

**Exhibit A
Scope of Work**

EXHIBIT A

**FAR WEST TEXAS REGION WATER PLAN
Scope of Work
Phase II of the 3rd Round of Regional Water Planning**

This round of planning is an update to the 2006 Far West Texas Water Plan. Since this third round of planning takes place during an "off-census cycle", the Texas Water Development Board will not be developing new population and water demand projections with the exception of steam electric power demands. Thus the 2011 plan will not require a complete revision, but rather an update to changed conditions.

Task 1. Chapter 1. Planning Area Description

1. Update Chapter 1 text to reflect current conditions.
2. Recognize and provide summaries of the four interim projects conducted during 2007 and
3. Discuss occurrence and impact of Fort Bliss military population increase. *Sec 1.3.3 (of the 2006 Region E Water Plan)*
4. Provide an overview of the Climate Change Conference held in El Paso on June 17th 2008.
5. Update discussion on Rio Grande supply conditions in Elephant Butte Reservoir. *Sec 1.3.5*
6. Update description of the Kay Bailey Hutchison Desalination Facility and El Paso Water Utilities' arsenic treatment upgrade. *Sec 1.4.3*
7. Review and update list of entities receiving water supplies from the El Paso Water Utilities wholesaler. *Sec 1.4.4*
8. Update aquifer map (*Figure 1-12*) to reflect changes made by the TWDB in 2007. *Sec 1.5.2*
9. Update colonia information. *Sec 1.7*
10. Update water-use discussion of Ciudad Juarez. *Sec 1.8.1*
11. Update local organizations. *Sec 1.10 & Appendix 1C*
12. Review and add as needed discussion on municipal water loss audits as provided by the TWDB pursuant to 31 TAC §358.6.
13. Prepare draft chapter documents for planning group review

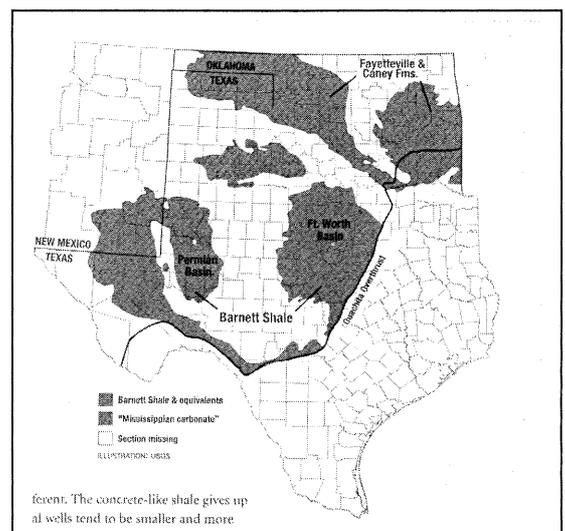
14. . Discuss recent and anticipated economic activities in the region including :
- Baret Shale gas exploration in Brewster, Culberson, Hudspeth, Jeff Davis and Terrell counties.
 - Expansion of the tomato farm in Jeff Davis County.
 - Progress on the new international bridge in the Lower El Paso Valley.
 - Potential 1,000-bed expansion of prison in Sierra Blanca.
 - Potential biodiesel plant in Presidio County.

Specific deliverables for Task 1 Chapter 1:

- Updated Chapter 1 text, tables, and figures including discussions and updates of items listed in scope of work.
- Discussions of economic activities including Baret Shale exploration, tomato farm in Jeff Davis County, international bridge in El Paso County, prison expansion in Sierra Blanca, and biodiesel plant in Presidio County.
- Updated aquifer map.

