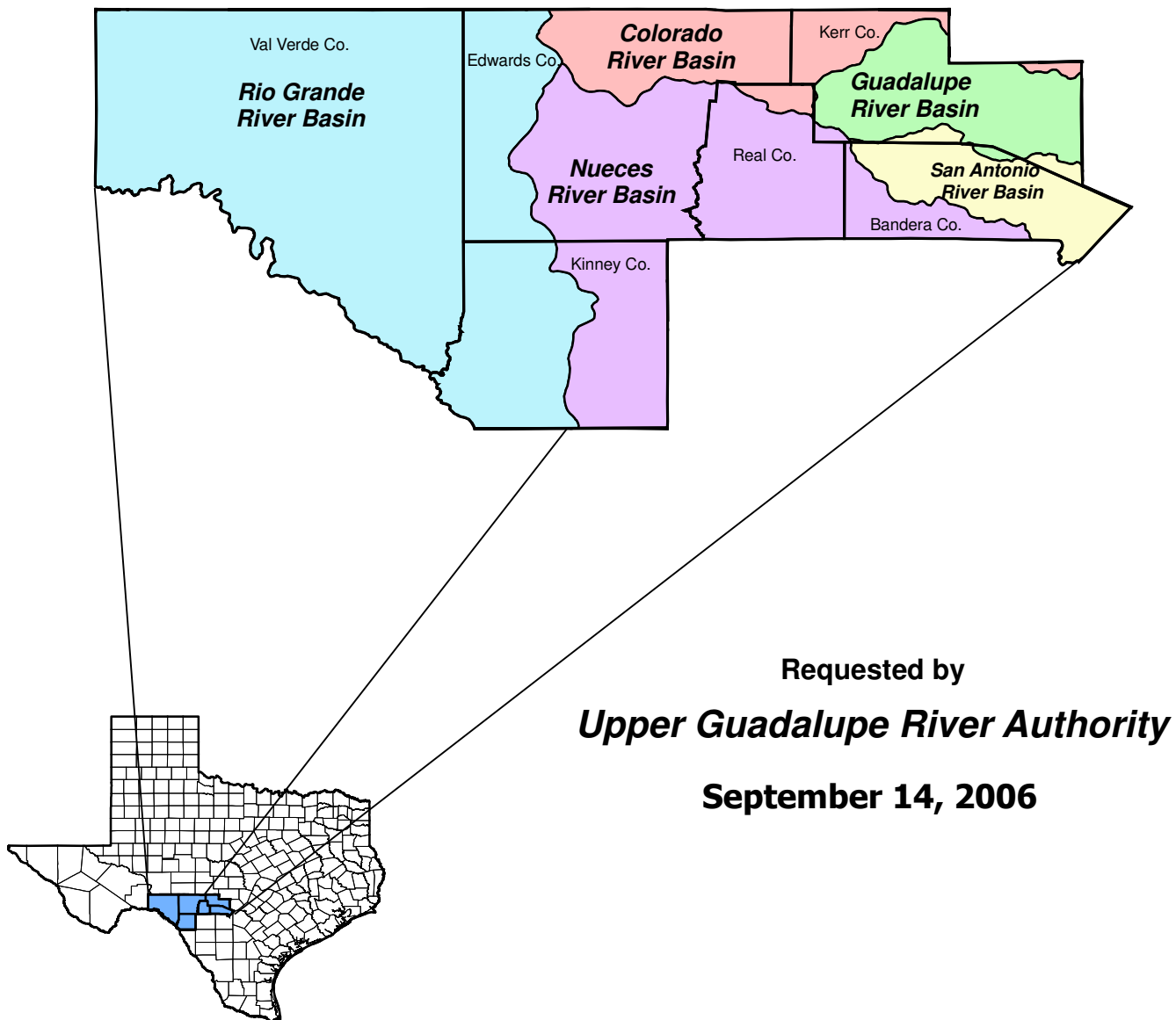


PLATEAU REGION WATER PLANNING GROUP

REQUEST FOR TEXAS WATER DEVELOPMENT BOARD RESEARCH AND PLANNING FUNDS



I. GENERAL INFORMATION

1. Legal name of applicant(s).

Upper Guadalupe River Authority

2. Regional Water Planning Group:

Plateau Water Planning Group (Region J)

3. Authority of law under which the applicant was created.

The Upper Guadalupe River Authority is a political subdivision of the State created under the Legislature through the enactment of Article 8280-124, Tex. Rev. Civ. Stat. Ann. (as amended), pursuant to Article XVI, Section 59 of the Texas Constitution. UGRA operates pursuant to its enabling legislation and Chapters 30, 49, 50, and 51 of the Texas Water Code, as well as the other applicable general laws of the State including Chapter 791 of the Texas Government Code and Chapter 402 of the Texas Local Government Code. Pursuant to these constitutional and statutory authorities and the provisions of Senate Bill No. 1, UGRA is authorized to participate in the development and implementation of a regional plan.

4. Applicant's official representative, Name, Title, Mailing address, Phone number, Fax number, if available, E-mail Address, and Vendor ID Number.

Mr. Raymond L. Buck, Jr.
General Manager
Upper Guadalupe River Authority
125 Lehmann Drive, Suite 100
Kerrville, Texas 78028
Phone: 830/896-5445
Fax: 830/257-2621
e-mail: ugrarlb@ugra.org

5. Is this application in response to a Request for Proposals published in the Texas Register?

Yes ☒ No ☐

6. If yes to No. 6 above, list document number and date of publication of the Texas Register.

Texas Register, June 23, 2006, Vol. 31, Number 25, TRD-200603279.

7. *Type of proposed planning (Check all that apply)*

- X Initial scope of work
- Development of a regional water plan
- Revision of a regional water plan
- X Special studies approved by TWDB

8. *Total proposed planning cost*

\$442,840

9. *Cash Contribution to the study.*

\$60,000

10. *List source of cash contribution, explanation of source of local cash contribution.*

See Attachment 2 for copies of letters

*Letters of Commitment**

*City of Del Rio - \$50,000

*Kinney County Groundwater Conservation District - \$10,000

*Upper Guadalupe River Authority - \$25,000 Leveraged Funds

*City of Kerrville - No dollar amount specified

United State Geological Survey - Sharing of In-Kind Services

11. *Total grant funds requested from the Texas Water Development Board.*

\$442,840

12. *Detailed statement of the purpose for which the money will be used. . (Not to exceed 1 page.)*

In accordance with the request for proposals for special studies to enhance water planning in the region, the funds for each project will be used for at least one of the following eight criteria:

1. Evaluation of new water management strategies in response to changed conditions;
2. Studies that will further implementation of recommended water management strategies;
3. Refinement of water supply information or water management strategies;
4. Activities that will help overcome problems from the last round of planning;
5. Further evaluation of water management strategies, especially regional solutions, to meet needs in small and rural areas;

6. Reevaluation of population and demand projections only under the presence of changed conditions;
7. Interregional coordination; and
8. Administrative and public participation activities.

