund Obligation" shall mean to the extent permitted by law, as evidenced by an opinion of nationally recognized bond counsel, a surety bond or insurance policy (which, under applicable law, shall not entitle the provider thereof to any right of reimbursement or repayment other than a right to subrogation upon payments being made to Holders) deposited in the Reserve Fund to satisfy the Required Reserve Account whereby the issuer is obligated to provide funds up to and including the maximum amount and under the conditions specified in such agreement or instrument.

(w) "Required Reserve Amount" shall mean the average annual debt service requirements on all outstanding Bonds and Additional Bonds, if any.

(x) "Reserve Fund Obligation Payment" shall mean any subrogation payment the Issuer is obligated to make from Pledged Revenues deposited in the Reserve Fund with respect to a Reserve Fund Obligation.

(y) "Resolution" or "Bond Resolution" shall mean this Resolution and any amendments thereof.

(z) "Revenues" shall mean all tolls, revenues, rates, fees, charges, rents and other income and receipts in each case derived by, or for the account of, the Issuer from the operation of the Issuer, and includes specifically payments received by the Issuer from the City as a Water Charge pursuant to the Water Purchase Contract.

(aa) "Special Project Bonds" shall mean bonds issued to acquire or construct a separate project which is expected to be selfliquidating. Such bonds may also be payable from taxes.

(bb) "Water Charge" shall mean the monthly charge made to the City for the purchase of the Issuer's water pursuant to the Contract.

Section 2. RECITALS, AMOUNT AND PURPOSE OF THE BONDS. The recitals set forth in the preamble hereof are incorporated herein and shall have the same force and effect as if set forth in this Section. The bonds of Palo Pinto County Municipal Water District No. 1 (the "Issuer") are hereby authorized to be issued and delivered in the aggregate principal amount of \$9,915,000 to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir), including land acquisition, final design, archeological recovery and initial utility relocations(the "Projects").

Section 3. DESIGNATION, DATE, DENOMINATIONS, NUMBERS, AND MATURITIES AND INTEREST RATES OF BONDS. Each bond issued pursuant to this Resolution shall be designated: "PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, SERIES 2015A," and initially there shall be issued, sold, and delivered hereunder one fully registered bond, without interest coupons, dated December 1, 2015, in the principal amount stated above and in the denominations hereinafter stated, numbered T-1, with bonds issued in replacement thereof being in the denominations and principal amounts hereinafter stated and numbered consecutively from R-1 upward, payable to the respective Registered Owners thereof (with the initial bond being made payable to the initial purchaser as described in Section 18 hereof), or to the registered assignee or assignees of said bonds or any portion or portions thereof (in each case, the "Registered Owner"), and said bonds shall mature and be payable serially on June 1 in each of the years and in the principal amounts, respectively, and shall bear interest from the dates set forth in the FORM OF BOND set forth in Section 5 of this Resolution to their respective dates of maturity or redemption prior to maturity at the rates per annum, as set forth in the following schedule:

<u>Years</u>	<u>Principal Amount</u>	<u>Interest Rates</u>	<u>Years</u>	<u>Principal Amount</u>	<u>Interest Rates</u>
2017	\$ 240,000		2032	\$ 330,000	
2018	245,000		2033	345,000	
2019	245,000		2034	355,000	
2020	250,000		2035	365,000	
2021	255,000		2036	380,000	
2022	260,000		2037	390,000	
2023	265,000		2038	405,000	
2024	270,000		2039	415,000	
2025	275,000		2040	430,000	
2026	280,000		2041	445,000	
2027	285,000		2042	460,000	
2028	295,000		2043	480,000	
2029	305,000		2044	495,000	
2030	315,000		2045	515,000	
2031	320,000				

The term "Bonds" as used in this Resolution shall mean and include collectively the bond initially issued and delivered pursuant to this Resolution and all substitute bonds exchanged therefor, as well as all other substitute bonds and replacement bonds issued pursuant hereto, and the term "Bond" shall mean any of the Bonds.

Section 4. CHARACTERISTICS OF THE BONDS.

(a) Appointment of Paying Agent/Registrar. The Issuer hereby appoints \_\_\_\_\_, \_\_\_\_\_, Texas, to serve as paying agent and registrar for the Bonds (the "Paying Agent/Registrar"). The President of the Board is authorized and directed to execute and deliver in the name and under the corporate seal and on behalf of the Issuer a Paying Agent/Registrar Agreement with the Paying Agent/Registrar in substantially the form presented at this meeting.

(b) Registration, Transfer, Conversion and Exchange. The Issuer shall keep or cause to be kept at the corporate trust office of the Paying Agent/Registrar books or records for the registration of the transfer, conversion and exchange of the Bonds (the "Registration Books"), and the Issuer hereby appoints the Paying Agent/Registrar as its registrar and transfer agent to keep such books or records and make such registrations of transfers, conversions and exchanges under such reasonable regulations as the Issuer and Paying Agent/Registrar may prescribe; and the Paying Agent/Registrar shall make such registrations, transfers, conversions and exchanges as herein provided within three days of presentation in due and proper form. The Paying Agent/Registrar shall obtain and record in the Registration Books the address of the registered owner of each Bond to which payments with respect to the Bonds shall be mailed, as herein provided; but it shall be the duty of each registered owner to notify the Paying Agent/Registrar in writing of the address to which payments shall be mailed, and such interest payments shall not be mailed unless such notice has been given. The Issuer shall have the right to inspect the Registration Books during regular business hours of the Paying Agent/Registrar, but otherwise the Paying Agent/Registrar shall keep the Registration Books confidential and, unless otherwise required by law, shall not permit their inspection by any other entity. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for making such registration, transfer, conversion, exchange and delivery of a substitute Bond or Bonds. Registration of assignments, transfers, conversions and exchanges of Bonds shall be made in the manner provided and with the effect stated in the FORM OF BOND set forth in this Resolution. Each substitute Bond shall bear a letter and/or number to distinguish it from each other Bond.

(c) Authentication. Except as provided in subsection (i) of this section, an authorized representative of the Paying Agent/Registrar shall, before the delivery of any such Bond, date and manually sign said Bond, and no such Bond shall be deemed to be issued or outstanding unless such Bond is so executed. The Paying Agent/Registrar promptly shall cancel all paid Bonds and Bonds surrendered for conversion and exchange. No additional Resolutions, orders or resolutions need be passed or adopted by the governing body of the Issuer or any other body or person so as to accomplish the foregoing conversion and exchange of any Bond or portion thereof, and the Paying Agent/Registrar shall provide for the printing, execution and delivery of the substitute Bonds in the manner prescribed herein. Pursuant to Subchapter D, Chapter 1201, Texas Government Code, the duty of conversion and exchange of Bonds as aforesaid is hereby imposed upon the Paying Agent/Registrar, and, upon the execution of said Bond, the converted and exchanged Bond shall be valid, incontestable, and enforceable in the same manner and with the same effect as the Bonds which initially were issued and delivered pursuant to this Resolution, approved by the Attorney General, and registered by the Comptroller of Public Accounts.

(d) Payment of Principal and Interest. The Issuer hereby further appoints the Paying Agent/Registrar to act as the paying agent for paying the principal of and interest on the Bonds, all as provided in this Resolution. The Paying Agent/Registrar shall keep proper records of all payments made by the Issuer and the Paying Agent/Registrar with respect to the Bonds, and of all conversions and exchanges of Bonds, and all replacements of Bonds, as provided in this Resolution. However, in the event of a nonpayment of interest on a scheduled payment date, and for thirty (30) days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the

scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States mail, first class postage prepaid, to the address of each registered owner appearing on the Registration Books at the close of business on the last business day next preceding the date of mailing of such notice.

(e) Payment to Registered Owner. Notwithstanding any other provision of this Resolution to the contrary, the Issuer and the Paying Agent/Registrar shall be entitled to treat and consider the person in whose name each Bond is registered in the Registration Books as the absolute owner of such Bond for the purpose of payment of principal and interest with respect to such Bond, for the purpose of registering transfers with respect to such Bond, and for all other purposes whatsoever. The Paying Agent/Registrar shall pay all principal of and interest on the Bonds only to or upon the order of the registered owners, as shown in the Registration Books as provided in this Resolution, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the Issuer's obligations with respect to payment of principal of and interest on the Bonds to the extent of the sum or sums so paid. No person other than a registered owner, as shown in the Registration Books, shall receive a Bond certificate evidencing the obligation of the Issuer to make payments of principal and interest pursuant to this Resolution.

(f) Paying Agent/Registrar. The Issuer covenants with the registered owners of the Bonds that at all times while the Bonds are outstanding the Issuer will provide a competent and legally qualified bank, trust company, financial institution or other agency to act as and perform the services of Paying Agent/Registrar for the Bonds under this Resolution, and that the Paying Agent/Registrar will be one entity. By accepting the position and performing as such, each Paying Agent/Registrar shall be deemed to have agreed to the provisions of this Resolution, and a certified copy of this Resolution shall be delivered to each Paying Agent/Registrar.

(g) Substitute Paying Agent/Registrar. The Issuer reserves the right to, and may, at its option, change the Paying Agent/Registrar upon not less than 120 days written notice to the Paying Agent/Registrar, to be effective not later than 60 days prior to the next principal or interest payment date after such notice. In the event that the entity at any time acting as Paying Agent/Registrar (or its successor by merger, acquisition, or other method) should resign or otherwise cease to act as such, the Issuer covenants that promptly it will appoint a competent and legally qualified bank, trust company, financial institution, or other agency to act as Paying Agent/Registrar under this Resolution. Upon any change in the Paying Agent/Registrar, the previous Paying Agent/Registrar promptly shall transfer and deliver the Registration Books (or a copy thereof), along with all other pertinent books and records relating to the Bonds, to the new Paying Agent/Registrar designated and appointed by the Issuer. Upon any change in the Paying Agent/Registrar, the Issuer promptly will cause a written notice thereof to be sent by the new Paying Agent/Registrar to each registered owner of the Bonds, by United States mail, first-class postage prepaid, which notice also shall give the address of the new Paying Agent/Registrar.

(h) Book-Entry Only System. The Bonds issued in exchange for the Bonds initially issued to the purchaser or purchasers specified herein shall be initially issued in the form of a separate single fully registered Bond for each of the maturities thereof and the ownership of each such Bond shall be registered in the name of Cede & Co., as nominee of The Depository Trust Company of New York ("DTC"), and except as provided in subsections (i) and (j) of this Section, all of the outstanding Bonds shall be registered in the name of Cede & Co., as nominee of DTC.

(i) Blanket Letter of Representations. The previous execution and delivery of the Blanket Letter of Representations with respect to obligations of the Issuer is hereby ratified and confirmed; and the provisions thereof shall be fully applicable to the Bonds. Notwithstanding anything to the contrary contained herein, while the Bonds are subject to DTC's Book-Entry Only System and to the extent permitted by law, the Letter

of Representations is hereby incorporated herein and its provisions shall prevail over any other provisions of this Resolution in the event of conflict.

(j) Bonds Registered in the Name of Cede & Co. With respect to Bonds registered in the name of Cede & Co., as nominee of DTC, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation to any securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations on whose behalf DTC was created ("DTC Participant") to hold securities to facilitate the clearance and settlement of securities transactions among DTC Participants or to any person on behalf of whom such a DTC Participant holds an interest in the Bonds. Without limiting the immediately preceding sentence, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, Cede & Co. or any DTC Participant with respect to any ownership interest in the Bonds, (ii) the delivery to any DTC Participant or any other person, other than a registered owner of Bonds, as shown on the Registration Books, of any notice with respect to the Bonds, or (iii) the payment to any DTC Participant or any other person, other than a registered owner of Bonds, as shown in the Registration Books of any amount with respect to principal of or interest on the Bonds. Upon delivery by DTC to the Paying Agent/Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., and subject to the provisions in this Resolution with respect to interest checks being mailed to the registered owner at the close of business on the Record date, the words "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

(k) Successor Securities Depository; Transfers Outside Book-Entry Only System. In the event that the Issuer determines that DTC is incapable of discharging its responsibilities described herein and in the representation letter of the Issuer to DTC or that it is in the best interest of the beneficial owners of the Bonds that they be able to obtain certificated Bonds, the Issuer shall (i) appoint a successor securities depository, qualified to act as such under Section 17A of the Securities and Exchange Act of 1934, as amended, notify DTC and DTC Participants of the appointment of such successor securities depository and transfer one or more separate Bonds to such successor securities depository or (ii) notify DTC and DTC Participants of the availability through DTC of Bonds and transfer one or more separate Bonds to DTC Participants having Bonds credited to their DTC accounts. In such event, the Bonds shall no longer be restricted to being registered in the Registration Books in the name of Cede & Co., as nominee of DTC, but may be registered in the name of the successor securities depository, or its nominee, or in whatever name or names registered owners transferring or exchanging Bonds shall designate, in accordance with the provisions of this Resolution.

(l) Payments to Cede & Co. Notwithstanding any other provision of this Resolution to the contrary, so long as any Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of and interest on such Bond and all notices with respect to such Bond shall be made and given, respectively, in the manner provided in the representation letter of the Issuer to DTC.

(m) General Characteristics of the Bonds. The Bonds (i) shall be issued in fully registered form, without interest coupons, with the principal of and interest on such Bonds to be payable only to the Registered Owners thereof, (ii) may and shall be redeemed prior to their scheduled maturities, (iii) may be transferred and assigned, (iv) may be converted and exchanged for other Bonds, (v) shall have the characteristics, (vi) shall be signed, sealed, executed and authenticated, (vii) the principal of and interest on the Bonds shall be payable, and (viii) shall be administered and the Paying Agent/Registrar and the Issuer shall have certain duties and responsibilities with respect to the Bonds, all as provided, and in the manner and to the effect as required or indicated, in the FORM OF BOND set forth in this Resolution. The Bonds initially issued and delivered pursuant to this Resolution is not required to be, and shall not be, authenticated by the Paying Agent/Registrar, but on each substitute Bond issued in conversion of and exchange for any Bond or Bonds

issued under this Resolution the Paying Agent/Registrar shall execute the Paying Agent/registrar's Authentication Bond, in the FORM OF BOND set forth in this Resolution.

(n) Cancellation of Initial Bond. On the closing date, one initial Bond representing the entire principal amount of the Bonds, payable in stated installments to the order of the initial purchaser of the Bonds or its designee, executed by manual or facsimile signature of the President and Secretary of the Board, approved by the Attorney General of Texas, and registered and manually signed by the Comptroller of Public Accounts of the State of Texas, will be delivered to such purchaser or its designee. Upon payment for the initial Bond, the Paying Agent/Registrar shall insert the Issuance Date on Bond No. T-1, cancel each of the initial Bonds and deliver to The Depository Trust Company ("DTC") on behalf of such purchaser one registered definitive Bond for each year of maturity of the Bonds, in the aggregate principal amount of all of the Bonds for such maturity, registered in the name of Cede & Co., as nominee of DTC. To the extent that the Paying Agent/Registrar is eligible to participate in DTC's FAST System, pursuant to an agreement between the Paying Agent/Registrar and DTC, the Paying Agent/Registrar shall hold the definitive Bonds in safekeeping for DTC.

Section 5. FORM OF BONDS. The form of the Bonds, including forms of the form of Paying Agent/Registrar's Authentication Certificate, the form of Assignment and the form of Registration Certificate of the Comptroller of Public Accounts of the State of Texas to be attached to the Bond initially issued and delivered pursuant to this Resolution, shall be, respectively, substantially as follows, with such appropriate variations, omissions, or insertions as are permitted or required by this Resolution.

(a) Form of Bond.

NO. R-	UNITED STATES OF AMERICA STATE OF TEXAS  PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 REVENUE REFUNDING BOND SERIES 2015A	PRINCIPAL AMOUNT \$ _____
--------	--	---------------------------------

<u>INTEREST RATE</u>	<u>DELIVERY DATE</u>	<u>MATURITY DATE</u>	<u>CUSIP NO.</u>
----------------------	----------------------	----------------------	------------------

REGISTERED OWNER:

PRINCIPAL AMOUNT: DOLLARS

ON THE MATURITY DATE specified above, PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, in Palo Pinto and Parker Counties, Texas (the "Issuer"), being a political subdivision of the State of Texas, hereby promises to pay to the Registered Owner set forth above, or registered assigns (hereinafter called the "Registered Owner") the principal amount set forth above, and to pay interest thereon from the Delivery Date set forth above, on June 1, 2016, and on each December 1 and June 1 thereafter to the maturity date specified above, or the date of redemption prior to maturity, at the interest rate per annum specified above; except that if this Bond is required to be authenticated and the date of its authentication is later than the first Record Date (hereinafter defined), such principal amount shall bear interest from the interest payment date next preceding the date of authentication, unless such date of authentication is after any

Record Date but on or before the next following interest payment date, in which case such principal amount shall bear interest from such next following interest payment date; provided, however, that if on the date of authentication hereof the interest on the Bond or Bonds, if any, for which this Bond is being exchanged or converted from is due but has not been paid, then this Bond shall bear interest from the date to which such interest has been paid in full.

THE PRINCIPAL OF AND INTEREST ON this Bond are payable in lawful money of the United States of America, without exchange or collection charges. The principal of this Bond shall be paid to the Registered Owner hereof upon presentation and surrender of this Bond at maturity, or upon the date fixed for its redemption prior to maturity, at the corporate trust office of \_\_\_\_\_, \_\_\_\_\_, which is the "Paying Agent/Registrar" for this Bond. The payment of interest on this Bond shall be made by the Paying Agent/Registrar to the Registered Owner hereof on each interest payment date by check or draft, dated as of such interest payment date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the Issuer required by the resolution authorizing the issuance of the Bonds (the "Bond Resolution") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check or draft shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such interest payment date, to the Registered Owner hereof, at its address as it appeared at the close of business on the 15th day of the month next preceding each such date (the "Record Date"), on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described. In the event of a non-payment of interest on a scheduled payment date, and for 30 days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least 5 business days prior to the Special Record Date by United States mail, first-class postage prepaid, to the address of each owner of a Bond appearing on the Registration Books at the close of business on the last business day next preceding the date of mailing of such notice.

NOTWITHSTANDING ANY PROVISION, term, condition or requirement of this Bond or the Bond Resolution to the contrary, payments to the initial purchaser of the Bonds of principal of and interest on (if any) the Bonds shall be made by wire transfer of immediately available funds at no cost to such purchaser.

IN ADDITION, INTEREST MAY BE PAID by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the Registered Owner.

ANY ACCRUED INTEREST due at maturity or upon the redemption of this Bond prior to maturity as provided herein shall be paid to the Registered Owner upon presentation and surrender of this Bond for payment at the principal corporate trust office of the Paying Agent/Registrar. The Issuer covenants with the Registered Owner of this Bond that on or before each principal payment date and interest payment date for this Bond it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Bond Resolution, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on the Bonds, when due.

IF THE DATE for any payment due on this Bond shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the principal corporate trust office of the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close, and payment on such date shall have the same force and effect as if made on the original date payment was due.



THIS BOND is one of a series of Bonds dated as of December 1, 2015, authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$9,915,000 for the purpose of providing funds to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir), including land acquisition, final design, archeological recovery and initial utility relocations.

ON JUNE 1, 2026, or on any date thereafter, the Bonds of this series may be redeemed prior to their scheduled maturities, at the option of the Issuer, with funds derived from any available and lawful source, as a whole, or in part, and, if in part, the particular Bonds, or portions thereof, to be redeemed shall be redeemed in inverse order of maturity and the Issuer shall direct the Paying Agent/Registrar to call by lot or other customary method, portions thereof within such maturities and in such principal amounts, for redemption (provided that a portion of a Bond may be redeemed only in an integral multiple of \$5,000), at a redemption price equal to the principal amount to be redeemed plus accrued interest to the date fixed for redemption.

AT LEAST 30 DAYS prior to the date fixed for any redemption of Bonds or portions thereof prior to maturity a written notice of such redemption shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, to the Registered Owner of each Bond to be redeemed at its address as it appeared on the day such notice of redemption is mailed and to major securities depositories, national bond rating agencies and bond information services; provided, however, that the failure of the Registered Owner to receive such notice, or any defect therein or in the sending or mailing thereof, shall not affect the validity or effectiveness of the proceedings for the redemption of any Bond. By the date fixed for any such redemption, due provision shall be made with the Paying Agent/Registrar for the payment of the required redemption price for the Bonds or portions thereof which are to be so redeemed. If such written notice of redemption is sent and if due provision for such payment is made, all as provided above, the Bonds or portions thereof which are to be so redeemed thereby automatically shall be treated as redeemed prior to their scheduled maturities, and they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the right of the Registered Owner to receive the redemption price from the Paying Agent/Registrar out of the funds provided for such payment. If a portion of any Bond shall be redeemed a substitute Bond or Bonds having the same maturity date, bearing interest at the same rate, in any denomination or denominations in any integral multiple of \$5,000, at the written request of the Registered Owner, and in aggregate amount equal to the unredeemed portion thereof, will be issued to the Registered Owner upon the surrender thereof for cancellation, at the expense of the Issuer, all as provided in the Bond Resolution.

IF AT THE TIME OF MAILING of notice of optional redemption there shall not have either been deposited with the Paying Agent/Registrar or legally authorized escrow agent immediately available funds sufficient to redeem all the Bonds called for redemption, such notice may state that it is conditional, and is subject to the deposit of the redemption moneys with the Paying Agent/Registrar or legally authorized escrow agent at or prior to the redemption date. If such redemption is not effectuated, the Paying Agent/Registrar shall, within 5 days thereafter, give notice in the manner in which the notice of redemption was given that such moneys were not so received and shall rescind the redemption.

ALL BONDS OF THIS SERIES are issuable solely as fully registered Bonds, without interest coupons, with respect to Bonds, in the denomination of any integral multiple of \$5,000 or any integral multiple thereof. As provided in the Bond Resolution, this Bond may, at the request of the Registered Owner or the assignee or assignees hereof, be assigned, transferred, converted into and exchanged for a like aggregate amount of fully registered Bonds, without interest coupons, payable to the appropriate Registered Owner, assignee or assignees, as the case may be, having any authorized denomination or denominations as

requested in writing by the appropriate Registered Owner, assignee or assignees, as the case may be, upon surrender of this Bond to the Paying Agent/Registrar for cancellation, all in accordance with the form and procedures set forth in the Bond Resolution. Among other requirements for such assignment and transfer, this Bond must be presented and surrendered to the Paying Agent/Registrar, together with proper instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment of this Bond or any portion or portions hereof in any authorized denomination to the assignee or assignees in whose name or names this Bond or any such portion or portions hereof is or are to be registered. The form of Assignment printed or endorsed on this Bond may be executed by the Registered Owner to evidence the assignment hereof, but such method is not exclusive, and other instruments of assignment satisfactory to the Paying Agent/Registrar may be used to evidence the assignment of this Bond or any portion or portions hereof from time to time by the Registered Owner. The Paying Agent/Registrar's reasonable standard or customary fees and charges for assigning, transferring, converting and exchanging any Bond or portion thereof will be paid by the Issuer. In any circumstance, any taxes or governmental charges required to be paid with respect thereto shall be paid by the one requesting such assignment, transfer, conversion or exchange, as a condition precedent to the exercise of such privilege. The Paying Agent/Registrar shall not be required to make any such transfer or exchange with respect to Bonds (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

IN THE EVENT any Paying Agent/Registrar for the Bonds is changed by the Issuer, resigns, or otherwise ceases to act as such, the Issuer has covenanted in the Bond Resolution that it promptly will appoint a competent and legally qualified substitute therefor, and cause written notice thereof to be mailed to the Registered Owners of the Bonds.