Task 2. Chapter 2. Review and Revision of Population and Water Demand Projections

1. Review and revise list of entities receiving water supplies from the El Paso Water Utilities wholesaler (*Table 2-4*). *Sec 2.4.1*
2. Review and revise if needed steam electric power water demand in El Paso County as provided by the TWDB. *Sec 2.4.5*
3. Update TWDB-DB12 database.
4. Prepare draft chapter documents for planning group review.
5. Evaluate the current increase in the Fort Bliss military population and its impact on water demand. Work as closely as allowable with the Defense Department to estimate the Post's 50-year population forecast.
6. Review and revise municipal water demand projections for Fort Davis WSC resulting from expansion of the system.
7. Review and revise irrigation water demand projections for Jeff Davis County resulting from expansion of "Tomato Farm" operations.
8. Review and revise mining water demand projections based on increased oil and gas exploration in Brewster, Culberson, Hudspeth, Jeff Davis and Terrell. Much of this activity relates to recent interest in Barnett Shale gas plays. Railroad Commission files, local groundwater conservation district knowledge, and other available data will be reviewed to estimate increased activity and amount of water usage. This a map of the extent of the Barnett Shale (or equivalent) and RRC statistics shows an increase of gas wells since 2000 of 17 in Culberson County and 302 in Terrell County. Groundwater Conservation Districts in the eastern part of Region E are relating significant increases in exploration and production



activity in their respective counties.

Specific deliverables for Task 2 Chapter 2:

- Updated Chapter 2 text, tables, and figures including discussions and updates of items listed in scope of work.
- Updated TWDB-DB 12 database.
- Discussions on Fort Bliss population projections.
- Review and revision of water demand estimates for Fort Davis WSC, irrigation in Jeff Davis County, and mining in several counties.

Task 3. Chapter 3. Water Supply Analysis

1. Update supplies to water user groups and wholesale water providers based on changes in contracts, new supplies from strategies that have been implemented since the last plan, and other changed conditions.
2. Update aquifer map (*Figure 3-1*) to reflect changes made by the TWDB in 2007. Sec 3.4
3. Review and update municipal well field discussions. Sec 3.4.12
Known changed conditions in Region E communities include upgrades to wells and distribution systems in Alpine, Van Horn and Fort Davis. El Paso Water Utilities has made major changes to their system including the addition of the brackish desal network. Other communities have not been surveyed; however changed conditions are anticipated for several communities.
4. Review and revise groundwater export table to conform to Region F water supply source tables. Sec 3.4.13
5. Update TWDB-DB12 database.
6. Prepare draft chapter documents for planning group review.
7. Update discussion pertaining to the "Forgotten River" project. The 2006 Far West Texas Water Plan discusses the "Forgotten River" segment of the Rio Grande in Chapter 3, page 3-17. The discussion states that a reconnaissance level investigation conducted by the Corp of Engineers and partially funded by the State (TWDB-TCEQ) resulted in a recommendation to conduct further mapping of the study area (Section 905-b). The intent of this task is to report on the process of this updated study. The work effort will include phone interviews with agencies and organizations involved with the study, review of available reports on the project, and a written summary of current efforts, reports and recommendations.
8. Update discussion pertaining to the "Pecos River Basin Assessment" project.
9. Identify and survey new well data in the Marathon aquifer in Brewster County for the TWDB groundwater database that will be used in the development of a future Groundwater Availability Model (GAM). Select and conduct pumping tests on up to eight wells in the aquifer. In Chapter 8, page 8-7 and 8, the 2006 Far West Texas Water Plan recommends the need for additional Marathon aquifer data in order to better quantify water availability from this aquifer. The intent of this task is to work with the Brewster County Groundwater Conservation District in identifying additional wells completed in the Marathon aquifer from which additional hydrologic characteristics may be obtained. Wells registered with the GCD and not currently in

the TWDB groundwater database will be surveyed and locations will be GPS verified. A database of surveyed wells with sufficient hydrologic characteristics will be created. Single well pumping tests will be conducted where well conditions are appropriate and with well owner permission. Because this data will likely be used to develop a future groundwater model for the Marathon aquifer, communication with TWDB staff will be maintained to insure that appropriate data is being collected and that there will be no duplication of board staff activities.

