

**Exhibit A
Scope of Work**

**RIO GRANDE 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 Rio Grande Region 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

- 1.1. Update endangered/protected species list to incorporate changed conditions

Task Description

Funding requested for this individual task will be used to update the protected and/or endangered species list that was included in the previous regional water plan. Research will be performed to determine the status of state and national protected/endangered species located in Region M.

Deliverables

An updated list of endangered/protected species, similar to the last round of Regional planning, will be provided.

- 1.2. Inclusion of information pertaining to the proposed border fence

Task Description

The proposed border fence, as proposed by the United State Government, will have a pronounced impact on the Region in terms of topography and socioeconomic characteristics of the Region. This task will include compiling preliminary information in terms of border fence location and potential impacts to the region.

Deliverables

A summary of the proposed border fence (construction methods, general design, etc.) will be provided as will a proposed location map. In addition, a summary of potential impacts to the socioeconomic makeup of the Region, in terms of agriculture, livestock, and foreign trade, will be included in the plan.

1.3. Include information on the Water Right Conversion Bill

Task Description

The Water Right Conversion Bill details the specific water right conversion method to be used when land is urbanized (taken out of agricultural use). Senate Bill 3 Provides a methodology for the change of use of water from irrigation (agricultural) use to municipal use relating to subdivided urbanized property and sale to potable water suppliers in Hidalgo, Cameron and Willacy Counties in the Lower Rio Grande Districts. This specific task will include summarizing the Conversion Bill and including that information in the Regional Water Plan

Deliverables

A summary of the Conversion Bill, in terms of regional surface water resources, will be provided in the Regional Plan.

1.4. Include information on the Arroyo Colorado Watershed Protection Plan

Task Description

This task will include obtaining and summarizing the results of the Arroyo Colorado Watershed Protection Plan for inclusion in the Regional Plan.

This plan:

- Educates the public of the purpose of the Arroyo Colorado watershed Partnership, the need for the Partnership and issues of the watershed
- Covers and defines basic watershed information (e.g. what is a watershed, we all live in a watershed; how water is collected, treated, cleaned; etc.)
- Contains input from stakeholders taking into consideration their priorities and goals for the watershed
- Inventories education, funding and outreach tools with a description of each
- Meets the goals and mission of the Arroyo Colorado Watershed Partnership
- Fulfills the nine elements required by US EPA

Deliverables

A summary of work being performed and results obtained to date will be included in the Regional Plan. This summary will include the previously mentioned Protection Plan elements and will expand on those findings in order to provide the Regional Water Plan information pertaining to surface water quality, surface water resources, protected areas, and threats to agricultural and natural resources.

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

2.1. Update population figures for WUGs

Task Description

Population figures for each WUG will be updated based on input received from the individual WUGs. Should an individual WUG wish for their population figures to be updated, the WUG in question will supply data supporting their desire. These figures will be reviewed by the Regional Planning Group, and a recommendation will be made regarding the incorporation of such changes in the Regional Water Plan. The intent of Task 2.1 is to update population figures for water user groups (WUGs) throughout the region based on *changed conditions*. Potential changes to population figures would include cases where a WUG has annexed land and the effective population has risen or portions of a previously evaluated WUG are no longer served by that entity, to name a few. It should be noted that population figures will not be updated unless unambiguous changed conditions warrant doing so.

Deliverables

Revised population figures for inclusion in the Regional Plan.

2.2. Revise water demand projections for WUGs and WWPs

Task Description

Water demand projections for each WUG and WWP will be updated based on input received from the individual WUGs/WWPs. Should an individual WUG/WWP wish for their water demand projections to be updated, the WUG/WWP in question will supply data supporting their desire. These figures will be reviewed by the Regional Planning Group, and a recommendation will be made regarding the incorporation of such changes in the Regional Water Plan.

Deliverables

Revised water demand figures for inclusion in the Regional Plan

2.3. Inclusion of entities not included in the previous regional water plan

Task Description

The anticipated changes, in terms of WUGs/WWPs, from the previous plan will be the inclusion of individual Irrigation Districts, Jim Hogg Co. WCID2, and Union WSC as WUGs/WWPs. The analysis of individual Irrigation Districts is being performed in the current planning cycle. The TWDB is providing water demand and population projections for Jim

Hogg WCID2 and Union WSC. This task will incorporate those findings into the Regional Water Plan, including the TWDB database.

Deliverables

Irrigation Districts, Jim Hogg WCID2, and Union WSC as WUGs/WWPs will be included in the Regional Water Plan in terms of base water demands, water demand projections, and population projections. The database will also be updated.

2.4. Review of new water demand projections for Steam-electric

Task Description

Updated information will be provided by the TWDB. The regional planning group will review these figures and request revisions, should they be necessary.

Deliverables

Update the Regional Plan to address changes to steam-electric water demands.