The table below shows how the individual projects meet the criteria. The need and justification for specific projects are discussed in Attachment I of this application.

No.	Proposed Study	Criteria							
		1	2	3	4	5	6	7	8
0	Administration and Public Participation Activities								X
1	Acquisition of Groundwater Data for Model Development in Edwards, Kinney and Val Verde Counties	X		X	X	X		X	
2	Collection, Analysis and Evaluation of Groundwater Isotope Chemistry Data			X	X	X			
3	Feasibility Analysis of Water Rights Acquisition, Conjunctive Use Projects, and Infrastructure Needs	X	X	X	X	X			
4	Evaluation of Groundwater Contamination from Oilfield Practices in Edwards and Real Counties			X	X	X			
5	Evaluation of a Preferred Remote Well Field Location for the City of Kerrville		X	X		X			

13. Detailed description of why state funding assistance is needed. (Not to exceed 1 page.)

PROJECT 0: Funds are needed for administrative and public participation expenses as required by TAC 356, 357 and 358.

PROJECT 1: An improvement is needed in the development of a water management assessment tool (groundwater model) for the Edwards aquifer in Kinney, Val Verde, and southern Edwards Counties. This project will further characterize the Edwards and associated aquifers in these counties by acquiring additional hydrologic data that was not available during the development of the Edwards-Trinity (Plateau) GAM and the most recent revision of the Edwards BFZ model. Proposed water exports to Region M (Laredo) and L (San Antonio) from Kinney County could impact current water management strategies (WMS) in the Plateau Region, as well as environmental resources. Also, Val Verde County is considering legislation to create a district in the next legislative session and needs more information.

PROJECT 2: Groundwater characterization continues to be a problem in the counties comprising the Plateau Region. Groundwater availability estimates calculated from GAM runs are suspect due to the limited nature of the aquifer hydrological characteristics by which the GAMs are constructed. This project will be coordinated with projects currently underway and supported by the TWDB.

PROJECT 3: The City of Kerrville and Kerrville South WSC are projected to be in need of additional supplies by 2010. County-Other uses are also projected to need additional supplies. The ongoing summer drought of 2006 has resulted in significant and unexpected drops in aquifer levels suggesting that additional supplies are needed now. This project will evaluate the feasibility of increasing surface water supplies to meet these critical demands.

PROJECT 4: Contamination of fresh groundwater sources in this rural area of the Plateau Region has significant consequences on supplies needed to meet the expected demands of these counties. The issue of groundwater contamination resulting from unlined pits is in reality a statewide problem. The Plateau Planning Group proposes to use this project as a test case to spotlight this growing problem.

PROJECT 5: The City of Kerrville's conjunctive use policy dictates obtaining its water supply from both surface water and groundwater sources. Water derived from this strategy will be used to meet a projected municipal supply deficit in 2010.

14. Identify potential sources and amounts of funding available for implementation of viable solutions resulting from proposed planning.

Individual water providers and other beneficiaries, and not the Plateau Water Planning Group, will implement viable projects resulting from the proposed special studies. Potential sources of funding which might be available to implement the solutions resulting from the proposed special studies include local sources of revenue such as taxes and user fees or bond revenue, grant and loan funds from several state and federal agencies, as well as private foundations. Funding will vary considerably depending on the type of project and the economic resources of the beneficiaries.

II. PLANNING INFORMATION

15. A detailed scope of work for proposed planning. (Not to exceed 6 pages.)

See Attachment 1

16. Prioritization of scope of work tasks by the regional planning group.

Project Priority					
1. Acquisition of groundwater data for model development in Edwards, Kinney and Val Verde Counties					
2. Collection, analysis and evaluation of groundwater isotope chemistry data					
3. Feasibility analysis of surface water rights acquisition, conjunctive use projects, and infrastructure needs					
4. Evaluation of groundwater contamination from oilfield practices in Edwards and Real Counties					
5. Evaluation of a preferred remote well field location for the City of Kerrville					
Project Relevance					
Relevance Factor	Project				
	1	2	3	4	5
Evaluation of new water management strategies in response to changed conditions	X		X		
Studies that will further implementation of recommended water management strategies			X		X
Refinement of water supply information or water management strategies	X	X	X	X	X
Activities that will help overcome problems from the last round of planning	X	X	X	X	
Further evaluation of water management strategies, especially regional solutions, to meet needs in small and rural areas	X	X	X	X	X
Reevaluation of population and demand projects only under the presence of changed conditions					
Interregional coordination	X				
Timing of need that the proposed task addresses	2000	2010	2010	2000	2010
Total Project Cost	\$235,000	\$45,000	\$85,000	\$20,000	\$25,000

17. A task budget for detailed scope of work by task. Example is attached.

PROJECT 0 - Planning Group Administration/Public Participation

Task Budget

TASK	DESCRIPTION	COST
1	Scope of Work Preparation	\$7,000
2	Public Information Activities	\$8,000
3	Planning Group Administration	\$17,840
	Total	\$32,840

PROJECT 1 - Acquisition of Groundwater Data for Model Development in Edwards, Kinney and Val Verde Counties

Task Budget

TASK	DESCRIPTION	COST
1	Develop Scientific Review Panel	\$2,000
2	Assimilate recent aquifer information	\$8,000
3	Tracer tests	\$150,000
4	Synoptic water level measurements	\$50,000
5	Integrate isotope study data	\$3,000
6	Report preparation	\$20,000
7	Quarterly project status reports	\$2,000
	Total	\$235,000

PROJECT 2 - Collection, Analysis and Evaluation of Groundwater Isotope Chemistry Data

Task Budget

TASK	DESCRIPTION	COST
1	Project design meetings	\$5,000
2	Selection of sites and sampling	\$20,000
3	Regional evaluation	\$15,000
4	Report of findings	\$8,000
	Total	\$45,000