THE RESOLUTION PROVIDES that, to the extent and in the manner permitted by the terms of the Resolution, the Resolution may be amended with the consent of the holders of at least three-fourths in principal amount of all outstanding bonds, provided, that no amendment shall:

- (a) make any change in the maturity of any outstanding bonds;
- (b) reduce the rate of interest borne by any of the outstanding bonds;
- (c) reduce the amount of the principal payable on any outstanding bonds;
- (d) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;
- (e) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

IT IS HEREBY certified, recited, and covenanted that this Bond has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Bond have been performed, existed, and been done in accordance with law; that this Bond is a special obligation of said Issuer, and together with the Outstanding Parity Obligations described in the Resolution, is secured by and payable from a first lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas, pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City of Mineral Wells, Texas.

THE HOLDER HEREOF shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation.

UNDER THE TERMS AND CONDITIONS as provided in the Resolution, the Issuer reserves the right to issue Additional Bonds which will be payable from taxes and/or secured by a pledge of revenues constituting a lien on such revenues on a parity with this issue of Bonds and to issue Special Project Bonds to acquire or construct a separate project which is expected to be self-liquidating, however, such bonds may be payable from taxes.

BY BECOMING the registered owner of this Bond, the registered owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each registered owner hereof and the Issuer.

THE ISSUER ALSO HAS RESERVED THE RIGHT to amend the Bond Resolution as provided therein, and under some (but not all) circumstances amendments thereto must be approved by the Registered Owners of a majority in aggregate principal amount of the outstanding Bonds.

BY BECOMING the Registered Owner of this Bond, the Registered Owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each Registered Owner hereof and the Issuer.

IN WITNESS WHEREOF, the Issuer has caused this Bond to be signed with the manual or facsimile signature of the President of the Board of Directors of the Issuer and countersigned with the manual or facsimile signature of the Secretary of the Board of Directors of the Issuer, and has caused the official seal of the Issuer to be duly impressed, or placed in facsimile, on this Bond.

_____ (Signature) Secretary, Board of Directors (SEAL)	_____ (Signature) President, Board of Directors
---	---

\*These paragraphs to be included to the extent applicable.

(b) Form of Paying Agent/Registrar's Authentication Certificate.

PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE  
(To be executed if this Bond is not accompanied by an Executed Registration  
Certificate of the Comptroller of Public Accounts of the State of Texas)

It is hereby certified that this Bond has been issued under the provisions of the Bond Resolution described in the text of this Bond; and that this Bond has been issued in conversion or replacement of, or in exchange for, a bond, bonds, or a portion of a bond or bonds of a Series which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Date of authentication: \_\_\_\_\_  
\_\_\_\_\_, \_\_\_\_\_

Paying Agent/Registrar

By: \_\_\_\_\_  
Authorized Signatory

(c) Form of Assignment.

ASSIGNMENT  
(Please print or type clearly)

For value received, the undersigned hereby sells, assigns and transfers  
unto: \_\_\_\_\_

Transferee's Social Security or Taxpayer Identification Number: \_\_\_\_\_

Transferee's name and address, including zip code: \_\_\_\_\_

the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints  
\_\_\_\_\_, attorney, to register the transfer of  
the within Bond on the books kept for registration thereof, with full power of substitution in the premises.

Dated: \_\_\_\_\_.

Signature Guaranteed:

\_\_\_\_\_  
NOTICE: Signature(s) must be guaranteed by an  
eligible guarantor institution participating in a  
securities transfer association recognized signature  
guarantee program.

\_\_\_\_\_  
NOTICE: The signature above must correspond with  
the name of the Registered Owner as it appears upon  
the front of this Bond in every particular, without  
alteration or enlargement or any change whatsoever.

(d) Form of Registration Certificate of the Comptroller of Public Accounts.

REGISTRATION CERTIFICATE OF  
COMPTROLLER OF PUBLIC ACCOUNTS

OFFICE OF THE COMPTROLLER                    §  
OF PUBLIC ACCOUNTS                            §                   REGISTER NO. \_\_\_\_\_  
OF THE STATE OF TEXAS                        §

I hereby certify that there is on file and of record in my office a true and correct copy of the opinion  
of the Attorney General of the State of Texas approving this Bond and that this Bond has been registered this  
day by me.

WITNESS MY SIGNATURE AND SEAL this \_\_\_\_\_  
\_\_\_\_\_

Texas

(COMPTROLLER'S SEAL)

(e) Insertions for the initial Bond.

(i) The initial Bond shall be in the form set forth in paragraph (a) of this Section, except that:

(A) immediately under the name of the Bond, the headings "INTEREST RATE" and "MATURITY DATE" shall both be completed with the words "As shown below" and "CUSIP NO. \_\_\_\_\_" shall be deleted.

(B) the first paragraph shall be deleted and the following will be inserted:

"Palo Pinto County Municipal Water District No. 1 (the "Issuer"), being a political subdivision located in Palo Pinto and Parker Counties, Texas, hereby promises to pay to the Registered Owner specified above, or registered assigns (hereinafter called the "Registered Owner"), on the dates, in the principal installments and bearing interest at the per annum rates set forth in the following schedule:

<u>Maturity Dates</u>	<u>Principal Installments</u>	<u>Interest Rates</u>
-----------------------	-------------------------------	-----------------------

(Information for the Bonds from Section 3 to be inserted)

The Issuer promises to pay interest on the unpaid principal amount hereof (calculated on the basis of a 360-day year of twelve 30-day months) from the Delivery Date specified above at the respective Interest Rate per annum specified above. Interest is payable on June 1, 2016, and on each December 1 and June 1 thereafter to the date of payment of the principal installment specified above, or the date of redemption prior to maturity; except, that if this Bond is required to be authenticated and the date of its authentication is later than the first Record Date (hereinafter defined), such principal amount shall bear interest from the interest payment date next preceding the date of authentication, unless such date of authentication is after any Record Date but on or before the next following interest payment date, in which case such principal amount shall bear interest from such next following interest payment date; provided, however, that if on the date of authentication hereof the interest on the Bond or Bonds, if any, for which this Bond is being exchanged is due but has not been paid, then this Bond shall bear interest from the date to which such interest has been paid in full."

(C) The initial Bond shall be numbered "T-1."

Section 6. PLEDGE OF REVENUES The Issuer covenants and agrees that the Parity Obligations, and the interest thereon, are and shall be secured by and payable from a first lien on and pledge of the Pledged Revenues, including specifically the payments to be received by the Issuer from the Water Purchase Contract and the supplement on modification thereof.

Section 7. REVENUES AND APPLICATION THEREOF

(a) Funds. There have been created the following funds and accounts:

(1) The "Revenue Fund" to be kept with the Depository.

(2) The "Debt Service Fund" for the Parity Obligations to be kept with the Depository. This Fund shall be used for the payment of interest on and principal of the Parity Obligations, and any Additional Bonds issued pursuant to this Resolution.

(3) The "Reserve Fund" for the Parity Obligations to be kept with the Depository. Monies in this Fund shall be used for the payment of interest on and principal of the Parity Obligations, including amounts owed with respect to any Reserve Fund Obligation when money in the Debt Service Fund is inadequate for that purpose.

(4) The "Contingency Fund" to be kept with the Depository. This Fund may be used to pay for any extraordinary or nonrecurring expenses of operation or maintenance, and for replacements and repairs if such expenses should become necessary. Money in this Fund not encumbered for such purposes shall be used for payment of interest on and principal of Parity Obligations, when the Debt Service Fund is not adequate for that purpose.

(5) The "Surplus Fund" to be kept with the Depository. This Fund shall be used for payment of interest on and principal of Parity Obligations, if there are insufficient funds in the Debt Service Fund, Reserve Fund and Contingency Fund for the Parity Obligations for that purpose, and if not needed for such purpose the monies in this Fund may be used for any lawful purposes including repairs, replacements and improvements to the Issuer's facilities.

(b) Revenue Fund. All gross revenues of every nature including the payments to be received from the Water Purchase Contract, shall be deposited as collected into the Revenue Fund, and the reasonable, necessary, and proper maintenance and operation expenses shall be paid from the Revenue Fund. The revenues not actually required to pay said Operation and Maintenance Expenses shall be deposited from the Revenue Fund first into the funds created by the Resolutions for the Parity Obligations, in the manner and amounts hereinafter provided and each of the Funds shall have priority as to such deposits in the order in which they are treated in the following sections.

(c) Debt Service Fund for the Parity Obligations. There shall be deposited into the Debt Service Fund such amounts as required to be transferred to this Fund established herein; these accounts shall be on absolute parity and equality of lien with the deposits in this Fund and such amounts shall be sufficient to provide transfers to the following accounts, as follows:

(i) such amounts, in substantially semiannual installments, made on or before the 25<sup>th</sup> of each May and November hereafter, which will be sufficient to pay the interest scheduled to come due on the Parity Obligations on the next interest payment date;

(ii) such amounts, in substantially semiannual installments, made on or before the 25th day of each May and November hereafter, commencing on May 25 of the month subsequent to the delivery date of the Bonds, will be sufficient to pay the next maturing principal or mandatory redemption on the Parity Obligations.

(iii) Chapter 1208, Government Code, applies to the issuance of the Bonds and the pledge of the revenues granted by the Issuer under this Section, and is therefore valid, effective, and perfected. Should Texas law be amended at any time while the Bonds are outstanding and unpaid, the result of such amendment being that the pledge of the revenues granted by the Issuer under this Section is to be subject to the filing requirements of Chapter 9, Business & Commerce Code, in order to preserve to the registered owners of the Bonds a security interest in said pledge, the Issuer agrees to take such measures as it determines are reasonable and necessary under Texas law to comply with

the applicable provisions of Chapter 9, Business & Commerce Code and enable a filing of a security interest in said pledge to occur.

(d) Reserve Fund for the Parity Obligations. The following provisions shall govern the establishment, maintenance and use of the Issuer's Reserve Fund (the "Reserve Fund"):

(i) There shall be established and maintained a Reserve Fund for the purposes of (i) finally retiring the last of the Parity Obligations, and (ii) paying principal of and interest on the Parity Obligations in the event moneys on deposit in the Debt Service Fund are insufficient for such purpose.

(ii) The Issuer shall deposit in the Reserve Fund on the 25th day of each month, commencing July 25 of the month subsequent to the delivery of the Bonds, in substantially equal monthly deposits, an amount which will accumulate, in not more than 60 months, the increase in the Required Reserve Amount resulting from the issuance of the Bonds.

(iii) In the event money in said Reserve Fund is used for the purpose for which the same is established, the amount required to make up the deficiency so that the Required Reserve Amount is on deposit in such Fund shall be paid into such Fund in not more than 60 months, in equal consecutive monthly installments. The Depository of the Issuer is designated as the custodian of the Reserve Fund and the deposits above prescribed shall be deposited into the Reserve Fund.

(e) Contingency Fund. There has previously been deposited into the Contingency Fund \$200,000. In addition, the Issuer agreed for the benefit of the Series 2009A Bonds and Series 2009B Bonds to deposit on the 25<sup>th</sup> day of each month the amount of \$417 until the Contingency Fund contains an additional \$50,000. No deposits shall be required to be made into the Contingency Fund as long as the Contingency Fund contains said aggregate amount, but if and whenever said Contingency Fund is reduced below said aggregate amount, the monthly deposits on the 25<sup>th</sup> day of each month beginning the month after the withdrawal from this fund in the amount of \$2,084 shall be deposited into the Contingency Fund until such time as the Contingency Fund has been restored to said aggregate amount. The Depository of the Issuer is designated as the custodian of this Contingency Fund and deposits above prescribed shall be deposited into this Contingency Fund.

(f) Surplus Fund. There shall be deposited into the Surplus Fund on the 1<sup>st</sup> day of each October hereafter any surplus monies remaining in the Revenue Fund from the previous completed fiscal year, and maybe used for any lawful purposes of the Issuer.

(g) Deficiencies in Fund. If in any month the Issuer shall fail to deposit into any of the aforesaid funds the full amounts required, amounts equivalent to such deficiencies shall be set apart and paid into said Funds from the first available and unallocated funds available for such purposes for the following month or months, and such payments shall be in addition to the amount otherwise required to be paid into said Funds during such month or months.

(h) Security for Funds. The Issuer shall cause the Depository to secure and keep secured, in the manner required by law, all funds on deposit with it, including time deposits, and will cause the Paying Agent/Registrar to secure all funds deposited with it, as other trust funds are secured.

(i) Investments. Money in all Funds created pursuant to this Resolution may be invested and reinvested as directed by the Issuer, in direct obligations of, or obligations of the principal of and interest on which are unconditionally guaranteed by, the United States Government, which shall mature, or which shall be subject to redemption by the holder thereof, at the option of such holder, before the next payment is



required to be made from such Funds, respectively, pursuant to Public Funds Investment Act Chapter 2256, Texas Government Code. Money in any of said Funds may also be placed in interest bearing deposits in the banks in which deposits are required to be kept. The interest and realized income on such investments shall be deposited into the Fund producing the earning when the Fund does not contain the total amount of required or permitted to be on deposit therein, otherwise the interest and realized income shall be deposited into the Revenue Fund.

## Section 8. BUDGETS AND ACCOUNTING

(a) Preparation of Budget. The Issuer in advance of each Fiscal Year, and in accordance with the Contract, shall prepare and keep on file an annual budget (herein called "Annual Budget") of Operation and Maintenance Expenses for the ensuing Fiscal Year, and except as otherwise required in Subsection (b) of this Section, the total expenditures in any division thereof shall not exceed the total expenditures in the corresponding division of the Annual Budget. The Paying Agent/Registrar shall not be obligated to determine whether funds are expended in an amount in excess of the amounts provided in the Annual Budget.

(b) Amendment. The Issuer covenants that the current Operation and Maintenance Expenses incurred in any Fiscal Year will not exceed the reasonable and necessary amount of such expense, and that it will not expend any amount, or incur any obligation for maintenance, repair, and operation in excess of the amounts provided for current Maintenance and Operation Expenses in the Annual Budget; provided, however, that if at any time the Board shall determine that it is necessary, due to unforeseen events, to increase the budget in order to pay for unusual operation and maintenance expenses, the Board, by Resolution, may amend the budget with the approval of the City, if the Contract is still in effect, to provide for the increased budget. The Water Charge shall be increased accordingly. The former year's budgeted Operation and Maintenance Expenses shall be extended during the period when a new budget is under consideration.

(c) Accounting and Reporting. The Issuer covenants that proper books of records and accounts will be kept in which full, true, and correct entries will be made of all income, expenses, and transactions of and in relation to the works, and facilities of the Issuer, and each and every part thereof. The report of the certified public accountant shall include a list of insurance policies then in effect and a record of water sold the Issuer's customers.

(d) Public Inspection. The Issuer further covenants and agrees that the works and facilities and each and every part thereof, and all books, records, accounts, documents and vouchers relating to the construction, operation, maintenance, repair, improvement and extension thereof, will at all reasonable times be open to inspection of owners of the Bonds and their representatives.

## Section 9. GENERAL COVENANTS

(a) Payment of Bonds and Interest. The Issuer covenants and agrees that, out of Pledged Revenues, it will duly and punctually pay or cause to be paid the principal of, and interest on the Parity Obligations, on the date and at the office of the Paying Agent/Registrar, according to the real intent and meaning thereof, and that it will faithfully do and perform and at all times fully observe any and all covenants, undertakings, and provisions contained herein or in any Bond.

(b) Legal Ability. The Issuer represents that it is a conservation and reclamation district, and a governmental agency and body politic and corporate, duly created, organized and existing under the Constitution and laws of the State of Texas and has proper authority from all other public bodies and authorities, if any, having jurisdiction thereof, to pledge its revenues in the manner and form as herein done or intended, and all corporate action on its part to that end has been duly and validly taken. The Issuer

covenants and agrees that it will at all times maintain its corporate existence and maintain a lawful Board of Directors, and at all times function and act in the best interest of the Issuer and the bondholders.

(c) No Other Liens. The Issuer further covenants that there is not now outstanding and that the Issuer will, not at any time create or allow to exist, any lien upon its works and facilities, or any part thereof, or the Revenues, or any of the Funds herein created, except as authorized by Article VIII of this Resolution, other than Reserve Fund Obligations, if any, that the security of the Parity Obligations will not be impaired in any way as a result of any action or any action on the part of the Issuer, its Board of Directors or officers, or any thereof, and that the Issuer has and will be subject to the provisions hereof, continuously preserve good and indefeasible title to the properties of the Issuer.

(d) Keep Franchises and Permits in Effect. The Issuer further covenants that no franchises, permits, contracts privileges, easements, or water rights will, be allowed to lapse or be forfeited so long as the same shall be necessary for the proper operation of the works and facilities of the Issuer.

(e) Governmental Requirements, Liens, Claims. The Issuer covenants that it will duly observe and comply with all valid requirements of any governmental authority relative to the works and facilities of the Issuer, or any part thereof, and that it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies, or other objects which if unpaid, might by law become a lien upon such work and facilities or any part thereof or the revenues therefrom; provided, however, that nothing contained in this Section shall be required of the Issuer to pay or cause to be discharged, or make provision for any such lien or charge, as long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

(f) Further Assurance. The Issuer covenants that it will take such further action as may be required to carry out the purposes of this Resolution and to assure its validity.

(g) Sale and Lease of Property.

(i) The Issuer covenants that so long as any Bonds are outstanding and except as in this Section otherwise permitted, it will not sell, lease or otherwise dispose of or encumber any part of its works and facilities, or any of the Revenues derived therefrom, except as provided herein. The Issuer may from time to time sell any machinery, fixtures, apparatus, tools, instruments, or other movable property and any materials used in connection therewith, if the Board shall determine that such articles are no longer needed or are no longer useful in connection with the consideration and maintenance of its works and facilities. The Issuer may from time to time sell such real estate that is not needed or serves no useful purpose in connection with the maintenance and operation of the works and facilities of the Issuer. The proceeds of any sale of real or personal property acquired subsequent to the adoption of this Resolution, from the proceeds of Bonds or from Revenues shall be deposited into the Fund or Funds from which money was used for the acquisition of such property if required for such Fund or Funds; otherwise, such proceeds shall be deposited into the Revenue Fund.

(ii) The Issuer may lease any of its land for any purpose, if such lease or the use of such lands will not be detrimental to the operation and maintenance of the works and facilities of the Issuer. It may also Lease any of its real property for oil, gas and mineral purposes. No lease shall be made which will result in any damage to or substantial diminution of the value of other property in the Issuer, or which will in any manner divert, endanger, or contaminate the Issuer's water supply or water transportation facilities. All rentals, revenues, receipts and royalties derived by the Issuer from any and all leases so made shall be placed in the Revenue Fund.

(iii) It is covenanted and agreed by the Issuer that no such property of any nature shall be sold or leased by the Issuer unless, prior to any act on taken by the Issuer concerning such sale or leasing, the Issuer shall procure the advice and recommendation in writing of the independent, consulting engineer concerning such proposed sale or leasing. The Issuer covenants that it will follow such advice and recommendations.

(h) Independent Consulting Engineer.

(i) The Issuer covenants that, until all Bonds and the interest thereon shall have been paid or provision for such payment shall have been made, it will, for the purpose of performing and carrying out the duties imposed on the Independent Consulting Engineer by this Resolution employ an independent engineering firm of engineering firm or corporation having a favorable repute for skill and experience in such work.

(ii) The Issuer covenants that it will at all appropriate times and at least every three years, beginning January 1, 2010, cause the Independent Consulting Engineer to submit in writing, and give all necessary or desirable advice and recommendations concerning renewals, replacements, extensions, betterment, and improvements for the works and facilities of the Issuer, to the end that the works and facilities shall be operated and maintained in the most efficient and satisfactory manner.

(iii) The expenses incurred under this Subsection shall constitute Maintenance and Operation Expenses.

(i) Rates and Charges. The Issuer covenants that at all times it will maintain a water charge and rates, fees and charges for services furnished by it, and that from time to time as often as it shall appear necessary it will adjust such rates, fees and charges as may be necessary or proper, so that such fees and charges will be fully sufficient to produce revenues during such Fiscal Year which will be adequate to pay all Operation and Maintenance Expenses during such Fiscal Year, and provide revenues during such Fiscal Year in an amount at least one times the amount necessary to make all payments due hereunder for payment of principal of and interest on the Parity Obligations, and to establish the funds herein prescribed and the payment of Reserve Fund Obligation Payments, if any. The Issuer further covenants that if at any time the revenues collected for the services furnished by it are inadequate to satisfy this covenant, the Issuer shall adjust the rates, fees and charges in order that such deficiencies shall be made up before the end of the next ensuing Fiscal Year.

(j) Water Sale Contracts. The Issuer will not make any contract for the sale of water at a price which would require a reduction of charges to be made for water sold under any contract theretofore made.

## Section 10. INSURANCE

(a) Insurance Coverage. The Issuer covenants that it will at all times keep insured such of its water supply facilities as are usually insured by corporations operating like properties, with a responsible insurance company or companies against risks, accidents, or casualties against which and to the extent insurance is usually carried by corporations operating like properties, including (but only if such insurance can be procured at reasonable cost) insurance against damage by floods, and will also at all times maintain workmen's compensation insurance, in a reasonable amount with responsible insurance companies. Public liability and property damage insurance shall also be carried unless the general counsel for the Issuer or the Attorney General of Texas, issues a written opinion that Issuer would be immune from claims which would be protected by such insurance provided, however, that at any time while any contractor engaged in

construction work shall be fully responsible therefor, the Issuer shall not be required to carry such insurance. All such policies shall be open to the inspection of the Bondholders and their representatives at all reasonable times.

(b) Insurance Proceeds. In the event of any loss or damage, the Issuer covenants that it will reconstruct or repair the destroyed or damaged portion of the property and will apply the proceeds of the insurance proceeds covering such loss or damage solely for that purpose. The Issuer covenants that it will begin such work or reconstruction or repair promptly after such loss or damage shall occur and will continue and properly complete the same as expeditiously as possible and will pay or cause to be paid all costs and expenses in connection therewith so that the same shall be so completed and the property be free and clear of all mechanics and other liens and claims. The Issuer agrees that it will procure the advise and recommendation in writing of the independent consulting engineer concerning such reconstruction before it is undertaken.

(c) Unused Insurance Proceeds. Any insurance proceeds remaining after the completion of and payment for any such reconstruction or repair shall be deposited to the credit of the Revenue Fund.

#### Section 11. ADDITIONAL BONDS

(a) Completion Bonds. The Issuer reserves the right to issue Completion Bonds, payable from and secured by a pledge of the Pledged Revenues, on a parity of lien with the Bonds, whether or not additionally secured by a tax levy. The Completion Bonds may be issued in one or more series of installments, and from time to time as authorized by the Issuer.

(b) Improvement Bonds. The Issuer reserves the right to issue Improvement Bonds, which, when issued and delivered, shall be payable from and secured by Pledged Revenues of the Issuer, and may be additionally secured by a tax levy. The lien on Pledged Revenues for the payment of Improvement Bonds may be on a parity with the lien for the Parity Obligations, or inferior to such lien. The Improvement Bonds may be issued in one or more installments or series, provided, however, that no installment or series of Improvement Bonds, if it is on a parity with the lien on the Parity Obligations shall be issued unless:

(i) a certificate is executed by the President and Secretary of the Issuer to the effect that no default exists in connection with any of the covenants or requirements of the Resolution authorizing the issuance of all then outstanding Bonds which are secured by revenues.

(ii) a certificate is executed by the President and Secretary of the Issuer to the effect that the Debt Service Fund and the Reserve Fund contain the amounts then required to be on deposit therein.

(iii) the then proposed Improvement Bonds are made to mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

(iv) a certificate or opinion from a certified public accountant showing that the Pledged Revenues for either (a) the last completed Fiscal Year, or (b) a consecutive twelve-month calendar period ending not more than 90 days preceding the adoption of the Resolution authorizing the issuance of Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Parity Obligations which will be outstanding after giving effect to the issuance of the Additional Bonds then being issued as certified by a certified public accountant, or the Issuer has secured from a certified public accountant or professional engineer a certificate of opinion showing that the Net Revenues for a twelve-month calendar period, based on rates and charges for services and facilities afforded by the System that became effective at least sixty (60) days prior to the month

in which the Resolution authorizing the issuance of the Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Parity Obligations which will be outstanding after giving effect to the issuance of the Additional Bonds being issued pursuant to this Resolution.