10. Identify and survey new well data in the Edwards-Trinity (Plateau) aquifer in Terrell County for the TWDB groundwater database that will be used in updating the Groundwater Availability Model (GAM). Select and conduct pumping tests on up to eight wells in the aquifer. In Chapter 8, page 8-7 and 8, the 2006 Far West Texas Water Plan recommends the need for additional Edwards-Trinity (Plateau) aquifer data in order to better quantify water availability from this aquifer. The intent of this task is to work with local Terrell County officials and agencies in identifying additional wells completed in the Edwards-Trinity (Plateau) aquifer from which additional hydrologic characteristics may be obtained. Wells with driller's reports and not currently in the TWDB groundwater database will be surveyed and locations GPS verified. A database of surveyed wells with sufficient hydrologic characteristics will be created. Single well pumping tests will be conducted where well conditions are appropriate and with well owner permission. Because this data will likely be used to improve the existing Edwards-Trinity GAM, communication with TWDB staff will be maintained to insure that appropriate data is being collected and that there will be no duplication of board staff activities.

Specific deliverables for Task 3 Chapter 3:

- Updated Chapter 3 text and figures including discussions and updates of items listed in scope of work.
- Updated TWDB-DB 12 database.
- Updated aquifer map.
- New well survey database and pumping test results for Marathon aquifer wells.
- New well survey database and pumping test results for Edwards-Trinity aquifer wells.

Task 4. Chapter 4. Identification, Evaluation and Selection of Water Management Strategies Based on Needs

1. Revise water needs analysis (*Table 4-1*) for water user groups and wholesale water providers with changed demands as identified in Chapter 2 or changed supplies identified in Chapter 3.
2. Update capital and annual cost estimates (*Table 4-3*) per Exhibit C for all strategies.
3. Develop new strategies for entities with water deficits based on changed conditions as identified in Task 4-1 above.
4. Update Chapter 4 text, tables and figures as needed to reflect changed conditions.
5. Update TWDB-DB12 database.
6. Prepare draft chapter documents for planning group review.
7. Revise as needed all retained water management strategies in the 2006 Plan as required by Section 4 of the General Guidelines for Regional Water Plan Development. Specific strategies that are expected to require revisions include:
 - Steam electric power in El Paso County (*Strategy E-16*)

- Water conservation for City of El Paso (*Strategy E-2*)
 - Irrigation in El Paso, Hudspeth and Presidio counties. (*Strategies E-17 through E-31*)
8. Consider and develop alternative strategies for entities that are anticipating changed conditions and that are potentially eligible for the State WIF funding program, including the communities of Van Horn and Sierra Blanca.
 9. Update discussion on irrigation conservation strategies based on results of interim project.

Specific deliverables for Task 4 Chapter 4:

- Updated Chapter 4 text and figures including discussions and updates of items listed in scope of work.
- Updated TWDB-DB 12 database.
- Updated capital and annual cost estimates.
- New strategies for entities with water deficits based on changed conditions.
- Revised retained strategies as needed.
- Possible alternative strategies for entities with anticipated changed conditions.
- Updated discussion on irrigation strategies.

Task 5. Chapter 5. Impacts of Selected Water Management Strategies on Key Parameters of Water Quality and Impacts of Moving Water from Rural and Agricultural Areas

1. Review and update impacts as needed, considering new water management strategies and changed conditions.
2. Update aquifer map (*Figures 5-1 and 5-2*) to reflect changes made by the TWDB in 2007.
3. Prepare draft chapter documents for planning group review.

Specific deliverables for Task 5 Chapter 5:

- Updated Chapter 5 text and figures including discussions and updates of items listed in scope of work.
- Updated aquifer map.

Task 6. Chapter 6. Water Conservation and Drought Management Recommendations

1. Discuss results of El Paso Water Utility's conservation outreach interim project. *Sec 6.1*
2. Discuss El Paso Water Utilities' latest calculation of per capita water use in terms of increasing conservation efforts. *Sec 6.1*
3. Discuss results of Texas A&M AgriLife Research's agricultural conservation interim project. *Sec 6.1*
4. Discuss relevant issues addressed at the Climate Change Conference. *Sec 6.2*
5. Revise water conservation management and drought contingency plans as needed. *Sec 6.3*

6. Prepare draft chapter documents for planning group review.

Specific deliverables for Task 6 Chapter 6:

- Updated Chapter 6 reflecting revisions to water conservation and drought contingency plans.
- Discussion on results of Climate Change Conference.
- Discussion on results of agricultural conservation interim project.