PROJECT 3 -Feasibility Analysis of Water Rights Acquisition, Conjunctive Use Projects, and Infrastructure Needs

Task Budget

TASK	DESCRIPTION	COST
1	Municipal supply analysis	\$20,000
2	County-other and rural supply analysis	\$20,000
3	Infrastructure cost analysis	\$20,000
4	Water supply availability modeling	\$25,000
	Total	\$85,000

PROJECT 4 - Evaluation of Groundwater Contamination from Oilfield Practices in Edwards and Real Counties

Task Budget

TASK	DESCRIPTION	COST
1	Evaluation oilfield contamination	\$12,000
2	Evaluation of open- pit issues	\$8,000
	Total	\$20,000

PROJECT 5 -Evaluation of a Preferred Remote Well Field Location for the City of Kerrville

Task Budget

TASK	DESCRIPTION	COST
1	Scoping meeting with city officials	\$1,000
2	Review of existing hydrologic data	\$2,000
3	Selection and characterization of three sites	\$14,000
4	Highway right-of-way option	\$3,000
5	Report preparation	\$5,000
	Total	\$25,000

18. An expense budget for detailed scope of work by expense category. Example is attached.

PROJECT 0 - Planning Group Administration/Public Participation

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	\$19,840
Subcontract Services	\$6,000
Voting Planning Group Member Travel	\$7,000
Overhead	
Profit	
TOTAL	\$32,840

PROJECT 1 - Acquisition of Groundwater Data for Model Development in Edwards, Kinney and Val Verde Counties

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$235,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$235,000

PROJECT 2 - Collection, Analysis and Evaluation of Groundwater Isotope Chemistry Data

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$45,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$45,000

PROJECT 3 -Feasibility Analysis of Water Rights Acquisition, Conjunctive Use Projects, and Infrastructure Needs

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$85,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$85,000

PROJECT 4 - Evaluation of Groundwater Contamination from Oilfield Practices in Edwards and Real Counties

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$20,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$20,000

PROJECT 5 -Evaluation of a Preferred Remote Well Field Location for the City of Kerrville

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$25,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$25,000

20. Specific deliverables for each task in Scope of Work.

**PROJECT 1 - Acquisition Of Groundwater Data For Model Development In
Edwards, Kinney And Val Verde Counties**

- Task 1 - Credentials of peer-review committee members
- Task 2 - Database of retrieved and acquired aquifer data.
- Task 3 - Individual memo report of results and findings of each tracer test performed.
- Task 4 - Memo report illustrating wells measured and resulting potentiometric map.
- Task 5 - Data set of chemistry analyses from Project 2.
- Task 6 - Report containing maps, charts and tables illustrating the distribution of aquifer characteristics developed from the acquired data (structure, thickness, transmissivity, water level elevation, etc.).
- Task 7 - Quarterly project status reports provided to Regions L and M.

**PROJECT 2 - Collection, Analysis And Evaluation Of Groundwater Isotope
Chemistry Data**

- Task 1 - No deliverables.
- Task 2 - Location of selected wells and springs.
- Task 3 - A data set of chemistry analyses results in a format compatible with entry into the TWDB groundwater database.
- Task 4 - A report containing data and evaluation results of the study.

**PROJECT 3 -Feasibility Analysis Of Surface Water Rights Acquisition,
Conjunctive Use Projects, And Infrastructure Needs**

- Task 1 - Report of findings and recommendations
- Task 2 - Report of findings and recommendations
- Task 3 - Report of findings and recommendations
- Task 4 - Report of findings and recommendations

**PROJECT 4 - Evaluation Of Groundwater Contamination From Oilfield Practices
In Edwards And Real Counties**

- Task 1 - Report of findings and recommendations.
- Task 2 - Report of findings and recommendations.

**PROJECT 5 - Evaluation Of A Preferred Remote Well Field Location For The City
Of Kerrville**

- Task 1 - No deliverables
- Task 2 - No deliverables
- Task 3 - Location and characterization of three priority sites
- Task 4 - Memo report describing findings of option investigation.
- Task 5 - Report documenting the results of the project and presenting recommendations for test drilling the sites.

21. Method of monitoring study progress.

The Upper Guadalupe River Authority (UGRA) will act as the overall project administrator and coordinating agency. It will be responsible for contract and planning group administration, staff support to the Plateau Water Planning Group (PWPG), and soliciting public involvement.

As the representative of the PWPG, the UGRA will direct and monitor the progress of the project, and will designate the UGRA General Manager to serve as the Project Director. The Project Director and/or his designee will be responsible for oversight of the project by the consultant and any subcontractors. The Project Director or his designee will coordinate the input of PWPG members and subcommittees, and keep the PWPG informed of the project progress with the assistance of the consultant and any subcontractors. The consultants will submit monthly progress reports to the Project Director and present updates to the PWPG members at their regularly scheduled meetings.

The applicant's financial staff will be responsible for documenting project expenses on a monthly basis, ensuring that subcontractor and consultant billings are properly documented and submitted on a timely basis. All management and oversight of planning fund dollars will be in strict accordance with the Uniform Grant Management Standards.

The main focus of the UGRA Project Director will be to facilitate the exchange of information between all the parties to the planning process. In addition, the Project Director will organize and coordinate meetings of the entire PWPG, and regional public meetings. The Project Director will also take responsibility for maintaining and updating project information on the TWDB planning web page, issuing periodic press releases, and facilitating public involvement in the planning process as directed by the PWPG.

22. Qualifications and direct experience of proposed project staff.

Raymond L. Buck, Jr. currently serves as the General Manager for the Upper Guadalupe River Authority (UGRA). Buck, a certified planner, has more than twenty years of experience in environmental and water resource management. Prior to coming to the UGRA, Buck was as responsible for many of the planning programs at the Edwards Aquifer Authority (EAA), a central-Texas groundwater district. As the only certified planner on staff, Buck took the lead in several planning initiatives resulting in the Groundwater Management Plan, the 30-year Water Supply Plan, and the Comprehensive Water Management Plan. Additionally, Buck coordinated special planning projects including recharge and recirculation and quarry use feasibility for recharge and storage. Buck also participated in regional water supply planning by serving as staff liaison to the South Central Texas Regional Water Planning Group (Region L).