(c) Special Project Bonds. Special Project Bonds payable from and secured by revenues or by both revenues and taxes may be issued by the Issuer for the purposes of providing additional supply lines and facilities, to enable the Issuer to sell water to other users, provided that such Special Project Bonds are not payable from or secured by a pledge of Revenues which were pledged herein to the payment of the Bonds or Completion or Improvement Bonds. All revenues of such project in excess of those required to pay operation and maintenance expenses, and principal and interest as they become due and to create and maintain reserve funds as provided in the Resolution authorizing such Special Project Bonds, and all net revenues of the project after full payment of the Special Project Bonds, or any bonds issued to refund them, shall be deposited into the Revenue Fund.

(d) Refunding Bonds. Refunding Bonds maybe authorized by the Issuer to refund all or any part of the Issuer's outstanding Bonds, upon such terms and conditions as the Board of Directors deems to be in the best interest of the Issuer.

(e) Increase in Reserve Fund. If Completion Bonds or Improvement Bonds are issued, the maximum amount required to be deposited and maintained in the Reserve Fund shall be increased to an amount equivalent to not less than the average annual debt service requirements for all the Outstanding Parity Obligations, Completion Bonds, Improvement Bonds and proposed Parity Obligations, and that such additional amount shall be accumulated within sixty-one (61) months from the date of the Completion or Improvement Bonds, by the deposit in the Reserve Fund of the necessary sums in equal monthly installments; unless a Reserve Fund Obligation is acquired, provided, however, that the aggregate amount to be accumulated in the Reserve Fund shall never be required to exceed the average annual debt service requirements for all then outstanding Bonds, Completion Bonds or Improvement Bonds, and for the installment or series of Completion Bonds or Improvement Bonds then proposed to be issued.

(f) Authorization. Completion Bonds, Improvement Bonds and Refunding Bonds permitted by this Article to be issued shall be authorized by resolutions by the Board of Directors which shall prescribe the form and terms of such Bonds.

(g) Maturities. Bonds issued under this Article shall mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

(h) Tax Bonds. No provisions in this Resolution shall in any way affect the statutory right of the Issuer to issue bonds supported wholly by ad valorem taxes.

## Section 12. DEFEASANCE OF BONDS.

(a) Any Bond and the interest thereon shall be deemed to be paid, retired and no longer outstanding (a "Defeased Bond") within the meaning of this Resolution, except to the extent provided in subsection (d) of this Section, when payment of the principal of such Bond, plus interest thereon to the due date (whether such due date be by reason of maturity or otherwise) either (i) shall have been made or caused to be made in accordance with the terms thereof, or (ii) shall have been provided for on or before such due date by irrevocably depositing with or making available to the Paying Agent/Registrar in accordance with an escrow agreement or other instrument (the "Future Escrow Agreement") for such payment (1) lawful money of the United States of America sufficient to make such payment or (2) Defeasance Securities that mature as to principal and interest in such amounts and at such times as will insure the availability, without reinvestment,

of sufficient money to provide for such payment, and when proper arrangements have been made by the Issuer with the Paying Agent/Registrar for the payment of its services until all Defeased Bonds shall have become due and payable. At such time as a Bond shall be deemed to be a Defeased Bond hereunder, as aforesaid, such Bond and the interest thereon shall no longer be secured by, payable from, or entitled to the benefits of, the ad valorem taxes herein levied and pledged or the pledge of Surplus Revenues as provided in this Resolution, and such principal and interest shall be payable solely from such money or Defeasance Securities. Notwithstanding any other provision of this Resolution to the contrary, it is hereby provided that any determination not to redeem Defeased Bonds that is made in conjunction with the payment arrangements specified in Subsections (a)(i) or (ii) of this Section shall not be irrevocable, provided that: (1) in the proceedings providing for such payment arrangements, the Issuer expressly reserves the right to call the Defeased Bonds for redemption; (2) gives notice of the reservation of that right to the owners of the Defeased Bonds immediately following the making of the payment arrangements; and (3) directs that notice of the reservation be included in any redemption notices that it authorizes.

(b) Any moneys so deposited with the Paying Agent/Registrar may at the written direction of the Issuer be invested in Defeasance Securities, maturing in the amounts and times as hereinbefore set forth, and all income from such Defeasance Securities received by the Paying Agent/Registrar that is not required for the payment of the Bonds and interest thereon, with respect to which such money has been so deposited, shall be turned over to the Issuer, or deposited as directed in writing by the Issuer. Any Future Escrow Agreement pursuant to which the money and/or Defeasance Securities are held for the payment of Defeased Bonds may contain provisions permitting the investment or reinvestment of such moneys in Defeasance Securities or the substitution of other Defeasance Securities upon the satisfaction of the requirements specified in Subsections (a)(i) or (ii) of this Section. All income from such Defeasance Securities received by the Paying Agent/Registrar which is not required for the payment of the Defeased Bonds, with respect to which such money has been so deposited, shall be remitted to the Issuer or deposited as directed in writing by the Issuer.

(c) The term "Defeasance Securities" means any securities and obligations now or hereafter authorized by State law that are eligible to refund, retire or otherwise discharge obligations such as the Bonds.

(d) Until all Defeased Bonds shall have become due and payable, the Paying Agent/Registrar shall perform the services of Paying Agent/Registrar for such Defeased Bonds the same as if they had not been defeased, and the Issuer shall make proper arrangements to provide and pay for such services as required by this Resolution.

(e) In the event that the Issuer elects to defease less than all of the principal amount of Bonds of a maturity, the Paying Agent/Registrar shall select, or cause to be selected, such amount of Bonds by such random method as it deems fair and appropriate.

(f) So long as the Texas Water Development Board is the registered owner of any of the Bonds, the Issuer shall provide written notice to the Texas Water Development Board of a defeasance of the Bonds pursuant to subsection (a)(ii) of this Section.

### Section 13. AMENDMENTS

(a) Bondholder Approval. The owners of Bonds aggregating in principal amount three-fourths of the aggregate principal amount of Bonds at the time Outstanding shall have the right from time to time to approve an amendment of this Resolution which maybe deemed necessary or desirable by the Issuer, provided, however, that nothing herein contained shall permit or be construed to permit the amendment of the terms and conditions contained in this Resolution or in the Bonds, unless consent of all Bond owners is obtained so as to:

- (i) make any change in the maturity of any outstanding Bonds;
- (ii) reduce the rate of interest borne by any of the outstanding Bonds;
- (iii) reduce the amount of the principal payable on any Outstanding Bonds;
- (iv) modify the terms of payment of principal of or interest on the outstanding Bonds or any of them or impose any conditions with respect to such payment;
- (v) change the minimum percentage of the principal of or interest on the outstanding Bonds or any of them, or impose any conditions with respect to such payment.

(b) Other Amendments. The Issuer may from time to time, without the consent of any owner of Bond, except as otherwise required by paragraph (a) above, amend or supplement this Resolution to (i) cure any ambiguity, defect or omission in this Resolution that does not materially adversely affect the interests of the owners, (ii) grant additional rights or security for the benefit of the owners, (iii) add events of default as shall not be inconsistent with the provisions of this Resolution and that shall not materially adversely affect the interests of the owners, (v) qualify this Resolution under the Trust Indenture Act of 1939, as amended, or corresponding provisions of federal laws from time to time in effect, or (iv) make such other provisions in regard to matters or questions arising under this Resolution as shall not be materially inconsistent with the provisions of the Resolution and that shall not, in the opinion of nationally-recognized bond counsel, materially adversely affect the interests of the owners of bonds. Notice of this amendment shall be given to the Bond Insurer.

(c) Notice Required. If at any time the Issuer shall desire to amend the Resolution under this Article, the Issuer shall cause notice of the proposed amendment to be delivered to the Paying Agent/Registrar to be mailed by first class mail to each registered Bond owner. Such notice shall briefly set forth the nature of the proposed amendment and shall state that a copy thereof is on file at the principal offices of the Paying Agent/Registrar for inspection by the owner of the Bonds, a copy of the proposed amendment shall be filed with the Paying Agent/Registrar at the time of the mailing of the notice. Notice must also be given to the Bond Insurer. Such mailing and the filing of a copy of the proposed amendment are not required, however, if notice in writing is given to each holder of the Bonds.

(d) Adoption of Amendment. Whenever at any time not less than thirty (30) days and within one year from the date of the mailing of said notice, the Issuer shall receive an instrument or instruments executed by the holders of at least three-fourths in aggregate principal amount of the Bonds, which instrument or instruments shall refer to the proposed amendment described in said notice and which specifically consent to and approve such amendment in substantially the form of the copy thereof on file with the Paying Agent/Registrar, the Issuer may adopt the amendatory resolution in substantially the same form.

(e) Effective upon Adoption. Upon the adoption of any amendatory resolution pursuant to the provisions of this Article, the Resolution shall be deemed to be amended in accordance with such amendatory resolution, and the respective rights, duties and obligations under the Resolution of the Issuer, and all the holders of outstanding Bonds shall thereafter be determined, exercised, and enforced hereunder, subject in all respects to such amendments.

(f) Revocation of Consent. Any consent given by the holder of a bond pursuant to the provisions of this Article shall be irrevocable for a period of six months from the date of the first mailing of the notice provided for in this Article, and shall be conclusive and binding upon all future holders of the same bond during such period. Such consent may be revoked at any time after six months from the date of the first



mailing of such notice by the holders of such consent, or by a successor in title, by filing notice thereof with the Paying Agent/Registrar and the Issuer, but such revocation shall not be effective if the holders of the required principal amount of the bonds have, prior to the attempted revocation, consented to and approved the amendment.

#### Section 14. DAMAGED, MUTILATED, LOST, STOLEN, OR DESTROYED BONDS.

(a) Replacement Bonds. In the event any outstanding Bond is damaged, mutilated, lost, stolen, or destroyed, the Paying Agent/Registrar shall cause to be printed, executed, and delivered, a new bond of the same principal amount, maturity, and interest rate, as the damaged, mutilated, lost, stolen, or destroyed Bond, in replacement for such Bond in the manner hereinafter provided.

(b) Application for Replacement Bonds. Application for replacement of damaged, mutilated, lost, stolen, or destroyed Bonds shall be made by the registered owner thereof to the Paying Agent/Registrar. In every case of loss, theft, or destruction of a Bond, the registered owner applying for a replacement bond shall furnish to the Issuer and to the Paying Agent/Registrar such security or indemnity as may be required by them to save each of them harmless from any loss or damage with respect thereto. Also, in every case of loss, theft, or destruction of a Bond, the registered owner shall furnish to the Issuer and to the Paying Agent/Registrar evidence to their satisfaction of the loss, theft, or destruction of such Bond, as the case may be. In every case of damage or mutilation of a Bond, the registered owner shall surrender to the Paying Agent/Registrar for cancellation the Bond so damaged or mutilated.

(c) No Default Occurred. Notwithstanding the foregoing provisions of this Section, in the event any such Bond shall have matured, and no default has occurred which is then continuing in the payment of the principal of, redemption premium, if any, or interest on the Bond, the Issuer may authorize the payment of the same (without surrender thereof except in the case of a damaged or mutilated Bond) instead of issuing a replacement Bond, provided security or indemnity is furnished as above provided in this Section.

(d) Charge for Issuing Replacement Bonds. Prior to the issuance of any replacement bond, the Paying Agent/Registrar shall charge the registered owner of such Bond with all legal, printing, and other expenses in connection therewith. Every replacement bond issued pursuant to the provisions of this Section by virtue of the fact that any Bond is lost, stolen, or destroyed shall constitute a contractual obligation of the Issuer whether or not the lost, stolen, or destroyed Bond shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Resolution equally and proportionately with any and all other Bonds duly issued under this Resolution.

(e) Authority for Issuing Replacement Bonds. In accordance with Chapter 1207 of the Texas Government Code, this Section of this Resolution shall constitute authority for the issuance of any such replacement bond without necessity of further action by the governing body of the Issuer or any other body or person, and the duty of the replacement of such bonds is hereby authorized and imposed upon the Paying Agent/Registrar, and the Paying Agent/Registrar shall authenticate and deliver such bonds in the form and manner and with the effect, as provided in Section 4 of this Resolution for Bonds issued in conversion and exchange for other Bonds.

Section 15. CUSTODY, APPROVAL, AND REGISTRATION OF BONDS; BOND COUNSEL'S OPINION; CUSIP NUMBERS; AND CONTINGENT INSURANCE PROVISION, IF OBTAINED. The President of the Board of Directors of the Issuer is hereby authorized to have control of the Initial Bond issued hereunder and all necessary records and proceedings pertaining to the Initial Bond pending its delivery and its investigation, examination, and approval by the Attorney General of the State of Texas, and its registration by the Comptroller of Public Accounts of the State of Texas. Upon registration of the Initial

Bond said Comptroller of Public Accounts (or a deputy designated in writing to act for said Comptroller) shall manually sign the Comptroller's Registration Certificate on the Initial Bond, and the seal of said Comptroller shall be impressed, or placed in facsimile, on the Initial Bond. In addition, if bond insurance is obtained, the Bonds may bear an appropriate legend as provided by the Insurer.

Section 16. COVENANTS REGARDING TAX EXEMPTION.

(a) Covenants. The Issuer covenants to take any action necessary to assure, or refrain from any action that would adversely affect, the treatment of the Bonds as obligations described in section 103 of the Code, the interest on which is not includable in the "gross income" of the holder for purposes of federal income taxation. In furtherance thereof, the Issuer covenants as follows:

(1) to take any action to assure that no more than 10 percent of the proceeds of the Bonds (less amounts deposited to a reserve fund, if any) are used for any "private business use," as defined in section 141(b)(6) of the Code or, if more than 10 percent of the proceeds or the projects financed by the Bonds (the "Project") are so used, such amounts, whether or not received by the Issuer, with respect to such private business use, do not, under the terms of this Resolution or any underlying arrangement, directly or indirectly, secure or provide for the payment of more than 10 percent of the debt service on the Bonds, in contravention of section 141(b)(2) of the Code;

(2) to take any action to assure that in the event that the "private business use" described in subsection (1) hereof exceeds 5 percent of the proceeds of the Bonds or the projects financed therewith (less amounts deposited into a reserve fund, if any) then the amount in excess of 5 percent is used for a "private business use" that is "related" and not "disproportionate," within the meaning of section 141(b)(3) of the Code, to the governmental use;

(3) to take any action to assure that no amount that is greater than the lesser of \$5,000,000, or 5 percent of the proceeds of the Bonds (less amounts deposited into a reserve fund, if any) is directly or indirectly used to finance loans to persons, other than state or local governmental units, in contravention of section 141(c) of the Code;

(4) to refrain from taking any action that would otherwise result in the Bonds being treated as "private activity bonds" within the meaning of section 141(b) of the Code;

(5) to refrain from taking any action that would result in the Bonds being "federally guaranteed" within the meaning of section 149(b) of the Code;

(6) to refrain from using any portion of the proceeds of the Bonds, directly or indirectly, to acquire or to replace funds that were used, directly or indirectly, to acquire investment property (as defined in section 148(b)(2) of the Code) that produces a materially higher yield over the term of the Bonds, other than investment property acquired with –

(A) proceeds of the Bonds invested for a reasonable temporary period until such proceeds are needed for the purpose for which the Bonds are issued,

(B) amounts invested in a bona fide debt service fund, within the meaning of section 1.148-1(b) of the Treasury Regulations, and

(C) amounts deposited in any reasonably required reserve or replacement fund to the extent such amounts do not exceed 10 percent of the proceeds of the Bonds;

(7) to otherwise restrict the use of the proceeds of the Bonds or amounts treated as proceeds of the Bonds, as may be necessary, so that the Bonds do not otherwise contravene the requirements of section 148 of the Code (relating to arbitrage) and, to the extent applicable, section 149(d) of the Code (relating to advance refundings);

(8) to pay to the United States of America at least once during each five-year period (beginning on the date of delivery of the Bonds) an amount that is at least equal to 90 percent of the "Excess Earnings," within the meaning of section 148(f) of the Code and to pay to the United States of America, not later than 60 days after the Bonds have been paid in full, 100 percent of the amount then required to be paid as a result of Excess Earnings under section 148(f) of the Code; and

(9) to assure that the proceeds of the Bonds will be used solely for new money.

(b) Rebate Fund. In order to facilitate compliance with the above covenant (a)(8), a "Rebate Fund" is hereby established by the Issuer for the sole benefit of the United States of America, and such Fund shall not be subject to the claim of any other person, including without limitation the Bondholders. The Rebate Fund is established for the additional purpose of compliance with section 148 of the Code.

(c) Proceeds. The Issuer understands that the term "proceeds" includes "disposition proceeds" as defined in the Treasury Regulations. It is the understanding of the Issuer that the covenants contained herein are intended to assure compliance with the Code and any regulations or rulings promulgated by the U.S. Department of the Treasury pursuant thereto. In the event that regulations or rulings are hereafter promulgated which modify or expand provisions of the Code, as applicable to the Bonds, the Issuer will not be required to comply with any covenant contained herein to the extent that such failure to comply, in the opinion of nationally recognized bond counsel, will not adversely affect the exemption from federal income taxation of interest on the Bonds under section 103 of the Code. In the event that regulations or rulings are hereafter promulgated which impose additional requirements which are applicable to the Bonds, the Issuer agrees to comply with the additional requirements to the extent necessary, in the opinion of nationally recognized bond counsel, to preserve the exemption from federal income taxation of interest on the Bonds under section 103 of the Code.

(d) Authorization. The Issuer hereby authorizes and directs the President of the Board and the Secretary/Treasurer of the Issuer to execute any documents, certificates or reports required by the Code and to make such elections, on behalf of the Issuer, which may be permitted by the Code as are consistent with the purpose for the issuance of the Bonds.

(e) Allocation Of, and Limitation On, Expenditures for the Project. The Issuer covenants to account for the expenditure of sale proceeds and investment earnings to be used for the purposes described in Section 1 of this Resolution (the "Project") on its books and records in accordance with the requirements of the Internal Revenue Code. The Issuer recognizes that in order for the proceeds to be considered used for the reimbursement of costs, the proceeds must be allocated to expenditures within 18 months of the later of the date that (1) the expenditure is made, or (2) the Project is completed; but in no event later than three years after the date on which the original expenditure is paid. The foregoing notwithstanding, the Issuer recognizes that in order for proceeds to be expended under the Internal Revenue Code, the sale proceeds or investment earnings must be expended no more than 60 days after the earlier of (1) the fifth anniversary of the delivery of the Bonds, or (2) the date the Bonds are retired. The Issuer agrees to obtain the advice of nationally-recognized bond counsel if such expenditure fails to comply with the foregoing to assure that such expenditure will not adversely affect the tax-exempt status of the Bonds. For purposes hereof, the issuer shall not be obligated to comply with this covenant if it obtains an opinion that such failure to comply will not adversely affect the excludability for federal income tax purposes from gross income of the interest.

(f) Disposition of Project. The Issuer covenants that the property constituting the Project will not be sold or otherwise disposed in a transaction resulting in the receipt by the Issuer of cash or other compensation, unless any action taken in connection with such disposition will not adversely affect the tax-exempt status of the Bonds. For purpose of the foregoing, the Issuer may rely on an opinion of nationally-recognized bond counsel that the action taken in connection with such sale or other disposition will not adversely affect the tax-exempt status of the Bonds. For purposes of the foregoing, the portion of the property comprising personal property and disposed in the ordinary course shall not be treated as a transaction resulting in the receipt of cash or other compensation. For purposes hereof, the Issuer shall not be obligated to comply with this covenant if it obtains an opinion that such failure to comply will not adversely affect the excludability for federal income tax purposes from gross income of the interest.

#### Section 17. CONTINUING DISCLOSURE.

(a) Definitions. As used in this Section, the following terms have the meanings ascribed to such terms below:

"MSRB" means the Municipal Securities Rulemaking Board.

"Rule" means SEC Rule 15c2-12, as amended from time to time.

"SEC" means the United States Securities and Exchange Commission.

(b) Annual Reports.

(i) The Issuer shall provide annually to the MSRB, in an electronic format as prescribed by the MSRB, within six months after the end of each fiscal year, financial information and operating data with respect to the Issuer of the general type included described in Exhibit A hereto. Any financial statements so to be provided shall be (1) prepared in accordance with the accounting principles described in Exhibit a hereto, or such other accounting principles as the Issuer may be required to employ from time to time pursuant to state law or regulation, and (2) audited, if the Issuer commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within such period, then the Issuer shall provide unaudited financial information by the required time, and shall provide audited financial statements for the applicable fiscal year to the MSRB, when and if the audit report on such statements become available.

(ii) If the Issuer changes its fiscal year, it will notify the MSRB of the change (and of the date of the new fiscal year end) prior to the next date by which the Issuer otherwise would be required to provide financial information and operating data pursuant to this Section. The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document that is available to the public on the MSRB's internet website or filed with the SEC. All documents provided to the MSRB pursuant to this Section shall be accompanied by identifying information as prescribed by the MSRB.

(c) Event Notices.

(i) The Issuer shall notify the MSRB in an electronic format as prescribed by the MSRB, in a timely manner (but not in excess of ten business days after the occurrence of the event) of any of

the following events with respect to the Bonds, if such event is material within the meaning of the federal securities laws:

1. Non-payment related defaults;
2. Modifications to rights of Bondholders;
3. Bond calls;
4. Release, substitution, or sale of property securing repayment of the Bonds;
5. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; and
6. Appointment of a successor or additional trustee or the change of name of a trustee.

(ii) The Issuer shall notify the MSRB in an electronic format as prescribed by the MSRB, in a timely manner (but not in excess of ten business days after the occurrence of the event) of any of the following events with respect to the Bonds, without regard to whether such event is considered material within the meaning of the federal securities laws:

1. Principal and interest payment delinquencies;
2. Unscheduled draws on debt service reserves reflecting financial difficulties;
3. Unscheduled draws on credit enhancements reflecting financial difficulties;
4. Substitution of credit or liquidity providers, or their failure to perform;
5. Adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax-exempt status of the Bonds, or other events affecting the tax-exempt status of the Bonds;
6. Tender offers;
7. Defeasances;
8. Rating changes; and
9. Bankruptcy, insolvency, receivership or similar event of an obligated person.

(iii) The Issuer shall notify the MSRB, in a timely manner, of any failure by the Issuer to provide financial information or operating data in accordance with subsection (b) of this Section by the time required by such subsection.

(d) Limitations, Disclaimers, and Amendments.

(i) The Issuer shall be obligated to observe and perform the covenants specified in this Section for so long as, but only for so long as, the Issuer remains an "obligated person" with respect to the Bonds within the meaning of the Rule, except that the Issuer in any event will give notice of any deposit made in accordance with this Resolution or applicable law that causes Bonds no longer to be outstanding.

(ii) The provisions of this Section are for the sole benefit of the Registered Owners and beneficial owners of the Bonds, and nothing in this Section, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The Issuer undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Section and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the Issuer's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Section or otherwise, except as expressly provided herein. The Issuer does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Bonds at any future date.

(iii) UNDER NO CIRCUMSTANCES SHALL THE ISSUER BE LIABLE TO THE REGISTERED OWNER OR BENEFICIAL OWNER OF ANY BOND OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE ISSUER, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS SECTION, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

(iv) No default by the Issuer in observing or performing its obligations under this Section shall comprise a breach of or default under this Resolution for purposes of any other provision of this Resolution. Nothing in this Section is intended or shall act to disclaim, waive, or otherwise limit the duties of the Issuer under federal and state securities laws.

