

Exhibit C
Scope of Work
Plateau Region (J) Revised Scopes of Work
For Recommended Studies

Administration/Public Participation

Task 1 - Scope of Work Preparation

- A. Post public notice and hold public meeting to gather input on scope of work and regional priorities
- B. Prepare scopes of work and budgets for proposed projects by the planning groups designated consultant (LBG-Guyton).
- C. Prepare and submit the planning grant application for funding to TWDB.

Task 2 - Public Information Activities

- A. 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.
- B. 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.
- C. 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.
- D. 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

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

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

Task 1 – Develop Scientific Review Panel

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. Interim deliverable for task will be the credentials for peer-review committee members.

Task 2 – Assimilate Recent Aquifer Information

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. Interim deliverable will be a database of retrieved and acquired aquifer data.

Task 3 – Tracer Tests

Perform up to two 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.

- A. Obtain necessary permits to perform tracer dye injections.
- B. Coordinate with the SRP and other entities (TWDB, GCDs, EAA, USGS) to develop a consistent approach for all tracer studies.
- C. Build in a “Go-No Go” strategy to allow TWDB assurance that participating entities are in agreement with the plan and methods.
- D. Select locations within western Kinney and Val Verde Counties for tracer injection. (Note: locations will not overlap the tracer test project proposed by the EAA for eastern Kinney County.)
- E. 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.
- F. 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.
- G. Interim deliverable will be a memorandum describing the results and findings of each tracer test performed.

Task 4 – Synoptic Water Level Measurements

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.

- A. 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).
- B. Select appropriate wells for study. Work in advance of measurement event to gain access to as many selected wells as possible.
- C. Use GPS to obtain accurate locations for all wells in the study.
- D. If necessary, rent equipment and do a 1-day coordination and training for all participants.
- E. If possible, collect synoptic water level measurements during a dry and wet period during the two-year study.

G. Interim deliverable will be a memorandum illustrating wells measured and the resulting potentiometric map.

Task 5 – Integrate isotope study data

Integrate available chemistry data, specifically isotope studies currently in progress.

Task 6 – Report Preparation

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 is easily transferable to model development and application. Prepare a draft and final report to include the following sections: executive summary, purpose of study including how the study supports regional water planning, methodology, results, and recommendations, if applicable. Draft report will be submitted to the planning group and the TWDB for review and comment. All comments will be addressed in the final report. Report will contain maps, charts and tables illustrating the distribution of aquifer characteristics developed from the acquired data (structure, thickness, transmissivity, water level elevation, etc.).

The report will be submitted per TWDB requirements and results from this study will be included in the 2011 Plateau (J) Regional Water Plan. The development, analysis, and reporting of results will follow methodologies and guidance according to Exhibit B and agency rules.

Task 7 – Quarterly Project Status Reports

Provide quarterly project updates and conclusions to TWDB and Regions J, L, and M.

Study 2 - Feasibility Analysis of Surface Water Rights Acquisition, Conjunctive Use Projects, and Infrastructure Needs

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.

A. Inventory and Prioritize Existing Water Rights Assessment

In this task contractor 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 River 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.

B. 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.

C. Surface and Groundwater Interaction

This task will collect historical 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.

D. 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.

E. Interim Memorandum Development

The consultant shall prepare an interim memorandum 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 the planning group's approval and receipt of any review comments, the consultant will finalize the report and send to the planning group and TWDB for submittal. During the course of the project, the contractor 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.

A. Inventory and Evaluation of Existing Water Rights and Options

In this task contractor 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 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.

Contractor 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

B. 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.

C. Aquifer Storage and Recovery (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.

D. 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.

E. Interim Memorandum Development

The contractor 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 the planning group's approval and receipt of any review comments, the contractor will finalize the report and send to the planning group and TWDB for submittal. During the course of the project, the contractor will conduct up to two (2) briefing and progress meetings with the planning group.

Task 3 - Infrastructure Costs Analysis

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.

A. 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.

B. 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.

C. Report Development

The contractor 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 the planning group's approval and receipt of any review comments, the contractor will finalize the report and send to the planning group and state for submittal. During the course of the project, the contractor will conduct up to two (2) briefing and progress meetings with the planning group.

Task 4 – Supply 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.

A. 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.

B. 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.

C. Interim Memorandum Development

The contractor 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 contractor will finalize the report and send to the planning group and state for submittal. During the course of the project, the contractor will conduct up to two (2) briefing and progress meetings with the planning group. The final report will follow the content guidelines in the updated Exhibit B document.

Task 5 – Study Report

Prepare a draft and final report to include the following sections: executive summary, purpose of study including how the study supports regional water planning, methodology, results, and recommendations, if applicable. Draft report will be submitted to the planning group and the TWDB for review and comment. All comments will be addressed in the final report.

The report will be submitted per TWDB requirements and results from this study will be included in the 2011 Plateau (J) Regional Water Plan. The development, analysis, and reporting of results will follow methodologies and guidance according to Exhibit B, and agency rules.