In 1987, Buck joined the Bandera County River Authority (BCRA) as their first executive director. Buck developed a long-term management plan that included elements for water conservation, public awareness, water quality and quantity monitoring, and water supply development. In 1989, The BCRA became the Springhills Water Management District and took on the added responsibility of groundwater management. In addition to implementing surface water and groundwater monitoring programs for the Springhills Water Management District, Buck also worked to develop the first regional water supply plan and alternative water source for Bandera County.

III. WRITTEN ASSURANCES

Written assurance of the following items:

- *Proposed planning does not duplicate existing projects;*
- *Implementation of viable solutions identified through the proposed planning will be diligently pursued and identification of potential sources of funding for implementation of viable solutions;*
- *If a grant is awarded, written evidence that local matching funds are available for the proposed planning must be provided when the contract is executed.*

The Upper Guadalupe River Authority, on behalf of the Plateau Water Planning Group, certifies that the proposed planning does not duplicate existing projects. The Upper Guadalupe River Authority also assures the TWDB that any viable solutions identified as a result of the proposed interim projects will be diligently pursued. All applicable funding sources for the implementation of viable solutions arising out of the preparation of the revised regional water plan will also be pursued in the future.

IV. PROOF OF NOTIFICATION

Proof of notification:

Develop or revise regional water plans. Eligible applicants requesting funds to develop or revise regional water plans must, not less than 30 days before board consideration of the application, provide notice that an application for planning assistance is being filed with the executive administrator by:

- (1) publishing notice once in a newspaper of general circulation in each county located in whole or in part in the regional water planning area; and
- (2) mailing notice to each mayor of a municipality with a population of 1,000 or more or which is a county seat and that is located in whole or in part in the regional water planning area, to each county judge of a county located in whole or in part in the regional water planning area, to all districts and authorities created under Texas Constitution, Article III, §52, or Article XVI, §59, located in whole or in part in the regional water planning area based upon lists of such water districts and river authorities obtained from Texas

Commission on Environmental Quality, and all regional water planning groups in the state. The notice must include the following:

- Name and address of applicant and applicant's official representative;
- Brief description of proposed planning area;
- Purpose of the proposed planning;
- Texas Water Development Board Executive Administrator's name and address; and
- Statement that any comments on the proposed planning must be filed with the applicant and the Texas Water Development Board Executive Administrator within 30 days of the date on which the notice was mailed.

Notice was published in the San Antonio Express-News newspaper on 7/28/06 and in the San Antonio Express-News' Internet version from 7/28/06 to 8/03/06.

Notice to other required recipients was mailed/faxed on 7/28/06.

ATTACHMENT 1

PROJECT 0 - Planning Group Administration/Public Participation

The Upper Guadalupe River Authority is designated by the Plateau Water Planning Group as its administrative entity and political subdivision with authority to administer the following scope of work.

Task 1. 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 and budgets for proposed projects by the planning groups designated consultant (LBG-Guyton).
3. Prepare and submit the planning grant application for funding to TWDB.

Task 2. 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.
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. 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.
4. Provide copies of any draft and final reports resulting from planning group activities to libraries, public officials, planning group members, and interest groups.

Task 3. Planning Group Administration

1. Post public notices for public meetings of the planning group.
2. 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.
3. Administration, financial oversight and reporting associated with reimbursement of members' travel expenses and other eligible political subdivision administrative expenses.

Cost: \$32,840

PROJECT 1 - Acquisition of Groundwater Data for Model Development in Edwards, Kinney and Val Verde Counties

Description

The purpose of this study is to further characterize the Edwards and associated aquifers in Kinney, Val Verde, and southern Edwards Counties by acquiring additional hydrologic data that was not available during the development of the Edwards-Trinity (Plateau) GAM and the most recent revision of the Edwards BFZ model. The City of Del Rio and the Kinney County Groundwater Conservation District have pledged funds in support of this project.

Relevance

Kinney, Val Verde, and southern Edwards Counties occur on the southern edge of the Edwards Plateau where the Texas Water Development Board (TWDB) subdivides the Edwards aquifer into the Edwards-Trinity (Plateau) and Edwards (BFZ). This division occurs along an indefinite hydrologic boundary in Kinney County referred to as the “Edwards Groundwater Divide”. From a hydrogeologic perspective, the Edwards aquifer functions as a single hydrogeologic unit in this area. This current understanding and nature of the groundwater divide is acceptable on a regional scale; however, on the local county scale, the groundwater divide and general aquifer characteristics needs clarification so that management requirements of TWC Chapter 36 can be met.

Why do the study now?

- Proposed water exports to Region M (Laredo) and L (San Antonio) from Kinney County could impact current water management strategies (WMS) in Region J, as well as environmental resources
- Val Verde County is considering legislation to create a district in the next legislative session and needs more information
- TWDB Edwards Trinity (Plateau) GAM report indicates that the southwestern portion of the GAM area (western portion of Region J) needs significant data for further refinement to serve as an appropriate groundwater availability tool
- New study by Green, et.al. 2006 provides a new hypothesis on groundwater flow in the western Edwards aquifer and Edwards-Trinity that raises questions about current groundwater availability estimates for Region J and L
- The study will create baseline information for a new groundwater model for southwestern Edwards and Trinity (southwestern Edwards-Trinity GAM, or SWETGAM)
- The results of the study will provide valuable information for GCDs in determining groundwater availability and permitting limits in Region J, which is highly dependent on groundwater for current WMS

Beneficiaries

All water user groups in Kinney, Val Verde, and southern Edwards Counties.