(v) Should the Rule be amended to obligate the Issuer to make filings with or provide notices to entities other than the MSRB, the Issuer hereby agrees to undertake such obligation with respect to the Bonds in accordance with the Rule as amended. The provisions of this Section may be amended by the Issuer from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the Issuer, but only if (1) the provisions of this Section, as so amended, would have permitted an underwriter to purchase or sell Bonds in the primary offering of the Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule since such offering as well as such changed circumstances and (2) either (a) the Registered Owners of a majority in aggregate principal amount (or any greater amount required by any other provision of this Resolution that authorizes such an amendment) of the outstanding Bonds consent to such amendment or (b) a person that is unaffiliated with the Issuer (such as nationally recognized bond counsel) determined that such amendment will not materially impair the interest of the Registered Owners and beneficial owners of the Bonds. The Issuer may also amend or repeal the provisions of this continuing disclosure agreement if the SEC amends or repeals the applicable provision of the Rule or a court of final jurisdiction enters judgment that such provisions of the Rule are invalid, but only if and to the extent that the provisions of this sentence would not prevent an underwriter from lawfully purchasing or

selling Bonds in the primary offering of the Bonds. If the Issuer so amends the provisions of this Section, it shall include with any amended financial information or operating data next provided in accordance with subsection (b) of this Section an explanation, in narrative form, of the reason for the amendment and of the impact of any change in the type of financial information or operating data so provided.

#### Section 18. SALE OF BONDS; USE OF PROCEEDS.

(a) Sale of Bonds. The Bonds are hereby sold to the Texas Water Development Board for the price of par, less an origination fee of \$\_\_\_\_\_ of the principal amount of the Bonds. The Bonds have been purchased by the Texas Water Development Board pursuant to its Resolution No. 15-\_\_\_\_, adopted on \_\_\_\_\_, 2015 ("TWDB Resolution No. 15-\_\_\_\_"). The Private Placement Memorandum prepared in connection with the sale of the Bonds to the Texas Water Development Board in substantially the form presented at this meeting is approved. The Issuer has determined, based upon the advice provided by its financial advisors, that the terms of this sale are the most advantageous reasonably obtainable. The Bonds shall initially be registered in the name of the Texas Water Development Board or its designee.

(b) Notice from Texas Water Development Board of Sale of Bonds. It is the intent of the parties to the sale of the Bonds that if Texas Water Development Board ever determines to sell all or a part of the Bonds, it shall notify the Issuer at least 60 days prior to the sale of the Bonds of the decision to so sell the Bonds.

(c) Proceeds. The proceeds from the sale of the Bonds shall be disbursed in the manner described in the letter of instructions executed by the Issuer, or on behalf of the Issuer by its financial advisor.

(d) Payment by Wire Transfer. Payment of amounts due and owing on the Bonds to the Texas Water Development Board shall be made by wire transfer, at no expense to the Texas Water Development Board, as provided in the FORM OF BOND.

#### Section 19. FURTHER PROCEDURES.

(a) Authorization. The President of the Board and the Secretary/Treasurer of the Issuer shall be and they are hereby expressly authorized, empowered and directed from time to time and at any time to do and perform all such acts and things and to execute, acknowledge and deliver in the name and on behalf of the Issuer all such instruments, whether or not herein mentioned, as may be necessary or desirable in order to carry out the terms and provisions of this Resolution, the Letter of Representations, the Bonds and the sale of the Bonds. Notwithstanding anything to the contrary contained herein, while the Bonds are subject to DTC's Book-Entry Only System and to the extent permitted by law, the Letter of Representations is hereby incorporated herein and its provisions shall prevail over any other provisions of this Resolution in the event of conflict. In case any officer whose signature shall appear on any Bond shall cease to be such officer before the delivery of such Bond, such signature shall nevertheless be valid and sufficient for all purposes the same as if such officer had remained in office until such delivery.

(b) Opinion of Bond Counsel. The obligation of the initial purchaser to accept delivery of the Bonds is subject to the initial Underwriters being furnished with the final, approving opinion of McCall, Parkhurst & Horton L.L.P., bond counsel to the Issuer, which opinion shall be dated as of and delivered on the date of initial delivery of the Bonds to the initial Purchaser. The engagement of such firm as bond counsel to the Issuer in connection with issuance, sale and delivery of the Bonds is hereby approved and confirmed. The execution and delivery of an engagement letter between the Issuer and such firm, with respect to such services as bond counsel, is hereby authorized in such form as may be approved by the President of the Board or the



Secretary/Treasurer of the Issuer and the President of the Board or the Secretary/Treasurer of the Issuer are hereby authorized to execute such engagement letter.

Section 20. CONSTRUCTION FUND; SECURITY FOR DEPOSITS.

(a) Construction Fund. The Issuer hereby creates and establishes and shall maintain on the books of the Issuer a separate fund to be entitled the "Series 2015A Bond Construction Fund" (the "Construction Fund") for use by the Issuer for payment of all lawful costs associated with the acquisition and construction of the Project as hereinbefore provided. Upon payment of all such costs, any moneys remaining on deposit in said Fund shall be used for the purposes specified in Section 21(c).

(b) Investment of Construction Fund. The Issuer may place proceeds of the Bonds (including investment earnings thereon) in investments authorized by the Public Funds Investment Act, Chapter 2256, Texas Government Code, as amended; provided, however, that the Issuer hereby covenants that the proceeds of the sale of the Bonds will be used as soon as practicable for the purposes for which the Bonds are issued.

(c) Security for Construction Fund. All deposits authorized or required by this Resolution shall be secured to the fullest extent required by law for the security of public funds as provided in Chapters 2256 and 2257, Texas Government Code, as amended.

Section 21. TEXAS WATER DEVELOPMENT BOARD. The provisions of this Section shall apply so long as the Bonds, or any of them, are owned by the Texas Water Development Board.

(a) Covenant to Abide with Rules and Regulations. The Issuer will abide with all applicable federal laws, rules and regulations, laws of the State of Texas and rules and regulations of the Texas Water Development Board relating to the loan of funds evidenced by the Bonds and the project for which the Bonds are issued, sold and delivered.

(b) Annual Audit Reporting. The Issuer shall have an annual audit prepared in accordance with generally accepted accounting practices and shall provide to the Executive Administrator of the Texas Water Development Board, without the necessity of a written request therefor and without charge, a copy of the annual audit report within 180 days of the close of each Issuer fiscal year. In addition, monthly operating statements for the System shall be maintained by the Issuer and made available, on request, to the TWDB as long as the State of Texas owns any of the Bonds, and the monthly operating statement shall be in such detail as requested by the Development Fund Manager of the TWDB until this requirement is waived thereby. The Issuer covenants that proceeds of the Bonds shall remain separate and distinct from other sources of funding from the date of the TWDB commitment through costing and final disbursement.

(c) Final Accounting. Upon completion of the project to be financed with the proceeds of the Bonds, the Issuer shall render a final accounting of the cost of such project to the Texas Water Development Board, together with a copy of "as built" plans of such improvements and extensions upon completion. If the total cost of such project, as finally completed, is less than originally estimated, so that the proper share of the participation by the Texas Water Development Board in such project is reduced, any surplus proceeds from the Bonds remaining after completion of the project shall be used for the following purposes as approved by the Executive Administrator: (1) to redeem, in inverse annual order, the Bonds owned by the Texas Water Development Board (any remaining excess after such redemption, in an amount less than \$5,000, shall be deposited into the Interest and Sinking Fund ); (2) deposit into the Interest and Sinking Fund or other debt service account for the payment of interest or principal on the Bonds owned by the Texas Water Development Board; or (3) eligible project costs as authorized by the Executive Administrator.

(d) Defeasance. Should the Issuer exercise its right hereunder to effect the defeasance of the Bonds, the Issuer agrees that it will provide the Texas Water Development Board with written notice of any such defeasance.

(e) Prohibition on Use of Proceeds. The Issuer covenants and agrees that none of the proceeds of the Bonds will be expended on costs incurred or to be incurred relating to the sampling, testing, removing or disposing of potentially contaminated soils and/or media at the project site.

(f) Indemnification. The Issuer further agrees, to the extent permitted by law, to indemnify, hold harmless and protect the Texas Water Development Board from any and all claims or causes of action arising from the sampling, analysis, transport, storage, treatment, removal and off-site disposition of any contaminated sewage sludge, contaminated sediments and/or contaminated media that may be generated by the Issuer, its contractors, consultants, agents, officials and employees as a result of activities relating to the Project.

(g) Environmental Determination. In connection with the project financed with the Bonds, the Issuer agrees to implement any environmental determination issued by the Executive Administrator of the Texas Water Development Board to satisfy the environmental review requirements set forth in 31 Texas Administrative Code 371.

(h) Insurance. The Issuer agrees to maintain casualty and other insurance on the Issuer's water system of a kind and in an amount customarily carried by municipal corporations owning and operating similar properties and in an amount sufficient to protect the interests of the Texas Water Development Board in the Project.

(i) Water Conservation Program. The Issuer and adopted and implemented or will adopt and implement an approved water conservation program in accordance with 31 TAC 363.42.

(j) No Purchase of Texas Water Development Board Bonds. The Issuer agrees that it, nor any related party to the Issuer, will not purchase, as an investment or otherwise, bonds issued by the Texas Water Development Board including, without limitation, bonds issued by the Texas Water Development Board, the proceeds of which were used by the Texas Water Development Board to purchase the Bonds.

(k) Compliance with Federal Contracting Law. The Issuer acknowledges that it has a legal obligation to comply with any applicable requirements of federal law relating to contracting with disadvantaged business enterprises.

(l) Compliance with State Contracting Law. The Issuer acknowledges that it has a legal obligation to comply with any applicable requirements of State law relating to contracting with historically underutilized businesses.

## Section 22. ESCROW AGREEMENT AND ESCROW FUND.

(a) Escrow Fund. The Escrow Agreement between the Issuer and the escrow agent named therein (the "Escrow Agent") substantially in the form and content presented at this meeting, specifying the duties and responsibilities of the Issuer and the Escrow Agent, and creating the escrow fund ("the "Escrow Fund"), is hereby approved and the President of the Board is hereby authorized and directed to execute the Escrow Agreement on behalf of the Issuer. The Escrow Agent named in the Escrow Agreement is hereby appointed as the Escrow Agent pursuant to such Escrow Agreement.

(b) Deposits to Escrow Fund. On the closing date, the Issuer shall cause the proceeds from the sale of the Bonds to be deposited into the Escrow Fund or, if agreed to by the Texas Water Development Board, all or a portion of the proceeds of the Bonds may be deposited into the Construction Fund or as otherwise directed by the Issuer and the Texas Water Development Board.

(c) Disbursements from Escrow Fund. Funds shall not be released from the Escrow Fund without written approval by the Executive Administrator of the Texas Water Development Board. Except as provided in Section 18(c), moneys disbursed from the Escrow Fund shall be credit to the Construction Fund created by Section 20 hereof and shall be applied only for the payment of costs of the Project.

(d) Investment and Security for Escrow Fund. The security for, and the investment of, funds on deposit in the Escrow Fund shall be governed by the provisions of the Escrow Agreement.

Section 23. GOVERNING LAW. This Resolution shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

Section 24. SEVERABILITY. If any provision of this Resolution or the application thereof to any circumstance shall be held to be invalid, the remainder of this Resolution and the application thereof to other circumstances shall nevertheless be valid, and this governing body hereby declares that this Resolution would have been enacted without such invalid provision.

Section 25. EFFECTIVE DATE. This Resolution shall be effective immediately upon its adoption by the Board of Directors.

-----

## EXHIBIT A

### **Annual Financial Statements and Operating Data**

The following information is referred to in Section 17B of this Resolution:

1. Annual Financial Statements and Operating Data. The financial information and operating data with respect to the Issuer to be provided in accordance with such Section the following: the annual audit.

2. Accounting Principles. The accounting principles referred to in such Section are the accounting principles described in the notes to the financial statements referred to in paragraph 1 above.

RESOLUTION AUTHORIZING THE ISSUANCE AND OF PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 REVENUE BONDS, TAXABLE SERIES 2015B; PRESCRIBING THE FORM AND TERMS OF SAID BONDS; PROVIDING FOR THE SECURITY AND PAYMENT THEREOF; AND RESOLVING OTHER MATTERS RELATING TO THE SUBJECT

THE STATE OF TEXAS §  
COUNTIES OF PALO PINTO AND PARKER §  
PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 §

WHEREAS, Palo Pinto County Municipal Water District No. 1 (the "Issuer") was created by Article 8280-258, V.A.T.C.S., as amended, as revised by Chapter 49 of the Texas Water Code ("Act") as a Conservation and Reclamation District, pursuant to Article 16, Section 59 of the Texas Constitution; and

WHEREAS, the Issuer has currently outstanding the following revenue bonds, to-wit:

Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bond, (Tax Exempt) Series 2009A, dated April 1, 2009 ("Series 2009A Bonds"); and

Palo Pinto County Municipal Water District No. 1 Subordinate Revenue Bond, (Taxable) Series 2009B", dated April 1, 2009 ("Series 2009B Bonds");

Palo Pinto County Municipal Water District No. 1 Revenue Refunding Bonds, Series 2011, dated October 1, 2011 ("Series 2011 Bonds");

WHEREAS, the Issuer has determined to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir), including land acquisition, final design, archeological recovery and initial utility relocations; and

WHEREAS, it is further deemed advisable by the Board of Directors of the Issuer to issue and deliver to the Texas Water Development Board the Bonds authorized by this Resolution and the Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Series 2015A ("Series 2015A Bonds"), in the principal amount of \$9,915,000, to be authorized by Resolution concurrently herewith pursuant to Article 8280-258 V.A.T.C.S. and Chapter 49 of the Texas Water Code; and

WHEREAS, it is hereby officially found and determined that public notice of the time, place and purpose of said meeting was given, all as required by Chapter 551, Texas Government Code.

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1:

ARTICLE I

DEFINITION OF TERMS

Section 1. DEFINITIONS. Unless otherwise expressly provided or unless the context clearly requires otherwise in this Resolution, the following terms shall have the meanings specified below:

(a) "Act" shall mean Article 8280-258, as amended, of V.A.T.C.S., as revised by Chapter 49 of the Texas Water Code.

(b) "Additional Bonds" shall mean any bonds authorized by Article VIII of this Resolution.

- (c) "Board of Directors" or "Board" shall mean the Board of Directors of the Issuer.
- (d) "Bond" or "Bonds" shall mean the Palo Pinto County Municipal Water District No. 1 Revenue Bonds, Taxable Series 20015B, authorized by this Resolution.
- (e) "Certified Public Accountant" shall mean any certified public accountant of such suitable experience and qualifications, not regularly in the employ of the Issuer, selected by the Issuer.
- (f) "City" shall mean the City of Mineral Wells, Texas.
- (g) "Completion Bonds" shall mean bonds issued by the Issuer for completion of the construction of the Project upon approval of the Texas Water Development Board.
- (h) "Contract" or "Water Purchase Contract" shall mean the contract with the City for the sale of water to the City, dated as of July 10, 1981, as supplemented, and modified as of December 10, 1992, November 1, 2001, October 1, 2002, April 1, 2009, November 8, 2011, and in connection with the issuance of the Bonds.
- (i) "Default" or "Event of Default" shall mean the failure by the Issuer to pay the principal of or the interest on any bond herein authorized as the same shall become due; or the failure by the issuer to perform any of the agreements or covenants on its party (other) than its agreement to pay the principal of and interest on the Bonds (which failure shall have continued for a period of thirty days after written notice of such failure has been given to the Issuer by the Paying Agent/Registrar or the owner or holder of any Bond).
- (j) "Depository" shall mean the bank or banks which the Issuer selects (whether one or more) in accordance with law, as its Depository.
- (k) "Fiscal Year" shall mean each twelve month period, beginning October 1 and ending September 30 of each year.
- (l) "Improvement Bonds" shall mean bonds issued for improvements, betterment, additions to, or extensions and replacements of the work and facilities of the Issuer.
- (m) "Independent Consulting Engineer" shall mean the engineer or engineering firm at the time employed by the Issuer under the provisions of Section 9(h) of this Resolution.
- (n) "Investment" shall mean cash, investments, or any combination of the foregoing.
- (o) "Issuer" shall mean Palo Pinto County Municipal Water District No. 1, and any other public body or agency at any time succeeding to the property and principal rights, powers and obligations of said Issuer.
- (p) "Operation and Maintenance Expenses" shall mean the reasonable and necessary cost of ordinary maintenance and operation of the Issuer and its facilities and all other properties and works of the Issuer, includes without limiting the generality of the foregoing (1) premiums on any insurance policies of every kind and nature; (2) administrative, legal, and other overhead expenses of the Issuer; and (3) charges and expenses of the Paying Agent/Registrar and the Depository.
- (q) "Outstanding" when used with respect to Parity Obligations shall mean, as of the date of determination, all Parity Obligations theretofore delivered, except:

(1) Parity Obligations theretofore canceled and delivered to the Board or delivered to the Paying Agent or the Registrar for cancellation;

(2) Parity Obligations deemed paid pursuant to the provisions of any resolution authorizing the issuance of Parity Obligations;

(3) Parity Obligations upon transfer of or in exchange for and in lieu of which other Parity Obligations have been authenticated and delivered pursuant to this Resolution; and

(4) Parity Obligations under which the obligations of the Board have been released, discharged, or extinguished in accordance with the terms thereof;

(r) "Parity Obligations" shall mean the Outstanding Series 2009A Bonds, the Outstanding Series 2009B Bonds, the Outstanding Series 2011 Bonds, the Outstanding Series 2015A Bonds, the Bonds and Additional Bonds.

(s) "Pledged Revenues" shall mean those Revenues not used to pay Operation and Maintenance Expenses and pledged herein to the payment of the Bonds in the manner as set forth in Section 6 of this Resolution.

(t) "Rating Agency" shall mean any nationally recognized securities rating agency which has assigned, at the request of the Issuer, a rating to the Bonds.

(u) "Refunding Bonds" shall mean bonds issued to refund all or any part of the Issuer's outstanding Bonds.

(v) "Reserve Fund Obligation" shall mean to the extent permitted by law, as evidenced by an opinion of nationally recognized bond counsel, a surety bond or insurance policy (which, under applicable law, shall not entitle the provider thereof to any right of reimbursement or repayment other than a right to subrogation upon payments being made to Holders) deposited in the Reserve Fund to satisfy the Required Reserve Account whereby the issuer is obligated to provide funds up to and including the maximum amount and under the conditions specified in such agreement or instrument.

(w) "Required Reserve Amount" shall mean the average annual debt service requirements on all outstanding Bonds and Additional Bonds, if any.

(x) "Reserve Fund Obligation Payment" shall mean any subrogation payment the Issuer is obligated to make from Pledged Revenues deposited in the Reserve Fund with respect to a Reserve Fund Obligation.

(y) "Resolution" or "Bond Resolution" shall mean this Resolution and any amendments thereof.

(z) "Revenues" shall mean all tolls, revenues, rates, fees, charges, rents and other income and receipts in each case derived by, or for the account of, the Issuer from the operation of the Issuer, and includes specifically payments received by the Issuer from the City as a Water Charge pursuant to the Water Purchase Contract.

(aa) "Special Project Bonds" shall mean bonds issued to acquire or construct a separate project which is expected to be selfliquidating. Such bonds may also be payable from taxes.



(bb) "Water Charge" shall mean the monthly charge made to the City for the purchase of the Issuer's water pursuant to the Contract.

Section 2. RECITALS, AMOUNT AND PURPOSE OF THE BONDS. The recitals set forth in the preamble hereof are incorporated herein and shall have the same force and effect as if set forth in this Section. The bonds of Palo Pinto County Municipal Water District No. 1 (the "Issuer") are hereby authorized to be issued and delivered in the aggregate principal amount of \$7,185,000 to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir), including land acquisition, final design, archeological recovery and initial utility relocations(the "Projects").

Section 3. DESIGNATION, DATE, DENOMINATIONS, NUMBERS, AND MATURITIES AND INTEREST RATES OF BONDS. Each bond issued pursuant to this Resolution shall be designated: "PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, TAXABLE SERIES 2015B," and initially there shall be issued, sold, and delivered hereunder one fully registered bond, without interest coupons, dated December 1, 2015, in the principal amount stated above and in the denominations hereinafter stated, numbered T-1, with bonds issued in replacement thereof being in the denominations and principal amounts hereinafter stated and numbered consecutively from R-1 upward, payable to the respective Registered Owners thereof (with the initial bond being made payable to the initial purchaser as described in Section 18 hereof), or to the registered assignee or assignees of said bonds or any portion or portions thereof (in each case, the "Registered Owner"), and said bonds shall mature and be payable serially on June 1 in each of the years and in the principal amounts, respectively, and shall bear interest from the dates set forth in the FORM OF BOND set forth in Section 5 of this Resolution to their respective dates of maturity or redemption prior to maturity at the rates per annum, as set forth in the following schedule:

<u>Years</u>	<u>Principal Amount</u>	<u>Interest Rates</u>	<u>Years</u>	<u>Principal Amount</u>	<u>Interest Rates</u>
2017	\$ 170,000		2032	\$ 240,000	
2018	175,000		2033	250,000	
2019	175,000		2034	255,000	
2020	180,000		2035	265,000	
2021	180,000		2036	275,000	
2022	185,000		2037	285,000	
2023	190,000		2038	295,000	
2024	195,000		2039	305,000	
2025	200,000		2040	315,000	
2026	200,000		2041	325,000	
2027	210,000		2042	335,000	
2028	215,000		2043	350,000	
2029	220,000		2044	360,000	
2030	225,000		2045	375,000	
2031	235,000				

The term "Bonds" as used in this Resolution shall mean and include collectively the bond initially issued and delivered pursuant to this Resolution and all substitute bonds exchanged therefor, as well as all other substitute bonds and replacement bonds issued pursuant hereto, and the term "Bond" shall mean any of the Bonds.

Section 4. CHARACTERISTICS OF THE BONDS.

(a) Appointment of Paying Agent/Registrar. The Issuer hereby appoints \_\_\_\_\_, \_\_\_\_\_, Texas, to serve as paying agent and registrar for the Bonds (the "Paying Agent/Registrar"). The President of the Board is authorized and directed to execute and deliver in the name and under the corporate seal and on behalf of the Issuer a Paying Agent/Registrar Agreement with the Paying Agent/Registrar in substantially the form presented at this meeting.

(b) Registration, Transfer, Conversion and Exchange. The Issuer shall keep or cause to be kept at the corporate trust office of the Paying Agent/Registrar books or records for the registration of the transfer, conversion and exchange of the Bonds (the "Registration Books"), and the Issuer hereby appoints the Paying Agent/Registrar as its registrar and transfer agent to keep such books or records and make such registrations of transfers, conversions and exchanges under such reasonable regulations as the Issuer and Paying Agent/Registrar may prescribe; and the Paying Agent/Registrar shall make such registrations, transfers, conversions and exchanges as herein provided within three days of presentation in due and proper form. The Paying Agent/Registrar shall obtain and record in the Registration Books the address of the registered owner of each Bond to which payments with respect to the Bonds shall be mailed, as herein provided; but it shall be the duty of each registered owner to notify the Paying Agent/Registrar in writing of the address to which payments shall be mailed, and such interest payments shall not be mailed unless such notice has been given. The Issuer shall have the right to inspect the Registration Books during regular business hours of the Paying Agent/Registrar, but otherwise the Paying Agent/Registrar shall keep the Registration Books confidential and, unless otherwise required by law, shall not permit their inspection by any other entity. The Issuer shall pay the Paying Agent/Registrar's standard or customary fees and charges for making such registration, transfer, conversion, exchange and delivery of a substitute Bond or Bonds. Registration of assignments, transfers, conversions and exchanges of Bonds shall be made in the manner provided and with the effect stated in the FORM OF BOND set forth in this Resolution. Each substitute Bond shall bear a letter and/or number to distinguish it from each other Bond.