Task 7. Chapter 7. Plan Consistency for Long-term Protection of the State's Water, Agricultural, and Natural Resources

1. Review and revise Chapter 7 text to reflect changed conditions and new water management strategies.
2. Prepare draft chapter documents for planning group review.

Specific deliverables for Task 7 Chapter 7:

- Updated Chapter 7 including discussion on plan consistency as reflected in changed conditions and new strategies.

Task 8. Chapter 8. Unique Steam Segments and Reservoir Sites / Legislative Recommendations

1. Review and revise Planning Group recommendations (Sec 8.2) and policy issues (Sec 8.3) as needed.
2. Review and revise discussion on Ecologically Unique River and Stream Segments (Sec 8.4) based on comments provided by the United States Department of the Interior / National Parks Service (April 18, 2008). The USDI/NPS comments reflect results of US Geological Survey discharge measurements in 2006 along the Wild and Scenic River stretch of the Rio Grande, and a TWDB GAM run of the Edwards-Trinity (Plateau) aquifer model as requested by the USDI/NPS and the Brewster County Groundwater Conservation District.
3. Prepare draft chapter documents for planning group review.

Specific deliverables for Task 8 Chapter 8:

- Updated Chapter 8 including revised recommendations and policy issue discussion.
- Revised discussion on Economically Unique River and Stream Segments.

Task 9. Chapter 9. Water Infrastructure Funding Recommendations (legislative report)

1. Send infrastructure financing survey developed by the TWDB to each water user group with a recommended water management strategy.
2. Revise the infrastructure financing report based on received responses to the survey.
3. Prepare draft chapter documents for planning group review.

Specific deliverables for Task 9 Chapter 9:

- Updated Chapter 9 including revised infrastructure finance survey and report.

Task 10. Chapter 10. Public Participation and Plan Adoption

Task 10a. Scope of Work Preparation

1. Post public notice and hold public meeting to gather input on scope of work and regional priorities.
2. Prepare scopes of work, budgets and grant application.
3. Submit application for funding to TWDB.

Task 10b. Public Information Activities

1. Prepare and distribute public information material for the purpose of encouraging public participation, including response to individual inquiries, meeting summaries, press releases, and information of water planning related activities within the region, and posting and distributing public notices.
 - Develop and maintain a planning group website to provide timely information on the planning process to the public and to interested parties, including meeting agendas, minutes, backup materials, reports, and planning group information.
 - Develop and maintain public contact mail and e-mail databases to transmit planning related materials directly to interested parties and to individuals and entities designated in statute.
2. Serve as the point of contact for all public information activities associated with the regional water planning process, including coordination with other planning regions, and distribute information on water planning to the public as requested.
3. Serve as water planning group liaison to other local and regional water planning entities and organizations, such as the Lower Rio Grande Water Users Organization and the Paso del Norte Water Taskforce, in order to share information and coordinate common goals and planning activities.
4. Conduct public meetings and/or hearings to convey information on planning group activities and project progress, solicit public involvement and comment to set regional priorities and to gather input on the development of project reports, solicit comment on draft reports and on the development of any updates to the regional plan.
5. Provide copies of any draft and final reports resulting from planning group activities to libraries, public officials, planning group members, and interest groups.

Task 10c. Planning Group Administration and Plan Adoption

1. Coordinate and facilitate public meetings of the planning group, including securing meeting space with adequate public access, and ensuring adequate copies of meeting materials are available for public inspection prior to and following public meetings.
2. Administration, financial oversight and reporting associated with reimbursement of members' travel expenses, sub-consultant contracts and other eligible political subdivision administrative expenses.

Specific deliverables for Task 10 Chapter 10:

- Updated Chapter 10 including revised discussion on public participation activities and plan adoption procedures.