Scope of Work

- Task 1 - Form a scientific review panel (SRP) consisting of appropriate groundwater science experts selected by the Planning Group to assist in appraising the scientific validity of project design and data collected during this project. SRP members should have no connection to potential water-use issues in the project area.
- Task 2 - Review recent aquifer evaluations and field studies. Extract data of importance to aquifer characterization. Acquire new data (drillers reports, pumping tests, water quality analyses, water levels) from available sources, primarily groundwater conservation districts.
- Task 3 - Perform up to four tracer tests in the Edwards aquifer. Results of the tests will help determine aquifer flow paths, recharge areas, groundwater flow velocity, and dynamics of flow through complex faulted areas.
- Obtain necessary permits to perform tracer dye injections.
 - Coordinate with the SRP and other entities (TWDB, GCDs, EAA, USGS) to develop a consistent approach for all tracer studies.
 - Build in a “Go-No Go” strategy to allow TWDB assurance that participating entities are in agreement with the plan and methods.
 - Select locations within Kinney, Val Verde, and southern Edwards Counties for tracer injection.
 - Monitor springs and wells to determine flow paths and velocity. Incorporate grab sample analyses and charcoal samplers as needed to ensure the best possible monitoring and recovery of injected tracers.
 - If possible, perform some tracer tests during high water level conditions and other traces during low water level conditions to determine if there is a difference in aquifer flow under different hydrologic conditions.
- Task 4 - Obtain synoptic water-level measurements in selected wells in the study area. Water levels can change fast in karst systems, therefore, synoptic or near synoptic data is very important in understanding flow dynamics in the Edwards. Data will provide a critically important water level data set for the proper calibration of the SWETGAM. In conjunction with the tracer studies, the synoptic measurements will provide a good scientific foundation for developing an appropriate conceptual model and model boundaries for the SWETGAM.
- Coordinate with the SRP other entities (TWDB, GCDs, EAA, IBWC) to develop an approach for collecting water levels over a short period of time (less than a week).
 - Select appropriate wells for study. Work in advance of measurement event to gain access to as many selected wells as possible.
 - Use GPS to obtain accurate locations for all wells in the study.
 - If necessary, rent equipment and do a 1-day coordination and training for all participants.
 - If possible, collect synoptic water level measurements during a dry and wet period during the two-year study.
- Task 5 - Integrate chemistry data developed in the isotope study under Project 2.

Task 6 - Analyze and evaluate new and existing data. Prepare maps, charts and tables illustrating tracer flow paths and velocity as well as water level elevation from the synoptic measurements). Provide data in a format that easily transferable to model development and application.

Task 7 - Provide project updates and conclusions to Regions L and M.

Deliverables

Task 1 - Credentials of peer-review committee members

Task 2 - Database of retrieved and acquired aquifer data.

Task 3 - Individual memo report of results and findings of each tracer test performed.

Task 4 - Memo report illustrating wells measured and resulting potentiometric map.

Task 5 - Data set of chemistry analyses from Project 2.

Task 6 - Report containing maps, charts and tables illustrating the distribution of aquifer characteristics developed from the acquired data (structure, thickness, transmissivity, water level elevation, etc.).

Task 7 – Quarterly project status reports provided to Regions L and M.

Project Budget

Task Budget

TASK	DESCRIPTION	COST
1	Develop Scientific Review Panel	\$2,000
2	Assimilate recent aquifer information	\$8,000
3	Tracer tests	\$150,000
4	Synoptic water level measurements	\$50,000
5	Integrate isotope study data	\$3,000
6	Report preparation	\$20,000
7	Quarterly project status reports	\$2,000
	Total	\$235,000

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$235,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$235,000

PROJECT 2 - Collection, Analysis and Evaluation of Groundwater Isotope Chemistry Data

Description

Isotope analyses will be conducted on selected wells and springs in the Plateau Region. The analyses will be used to determine age, origin, and ultimately flow characteristics of aquifer waters. This project will be conducted in coordination with similar studies currently underway in the Hill Country and in the Devils River region of Val Verde County. Ultimately, the results of all isotope studies will be combined to provide a regional perspective on the aquifers. Data gained from this project will also be combined with data developed from Project 1 to better define the groundwater flow characteristics of the aquifers in the southeastern portion of the Edwards-Trinity (Plateau) GAM area. The TWDB has tentatively agreed to provide funding to cover cost of sample analyses. The USGS has also expressed an interest in participating in this project by sharing in-kind services.

Relevance

Groundwater characterization continues to be a problem in the counties comprising the Plateau Region. Groundwater availability estimates calculated from GAM runs are suspect due to the limited nature of the aquifer hydrological characteristics by which the GAMs are constructed. This project will be coordinated with projects currently underway and supported by the TWDB.

Beneficiaries

All water user groups within the Plateau region will benefit from a better understanding of the principal source of water supply in the region. An increased understanding about the aquifer systems will lead to improved groundwater supply availability estimates for use in both short-term and long-term regional planning.

Scope of Work

- Task 1 - Meet with appropriate staff of the TWDB, groundwater conservation districts, Nature Conservancy, and academic researchers to survey currently operating and proposed isotopic projects in the region. Consider appropriate isotopic chemistry to pursue. Discuss how best to merge this project into ongoing projects to obtain the best regional results and to prevent duplication of effort.
- Task 2 - Identify up to 50 wells and springs for sampling that meet specified well completion and/or location criteria. Sample selected wells and springs using approved field-sampling protocol. Deliver samples to TWDB for shipment to a selected laboratory for analysis.
- Task 3 - Combine results from analyses with results produced from other associated projects into a regional aquifer evaluation.
- Task 4 - Produce a report containing data and evaluation results of the study.

Deliverables

Task 1 - No deliverables.

Task 2 - Location of selected wells and springs.

Task 3 - A data set of chemistry analyses results in a format compatible with entry into the TWDB groundwater database.

Task 4 - A report containing data and evaluation results of the study.

Project Budget

Task Budget

TASK	DESCRIPTION	COST
1	Project design meetings	\$5,000
2	Selection of sites and sampling	\$20,000
3	Regional evaluation	\$15,000
4	Report of findings	\$8,000
	Total	\$45,000

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$45,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$45,000

PROJECT 3 - Feasibility Analysis of Surface Water Rights Acquisition, Conjunctive Use Projects, and Infrastructure Needs

Description

The purpose of this study is to further evaluate water management strategies for the Plateau Regional Water Planning based on changed conditions and assist in the implementation of these strategies. This proposal focuses on the acquisition of additional surface water rights and other potential supply water management strategy options for Municipal and County-Other supplies, develop cost estimates for delivery infrastructure systems, and verify supplies available as determined by water availability modeling adjustments. The City of Kerrville and the Upper Guadalupe River Authority have expressed their commitment to this project.

Relevance

The City of Kerrville and Kerrville South WSC are projected to be in need of additional supplies by 2010. County-Other uses are also projected to need additional supplies. The ongoing summer drought of 2006 has resulted in significant and unexpected drops in aquifer levels suggesting that additional supplies are needed now. This project will evaluate the feasibility of increasing surface water supplies to meet these critical demands.

Beneficiaries

Municipal and County-Other (rural domestic) water users in Kerr and Bandera Counties.