(c) Authentication. Except as provided in subsection (i) of this section, an authorized representative of the Paying Agent/Registrar shall, before the delivery of any such Bond, date and manually sign said Bond, and no such Bond shall be deemed to be issued or outstanding unless such Bond is so executed. The Paying Agent/Registrar promptly shall cancel all paid Bonds and Bonds surrendered for conversion and exchange. No additional Resolutions, orders or resolutions need be passed or adopted by the governing body of the Issuer or any other body or person so as to accomplish the foregoing conversion and exchange of any Bond or portion thereof, and the Paying Agent/Registrar shall provide for the printing, execution and delivery of the substitute Bonds in the manner prescribed herein. Pursuant to Subchapter D, Chapter 1201, Texas Government Code, the duty of conversion and exchange of Bonds as aforesaid is hereby imposed upon the Paying Agent/Registrar, and, upon the execution of said Bond, the converted and exchanged Bond shall be valid, incontestable, and enforceable in the same manner and with the same effect as the Bonds which initially were issued and delivered pursuant to this Resolution, approved by the Attorney General, and registered by the Comptroller of Public Accounts.

(d) Payment of Principal and Interest. The Issuer hereby further appoints the Paying Agent/Registrar to act as the paying agent for paying the principal of and interest on the Bonds, all as provided in this Resolution. The Paying Agent/Registrar shall keep proper records of all payments made by the Issuer and the Paying Agent/Registrar with respect to the Bonds, and of all conversions and exchanges of Bonds, and all replacements of Bonds, as provided in this Resolution. However, in the event of a nonpayment of interest on a scheduled payment date, and for thirty (30) days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the

scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States mail, first class postage prepaid, to the address of each registered owner appearing on the Registration Books at the close of business on the last business day next preceding the date of mailing of such notice.

(e) Payment to Registered Owner. Notwithstanding any other provision of this Resolution to the contrary, the Issuer and the Paying Agent/Registrar shall be entitled to treat and consider the person in whose name each Bond is registered in the Registration Books as the absolute owner of such Bond for the purpose of payment of principal and interest with respect to such Bond, for the purpose of registering transfers with respect to such Bond, and for all other purposes whatsoever. The Paying Agent/Registrar shall pay all principal of and interest on the Bonds only to or upon the order of the registered owners, as shown in the Registration Books as provided in this Resolution, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the Issuer's obligations with respect to payment of principal of and interest on the Bonds to the extent of the sum or sums so paid. No person other than a registered owner, as shown in the Registration Books, shall receive a Bond certificate evidencing the obligation of the Issuer to make payments of principal and interest pursuant to this Resolution.

(f) Paying Agent/Registrar. The Issuer covenants with the registered owners of the Bonds that at all times while the Bonds are outstanding the Issuer will provide a competent and legally qualified bank, trust company, financial institution or other agency to act as and perform the services of Paying Agent/Registrar for the Bonds under this Resolution, and that the Paying Agent/Registrar will be one entity. By accepting the position and performing as such, each Paying Agent/Registrar shall be deemed to have agreed to the provisions of this Resolution, and a certified copy of this Resolution shall be delivered to each Paying Agent/Registrar.

(g) Substitute Paying Agent/Registrar. The Issuer reserves the right to, and may, at its option, change the Paying Agent/Registrar upon not less than 120 days written notice to the Paying Agent/Registrar, to be effective not later than 60 days prior to the next principal or interest payment date after such notice. In the event that the entity at any time acting as Paying Agent/Registrar (or its successor by merger, acquisition, or other method) should resign or otherwise cease to act as such, the Issuer covenants that promptly it will appoint a competent and legally qualified bank, trust company, financial institution, or other agency to act as Paying Agent/Registrar under this Resolution. Upon any change in the Paying Agent/Registrar, the previous Paying Agent/Registrar promptly shall transfer and deliver the Registration Books (or a copy thereof), along with all other pertinent books and records relating to the Bonds, to the new Paying Agent/Registrar designated and appointed by the Issuer. Upon any change in the Paying Agent/Registrar, the Issuer promptly will cause a written notice thereof to be sent by the new Paying Agent/Registrar to each registered owner of the Bonds, by United States mail, first-class postage prepaid, which notice also shall give the address of the new Paying Agent/Registrar.

(h) Book-Entry Only System. The Bonds issued in exchange for the Bonds initially issued to the purchaser or purchasers specified herein shall be initially issued in the form of a separate single fully registered Bond for each of the maturities thereof and the ownership of each such Bond shall be registered in the name of Cede & Co., as nominee of The Depository Trust Company of New York ("DTC"), and except as provided in subsections (i) and (j) of this Section, all of the outstanding Bonds shall be registered in the name of Cede & Co., as nominee of DTC.

(i) Blanket Letter of Representations. The previous execution and delivery of the Blanket Letter of Representations with respect to obligations of the Issuer is hereby ratified and confirmed; and the provisions thereof shall be fully applicable to the Bonds. Notwithstanding anything to the contrary contained herein, while the Bonds are subject to DTC's Book-Entry Only System and to the extent permitted by law, the Letter

of Representations is hereby incorporated herein and its provisions shall prevail over any other provisions of this Resolution in the event of conflict.

(j) Bonds Registered in the Name of Cede & Co. With respect to Bonds registered in the name of Cede & Co., as nominee of DTC, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation to any securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations on whose behalf DTC was created ("DTC Participant") to hold securities to facilitate the clearance and settlement of securities transactions among DTC Participants or to any person on behalf of whom such a DTC Participant holds an interest in the Bonds. Without limiting the immediately preceding sentence, the Issuer and the Paying Agent/Registrar shall have no responsibility or obligation with respect to (i) the accuracy of the records of DTC, Cede & Co. or any DTC Participant with respect to any ownership interest in the Bonds, (ii) the delivery to any DTC Participant or any other person, other than a registered owner of Bonds, as shown on the Registration Books, of any notice with respect to the Bonds, or (iii) the payment to any DTC Participant or any other person, other than a registered owner of Bonds, as shown in the Registration Books of any amount with respect to principal of or interest on the Bonds. Upon delivery by DTC to the Paying Agent/Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., and subject to the provisions in this Resolution with respect to interest checks being mailed to the registered owner at the close of business on the Record date, the words "Cede & Co." in this Resolution shall refer to such new nominee of DTC.

(k) Successor Securities Depository; Transfers Outside Book-Entry Only System. In the event that the Issuer determines that DTC is incapable of discharging its responsibilities described herein and in the representation letter of the Issuer to DTC or that it is in the best interest of the beneficial owners of the Bonds that they be able to obtain certificated Bonds, the Issuer shall (i) appoint a successor securities depository, qualified to act as such under Section 17A of the Securities and Exchange Act of 1934, as amended, notify DTC and DTC Participants of the appointment of such successor securities depository and transfer one or more separate Bonds to such successor securities depository or (ii) notify DTC and DTC Participants of the availability through DTC of Bonds and transfer one or more separate Bonds to DTC Participants having Bonds credited to their DTC accounts. In such event, the Bonds shall no longer be restricted to being registered in the Registration Books in the name of Cede & Co., as nominee of DTC, but may be registered in the name of the successor securities depository, or its nominee, or in whatever name or names registered owners transferring or exchanging Bonds shall designate, in accordance with the provisions of this Resolution.

(l) Payments to Cede & Co. Notwithstanding any other provision of this Resolution to the contrary, so long as any Bond is registered in the name of Cede & Co., as nominee of DTC, all payments with respect to principal of and interest on such Bond and all notices with respect to such Bond shall be made and given, respectively, in the manner provided in the representation letter of the Issuer to DTC.

(m) General Characteristics of the Bonds. The Bonds (i) shall be issued in fully registered form, without interest coupons, with the principal of and interest on such Bonds to be payable only to the Registered Owners thereof, (ii) may and shall be redeemed prior to their scheduled maturities, (iii) may be transferred and assigned, (iv) may be converted and exchanged for other Bonds, (v) shall have the characteristics, (vi) shall be signed, sealed, executed and authenticated, (vii) the principal of and interest on the Bonds shall be payable, and (viii) shall be administered and the Paying Agent/Registrar and the Issuer shall have certain duties and responsibilities with respect to the Bonds, all as provided, and in the manner and to the effect as required or indicated, in the FORM OF BOND set forth in this Resolution. The Bonds initially issued and delivered pursuant to this Resolution is not required to be, and shall not be, authenticated by the Paying Agent/Registrar, but on each substitute Bond issued in conversion of and exchange for any Bond or Bonds

issued under this Resolution the Paying Agent/Registrar shall execute the Paying Agent/registrar's Authentication Bond, in the FORM OF BOND set forth in this Resolution.

(n) Cancellation of Initial Bond. On the closing date, one initial Bond representing the entire principal amount of the Bonds, payable in stated installments to the order of the initial purchaser of the Bonds or its designee, executed by manual or facsimile signature of the President and Secretary of the Board, approved by the Attorney General of Texas, and registered and manually signed by the Comptroller of Public Accounts of the State of Texas, will be delivered to such purchaser or its designee. Upon payment for the initial Bond, the Paying Agent/Registrar shall insert the Issuance Date on Bond No. T-1, cancel each of the initial Bonds and deliver to The Depository Trust Company ("DTC") on behalf of such purchaser one registered definitive Bond for each year of maturity of the Bonds, in the aggregate principal amount of all of the Bonds for such maturity, registered in the name of Cede & Co., as nominee of DTC. To the extent that the Paying Agent/Registrar is eligible to participate in DTC's FAST System, pursuant to an agreement between the Paying Agent/Registrar and DTC, the Paying Agent/Registrar shall hold the definitive Bonds in safekeeping for DTC.

Section 5. FORM OF BONDS. The form of the Bonds, including forms of the form of Paying Agent/Registrar's Authentication Certificate, the form of Assignment and the form of Registration Certificate of the Comptroller of Public Accounts of the State of Texas to be attached to the Bond initially issued and delivered pursuant to this Resolution, shall be, respectively, substantially as follows, with such appropriate variations, omissions, or insertions as are permitted or required by this Resolution.

(a) Form of Bond.

NO. R-	UNITED STATES OF AMERICA STATE OF TEXAS	PRINCIPAL AMOUNT \$ _____
	PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 REVENUE REFUNDING BOND TAXABLE SERIES 2015B	

<u>INTEREST RATE</u>	<u>DELIVERY DATE</u>	<u>MATURITY DATE</u>	<u>CUSIP NO.</u>
----------------------	----------------------	----------------------	------------------

REGISTERED OWNER:

PRINCIPAL AMOUNT: DOLLARS

ON THE MATURITY DATE specified above, PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1, in Palo Pinto and Parker Counties, Texas (the "Issuer"), being a political subdivision of the State of Texas, hereby promises to pay to the Registered Owner set forth above, or registered assigns (hereinafter called the "Registered Owner") the principal amount set forth above, and to pay interest thereon from the Delivery Date set forth above, on June 1, 2016, and on each December 1 and June 1 thereafter to the maturity date specified above, or the date of redemption prior to maturity, at the interest rate per annum specified above; except that if this Bond is required to be authenticated and the date of its authentication is later than the first Record Date (hereinafter defined), such principal amount shall bear interest from the interest payment date next preceding the date of authentication, unless such date of authentication is after any Record Date but on or before the next following interest payment date, in which case such principal amount

shall bear interest from such next following interest payment date; provided, however, that if on the date of authentication hereof the interest on the Bond or Bonds, if any, for which this Bond is being exchanged or converted from is due but has not been paid, then this Bond shall bear interest from the date to which such interest has been paid in full.

THE PRINCIPAL OF AND INTEREST ON this Bond are payable in lawful money of the United States of America, without exchange or collection charges. The principal of this Bond shall be paid to the Registered Owner hereof upon presentation and surrender of this Bond at maturity, or upon the date fixed for its redemption prior to maturity, at the corporate trust office of \_\_\_\_\_, \_\_\_\_\_, which is the "Paying Agent/Registrar" for this Bond. The payment of interest on this Bond shall be made by the Paying Agent/Registrar to the Registered Owner hereof on each interest payment date by check or draft, dated as of such interest payment date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the Issuer required by the resolution authorizing the issuance of the Bonds (the "Bond Resolution") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check or draft shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such interest payment date, to the Registered Owner hereof, at its address as it appeared at the close of business on the 15th day of the month next preceding each such date (the "Record Date"), on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described. In the event of a non-payment of interest on a scheduled payment date, and for 30 days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the Issuer. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be 15 days after the Special Record Date) shall be sent at least 5 business days prior to the Special Record Date by United States mail, first-class postage prepaid, to the address of each owner of a Bond appearing on the Registration Books at the close of business on the last business day next preceding the date of mailing of such notice.

NOTWITHSTANDING ANY PROVISION, term, condition or requirement of this Bond or the Bond Resolution to the contrary, payments to the initial purchaser of the Bonds of principal of and interest on (if any) the Bonds shall be made by wire transfer of immediately available funds at no cost to such purchaser.

IN ADDITION, INTEREST MAY BE PAID by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the Registered Owner.

ANY ACCRUED INTEREST due at maturity or upon the redemption of this Bond prior to maturity as provided herein shall be paid to the Registered Owner upon presentation and surrender of this Bond for payment at the principal corporate trust office of the Paying Agent/Registrar. The Issuer covenants with the Registered Owner of this Bond that on or before each principal payment date and interest payment date for this Bond it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Bond Resolution, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on the Bonds, when due.

IF THE DATE for any payment due on this Bond shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the principal corporate trust office of the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close, and payment on such date shall have the same force and effect as if made on the original date payment was due.

THIS BOND is one of a series of Bonds dated as of December 1, 2015, authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$7,185,000 for the purpose of

providing funds to acquire and construct a dam and all works, plants and other facilities necessary or useful for the purpose of impounding, processing and transporting water to cities and others for all useful purposes, to-wit: the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir), including land acquisition, final design, archeological recovery and initial utility relocations.

ON JUNE 1, 2026, or on any date thereafter, the Bonds of this series may be redeemed prior to their scheduled maturities, at the option of the Issuer, with funds derived from any available and lawful source, as a whole, or in part, and, if in part, the particular Bonds, or portions thereof, to be redeemed shall be redeemed in inverse order of maturity and the Issuer shall direct the Paying Agent/Registrar to call by lot or other customary method, portions thereof within such maturities and in such principal amounts, for redemption (provided that a portion of a Bond may be redeemed only in an integral multiple of \$5,000), at a redemption price equal to the principal amount to be redeemed plus accrued interest to the date fixed for redemption.

AT LEAST 30 DAYS prior to the date fixed for any redemption of Bonds or portions thereof prior to maturity a written notice of such redemption shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, to the Registered Owner of each Bond to be redeemed at its address as it appeared on the day such notice of redemption is mailed and to major securities depositories, national bond rating agencies and bond information services; provided, however, that the failure of the Registered Owner to receive such notice, or any defect therein or in the sending or mailing thereof, shall not affect the validity or effectiveness of the proceedings for the redemption of any Bond. By the date fixed for any such redemption, due provision shall be made with the Paying Agent/Registrar for the payment of the required redemption price for the Bonds or portions thereof which are to be so redeemed. If such written notice of redemption is sent and if due provision for such payment is made, all as provided above, the Bonds or portions thereof which are to be so redeemed thereby automatically shall be treated as redeemed prior to their scheduled maturities, and they shall not bear interest after the date fixed for redemption, and they shall not be regarded as being outstanding except for the right of the Registered Owner to receive the redemption price from the Paying Agent/Registrar out of the funds provided for such payment. If a portion of any Bond shall be redeemed a substitute Bond or Bonds having the same maturity date, bearing interest at the same rate, in any denomination or denominations in any integral multiple of \$5,000, at the written request of the Registered Owner, and in aggregate amount equal to the unredeemed portion thereof, will be issued to the Registered Owner upon the surrender thereof for cancellation, at the expense of the Issuer, all as provided in the Bond Resolution.

IF AT THE TIME OF MAILING of notice of optional redemption there shall not have either been deposited with the Paying Agent/Registrar or legally authorized escrow agent immediately available funds sufficient to redeem all the Bonds called for redemption, such notice may state that it is conditional, and is subject to the deposit of the redemption moneys with the Paying Agent/Registrar or legally authorized escrow agent at or prior to the redemption date. If such redemption is not effectuated, the Paying Agent/Registrar shall, within 5 days thereafter, give notice in the manner in which the notice of redemption was given that such moneys were not so received and shall rescind the redemption.

ALL BONDS OF THIS SERIES are issuable solely as fully registered Bonds, without interest coupons, with respect to Bonds, in the denomination of any integral multiple of \$5,000 or any integral multiple thereof. As provided in the Bond Resolution, this Bond may, at the request of the Registered Owner or the assignee or assignees hereof, be assigned, transferred, converted into and exchanged for a like aggregate amount of fully registered Bonds, without interest coupons, payable to the appropriate Registered Owner, assignee or assignees, as the case may be, having any authorized denomination or denominations as requested in writing by the appropriate Registered Owner, assignee or assignees, as the case may be, upon surrender of this Bond to the Paying Agent/Registrar for cancellation, all in accordance with the form and



procedures set forth in the Bond Resolution. Among other requirements for such assignment and transfer, this Bond must be presented and surrendered to the Paying Agent/Registrar, together with proper instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment of this Bond or any portion or portions hereof in any authorized denomination to the assignee or assignees in whose name or names this Bond or any such portion or portions hereof is or are to be registered. The form of Assignment printed or endorsed on this Bond may be executed by the Registered Owner to evidence the assignment hereof, but such method is not exclusive, and other instruments of assignment satisfactory to the Paying Agent/Registrar may be used to evidence the assignment of this Bond or any portion or portions hereof from time to time by the Registered Owner. The Paying Agent/Registrar's reasonable standard or customary fees and charges for assigning, transferring, converting and exchanging any Bond or portion thereof will be paid by the Issuer. In any circumstance, any taxes or governmental charges required to be paid with respect thereto shall be paid by the one requesting such assignment, transfer, conversion or exchange, as a condition precedent to the exercise of such privilege. The Paying Agent/Registrar shall not be required to make any such transfer or exchange with respect to Bonds (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

IN THE EVENT any Paying Agent/Registrar for the Bonds is changed by the Issuer, resigns, or otherwise ceases to act as such, the Issuer has covenanted in the Bond Resolution that it promptly will appoint a competent and legally qualified substitute therefor, and cause written notice thereof to be mailed to the Registered Owners of the Bonds.

THE RESOLUTION PROVIDES that, to the extent and in the manner permitted by the terms of the Resolution, the Resolution may be amended with the consent of the holders of at least three-fourths in principal amount of all outstanding bonds, provided, that no amendment shall:

- (a) make any change in the maturity of any outstanding bonds;
- (b) reduce the rate of interest borne by any of the outstanding bonds;
- (c) reduce the amount of the principal payable on any outstanding bonds;
- (d) modify the terms of payment of principal of or interest on the outstanding bonds or any of them or impose any conditions with respect to such payment;
- (e) change the minimum percentage of the principal of or interest on the outstanding bonds or any of them, or impose any conditions with respect to such payment.

IT IS HEREBY certified, recited, and covenanted that this Bond has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Bond have been performed, existed, and been done in accordance with law; that this Bond is a special obligation of said Issuer, and together with the Outstanding Parity Obligations described in the Resolution, is secured by and payable from a first lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas, pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City of Mineral Wells, Texas.

THE HOLDER HEREOF shall never have the right to demand payment of this obligation out of any funds raised or to be raised by taxation.

UNDER THE TERMS AND CONDITIONS as provided in the Resolution, the Issuer reserves the right to issue Additional Bonds which will be payable from taxes and/or secured by a pledge of revenues constituting a lien on such revenues on a parity with this issue of Bonds and to issue Special Project Bonds to acquire or construct a separate project which is expected to be self-liquidating, however, such bonds may be payable from taxes.

BY BECOMING the registered owner of this Bond, the registered owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each registered owner hereof and the Issuer.

THE ISSUER ALSO HAS RESERVED THE RIGHT to amend the Bond Resolution as provided therein, and under some (but not all) circumstances amendments thereto must be approved by the Registered Owners of a majority in aggregate principal amount of the outstanding Bonds.

BY BECOMING the Registered Owner of this Bond, the Registered Owner thereby acknowledges all of the terms and provisions of the Bond Resolution, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution is duly recorded and available for inspection in the official minutes and records of the governing body of the Issuer, and agrees that the terms and provisions of this Bond and the Bond Resolution constitute a contract between each Registered Owner hereof and the Issuer.

IN WITNESS WHEREOF, the Issuer has caused this Bond to be signed with the manual or facsimile signature of the President of the Board of Directors of the Issuer and countersigned with the manual or facsimile signature of the Secretary of the Board of Directors of the Issuer, and has caused the official seal of the Issuer to be duly impressed, or placed in facsimile, on this Bond.

_____ (Signature) Secretary, Board of Directors (SEAL)	_____ (Signature) President, Board of Directors
---	---

\*These paragraphs to be included to the extent applicable.

(b) Form of Paying Agent/Registrar's Authentication Certificate.

**PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE**  
 (To be executed if this Bond is not accompanied by an Executed Registration  
 Certificate of the Comptroller of Public Accounts of the State of Texas)

It is hereby certified that this Bond has been issued under the provisions of the Bond Resolution described in the text of this Bond; and that this Bond has been issued in conversion or replacement of, or in exchange for, a bond, bonds, or a portion of a bond or bonds of a Series which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Date of authentication: \_\_\_\_\_, \_\_\_\_\_

Paying Agent/Registrar

By: \_\_\_\_\_  
Authorized Signatory

(c) Form of Assignment.

ASSIGNMENT  
(Please print or type clearly)

For value received, the undersigned hereby sells, assigns and transfers  
unto: \_\_\_\_\_

Transferee's Social Security or Taxpayer Identification Number: \_\_\_\_\_

Transferee's name and address, including zip code: \_\_\_\_\_

the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints  
\_\_\_\_\_, attorney, to register the transfer of  
the within Bond on the books kept for registration thereof, with full power of substitution in the premises.

Dated: \_\_\_\_\_.

Signature Guaranteed:

\_\_\_\_\_  
NOTICE: Signature(s) must be guaranteed by an  
eligible guarantor institution participating in a  
securities transfer association recognized signature  
guarantee program.

\_\_\_\_\_  
NOTICE: The signature above must correspond with  
the name of the Registered Owner as it appears upon  
the front of this Bond in every particular, without  
alteration or enlargement or any change whatsoever.

(d) Form of Registration Certificate of the Comptroller of Public Accounts.

REGISTRATION CERTIFICATE OF  
COMPTROLLER OF PUBLIC ACCOUNTS

OFFICE OF THE COMPTROLLER                    §  
OF PUBLIC ACCOUNTS                            §                   REGISTER NO. \_\_\_\_\_  
OF THE STATE OF TEXAS                        §

I hereby certify that there is on file and of record in my office a true and correct copy of the opinion  
of the Attorney General of the State of Texas approving this Bond and that this Bond has been registered this  
day by me.

WITNESS MY SIGNATURE AND SEAL this \_\_\_\_\_.  
\_\_\_\_\_

Texas

(COMPTROLLER'S SEAL)

(e) Insertions for the initial Bond.

(i) The initial Bond shall be in the form set forth in paragraph (a) of this Section, except that:

(A) immediately under the name of the Bond, the headings "INTEREST RATE" and "MATURITY DATE" shall both be completed with the words "As shown below" and "CUSIP NO. \_\_\_\_\_" shall be deleted.