Scope of Work

Task 1 - Municipal Supply Analysis

The task will assess the availability and feasibility of securing additional surface water supplies within Kerr County to address potential future municipal shortages.

- **Inventory and Prioritize Existing Water Rights Assessment**

In this task consultant shall evaluate existing water rights as to the quantity of water actually divertible if these water rights' diversion points were relocated to possible future diversion points. Using the adjusted naturalized flows, the water rights evaluated will be those rights included in the TCEQ's Water Availability Model (WAM) Run 3 and 8, from the confluence of the North Fork Guadalupe River and South Fork Guadalupe River downstream to the Canyon Reservoir water right. Water rights within the WAM that lie on tributaries of the Guadalupe will also be evaluated. The evaluation using Run 8 will provide an assessment of the feasibility and availability of the selected water rights and the option for any temporary contracts. The inventory will include a review and analysis of the Memorandum of Understanding between Kerr County and the Guadalupe Blanco River Authority to see how much water is available from Canyon Lake.

- **Field Work**

Under this task, field surveying will be conducted to investigate feasibility of water rights acquisition and possible relocation of potential diversion points. Field work is a reconnaissance of streamflow characteristics and potential channel losses. In addition, the field work will investigate potential groundwater and surface water interaction in the upper Guadalupe Basin as it relates to the selected water rights.

- **Surface and Groundwater Interaction**

This task will collect historical and surface water flow data available in the Upper Guadalupe River Basin and analyze such data to find any correlation between high (or low) groundwater levels and high (or low) base flow. Perform a channel loss/gain analysis on the main stem of the Guadalupe River considering data from field work (Task 1.2). The next step would calculate projected groundwater levels for the planning period. Finally, any potential adjustments of the naturalized flow of the Guadalupe River Basin WAM will be made to reflect any change on flow pattern due to change of groundwater levels. In addition, the efforts on any WAM refinements will be coordinated with the Edwards Trinity GAM to incorporate any changes and improvements.

- **Analyses and Evaluation of Water Rights**

This task will investigate and report on a financial analysis or placing a dollar value on any identified water rights. This analysis will assist the highest and best use of the water rights.

- **Report Development**

The consultant shall prepare a report of the findings and recommendations and submit one (1) draft report in hard copy and in digital format to the planning group for review. Upon PWPG's approval and receipt of any review comments, the consultant will finalize the report and send to the planning group and state for submittal. During the course of the project, the consultant will conduct up to two (2) briefing and progress meetings with the planning group.

Task 2 - County-Other and Rural Water Supply Analysis

The purpose of this task is to evaluate options available for County-Other and rural water interests to supply water during a repeat of the drought of record in Bandera and Kerr counties. The task will include investigation of UGRA's role as a county-other water supplier and existing projects to provide treated wastewater services.

- **Inventory and Evaluation of Existing Water Rights and Options**

In this task consultant shall evaluate existing water rights as to the quantity of water actually divertible if these water rights' diversion points were relocated to possible future diversion points to serve County-Other and/or rural interests.

Using the adjusted naturalized flows, the water rights evaluated will be those rights included in the TCEQ's Water Availability Model (WAM) Run 3 and 8, from the confluence of the North Fork Guadalupe River and South Fork Guadalupe River downstream to, and including the Canyon Reservoir water right. Water rights within the WAM that lie on tributaries of the Guadalupe will also be evaluated. The evaluation using Run 8 will provide an assessment of the feasibility and availability of the selected water rights and the option for any temporary contracts.

In addition, possible future diversion points are as follows:

- UGRA and Kerrville existing diversion point as currently authorized by Permits Nos. 3505, 3769, 5394A and 5394B.
- Diversion point in Flat Rock Lake at or near Flat Rock Dam.
- Any other identified water rights in the area.

Consultant will consider the following strategies during the analysis:

- UGRA water rights and subordination agreements
- GBRA and Kerr County negotiations
- Other strategies: rural water rights, reuse of treated wastewater and distribution
- Bandera County use of water from Medina Lake
- **Field Work**
Under this task, field surveying will be conducted to investigate feasibility of water rights acquisition and possible relocation of potential diversion points. Fieldwork is a reconnaissance of streamflow characteristics and potential channel losses. In addition, the fieldwork will investigate potential groundwater and surface water interaction in the upper Guadalupe Basin as it relates to the selected water rights.
- **ASR and Conjunctive Use Potential**
This task will provide a preliminary analysis of conjunctive use potential for County-Other and rural users and investigate the feasibility of a UGRA ASR system to augment County-Other supplies in their service area. The analysis will include potential siting, water availability evaluations, and potential infrastructure needed to operate an ASR for UGRA.
- **Analyses and Evaluation of Water Rights**
This task will investigate and report on a financial analysis or placing a dollar value on any identified water rights. This analysis will assist the highest and best use of the water rights.
- **Report Development**
The consultant shall prepare a report of the findings and recommendations and submit one (1) draft report in hard copy and in digital format to the planning group for review. Upon PWPG's approval and receipt of any review comments, the consultant will finalize the report and send to the planning group and state for submittal. During the course of the project, the consultant will conduct up to two (2) briefing and progress meetings with the planning group.

Task 3 - Infrastructure costs (distribution within Kerr County and surrounding areas)

The task will investigate the feasibility of moving acquired water rights and/or treated wastewater to rural and county-other water uses in Kerr and Bandera counties.

- **Review Previous and On-going Studies**

The task will investigate any historical and on-going studies to provide treated wastewater services to water user groups in the Plateau Planning Area.

- **Analysis of Infrastructure and Distribution System Potential**

The task will investigate any historical and on-going studies to provide treated wastewater services to water user groups in the Plateau Planning Area.

- **Report Development**

The consultant shall prepare a report of the findings and recommendations and submit one (1) draft report in hard copy and in digital format to the planning group for review. Upon PWPG's approval and receipt of any review comments, the consultant will finalize the report and send to the planning group and state for submittal. During the course of the project, the consultant will conduct up to two (2) briefing and progress meetings with the planning group.

Task 4 - Availability models

This task will evaluate the existing surface and groundwater availability models and provide any updates or changed conditions to assess water supplies available in the Plateau Planning Area.

- **Input Data Analysis**

The input files for the WAM and GAM models will be reviewed based on data collected in Tasks 1 & 2 to evaluate any changes in the availability models and their impact on supply availabilities.

- **Model Evaluation**

Any changed conditions based on Task 4.1 will be reviewed and analyzed in both the surface and groundwater models for significant changes in availabilities or yields.

- **Report Development**

The consultant shall prepare a report of the findings and recommendations and submit one (1) draft report in hard copy and in digital format to the planning group for review. Upon PWPG's approval and receipt of any review comments, the consultant will finalize the report and send to the planning group and state for submittal. During the course of the project, the consultant will conduct up to two (2) briefing and progress meetings with the planning group.

Deliverables

Task 1 – Report of findings and recommendations

Task 2 – Report of findings and recommendations

Task 3 – Report of findings and recommendations

Task 4 – Report of findings and recommendations

Project Budget

Task Budget

TASK	DESCRIPTION	COST
1	Municipal water supply analysis	\$20,000
2	County-other and rural water supply analysis	\$20,000
3	Infrastructure cost analysis	\$20,000
4	Supply availability modeling	\$25,000
	Total	\$85,000

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$85,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$85,000

PROJECT 4 - Evaluation of Groundwater Contamination from Oilfield Practices in Edwards and Real Counties

Description

This project consists of two phases, both of which are concerned with existing and potential groundwater contamination issues pertaining to oilfield practices in Edwards and Real Counties. Most of the oil wells in the Wardlaw Oilfield in western Edwards County were drilled in the 1940s, are less than 500 feet in depth, and produce low volumes of oil. At this depth, the oil occurs in the upper few feet of the Edwards aquifer. The purpose of phase one of this project is to determine if the oil is naturally occurring or is migrating upward from deeper sources in abandoned wells, and if the occurrence of oil in the Edwards aquifer is spreading to surrounding water wells.

The second issue concerns the contamination of groundwater from unlined pits used in the drilling for and in the production of oil and gas in Edwards and Real Counties. This project will examine the past and present use of unlined pits in the local karst terrain and their resulting potential harm to existing fresh groundwater supplies.

Relevance

Contamination of fresh groundwater sources in this rural area of the Plateau Region has significant consequences on supplies needed to meet the expected demands of these counties. The issue of groundwater contamination resulting from unlined pits is in reality a statewide problem. The Plateau Planning Group proposes to use this project as a test case to spotlight this growing problem.

Beneficiaries

This project will specifically benefit rural groundwater users (domestic and ranching) in Edwards and Real Counties; but as mentioned above, also has far-ranging impacts statewide.

Scope of Work

Task 1. Evaluation of oilfield contamination

1. Assess contaminated water well to determine the source of the oil contamination.
2. Sample other water wells in the area to determine if the contamination is spreading or is limited to the one well.
3. Determine if the contaminated well can be fixed or if it will need to be plugged and at whose expense (Landowner or Oil Company)
4. Determine steps needed to prevent further contamination
5. Determine what, if any, action and against whom should be taken to clean up contamination source.

Task 2. Evaluation of open- pit issues

1. Conduct soil assessments of up to five open pits to determine the depth of saturation of any contaminants.
2. Determine what power and authority a groundwater conservation district may have regarding requiring all open pits used for oil and gas exploration and production be lined.
3. Provide documentation and recommendations to the Rail Road Commission to encourage the passage of rules/legislation intended to discontinue the use of unlined pits.

Deliverables

Task 1 – Report of findings and recommendations.

Task 2 - Report of findings and recommendations.

Project Budget

Task Budget

TASK	DESCRIPTION	COST
1	Evaluation oilfield contamination	\$12,000
2	Evaluation of open- pit issues	\$8,000
	Total	\$20,000

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$20,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$20,000

PROJECT 5 - Evaluation of a Preferred Remote Well Field Location for the City of Kerrville

Description

Plateau Water Plan strategy J-2 describes additional groundwater supplies to be obtained by the drilling and completion of a remote (away from the existing well field) well field. This project is intended to bring this strategy closer to fulfillment by determining the best location based on aquifer hydrogeologic properties, potential for property purchase or lease, and economic considerations.

Relevance

The City of Kerrville's conjunctive use policy dictates obtaining its water supply from both surface water and groundwater sources. Water derived from this strategy will be used to meet a projected municipal supply deficit in 2010.

Beneficiaries

The City of Kerrville and other entities that purchase water from Kerrville will benefit from this project.

Scope of Work

- Task 1 - Meet with city officials to outline important factors in the selection of a well field site including yield and timing requirements, economic constraints, property and/or water rights purchase or lease, and other pertinent considerations.
- Task 2 - Review existing hydrogeologic data (reports, maps, drillers reports, consulting reports, etc.) within a specified radius of the city's distribution system.
- Task 3 - Select, describe, and prioritize at least three sites recommended for further detailed evaluation.
- Task 4 - Investigate option to obtain water rights underlying State and Interstate Highway right-of-ways for in-county use.
- Task 5 - Prepare a report documenting the results of the project and presenting recommendations for test drilling the sites.

Deliverables

- Task 1 - No deliverables
- Task 2 - No deliverables
- Task 3 - Location and characterization of three priority sites
- Task 4 - Memo report describing findings of option investigation.
- Task 5 - Report documenting the results of the project and presenting recommendations for test drilling the sites.

Project Budget

Task Budget

TASK	DESCRIPTION	COST
1	Scoping meeting with city officials	\$1,000
2	Review of existing hydrologic data	\$2000
3	Selection and characterization of three sites	\$14,000
4	Highway right-of-way option	\$3,000
5	Report preparation	\$5,000
	Total	\$25,000

Expense Budget

CATEGORY	TOTAL AMOUNT
Salaries and Wages	
Fringe	
Travel	
Other Expenses	
Subcontract Services	\$25,000
Voting Planning Group Member Travel	
Overhead	
Profit	
TOTAL	\$25,000

ATTACHMENT 2



CITY OF DEL RIO

109 West Broadway
Del Rio, Texas 78840-5527

September 13, 2006

Mr. Kevin Ward
Executive Administrator
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711-3231

Reference: City of Del Rio Financial Support of the Region J Proposed Project No. 1 to be Submitted for Consideration and Funding by the Texas Water Development Board.

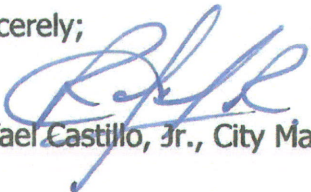
Dear Mr. Ward:

Last night on September 12, 2006, the City Council of the City of Del Rio, Texas approved for the City of Del Rio to participate on proposed Project 1 with the Region J Plateau Region Water Planning Group. The Project 1 is estimated at a possible cost of approximately \$235,000.00.