(B) the first paragraph shall be deleted and the following will be inserted:

"Palo Pinto County Municipal Water District No. 1 (the "Issuer"), being a political subdivision located in Palo Pinto and Parker Counties, Texas, hereby promises to pay to the Registered Owner specified above, or registered assigns (hereinafter called the "Registered Owner"), on the dates, in the principal installments and bearing interest at the per annum rates set forth in the following schedule:

<u>Maturity Dates</u>	<u>Principal Installments</u>	<u>Interest Rates</u>
-----------------------	-------------------------------	-----------------------

(Information for the Bonds from Section 3 to be inserted)

The Issuer promises to pay interest on the unpaid principal amount hereof (calculated on the basis of a 360-day year of twelve 30-day months) from the Delivery Date specified above at the respective Interest Rate per annum specified above. Interest is payable on June 1, 2016, and on each December 1 and June 1 thereafter to the date of payment of the principal installment specified above, or the date of redemption prior to maturity; except, that if this Bond is required to be authenticated and the date of its authentication is later than the first Record Date (hereinafter defined), such principal amount shall bear interest from the interest payment date next preceding the date of authentication, unless such date of authentication is after any Record Date but on or before the next following interest payment date, in which case such principal amount shall bear interest from such next following interest payment date; provided, however, that if on the date of authentication hereof the interest on the Bond or Bonds, if any, for which this Bond is being exchanged is due but has not been paid, then this Bond shall bear interest from the date to which such interest has been paid in full."

(C) The initial Bond shall be numbered "T-1."

Section 6. PLEDGE OF REVENUES The Issuer covenants and agrees that the Parity Obligations, and the interest thereon, are and shall be secured by and payable from a first lien on and pledge of the Pledged Revenues, including specifically the payments to be received by the Issuer from the Water Purchase Contract and the supplement on modification thereof.

Section 7. REVENUES AND APPLICATION THEREOF

(a) Funds. There have been created the following funds and accounts:

(1) The "Revenue Fund" to be kept with the Depository.

(2) The "Debt Service Fund" for the Parity Obligations to be kept with the Depository. This Fund shall be used for the payment of interest on and principal of the Parity Obligations, and any Additional Bonds issued pursuant to this Resolution.

(3) The "Reserve Fund" for the Parity Obligations to be kept with the Depository. Monies in this Fund shall be used for the payment of interest on and principal of the Parity Obligations, including amounts owed with respect to any Reserve Fund Obligation when money in the Debt Service Fund is inadequate for that purpose.

(4) The "Contingency Fund" to be kept with the Depository. This Fund may be used to pay for any extraordinary or nonrecurring expenses of operation or maintenance, and for replacements and repairs if such expenses should become necessary. Money in this Fund not encumbered for such purposes shall be used for payment of interest on and principal of Parity Obligations, when the Debt Service Fund is not adequate for that purpose.

(5) The "Surplus Fund" to be kept with the Depository. This Fund shall be used for payment of interest on and principal of Parity Obligations, if there are insufficient funds in the Debt Service Fund, Reserve Fund and Contingency Fund for the Parity Obligations for that purpose, and if not needed for such purpose the monies in this Fund may be used for any lawful purposes including repairs, replacements and improvements to the Issuer's facilities.

(b) Revenue Fund. All gross revenues of every nature including the payments to be received from the Water Purchase Contract, shall be deposited as collected into the Revenue Fund, and the reasonable, necessary, and proper maintenance and operation expenses shall be paid from the Revenue Fund. The revenues not actually required to pay said Operation and Maintenance Expenses shall be deposited from the Revenue Fund first into the funds created by the Resolutions for the Parity Obligations, in the manner and amounts hereinafter provided and each of the Funds shall have priority as to such deposits in the order in which they are treated in the following sections.

(c) Debt Service Fund for the Parity Obligations. There shall be deposited into the Debt Service Fund such amounts as required to be transferred to this Fund established herein; these accounts shall be on absolute parity and equality of lien with the deposits in this Fund and such amounts shall be sufficient to provide transfers to the following accounts, as follows:

(i) such amounts, in substantially semiannual installments, made on or before the 25<sup>th</sup> of each May and November hereafter, which will be sufficient to pay the interest scheduled to come due on the Parity Obligations on the next interest payment date;

(ii) such amounts, in substantially semiannual installments, made on or before the 25th day of each May and November hereafter, commencing on May 25 of the month subsequent to the delivery date of the Bonds, will be sufficient to pay the next maturing principal or mandatory redemption on the Parity Obligations.

(iii) Chapter 1208, Government Code, applies to the issuance of the Bonds and the pledge of the revenues granted by the Issuer under this Section, and is therefore valid, effective, and perfected. Should Texas law be amended at any time while the Bonds are outstanding and unpaid, the result of such amendment being that the pledge of the revenues granted by the Issuer under this Section is to be subject to the filing requirements of Chapter 9, Business & Commerce Code, in order to preserve to the registered owners of the Bonds a security interest in said pledge, the Issuer agrees to take such measures as it determines are reasonable and necessary under Texas law to comply with

the applicable provisions of Chapter 9, Business & Commerce Code and enable a filing of a security interest in said pledge to occur.

(d) Reserve Fund for the Parity Obligations. The following provisions shall govern the establishment, maintenance and use of the Issuer's Reserve Fund (the "Reserve Fund"):

(i) There shall be established and maintained a Reserve Fund for the purposes of (i) finally retiring the last of the Parity Obligations, and (ii) paying principal of and interest on the Parity Obligations in the event moneys on deposit in the Debt Service Fund are insufficient for such purpose.

(ii) The Issuer shall deposit in the Reserve Fund on the 25th day of each month, commencing July 25 of the month subsequent to the delivery of the Bonds, in substantially equal monthly deposits, an amount which will accumulate, in not more than 60 months, the increase in the Required Reserve Amount resulting from the issuance of the Bonds.

(iii) In the event money in said Reserve Fund is used for the purpose for which the same is established, the amount required to make up the deficiency so that the Required Reserve Amount is on deposit in such Fund shall be paid into such Fund in not more than 60 months, in equal consecutive monthly installments. The Depository of the Issuer is designated as the custodian of the Reserve Fund and the deposits above prescribed shall be deposited into the Reserve Fund.

(e) Contingency Fund. There has previously been deposited into the Contingency Fund \$200,000. In addition, the Issuer agreed for the benefit of the Series 2009A Bonds and Series 2009B Bonds to deposit on the 25<sup>th</sup> day of each month the amount of \$417 until the Contingency Fund contains an additional \$50,000. No deposits shall be required to be made into the Contingency Fund as long as the Contingency Fund contains said aggregate amount, but if and whenever said Contingency Fund is reduced below said aggregate amount, the monthly deposits on the 25<sup>th</sup> day of each month beginning the month after the withdrawal from this fund in the amount of \$2,084 shall be deposited into the Contingency Fund until such time as the Contingency Fund has been restored to said aggregate amount. The Depository of the Issuer is designated as the custodian of this Contingency Fund and deposits above prescribed shall be deposited into this Contingency Fund.

(f) Surplus Fund. There shall be deposited into the Surplus Fund on the 1<sup>st</sup> day of each October hereafter any surplus monies remaining in the Revenue Fund from the previous completed fiscal year, and maybe used for any lawful purposes of the Issuer.

(g) Deficiencies in Fund. If in any month the Issuer shall fail to deposit into any of the aforesaid funds the full amounts required, amounts equivalent to such deficiencies shall be set apart and paid into said Funds from the first available and unallocated funds available for such purposes for the following month or months, and such payments shall be in addition to the amount otherwise required to be paid into said Funds during such month or months.

(h) Security for Funds. The Issuer shall cause the Depository to secure and keep secured, in the manner required by law, all funds on deposit with it, including time deposits, and will cause the Paying Agent/Registrar to secure all funds deposited with it, as other trust funds are secured.

(i) Investments. Money in all Funds created pursuant to this Resolution may be invested and reinvested as directed by the Issuer, in direct obligations of, or obligations of the principal of and interest on which are unconditionally guaranteed by, the United States Government, which shall mature, or which shall be subject to redemption by the holder thereof, at the option of such holder, before the next payment is

required to be made from such Funds, respectively, pursuant to Public Funds Investment Act Chapter 2256, Texas Government Code. Money in any of said Funds may also be placed in interest bearing deposits in the banks in which deposits are required to be kept. The interest and realized income on such investments shall be deposited into the Fund producing the earning when the Fund does not contain the total amount of required or permitted to be on deposit therein, otherwise the interest and realized income shall be deposited into the Revenue Fund.

## Section 8. BUDGETS AND ACCOUNTING

(a) Preparation of Budget. The Issuer in advance of each Fiscal Year, and in accordance with the Contract, shall prepare and keep on file an annual budget (herein called "Annual Budget") of Operation and Maintenance Expenses for the ensuing Fiscal Year, and except as otherwise required in Subsection (b) of this Section, the total expenditures in any division thereof shall not exceed the total expenditures in the corresponding division of the Annual Budget. The Paying Agent/Registrar shall not be obligated to determine whether funds are expended in an amount in excess of the amounts provided in the Annual Budget.

(b) Amendment. The Issuer covenants that the current Operation and Maintenance Expenses incurred in any Fiscal Year will not exceed the reasonable and necessary amount of such expense, and that it will not expend any amount, or incur any obligation for maintenance, repair, and operation in excess of the amounts provided for current Maintenance and Operation Expenses in the Annual Budget; provided, however, that if at any time the Board shall determine that it is necessary, due to unforeseen events, to increase the budget in order to pay for unusual operation and maintenance expenses, the Board, by Resolution, may amend the budget with the approval of the City, if the Contract is still in effect, to provide for the increased budget. The Water Charge shall be increased accordingly. The former year's budgeted Operation and Maintenance Expenses shall be extended during the period when a new budget is under consideration.

(c) Accounting and Reporting. The Issuer covenants that proper books of records and accounts will be kept in which full, true, and correct entries will be made of all income, expenses, and transactions of and in relation to the works, and facilities of the Issuer, and each and every part thereof. The report of the certified public accountant shall include a list of insurance policies then in effect and a record of water sold the Issuer's customers.

(d) Public Inspection. The Issuer further covenants and agrees that the works and facilities and each and every part thereof, and all books, records, accounts, documents and vouchers relating to the construction, operation, maintenance, repair, improvement and extension thereof, will at all reasonable times be open to inspection of owners of the Bonds and their representatives.

## Section 9. GENERAL COVENANTS

(a) Payment of Bonds and Interest. The Issuer covenants and agrees that, out of Pledged Revenues, it will duly and punctually pay or cause to be paid the principal of, and interest on the Parity Obligations, on the date and at the office of the Paying Agent/Registrar, according to the real intent and meaning thereof, and that it will faithfully do and perform and at all times fully observe any and all covenants, undertakings, and provisions contained herein or in any Bond.

(b) Legal Ability. The Issuer represents that it is a conservation and reclamation district, and a governmental agency and body politic and corporate, duly created, organized and existing under the Constitution and laws of the State of Texas and has proper authority from all other public bodies and authorities, if any, having jurisdiction thereof, to pledge its revenues in the manner and form as herein done or intended, and all corporate action on its part to that end has been duly and validly taken. The Issuer



covenants and agrees that it will at all times maintain its corporate existence and maintain a lawful Board of Directors, and at all times function and act in the best interest of the Issuer and the bondholders.

(c) No Other Liens. The Issuer further covenants that there is not now outstanding and that the Issuer will, not at any time create or allow to exist, any lien upon its works and facilities, or any part thereof, or the Revenues, or any of the Funds herein created, except as authorized by Article VIII of this Resolution, other than Reserve Fund Obligations, if any, that the security of the Parity Obligations will not be impaired in any way as a result of any action or any action on the part of the Issuer, its Board of Directors or officers, or any thereof, and that the Issuer has and will be subject to the provisions hereof, continuously preserve good and indefeasible title to the properties of the Issuer.

(d) Keep Franchises and Permits in Effect. The Issuer further covenants that no franchises, permits, contracts privileges, easements, or water rights will, be allowed to lapse or be forfeited so long as the same shall be necessary for the proper operation of the works and facilities of the Issuer.

(e) Governmental Requirements, Liens, Claims. The Issuer covenants that it will duly observe and comply with all valid requirements of any governmental authority relative to the works and facilities of the Issuer, or any part thereof, and that it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies, or other objects which if unpaid, might by law become a lien upon such work and facilities or any part thereof or the revenues therefrom; provided, however, that nothing contained in this Section shall be required of the Issuer to pay or cause to be discharged, or make provision for any such lien or charge, as long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

(f) Further Assurance. The Issuer covenants that it will take such further action as may be required to carry out the purposes of this Resolution and to assure its validity.

(g) Sale and Lease of Property.

(i) The Issuer covenants that so long as any Bonds are outstanding and except as in this Section otherwise permitted, it will not sell, lease or otherwise dispose of or encumber any part of its works and facilities, or any of the Revenues derived therefrom, except as provided herein. The Issuer may from time to time sell any machinery, fixtures, apparatus, tools, instruments, or other movable property and any materials used in connection therewith, if the Board shall determine that such articles are no longer needed or are no longer useful in connection with the consideration and maintenance of its works and facilities. The Issuer may from time to time sell such real estate that is not needed or serves no useful purpose in connection with the maintenance and operation of the works and facilities of the Issuer. The proceeds of any sale of real or personal property acquired subsequent to the adoption of this Resolution, from the proceeds of Bonds or from Revenues shall be deposited into the Fund or Funds from which money was used for the acquisition of such property if required for such Fund or Funds; otherwise, such proceeds shall be deposited into the Revenue Fund.

(ii) The Issuer may lease any of its land for any purpose, if such lease or the use of such lands will not be detrimental to the operation and maintenance of the works and facilities of the Issuer. It may also Lease any of its real property for oil, gas and mineral purposes. No lease shall be made which will result in any damage to or substantial diminution of the value of other property in the Issuer, or which will in any manner divert, endanger, or contaminate the Issuer's water supply or water transportation facilities. All rentals, revenues, receipts and royalties derived by the Issuer from any and all leases so made shall be placed in the Revenue Fund.

(iii) It is covenanted and agreed by the Issuer that no such property of any nature shall be sold or leased by the Issuer unless, prior to any act on taken by the Issuer concerning such sale or leasing, the Issuer shall procure the advice and recommendation in writing of the independent, consulting engineer concerning such proposed sale or leasing. The Issuer covenants that it will follow such advice and recommendations.

(h) Independent Consulting Engineer.

(i) The Issuer covenants that, until all Bonds and the interest thereon shall have been paid or provision for such payment shall have been made, it will, for the purpose of performing and carrying out the duties imposed on the Independent Consulting Engineer by this Resolution employ an independent engineering firm of engineering firm or corporation having a favorable repute for skill and experience in such work.

(ii) The Issuer covenants that it will at all appropriate times and at least every three years, beginning January 1, 2010, cause the Independent Consulting Engineer to submit in writing, and give all necessary or desirable advice and recommendations concerning renewals, replacements, extensions, betterment, and improvements for the works and facilities of the Issuer, to the end that the works and facilities shall be operated and maintained in the most efficient and satisfactory manner.

(iii) The expenses incurred under this Subsection shall constitute Maintenance and Operation Expenses.

(i) Rates and Charges. The Issuer covenants that at all times it will maintain a water charge and rates, fees and charges for services furnished by it, and that from time to time as often as it shall appear necessary it will adjust such rates, fees and charges as may be necessary or proper, so that such fees and charges will be fully sufficient to produce revenues during such Fiscal Year which will be adequate to pay all Operation and Maintenance Expenses during such Fiscal Year, and provide revenues during such Fiscal Year in an amount at least one times the amount necessary to make all payments due hereunder for payment of principal of and interest on the Parity Obligations, and to establish the funds herein prescribed and the payment of Reserve Fund Obligation Payments, if any. The Issuer further covenants that if at any time the revenues collected for the services furnished by it are inadequate to satisfy this covenant, the Issuer shall adjust the rates, fees and charges in order that such deficiencies shall be made up before the end of the next ensuing Fiscal Year.

(j) Water Sale Contracts. The Issuer will not make any contract for the sale of water at a price which would require a reduction of charges to be made for water sold under any contract theretofore made.

## Section 10. INSURANCE

(a) Insurance Coverage. The Issuer covenants that it will at all times keep insured such of its water supply facilities as are usually insured by corporations operating like properties, with a responsible insurance company or companies against risks, accidents, or casualties against which and to the extent insurance is usually carried by corporations operating like properties, including (but only if such insurance can be procured at reasonable cost) insurance against damage by floods, and will also at all times maintain workmen's compensation insurance, in a reasonable amount with responsible insurance companies. Public liability and property damage insurance shall also be carried unless the general counsel for the Issuer or the Attorney General of Texas, issues a written opinion that Issuer would be immune from claims which would be protected by such insurance provided, however, that at any time while any contractor engaged in

construction work shall be fully responsible therefor, the Issuer shall not be required to carry such insurance. All such policies shall be open to the inspection of the Bondholders and their representatives at all reasonable times.

(b) Insurance Proceeds. In the event of any loss or damage, the Issuer covenants that it will reconstruct or repair the destroyed or damaged portion of the property and will apply the proceeds of the insurance proceeds covering such loss or damage solely for that purpose. The Issuer covenants that it will begin such work or reconstruction or repair promptly after such loss or damage shall occur and will continue and properly complete the same as expeditiously as possible and will pay or cause to be paid all costs and expenses in connection therewith so that the same shall be so completed and the property be free and clear of all mechanics and other liens and claims. The Issuer agrees that it will procure the advise and recommendation in writing of the independent consulting engineer concerning such reconstruction before it is undertaken.

(c) Unused Insurance Proceeds. Any insurance proceeds remaining after the completion of and payment for any such reconstruction or repair shall be deposited to the credit of the Revenue Fund.

#### Section 11. ADDITIONAL BONDS

(a) Completion Bonds. The Issuer reserves the right to issue Completion Bonds, payable from and secured by a pledge of the Pledged Revenues, on a parity of lien with the Bonds, whether or not additionally secured by a tax levy. The Completion Bonds may be issued in one or more series of installments, and from time to time as authorized by the Issuer.

(b) Improvement Bonds. The Issuer reserves the right to issue Improvement Bonds, which, when issued and delivered, shall be payable from and secured by Pledged Revenues of the Issuer, and may be additionally secured by a tax levy. The lien on Pledged Revenues for the payment of Improvement Bonds may be on a parity with the lien for the Parity Obligations, or inferior to such lien. The Improvement Bonds may be issued in one or more installments or series, provided, however, that no installment or series of Improvement Bonds, if it is on a parity with the lien on the Parity Obligations shall be issued unless:

(i) a certificate is executed by the President and Secretary of the Issuer to the effect that no default exists in connection with any of the covenants or requirements of the Resolution authorizing the issuance of all then outstanding Bonds which are secured by revenues.

(ii) a certificate is executed by the President and Secretary of the Issuer to the effect that the Debt Service Fund and the Reserve Fund contain the amounts then required to be on deposit therein.

(iii) the then proposed Improvement Bonds are made to mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

(iv) a certificate or opinion from a certified public accountant showing that the Pledged Revenues for either (a) the last completed Fiscal Year, or (b) a consecutive twelve-month calendar period ending not more than 90 days preceding the adoption of the Resolution authorizing the issuance of Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Parity Obligations which will be outstanding after giving effect to the issuance of the Additional Bonds then being issued as certified by a certified public accountant, or the Issuer has secured from a certified public accountant or professional engineer a certificate of opinion showing that the Net Revenues for a twelve-month calendar period, based on rates and charges for services and facilities afforded by the System that became effective at least sixty (60) days prior to the month

in which the Resolution authorizing the issuance of the Additional Bonds is adopted, are equal to at least 1.25 times the Average Annual Debt Service of all Parity Obligations which will be outstanding after giving effect to the issuance of the Additional Bonds being issued pursuant to this Resolution.

(c) Special Project Bonds. Special Project Bonds payable from and secured by revenues or by both revenues and taxes may be issued by the Issuer for the purposes of providing additional supply lines and facilities, to enable the Issuer to sell water to other users, provided that such Special Project Bonds are not payable from or secured by a pledge of Revenues which were pledged herein to the payment of the Bonds or Completion or Improvement Bonds. All revenues of such project in excess of those required to pay operation and maintenance expenses, and principal and interest as they become due and to create and maintain reserve funds as provided in the Resolution authorizing such Special Project Bonds, and all net revenues of the project after full payment of the Special Project Bonds, or any bonds issued to refund them, shall be deposited into the Revenue Fund.

(d) Refunding Bonds. Refunding Bonds maybe authorized by the Issuer to refund all or any part of the Issuer's outstanding Bonds, upon such terms and conditions as the Board of Directors deems to be in the best interest of the Issuer.

(e) Increase in Reserve Fund. If Completion Bonds or Improvement Bonds are issued, the maximum amount required to be deposited and maintained in the Reserve Fund shall be increased to an amount equivalent to not less than the average annual debt service requirements for all the Outstanding Parity Obligations, Completion Bonds, Improvement Bonds and proposed Parity Obligations, and that such additional amount shall be accumulated within sixty-one (61) months from the date of the Completion or Improvement Bonds, by the deposit in the Reserve Fund of the necessary sums in equal monthly installments; unless a Reserve Fund Obligation is acquired, provided, however, that the aggregate amount to be accumulated in the Reserve Fund shall never be required to exceed the average annual debt service requirements for all then outstanding Bonds, Completion Bonds or Improvement Bonds, and for the installment or series of Completion Bonds or Improvement Bonds then proposed to be issued.

(f) Authorization. Completion Bonds, Improvement Bonds and Refunding Bonds permitted by this Article to be issued shall be authorized by resolutions by the Board of Directors which shall prescribe the form and terms of such Bonds.

(g) Maturities. Bonds issued under this Article shall mature on June 1 or December 1, or both, of each of the years in which they are scheduled to mature.

(h) Tax Bonds. No provisions in this Resolution shall in any way affect the statutory right of the Issuer to issue bonds supported wholly by ad valorem taxes.

## Section 12. DEFEASANCE OF BONDS.

(a) Any Bond and the interest thereon shall be deemed to be paid, retired and no longer outstanding (a "Defeased Bond") within the meaning of this Resolution, except to the extent provided in subsection (d) of this Section, when payment of the principal of such Bond, plus interest thereon to the due date (whether such due date be by reason of maturity or otherwise) either (i) shall have been made or caused to be made in accordance with the terms thereof, or (ii) shall have been provided for on or before such due date by irrevocably depositing with or making available to the Paying Agent/Registrar in accordance with an escrow agreement or other instrument (the "Future Escrow Agreement") for such payment (1) lawful money of the United States of America sufficient to make such payment or (2) Defeasance Securities that mature as to principal and interest in such amounts and at such times as will insure the availability, without reinvestment,

of sufficient money to provide for such payment, and when proper arrangements have been made by the Issuer with the Paying Agent/Registrar for the payment of its services until all Defeased Bonds shall have become due and payable. At such time as a Bond shall be deemed to be a Defeased Bond hereunder, as aforesaid, such Bond and the interest thereon shall no longer be secured by, payable from, or entitled to the benefits of, the ad valorem taxes herein levied and pledged or the pledge of Surplus Revenues as provided in this Resolution, and such principal and interest shall be payable solely from such money or Defeasance Securities. Notwithstanding any other provision of this Resolution to the contrary, it is hereby provided that any determination not to redeem Defeased Bonds that is made in conjunction with the payment arrangements specified in Subsections (a)(i) or (ii) of this Section shall not be irrevocable, provided that: (1) in the proceedings providing for such payment arrangements, the Issuer expressly reserves the right to call the Defeased Bonds for redemption; (2) gives notice of the reservation of that right to the owners of the Defeased Bonds immediately following the making of the payment arrangements; and (3) directs that notice of the reservation be included in any redemption notices that it authorizes.

(b) Any moneys so deposited with the Paying Agent/Registrar may at the written direction of the Issuer be invested in Defeasance Securities, maturing in the amounts and times as hereinbefore set forth, and all income from such Defeasance Securities received by the Paying Agent/Registrar that is not required for the payment of the Bonds and interest thereon, with respect to which such money has been so deposited, shall be turned over to the Issuer, or deposited as directed in writing by the Issuer. Any Future Escrow Agreement pursuant to which the money and/or Defeasance Securities are held for the payment of Defeased Bonds may contain provisions permitting the investment or reinvestment of such moneys in Defeasance Securities or the substitution of other Defeasance Securities upon the satisfaction of the requirements specified in Subsections (a)(i) or (ii) of this Section. All income from such Defeasance Securities received by the Paying Agent/Registrar which is not required for the payment of the Defeased Bonds, with respect to which such money has been so deposited, shall be remitted to the Issuer or deposited as directed in writing by the Issuer.

(c) The term "Defeasance Securities" means any securities and obligations now or hereafter authorized by State law that are eligible to refund, retire or otherwise discharge obligations such as the Bonds.

(d) Until all Defeased Bonds shall have become due and payable, the Paying Agent/Registrar shall perform the services of Paying Agent/Registrar for such Defeased Bonds the same as if they had not been defeased, and the Issuer shall make proper arrangements to provide and pay for such services as required by this Resolution.

(e) In the event that the Issuer elects to defease less than all of the principal amount of Bonds of a maturity, the Paying Agent/Registrar shall select, or cause to be selected, such amount of Bonds by such random method as it deems fair and appropriate.

(f) So long as the Texas Water Development Board is the registered owner of any of the Bonds, the Issuer shall provide written notice to the Texas Water Development Board of a defeasance of the Bonds pursuant to subsection (a)(ii) of this Section.

### Section 13. AMENDMENTS

(a) Bondholder Approval. The owners of Bonds aggregating in principal amount three-fourths of the aggregate principal amount of Bonds at the time Outstanding shall have the right from time to time to approve an amendment of this Resolution which maybe deemed necessary or desirable by the Issuer, provided, however, that nothing herein contained shall permit or be construed to permit the amendment of the terms and conditions contained in this Resolution or in the Bonds, unless consent of all Bond owners is obtained so as to:

- (i) make any change in the maturity of any outstanding Bonds;
- (ii) reduce the rate of interest borne by any of the outstanding Bonds;
- (iii) reduce the amount of the principal payable on any Outstanding Bonds;
- (iv) modify the terms of payment of principal of or interest on the outstanding Bonds or any of them or impose any conditions with respect to such payment;
- (v) change the minimum percentage of the principal of or interest on the outstanding Bonds or any of them, or impose any conditions with respect to such payment.

(b) Other Amendments. The Issuer may from time to time, without the consent of any owner of Bond, except as otherwise required by paragraph (a) above, amend or supplement this Resolution to (i) cure any ambiguity, defect or omission in this Resolution that does not materially adversely affect the interests of the owners, (ii) grant additional rights or security for the benefit of the owners, (iii) add events of default as shall not be inconsistent with the provisions of this Resolution and that shall not materially adversely affect the interests of the owners, (v) qualify this Resolution under the Trust Indenture Act of 1939, as amended, or corresponding provisions of federal laws from time to time in effect, or (iv) make such other provisions in regard to matters or questions arising under this Resolution as shall not be materially inconsistent with the provisions of the Resolution and that shall not, in the opinion of nationally-recognized bond counsel, materially adversely affect the interests of the owners of bonds. Notice of this amendment shall be given to the Bond Insurer.

(c) Notice Required. If at any time the Issuer shall desire to amend the Resolution under this Article, the Issuer shall cause notice of the proposed amendment to be delivered to the Paying Agent/Registrar to be mailed by first class mail to each registered Bond owner. Such notice shall briefly set forth the nature of the proposed amendment and shall state that a copy thereof is on file at the principal offices of the Paying Agent/Registrar for inspection by the owner of the Bonds, a copy of the proposed amendment shall be filed with the Paying Agent/Registrar at the time of the mailing of the notice. Notice must also be given to the Bond Insurer. Such mailing and the filing of a copy of the proposed amendment are not required, however, if notice in writing is given to each holder of the Bonds.

(d) Adoption of Amendment. Whenever at any time not less than thirty (30) days and within one year from the date of the mailing of said notice, the Issuer shall receive an instrument or instruments executed by the holders of at least three-fourths in aggregate principal amount of the Bonds, which instrument or instruments shall refer to the proposed amendment described in said notice and which specifically consent to and approve such amendment in substantially the form of the copy thereof on file with the Paying Agent/Registrar, the Issuer may adopt the amendatory resolution in substantially the same form.

(e) Effective upon Adoption. Upon the adoption of any amendatory resolution pursuant to the provisions of this Article, the Resolution shall be deemed to be amended in accordance with such amendatory resolution, and the respective rights, duties and obligations under the Resolution of the Issuer, and all the holders of outstanding Bonds shall thereafter be determined, exercised, and enforced hereunder, subject in all respects to such amendments.

(f) Revocation of Consent. Any consent given by the holder of a bond pursuant to the provisions of this Article shall be irrevocable for a period of six months from the date of the first mailing of the notice provided for in this Article, and shall be conclusive and binding upon all future holders of the same bond during such period. Such consent may be revoked at any time after six months from the date of the first

mailing of such notice by the holders of such consent, or by a successor in title, by filing notice thereof with the Paying Agent/Registrar and the Issuer, but such revocation shall not be effective if the holders of the required principal amount of the bonds have, prior to the attempted revocation, consented to and approved the amendment.

#### Section 14. DAMAGED, MUTILATED, LOST, STOLEN, OR DESTROYED BONDS.

(a) Replacement Bonds. In the event any outstanding Bond is damaged, mutilated, lost, stolen, or destroyed, the Paying Agent/Registrar shall cause to be printed, executed, and delivered, a new bond of the same principal amount, maturity, and interest rate, as the damaged, mutilated, lost, stolen, or destroyed Bond, in replacement for such Bond in the manner hereinafter provided.

(b) Application for Replacement Bonds. Application for replacement of damaged, mutilated, lost, stolen, or destroyed Bonds shall be made by the registered owner thereof to the Paying Agent/Registrar. In every case of loss, theft, or destruction of a Bond, the registered owner applying for a replacement bond shall furnish to the Issuer and to the Paying Agent/Registrar such security or indemnity as may be required by them to save each of them harmless from any loss or damage with respect thereto. Also, in every case of loss, theft, or destruction of a Bond, the registered owner shall furnish to the Issuer and to the Paying Agent/Registrar evidence to their satisfaction of the loss, theft, or destruction of such Bond, as the case may be. In every case of damage or mutilation of a Bond, the registered owner shall surrender to the Paying Agent/Registrar for cancellation the Bond so damaged or mutilated.

(c) No Default Occurred. Notwithstanding the foregoing provisions of this Section, in the event any such Bond shall have matured, and no default has occurred which is then continuing in the payment of the principal of, redemption premium, if any, or interest on the Bond, the Issuer may authorize the payment of the same (without surrender thereof except in the case of a damaged or mutilated Bond) instead of issuing a replacement Bond, provided security or indemnity is furnished as above provided in this Section.

(d) Charge for Issuing Replacement Bonds. Prior to the issuance of any replacement bond, the Paying Agent/Registrar shall charge the registered owner of such Bond with all legal, printing, and other expenses in connection therewith. Every replacement bond issued pursuant to the provisions of this Section by virtue of the fact that any Bond is lost, stolen, or destroyed shall constitute a contractual obligation of the Issuer whether or not the lost, stolen, or destroyed Bond shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Resolution equally and proportionately with any and all other Bonds duly issued under this Resolution.

(e) Authority for Issuing Replacement Bonds. In accordance with Chapter 1207 of the Texas Government Code, this Section of this Resolution shall constitute authority for the issuance of any such replacement bond without necessity of further action by the governing body of the Issuer or any other body or person, and the duty of the replacement of such bonds is hereby authorized and imposed upon the Paying Agent/Registrar, and the Paying Agent/Registrar shall authenticate and deliver such bonds in the form and manner and with the effect, as provided in Section 4 of this Resolution for Bonds issued in conversion and exchange for other Bonds.

Section 15. CUSTODY, APPROVAL, AND REGISTRATION OF BONDS; BOND COUNSEL'S OPINION; CUSIP NUMBERS; AND CONTINGENT INSURANCE PROVISION, IF OBTAINED. The President of the Board of Directors of the Issuer is hereby authorized to have control of the Initial Bond issued hereunder and all necessary records and proceedings pertaining to the Initial Bond pending its delivery and its investigation, examination, and approval by the Attorney General of the State of Texas, and its registration by the Comptroller of Public Accounts of the State of Texas. Upon registration of the Initial



Bond said Comptroller of Public Accounts (or a deputy designated in writing to act for said Comptroller) shall manually sign the Comptroller's Registration Certificate on the Initial Bond, and the seal of said Comptroller shall be impressed, or placed in facsimile, on the Initial Bond. In addition, if bond insurance is obtained, the Bonds may bear an appropriate legend as provided by the Insurer.

Section 16. TAX EXEMPTION. The Issuer does not intend to issue the Bonds in a manner such that the Bonds would constitute obligations described in section 103(a) of the Internal Revenue Code of 1986 and all applicable temporary, proposed and final regulations and procedures promulgated thereunder or promulgated under the Internal Revenue Code of 1954, to the extent applicable to the Code.

Section 17. CONTINUING DISCLOSURE.

(a) Definitions. As used in this Section, the following terms have the meanings ascribed to such terms below:

"MSRB" means the Municipal Securities Rulemaking Board.

"Rule" means SEC Rule 15c2-12, as amended from time to time.

"SEC" means the United States Securities and Exchange Commission.

(b) Annual Reports.

(i) The Issuer shall provide annually to the MSRB, in an electronic format as prescribed by the MSRB, within six months after the end of each fiscal year, financial information and operating data with respect to the Issuer of the general type included described in Exhibit A hereto. Any financial statements so to be provided shall be (1) prepared in accordance with the accounting principles described in Exhibit a hereto, or such other accounting principles as the Issuer may be required to employ from time to time pursuant to state law or regulation, and (2) audited, if the Issuer commissions an audit of such statements and the audit is completed within the period during which they must be provided. If the audit of such financial statements is not complete within such period, then the Issuer shall provide unaudited financial information by the required time, and shall provide audited financial statements for the applicable fiscal year to the MSRB, when and if the audit report on such statements become available.

(ii) If the Issuer changes its fiscal year, it will notify the MSRB of the change (and of the date of the new fiscal year end) prior to the next date by which the Issuer otherwise would be required to provide financial information and operating data pursuant to this Section. The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document that is available to the public on the MSRB's internet website or filed with the SEC. All documents provided to the MSRB pursuant to this Section shall be accompanied by identifying information as prescribed by the MSRB.

(c) Event Notices.

(i) The Issuer shall notify the MSRB in an electronic format as prescribed by the MSRB, in a timely manner (but not in excess of ten business days after the occurrence of the event) of any of the following events with respect to the Bonds, if such event is material within the meaning of the federal securities laws:

1. Non-payment related defaults;
2. Modifications to rights of Bondholders;
3. Bond calls;
4. Release, substitution, or sale of property securing repayment of the Bonds;

5. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; and

6. Appointment of a successor or additional trustee or the change of name of a trustee.

(ii) The Issuer shall notify the MSRB in an electronic format as prescribed by the MSRB, in a timely manner (but not in excess of ten business days after the occurrence of the event) of any of the following events with respect to the Bonds, without regard to whether such event is considered material within the meaning of the federal securities laws:

1. Principal and interest payment delinquencies;
2. Unscheduled draws on debt service reserves reflecting financial difficulties;
3. Unscheduled draws on credit enhancements reflecting financial difficulties;
4. Substitution of credit or liquidity providers, or their failure to perform;

5. Adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax-exempt status of the Bonds, or other events affecting the tax-exempt status of the Bonds;

6. Tender offers;
7. Defeasances;
8. Rating changes; and
9. Bankruptcy, insolvency, receivership or similar event of an obligated person.

(iii) The Issuer shall notify the MSRB, in a timely manner, of any failure by the Issuer to provide financial information or operating data in accordance with subsection (b) of this Section by the time required by such subsection.

(d) Limitations, Disclaimers, and Amendments.

(i) The Issuer shall be obligated to observe and perform the covenants specified in this Section for so long as, but only for so long as, the Issuer remains an "obligated person" with respect to the Bonds within the meaning of the Rule, except that the Issuer in any event will give notice of any deposit made in accordance with this Resolution or applicable law that causes Bonds no longer to be outstanding.

(ii) The provisions of this Section are for the sole benefit of the Registered Owners and beneficial owners of the Bonds, and nothing in this Section, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The Issuer undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Section and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the Issuer's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Section or otherwise, except as expressly provided herein. The Issuer does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Bonds at any future date.

(iii) UNDER NO CIRCUMSTANCES SHALL THE ISSUER BE LIABLE TO THE REGISTERED OWNER OR BENEFICIAL OWNER OF ANY BOND OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE ISSUER, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS SECTION, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

(iv) No default by the Issuer in observing or performing its obligations under this Section shall comprise a breach of or default under this Resolution for purposes of any other provision of this Resolution. Nothing in this Section is intended or shall act to disclaim, waive, or otherwise limit the duties of the Issuer under federal and state securities laws.

(v) Should the Rule be amended to obligate the Issuer to make filings with or provide notices to entities other than the MSRB, the Issuer hereby agrees to undertake such obligation with respect to the Bonds in accordance with the Rule as amended. The provisions of this Section may be amended by the Issuer from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the Issuer, but only if (1) the provisions of this Section, as so amended, would have permitted an underwriter to purchase or sell Bonds in the primary offering of the Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule since such offering as well as such changed circumstances and (2) either (a) the Registered Owners of a majority in aggregate principal amount (or any greater amount required by any other provision of this Resolution that authorizes such an amendment) of the outstanding Bonds consent to such amendment or (b) a person that is unaffiliated with the Issuer (such as nationally recognized bond counsel) determined that such amendment will not materially impair the interest of the Registered Owners and beneficial owners of the Bonds. The Issuer may also amend or repeal the provisions of this continuing disclosure agreement if the SEC amends or repeals the applicable provision of the Rule or a court of final jurisdiction enters judgment that such provisions of the Rule are invalid, but only if and to the extent that the provisions of this sentence would not prevent an underwriter from lawfully purchasing or selling Bonds in the primary offering of the Bonds. If the Issuer so amends the provisions of this Section, it shall include with any amended financial information or operating data next provided in

accordance with subsection (b) of this Section an explanation, in narrative form, of the reason for the amendment and of the impact of any change in the type of financial information or operating data so provided.

#### Section 18. SALE OF BONDS; USE OF PROCEEDS.

(a) Sale of Bonds. The Bonds are hereby sold to the Texas Water Development Board for the price of par, less an origination fee of \$\_\_\_\_\_ of the principal amount of the Bonds. The Bonds have been purchased by the Texas Water Development Board pursuant to its Resolution No. 15-\_\_\_\_, adopted on \_\_\_\_\_, 2015 ("TWDB Resolution No. 15-\_\_\_\_"). The Private Placement Memorandum prepared in connection with the sale of the Bonds to the Texas Water Development Board in substantially the form presented at this meeting is approved. The Issuer has determined, based upon the advice provided by its financial advisors, that the terms of this sale are the most advantageous reasonably obtainable. The Bonds shall initially be registered in the name of the Texas Water Development Board or its designee.

(b) Notice from Texas Water Development Board of Sale of Bonds. It is the intent of the parties to the sale of the Bonds that if Texas Water Development Board ever determines to sell all or a part of the Bonds, it shall notify the Issuer at least 60 days prior to the sale of the Bonds of the decision to so sell the Bonds.

(c) Proceeds. The proceeds from the sale of the Bonds shall be disbursed in the manner described in the letter of instructions executed by the Issuer, or on behalf of the Issuer by its financial advisor.

(d) Payment by Wire Transfer. Payment of amounts due and owing on the Bonds to the Texas Water Development Board shall be made by wire transfer, at no expense to the Texas Water Development Board, as provided in the FORM OF BOND.

#### Section 19. FURTHER PROCEDURES.

(a) Authorization. The President of the Board and the Secretary/Treasurer of the Issuer shall be and they are hereby expressly authorized, empowered and directed from time to time and at any time to do and perform all such acts and things and to execute, acknowledge and deliver in the name and on behalf of the Issuer all such instruments, whether or not herein mentioned, as may be necessary or desirable in order to carry out the terms and provisions of this Resolution, the Letter of Representations, the Bonds and the sale of the Bonds. Notwithstanding anything to the contrary contained herein, while the Bonds are subject to DTC's Book-Entry Only System and to the extent permitted by law, the Letter of Representations is hereby incorporated herein and its provisions shall prevail over any other provisions of this Resolution in the event of conflict. In case any officer whose signature shall appear on any Bond shall cease to be such officer before the delivery of such Bond, such signature shall nevertheless be valid and sufficient for all purposes the same as if such officer had remained in office until such delivery.

(b) Opinion of Bond Counsel. The obligation of the initial purchaser to accept delivery of the Bonds is subject to the initial Underwriters being furnished with the final, approving opinion of McCall, Parkhurst & Horton L.L.P., bond counsel to the Issuer, which opinion shall be dated as of and delivered on the date of initial delivery of the Bonds to the initial Purchaser. The engagement of such firm as bond counsel to the Issuer in connection with issuance, sale and delivery of the Bonds is hereby approved and confirmed. The execution and delivery of an engagement letter between the Issuer and such firm, with respect to such services as bond counsel, is hereby authorized in such form as may be approved by the President of the Board or the Secretary/Treasurer of the Issuer and the President of the Board or the Secretary/Treasurer of the Issuer are hereby authorized to execute such engagement letter.

Section 20. CONSTRUCTION FUND; SECURITY FOR DEPOSITS.

(a) Construction Fund. The Issuer hereby creates and establishes and shall maintain on the books of the Issuer a separate fund to be entitled the "Series 2015A Bond Construction Fund" (the "Construction Fund") for use by the Issuer for payment of all lawful costs associated with the acquisition and construction of the Project as hereinbefore provided. Upon payment of all such costs, any moneys remaining on deposit in said Fund shall be used for the purposes specified in Section 21(c).

(b) Investment of Construction Fund. The Issuer may place proceeds of the Bonds (including investment earnings thereon) in investments authorized by the Public Funds Investment Act, Chapter 2256, Texas Government Code, as amended; provided, however, that the Issuer hereby covenants that the proceeds of the sale of the Bonds will be used as soon as practicable for the purposes for which the Bonds are issued.

(c) Security for Construction Fund. All deposits authorized or required by this Resolution shall be secured to the fullest extent required by law for the security of public funds as provided in Chapters 2256 and 2257, Texas Government Code, as amended.

Section 21. TEXAS WATER DEVELOPMENT BOARD. The provisions of this Section shall apply so long as the Bonds, or any of them, are owned by the Texas Water Development Board.

(a) Covenant to Abide with Rules and Regulations. The Issuer will abide with all applicable federal laws, rules and regulations, laws of the State of Texas and rules and regulations of the Texas Water Development Board relating to the loan of funds evidenced by the Bonds and the project for which the Bonds are issued, sold and delivered.

(b) Annual Audit Reporting. The Issuer shall have an annual audit prepared in accordance with generally accepted accounting practices and shall provide to the Executive Administrator of the Texas Water Development Board, without the necessity of a written request therefor and without charge, a copy of the annual audit report within 180 days of the close of each Issuer fiscal year. In addition, monthly operating statements for the System shall be maintained by the Issuer and made available, on request, to the TWDB as long as the State of Texas owns any of the Bonds, and the monthly operating statement shall be in such detail as requested by the Development Fund Manager of the TWDB until this requirement is waived thereby. The Issuer covenants that proceeds of the Bonds shall remain separate and distinct from other sources of funding from the date of the TWDB commitment through costing and final disbursement.

(c) Final Accounting. Upon completion of the project to be financed with the proceeds of the Bonds, the Issuer shall render a final accounting of the cost of such project to the Texas Water Development Board, together with a copy of "as built" plans of such improvements and extensions upon completion. If the total cost of such project, as finally completed, is less than originally estimated, so that the proper share of the participation by the Texas Water Development Board in such project is reduced, any surplus proceeds from the Bonds remaining after completion of the project shall be used for the following purposes as approved by the Executive Administrator: (1) to redeem, in inverse annual order, the Bonds owned by the Texas Water Development Board (any remaining excess after such redemption, in an amount less than \$5,000, shall be deposited into the Interest and Sinking Fund ); (2) deposit into the Interest and Sinking Fund or other debt service account for the payment of interest or principal on the Bonds owned by the Texas Water Development Board; or (3) eligible project costs as authorized by the Executive Administrator.

(d) Defeasance. Should the Issuer exercise its right hereunder to effect the defeasance of the Bonds, the Issuer agrees that it will provide the Texas Water Development Board with written notice of any such defeasance.

(e) Prohibition on Use of Proceeds. The Issuer covenants and agrees that none of the proceeds of the Bonds will be expended on costs incurred or to be incurred relating to the sampling, testing, removing or disposing of potentially contaminated soils and/or media at the project site.

(f) Indemnification. The Issuer further agrees, to the extent permitted by law, to indemnify, hold harmless and protect the Texas Water Development Board from any and all claims or causes of action arising from the sampling, analysis, transport, storage, treatment, removal and off-site disposition of any contaminated sewage sludge, contaminated sediments and/or contaminated media that may be generated by the Issuer, its contractors, consultants, agents, officials and employees as a result of activities relating to the Project.

(g) Environmental Determination. In connection with the project financed with the Bonds, the Issuer agrees to implement any environmental determination issued by the Executive Administrator of the Texas Water Development Board to satisfy the environmental review requirements set forth in 31 Texas Administrative Code 371.

(h) Insurance. The Issuer agrees to maintain casualty and other insurance on the Issuer's water system of a kind and in an amount customarily carried by municipal corporations owning and operating similar properties and in an amount sufficient to protect the interests of the Texas Water Development Board in the Project.

(i) Water Conservation Program. The Issuer and adopted and implemented or will adopt and implement an approved water conservation program in accordance with 31 TAC 363.42.

(j) No Purchase of Texas Water Development Board Bonds. The Issuer agrees that it, nor any related party to the Issuer, will not purchase, as an investment or otherwise, bonds issued by the Texas Water Development Board including, without limitation, bonds issued by the Texas Water Development Board, the proceeds of which were used by the Texas Water Development Board to purchase the Bonds.

(k) Compliance with Federal Contracting Law. The Issuer acknowledges that it has a legal obligation to comply with any applicable requirements of federal law relating to contracting with disadvantaged business enterprises.

(l) Compliance with State Contracting Law. The Issuer acknowledges that it has a legal obligation to comply with any applicable requirements of State law relating to contracting with historically underutilized businesses.

## Section 22. ESCROW AGREEMENT AND ESCROW FUND.

(a) Escrow Fund. The Escrow Agreement between the Issuer and the escrow agent named therein (the "Escrow Agent") substantially in the form and content presented at this meeting, specifying the duties and responsibilities of the Issuer and the Escrow Agent, and creating the escrow fund ("the "Escrow Fund"), is hereby approved and the President of the Board is hereby authorized and directed to execute the Escrow Agreement on behalf of the Issuer. The Escrow Agent named in the Escrow Agreement is hereby appointed as the Escrow Agent pursuant to such Escrow Agreement.

(b) Deposits to Escrow Fund. On the closing date, the Issuer shall cause the proceeds from the sale of the Bonds to be deposited into the Escrow Fund or, if agreed to by the Texas Water Development Board, all or a portion of the proceeds of the Bonds may be deposited into the Construction Fund or as otherwise directed by the Issuer and the Texas Water Development Board.

(c) Disbursements from Escrow Fund. Funds shall not be released from the Escrow Fund without written approval by the Executive Administrator of the Texas Water Development Board. Except as provided in Section 18(c), moneys disbursed from the Escrow Fund shall be credit to the Construction Fund created by Section 20 hereof and shall be applied only for the payment of costs of the Project.