The City of Del Rio wishes to participate in this project, provided it is approved for funding by the Texas Water Development Board. The City of Del Rio will provide funds in the amount of \$25,000.00 each year for the next two years for a total of \$50,000.00 as a match to assure better consideration by TWDB for authorization of Project 1 proposed by Region J, Plateau Region Water Planning Group.

In the event Project 1 is not approved and authorized for TWDB funding, then the City of Del Rio will not provide any funding thru Region J to TWDB. We are prepared to assist and if you have any questions, call me at (830) 774-8535 or call our City Engineer, Mr. Alejandro A. Garcia, P.E., at (830) 774-8535 or cell line (830) 734-4029.

Sincerely;



Rafael Castillo, Jr., City Manager

CC: Billy R. Guerra, Assistant City Manager
Alejandro A. Garcia, P.E., City Engineer
Robert C. Parker, P.E., Asst. City Engineer
David V. Sorola, City Attorney
Mayor Efrain V. Valdez
City Council Members

KINNEY COUNTY GROUNDWATER CONSERVATION DISTRICT

Cecil Smith, President, Director Precinct 2
Don Hood, Vice-President, Director Precinct 4
Tootsie Herndon, Secretary/Treasurer, Director District at Large
Chuck Hall, Director Brackettville at Large
Duke Meek, Director Fort Clark Springs At Large
Christopher Ring, Director Precinct 3
Beth Ann Smith Director Precinct 1
Darlene Shahan, General Manager

Post Office Box 369
Brackettville, Texas 78832
Phone: 830/563-9699
Facsimile: 830/563-9606
Email: kcgcd@sbcglobal.net

September 10, 2006

Texas Water Development Board
Austin, Texas

RE: Region J Water Planning Committee
2007-2011 Scope of Work

Via: Email to John Ashworth

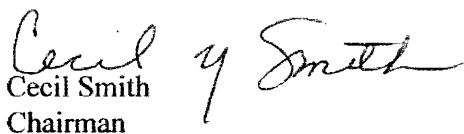
Dear Sirs:

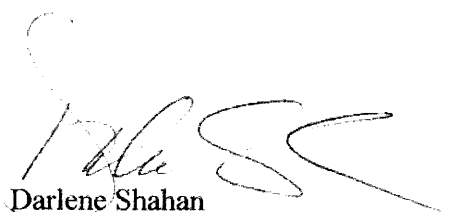
The Kinney County Groundwater Conservation District endorses the acquisition and compilation of groundwater data from Edwards, Kinney and Val Verde Counties for groundwater model development. We support the proposals set forth in the Plateau Regional Groundwater Planning Committee Scope of Work for the next two years of the 2007-2011 planning cycle.

The District will consider donating sums of money as matching funds if the project is approved. Those matching funds could include amounts up to \$10,000. We would be committing funds designated as "Research" in our current and next year's Budgets. The District would also offer at this time to assist in raising any additional matching funds. It is the intent of the District that these funds be applied to the Kinney County portion of the Scope of Work proposed by Region J.

We would like to take this opportunity to thank you for your continued support and assistance in conserving and protecting the aquifers of Kinney County, Texas. Please call if we may be of assistance or if you have any questions or comments.

Respectfully,


Cecil Smith
Chairman


Darlene Shahan
General Manager

CS/d

xc: R Lowerre



September 13, 2006

Guadalupe Basin
Natural
Resources Center
125 Lehmann Drive
Ste. 100
Kerrville, Texas
78028-5908
(830) 896-5445
Fax (830) 257-2621
E-mail: ugraadm@ugra.org

Mr. Kevin Ward
Executive Administrator
Texas Water Development board
P.O. Box 13231
Austin, Texas 78711-3231

RE: Upper Guadalupe River Authority financial support for the Plateau Water Planning Group Proposal Number 3 to be submitted for funding through the TWDB.

Dear Mr. Ward:

The Upper Guadalupe River Authority (UGRA) is committed to providing water supply to those areas of Kerr County experiencing declining groundwater levels. It is our intent to conjunctively utilize our surface water permit, Permit 5394A, with other available surface and groundwater supplies to meet the water supply deficit in Kerr County.

In our proposed Fiscal Year 2007 budget we have allocated \$200,000 for additional surface water purchases and potential aquifer storage and recovery projects. We've allocated another \$25,000 for research aimed at evaluating our surface water permit. If this proposal is approved for funding through TWDB, we would welcome the opportunity to consider leveraging our funds for evaluation of this strategy.

Sincerely,

Raymond L. Buck, Jr.
General Manager

RLB\

cc: Jonathan Letz
Ronnie Pace
Walter Schellhase

UGRA



City of Kerrville Utility Administration

800 Junction Highway · Kerrville, Texas 78028-5069
Ph 830-792-8317 · Fax 830-896-8793

September 8, 2006

Water Development Board
1700 N. Congress
P.O. Box 13231
Austin TX, 78717

Attn: Kevin Ward, Executive Administrator

Re: City of Kerrville's letter of intent to partially funding Projects #3, #5 on Region J's behalf.

Dear Mr. Ward:

The City of Kerrville would like to express our interest in possible participating in partially funding Project # 3 Feasibility Analysis of Water Rights Acquisition for Municipal Use from the Upper Guadalupe Basin, Canyon Lake and Medina Lake and Project #5 Evaluation of a Preferred Remote Well Field Location for the City of Kerrville. At the current time I am unable to give you specific amount, as council has not allocated an amount for these projects. Though we are very interested in these projects and will be willing to help fund them at some level.

The City of Kerrville has budgeted a line item for FY 07 titled " Water Supply Acquisition " to develop new raw water resources. There is a possibility of utilizing some of these funds for this purpose, subject to Council Approval. The City has identified surface water rights to purchase, and we are planning on move forward with our next production well by drilling test wells to determine the best possible site for a new well or even a remote well field. Some engineering fees will also be paid for, with this money. If and when Water Development Board picks one or both of these projects, I will take this issue to City Council to ask them for funds. Please call me if you have any questions (830) 792-8317.

Sincerely,

Stuart Barron
Water/Wastewater Manager

CC: Paul A. Hofmann, City Manager
Charlie Hastings, Public Works Director
Jonathon Letz, Region J Chainman