(d) Investment and Security for Escrow Fund. The security for, and the investment of, funds on deposit in the Escrow Fund shall be governed by the provisions of the Escrow Agreement.

Section 23. GOVERNING LAW. This Resolution shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

Section 24. SEVERABILITY. If any provision of this Resolution or the application thereof to any circumstance shall be held to be invalid, the remainder of this Resolution and the application thereof to other circumstances shall nevertheless be valid, and this governing body hereby declares that this Resolution would have been enacted without such invalid provision.

Section 25. EFFECTIVE DATE. This Resolution shall be effective immediately upon its adoption by the Board of Directors.

-----



## EXHIBIT A

### **Annual Financial Statements and Operating Data**

The following information is referred to in Section 17B of this Resolution:

1. Annual Financial Statements and Operating Data. The financial information and operating data with respect to the Issuer to be provided in accordance with such Section the following: the annual audit.

2. Accounting Principles. The accounting principles referred to in such Section are the accounting principles described in the notes to the financial statements referred to in paragraph 1 above.

**PRIVATE PLACEMENT MEMORANDUM DATED JUNE 1, 2015**

**NEW ISSUE BOOK-ENTRY-ONLY**

*On the date of initial delivery of the Obligations (defined below), Issuer Bond Counsel (defined on page i) will render its opinion substantially in the form attached in APPENDIX C - FORM OF OPINION OF BOND COUNSEL.*

**\$17,100,000**

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

**\$9,915,000 REVENUE BONDS, SERIES 2015A**

**\$7,185,000 REVENUE BONDS, TAXABLE SERIES 2015B**

**(the "Obligations")**

**Dated: December 1, 2015**

**Due: June 1**

**Interest Date:** Interest on the Obligations will be payable on December 1 and June 1 each year, commencing June 1, 2016 (each an "Interest Payment Date"). The Obligations will bear interest at the rates per annum set forth in "APPENDIX A - MATURITY SCHEDULE."

**Record Date:** The close of business on the 15<sup>th</sup> day of the preceding month.

**Date Interest Accrues:** Each Obligation shall bear interest from the Delivery Date thereof or the most recent Interest Payment Date to which interest has been paid or provided for at the rate set forth, such interest payable semiannually on December 1 and June 1 of each year until the earliest of maturity or prior redemption, commencing on June 1, 2016.

**Redemption:** The Obligations are subject to redemption prior to maturity as provided herein. See "THE OBLIGATIONS - Redemption Provisions" herein.

**Authorized Denominations:** The Obligations are being issued as fully registered bonds in denominations of \$5,000, or any integral multiple thereof.

**Paying Agent/Registrar:** The paying agent ("Paying Agent/Registrar/Registrar") for the Obligations is [PAYING AGENT], [CITY], [STATE].

**Book-Entry-Only System** Upon initial issuance, the ownership of the Obligations will be registered in the registration books of the Issuer kept by the Paying Agent/Registrar, in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC") to which principal, redemption premium, if any, and interest payments on the Obligations will be made. The purchasers of the Obligations will not receive physical delivery of bond certificates. Principal of, interest, and premium if any, on the Obligations will be payable at the designated office of the Paying Agent/Registrar in [CITY], [STATE], as the same become due and payable.

**Issuer:** Palo Pinto County Municipal Water District No. 1.

**Official Action:** The Board approved Resolutions authorizing the Obligations dated [MONTH], [DAY], 2015.

**Purpose:** The Obligations are being issued to provide for the costs of the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir) including land acquisition, final design, archaeological recovery and initial utility relocations. See "APPENDIX B - FORM OF OFFICIAL ACTION."

**Security for the Obligations:** The Obligations constitute special obligations of the District and, together with certain outstanding revenue bonds of the District, are special obligations of the District, payable, both as to principal and interest, solely from a first lien on and pledge of the Pledged Revenues (as defined in the Bond Resolution) of the District's waterworks system, including specifically payments received by the District from the City of Mineral Wells (the "City") as a water charge pursuant to the Water Purchase Contract between the District and the City. The City has covenanted that all payments to be made by the City under the Water Purchase Contract will be operating expenses of its waterworks and sewer system. See APPENDIX B - FORM OF OFFICIAL ACTION."

**Ratings:** See "OTHER INFORMATION - Ratings"

**Delivery Date:** December 15, 2015.

---

**See "APPENDIX A - MATURITY SCHEDULE" for Principal Amounts, Maturities, Interest Rates, and Initial CUSIP Numbers**

---

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

**Board Members**

David R. Turk	President
Wesley Ellis	Vice President
Charles D. Sturdivant	Board Member
Don Crawford	Board Member
James R. Collins	Board Member

**Selected Administrative Staff**

Scott Blasor	Secretary/Treasurer
Kenneth Choffel, P.E.	HDR Engineering, Inc.

McCall, Parkhurst & Horton L.L.P., Dallas, Texas, Bond Counsel

First Southwest Company Dallas, Texas, Financial Advisor

[PAYING AGENT – TBD], [CITY], [STATE], Paying Agent/Registrar

## TABLE OF CONTENTS

	<b>Page</b>
INTRODUCTION .....	2
THE OBLIGATIONS.....	2
General Description .....	2
Purpose .....	2
Authority for Issuance .....	2
Security for the Obligations.....	2
Redemption Provisions .....	3
Book-Entry-Only System.....	3
TAX MATTERS .....	2
Opinion .....	2
OTHER INFORMATION .....	2
Forward Looking Statements.....	2
Ratings .....	3
LITIGATION .....	3
General.....	3
The Issuer.....	3
CONTINUING DISCLOSURE OF INFORMATION.....	3
Compliance with Prior Undertakings.....	3
MISCELLANEOUS.....	3
ADDITIONAL INFORMATION.....	4
APPENDIX A   MATURITY SCHEDULE	
APPENDIX B   FORM OF OFFICIAL ACTION	
APPENDIX C   FORM OF OPINION OF BOND COUNSEL	

**PRIVATE PLACEMENT MEMORANDUM**

**relating to**

**\$17,100,000**

**PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1**

**\$9,915,000 REVENUE BONDS, SERIES 2015A**

**\$7,185,000 REVENUE BONDS, TAXABLE SERIES 2015B**

**(the “Obligations”)**

**INTRODUCTION**

This Private Placement Memorandum, including the cover page and appendices, contains brief descriptions of the Issuer, provides certain information with respect to the issuance by the Issuer, and summaries of certain provisions of the “Obligations” pursuant to the Official Action. Except as otherwise set forth herein, capitalized terms used but not defined in this Private Placement Memorandum have the meanings assigned to them in the Official Action. See “APPENDIX B – “FORM OF OFFICIAL ACTION” attached hereto.

APPENDIX A contains the maturity schedule for the Obligations. APPENDIX B contains the Official Action and a description of the purpose for the proceeds of the Obligations. APPENDIX C contains a copy of the proposed opinion of Bond Counsel with respect to the Obligations. The summaries of the documents contained in the forepart of this Private Placement Memorandum are not complete or definitive, and every statement made in this Private Placement Memorandum concerning any provision of any document is qualified by reference to such document in its entirety.

**THE OBLIGATIONS**

**GENERAL DESCRIPTION**

The Obligations are being issued in the aggregate principal amount set forth in APPENDIX A of this Private Placement Memorandum and will mature and be subject to redemption prior to maturity as described therein. The Obligations are being issued as fully registered bonds in denominations of \$5,000, or any integral multiple thereof. The Obligations will be dated as of the stated date of issue and will mature on the dates referenced thereon, and will bear interest at the rates per annum set forth in “APPENDIX A - MATURITY SCHEDULE.”

Interest on the Obligations is payable semiannually on each Interest Payment Date, and will be calculated on the basis of a 360-day year consisting of twelve 30-day months. Principal of the Obligations will be payable to the Owners upon presentation and surrender at the principal office of the Paying Agent/Registrar.

**PURPOSE**

The Obligations are being issued to provide for the costs of the Lake Palo Pinto Storage Restoration Project (Turkey Peak Reservoir) including land acquisition, final design, archaeology recovery and initial utility relocations. See “APPENDIX B - FORM OF OFFICIAL ACTION.”

**AUTHORITY FOR ISSUANCE**

The Obligations are issued pursuant to Article XVI, Section 59, Texas Constitution, Article 8280-258 V.A.T.C.S. and Chapter 49, Texas Water Code, and the Official Action adopted by the Issuer.

**SECURITY FOR THE OBLIGATIONS**

The Obligations constitute special obligations of the District and, together with certain outstanding revenue bonds of the District, are special obligations of the District, payable, both as to principal and interest, solely from a first lien on and pledge of the Pledged Revenues (as defined in the Bond Resolution) of the District’s waterworks system, including specifically payments received by the District from the City of Mineral Wells (the “City”) as a water charge pursuant to the Water Purchase Contract between the District and the City. The City has covenanted that all payments to be made by the City under the Water Purchase Contract will be operating expenses of its waterworks and sewer system. See “APPENDIX B - FORM OF OFFICIAL ACTION.”

## **REDEMPTION PROVISIONS**

The District reserves the right, at its option, to redeem the Obligations having stated maturities on and after June 1, 2026, in whole or in part in inverse order of maturity, in principal amounts of \$5,000 or any integral multiple thereof, at the par value thereof plus accrued interest to the date of redemption.

## **BOOK-ENTRY-ONLY SYSTEM**

*The information in this caption concerning The Depository Trust Company, New York, New York (“DTC”) and DTC’s book entry system has been obtained from DTC and the Issuer makes no representation or warranty nor takes any responsibility for the accuracy or completeness of such information.*

DTC will act as securities depository for the Obligations. The Obligations will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each maturity of the Obligations and deposited with DTC. See APPENDIX B - “FORM OF OFFICIAL ACTION.”

DTC is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity, corporate and municipal debt issues, and money market instrument (from over 100 countries) that DTC’s participants (the “Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions, in deposited securities, through electronic computerized book entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearance Corporation, and Fixed Income Clearance Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com) and [www.dtc.org](http://www.dtc.org).

## **TAX MATTERS**

### **OPINION**

Bond Counsel will deliver its opinion on the date of delivery of the Obligations substantially in the form as attached in “APPENDIX C - FORM OF OPINION OF BOND COUNSEL.”

## **OTHER INFORMATION**

### **FORWARD LOOKING STATEMENTS**

The statements contained in this Private Placement Memorandum, including the cover page, appendices, and any other information or documents provided by the Issuer, that are not purely historical, are forward-looking statements, including statements regarding the Issuer’s expectations, hopes, intentions, or strategies regarding the future. Holders and beneficial owners of the Obligations have placed reliance on forward-looking statements. All forward looking statements included in this Private Placement Memorandum are based on information available to the Issuer on the date hereof. It is important to note that the Issuer’s actual results could differ materially from those in such forward-looking statements.

### **RATINGS**

No application has been made to any ratings agency or municipal bond insurance company for qualification of the Obligations for ratings or municipal bond insurance, respectively. Other revenue debt of the Issuer is rated “AA-” by Fitch and “A” by Standard & Poor’s.

## **LITIGATION**

### **GENERAL**

On the date of delivery of the Obligations to the initial purchasers thereof, the Issuer will execute and deliver a certificate to the effect that, except as disclosed herein, no litigation of any nature has been filed or is pending, as of that date, to restrain or enjoin the issuance or delivery of the Obligations or which would affect the provisions made for their payment or security or in any manner questioning the validity of the Obligations.

### **THE ISSUER**

There is no litigation, proceeding, inquiry, or investigation pending by or before any court or other governmental authority or entity (or, to the best knowledge of the Issuer, threatened) that adversely affects the power, authority or obligation of the Issuer to deliver the Obligations, the security for, or the validity of, the Obligations or the financial condition of the Issuer.

## **CONTINUING DISCLOSURE OF INFORMATION**

In the Official Action, the Issuer has made the following agreement for the benefit of the holders and beneficial owners of the Obligations. The Issuer is required to observe the agreement for so long as it remains obligated to advance funds to pay the Obligations. Under the agreement, the Issuer will be obligated to provide certain updated financial information and operating data, and timely notice of specified events, to the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access System. SEE APPENDIX B - "FORM OF OFFICIAL ACTION."

### **COMPLIANCE WITH PRIOR UNDERTAKINGS**

During the last five years, the Issuer has complied in all material respects with its continuing disclosure agreements in accordance with SEC Rule 15c2-12.

## **MISCELLANEOUS**

Any statements made in this Private Placement Memorandum involving matters of opinion or of estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized. Neither this Private Placement Memorandum nor any statement that may have been made verbally or in writing is to be construed as a contract with the owners of the Obligations.

The information contained above is neither guaranteed as to accuracy or completeness nor to be construed as a representation by the Issuer. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Private Placement Memorandum nor any sale made hereunder is to create, under any circumstances, any implication that there has been no change in the affairs of the Issuer or the Issuer from the date hereof.

The Private Placement Memorandum is submitted in connection with the sale of the securities referred to herein to the Texas Water Development Board on the Delivery Date and may not be reproduced or used, as a whole or in part, for any other purpose.

## **ADDITIONAL INFORMATION**

The Private Placement Memorandum speaks only as of its date and the information contained herein is subject to change. Descriptions of the Obligations and the Official Action and any other agreements and documents contained herein constitute summaries of certain provisions thereof and do not purport to be complete. This Private Placement Memorandum was approved by the Issuer.



**APPENDIX A**  
**MATURITY SCHEDULE**

Series 2015A

Principal Amount	Maturity (June 1)	Interest Rate	CUSIP	Principal Amount	Maturity (June 1)	Interest Rate	CUSIP
\$240,000	2017			\$330,000	2032		
245,000	2018			345,000	2033		
245,000	2019			355,000	2034		
250,000	2020			365,000	2035		
255,000	2021			380,000	2036		
260,000	2022			390,000	2037		
265,000	2023			405,000	2038		
270,000	2024			415,000	2039		
275,000	2025			430,000	2040		
280,000	2026			445,000	2041		
285,000	2027			460,000	2042		
295,000	2028			480,000	2043		
305,000	2029			495,000	2044		
315,000	2030			515,000	2045		
320,000	2031						

Series 2015B

Principal Amount	Maturity (June 1)	Interest Rate	CUSIP	Principal Amount	Maturity (June 1)	Interest Rate	CUSIP
\$170,000	2017			\$240,000	2032		
175,000	2018			250,000	2033		
175,000	2019			255,000	2034		
180,000	2020			265,000	2035		
180,000	2021			275,000	2036		
185,000	2022			285,000	2037		
190,000	2023			295,000	2038		
195,000	2024			305,000	2039		
200,000	2025			315,000	2040		
200,000	2026			325,000	2041		
210,000	2027			335,000	2042		
215,000	2028			350,000	2043		
220,000	2029			360,000	2044		
225,000	2030			375,000	2045		
235,000	2031						

**APPENDIX B**  
**FORM OF OFFICIAL ACTION**

DRAFT

**APPENDIX C**

**FORM OF OPINION OF BOND COUNSEL**

DRAFT

## **Proposed Form of Opinion of Bond Counsel**

*An opinion in substantially the following form will be delivered by McCall, Parkhurst & Horton L.L.P., Bond Counsel, upon the delivery of the Bonds, assuming no material changes in facts or law.*

\$9,915,000

PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
REVENUE BONDS, SERIES 2015A  
DATED DECEMBER 1, 2015

AS BOND COUNSEL FOR PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 (the "Issuer") in connection with the issuance of the Revenue Bonds, Series 2015A, described above (the "Bonds"), we have examined into the legality and validity of the Bonds, which bear interest from the dates and mature and are subject to redemption on the dates, in accordance with the terms and conditions stated in the text of the Bonds. Terms used herein and not otherwise defined shall have the meaning given in the resolution of the Issuer authorizing the issuance and sale of the Bonds (the "Bond Resolution").

WE HAVE EXAMINED the applicable and pertinent provisions of the Constitution and laws of the State of Texas, a transcript of certified proceedings of the Issuer, and other pertinent instruments authorizing and relating to the issuance of the Bonds, including one of the executed Bonds (Bond Number T-1).

BASED ON SAID EXAMINATION, IT IS OUR OPINION that the Bonds have been duly authorized, issued and delivered, all in accordance with law; and that, except as may be limited by laws applicable to the Issuer relating to principles of governmental immunity, bankruptcy, reorganization and other similar matters affecting creditors' rights generally or by general principles of equity which permit the exercise of judicial discretion, the Bonds will constitute valid and legally binding special obligations of the Issuer, and that the principal of and interest on the Bonds, together with other outstanding revenue bonds of the Issuer, are payable from and secured by a lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas (the "City"), pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City. The Issuer has reserved the right, subject to the covenants and conditions stated in the Resolution, to issue additional revenue obligations payable from and secured by a lien on and pledge of the net revenues of the System on a parity with the Bonds. The holders of the Bonds shall never have the right to demand payment thereof out of any funds raised or to be raised by taxation.

IT IS FURTHER OUR OPINION, except as discussed below, that the interest on the Bonds is excludable from the gross income of the owners for federal income tax purposes under the statutes, regulations, published rulings, and court decisions existing on the date of this opinion. We are further of the opinion that the Bonds are not "specified private activity bonds" and that, accordingly, interest on the Bonds will not be included as an individual or corporate alternative minimum tax preference item under section 57(a)(5) of the Internal Revenue Code of 1986 (the "Code"). In expressing the aforementioned opinions, we have relied on, certain representations, the accuracy of which we have not independently verified, and assume compliance with certain covenants, regarding the use and investment of the proceeds of the Bonds and the use of the property financed therewith. We call your attention to the fact that if such representations are determined to be inaccurate or upon a failure by the Issuer to comply with such covenants, interest on the Bonds may become includable in gross income retroactively to the date of issuance of the Bonds.

EXCEPT AS STATED ABOVE, we express no opinion as to any other federal, state, or local tax consequences of acquiring, carrying, owning, or disposing of the Bonds.

WE CALL YOUR ATTENTION TO THE FACT that the interest on tax-exempt obligations, such as the Bonds, is included in a corporation's alternative minimum taxable income for purposes of determining the alternative minimum tax imposed on corporations by section 55 of the Code.

WE EXPRESS NO OPINION as to any insurance policies issued with respect to the payments due for the principal of and interest on the Bonds, nor as to any such insurance policies issued in the future.

OUR SOLE ENGAGEMENT in connection with the issuance of the Bonds is as Bond Counsel for the Issuer, and, in that capacity, we have been engaged by the Issuer for the sole purpose of rendering an opinion with respect to the legality and validity of the Bonds under the Constitution and laws of the State of Texas, and with respect to the exclusion from gross income of the interest on the Bonds for federal income tax purposes, and for no other reason or purpose. The foregoing opinions represent our legal judgment based upon a review of existing legal authorities that we deem relevant to render such opinions and are not a guarantee of a result. We have not been requested to investigate or verify, and have not independently investigated or verified any records, data, or other material relating to the financial condition or capabilities of the Issuer, or the disclosure thereof in connection with the sale of the Bonds, and have not assumed any responsibility with respect thereto. We express no opinion and make no comment with respect to the marketability of the Bonds and have relied solely on certificates executed by officials of the Issuer as to the sufficiency of the pledged revenues of the Issuer.

OUR OPINIONS ARE BASED ON EXISTING LAW, which is subject to change. Such opinions are further based on our knowledge of facts as of the date hereof. We assume no duty to update or supplement our opinions to reflect any facts or circumstances that may thereafter come to our attention or to reflect any changes in any law that may thereafter occur or become effective. Moreover, our opinions are not a guarantee of result and are not binding on the Service; rather, such opinions represent our legal judgment based upon our review of existing law and in reliance upon the representations and covenants referenced above that we deem relevant to such opinions. The Service has an ongoing audit program to determine compliance with rules that relate to whether interest on state or local obligations is includable in gross income for federal income tax purposes. No assurance can be given whether or not the Service will commence an audit of the Bonds. If an audit is commenced, in accordance with its current published procedures the Service is likely to treat the Issuer as the taxpayer. We observe that the Issuer has covenanted not to take any action, or omit to take any action within its control, that if taken or omitted, respectively, may result in the treatment of interest on the Bonds as includable in gross income for federal income tax purposes.

Respectfully,

## **Proposed Form of Opinion of Bond Counsel**

*An opinion in substantially the following form will be delivered by McCall, Parkhurst & Horton L.L.P., Bond Counsel, upon the delivery of the Bonds, assuming no material changes in facts or law.*

\$7,185,000

PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1  
REVENUE BONDS, TAXABLE SERIES 2015B  
DATED DECEMBER 1, 2015

AS BOND COUNSEL FOR PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NO. 1 (the "Issuer") in connection with the issuance of the Revenue Bonds, Taxable Series 2015B, described above (the "Bonds"), we have examined into the legality and validity of the Bonds, which bear interest from the dates and mature and are subject to redemption on the dates, in accordance with the terms and conditions stated in the text of the Bonds. Terms used herein and not otherwise defined shall have the meaning given in the resolution of the Issuer authorizing the issuance and sale of the Bonds (the "Bond Resolution").

WE HAVE EXAMINED the applicable and pertinent provisions of the Constitution and laws of the State of Texas, a transcript of certified proceedings of the Issuer, and other pertinent instruments authorizing and relating to the issuance of the Bonds, including one of the executed Bonds (Bond Number T-1).

BASED ON SAID EXAMINATION, IT IS OUR OPINION that the Bonds have been duly authorized, issued and delivered, all in accordance with law; and that, except as may be limited by laws applicable to the Issuer relating to principles of governmental immunity, bankruptcy, reorganization and other similar matters affecting creditors' rights generally or by general principles of equity which permit the exercise of judicial discretion, the Bonds will constitute valid and legally binding special obligations of the Issuer, and that the principal of and interest on the Bonds, together with other outstanding revenue bonds of the Issuer, are payable from and secured by a lien on and pledge of the "Pledged Revenues" as defined in the Bond Resolution, including specifically the payments to be received by the Issuer from the City of Mineral Wells, Texas (the "City"), pursuant to the Water Purchase Contract, dated as of July 10, 1981, and the supplements and modifications thereof, between the Issuer and the City. The Issuer has reserved the right, subject to the covenants and conditions stated in the Resolution, to issue additional revenue obligations payable from and secured by a lien on and pledge of the net revenues of the System on a parity with the Bonds. The holders of the Bonds shall never have the right to demand payment thereof out of any funds raised or to be raised by taxation.

WE EXPRESS NO OPINION as to any federal, state or local tax consequences of acquiring, carrying, owning or disposing of the Bonds.

WE EXPRESS NO OPINION as to any insurance policies issued with respect to the payments due for the principal of and interest on the Bonds, nor as to any such insurance policies issued in the future.

OUR SOLE ENGAGEMENT in connection with the issuance of the Bonds is as Bond Counsel for the Issuer, and, in that capacity, we have been engaged by the Issuer for the sole purpose of rendering an opinion with respect to the legality and validity of the Bonds under the Constitution and laws of the State of Texas, and for no other reason or purpose. The foregoing opinions represent our legal judgment based upon a review of existing legal authorities that we deem relevant to render such opinions and are not a guarantee of a result. We have not been requested to investigate or verify, and have not independently investigated or verified any records, data, or other material relating to the financial condition or capabilities of the Issuer, or the disclosure thereof in connection with the sale of the Bonds, and have not assumed any responsibility with respect thereto. We express no opinion

and make no comment with respect to the marketability of the Bonds and have relied solely on certificates executed by officials of the Issuer as to the sufficiency of the pledged revenues of the Issuer.

OUR OPINIONS ARE BASED ON EXISTING LAW, which is subject to change. Such opinions are further based on our knowledge of facts as of the date hereof. We assume no duty to update or supplement our opinions to reflect any facts or circumstances that may thereafter come to our attention or to reflect any changes in any law that may thereafter occur or become effective

Respectfully,