2.5. Evaluate water demands of Ethanol production plants

Task Description

There has been much discussion regarding the water usage of Ethanol production plants throughout the Region. Ethanol production plants' water consumption can be defined in terms of evaporation and wastewater discharge. The water consumption is expected to be great, and it is necessary to include this specific industry in the Regional Plan. This task will allow the region to properly plan for upcoming Ethanol production plants in terms of water demands to avoid future conflict. The location and capacity of potential production plants will be researched, and water demands will be defined for these potential plants.

Deliverables

Water demand projections for Ethanol Plants will be provided on a county-by-county basis.

Task 3A. Chapter 3. Water Supply Analysis

3.1. Update firm yield of surface water supply volumes due to changed water rights

Task Description

This task will incorporate the findings of the Surface Water Right Management Study (currently being performed) into the Regional Water Plan (including the database).

Deliverables

Revised surface water supply figures will be provided. The database will be modified accordingly.

3.2. Update water supply figures due to contractual or infrastructure changes

Task Description

The Hidalgo Water Supply project is one in which water from drainage ditches in Hidalgo County will be recaptured and treated. This water supply could potentially serve water users in the region. This will be a new source of water for the region. The proposed water source has not previously been included in the Regional Plan. It should be noted that the water supply will come from drainage ditches, not the irrigation conveyance system. This task will be to determine the firm yield of the water source. The goal of Task 3.3 will be to revise water supply figures (due to the inclusion of a new source of water) in the Regional Water Plan and the database. A large portion of the data needed to accomplish this task will be obtained from the Hidalgo County Drainage District (HCDD) September 2006 report as well as any future planning activities being pursued by HCDD. The scope-of-work funding request for this task reflects the needs of the planning group to obtain information from the HCDD, and no duplication of work will take place.

Deliverables

Revised water supply availability numbers for the Region will be provided. The database will be modified accordingly.

3.3. Evaluate the potential pipeline from Falcon Reservoir to Matamoros, Mexico in terms of water supply changes

Task Description

Mexico is considering a pipeline from Falcon Reservoir to Matamoros, Mexico for municipal water use. This project could impact the amount of water available in the Rio Grande which could subsequently have an impact on the amount of water the Region could expect to receive from Mexico in the future. Additional ramifications to this project could include impacts to water quality and down river supplies. This task will evaluate these potential impacts and provide a future water supply scenario based on the Falcon/Matamoros pipeline.

Deliverables

A description of the proposed project, along with water supply projections associated with the implementation of said project, will be provided.

- 3.4. Address Subchapter O, Chapter 49, Texas Water Code (the Water Right Conversion Bill) passed by the Legislature in 2007 (H.B. 1803) in terms of WUG/WWP water supplies

Task Description

This task will evaluate changes to water supplies for individual WUGs/WWPs as a result of the Water Right Conversion Bill. As land becomes urbanized, water rights associated with that land are converted based on language in the Bill. Existing water supplies will not change as a result of this bill. However, the method in which water rights are sold and converted has changed.

Deliverables

A summary of the Water Right Conversion Bill, in terms of the transfer and/or sale of water rights and the potential impact on water supply transfers from agricultural to municipal users, will be provided.

Task 3B. Chapter 3. Update Groundwater Availability based on recommendations from the GMAs.

- 3.5. Update groundwater availability figures based on recommendations from the Groundwater Management Areas This task is contingent on the completion/availability of MAGs (managed available groundwater estimates) from the TWDB.

Task Description

This task will incorporate the revised groundwater availability figures, as compiled by the Groundwater Management Areas within the region, into the Regional Plan.

Deliverables

Revised groundwater supply figures will be incorporated into the Regional Plan. The database will be modified accordingly.

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

- 4.1. Update WMS capital and annual costs

Task Description

Due to changed conditions associated with increases in technology and increases in the cost of raw materials, equipment, and services, capital and O&M costs for each WMS will need to be reevaluated.

Deliverables

Costs for all existing WMSs will be reevaluated and revised accordingly per Exhibit C. The database will be modified accordingly.

- 4.2. New WMSs for new WUGs and WWPs

Task Description

Due to the inclusion of individual Irrigation Districts, Jim Hogg WCID2, and Union WSC as WUGs/WWPs, WMSs will need to be evaluated for these entities. This task will provide WMS recommendations needed to alleviate water supply deficits.

Deliverables

Water supply/demands will be evaluated for all new WUGs and WWPs. WMS recommendations needed to alleviate water supply deficits will be provided. The database will be modified accordingly.

4.3. Inclusion of four new WMSs

Task Description

- a. It has been proposed to install a pipeline from Dimmit County, Texas into the region. This pipeline will provide raw water to users within the region. This will be a new source of water for the region. This task will evaluate the potential for this pipeline as a WMS, water supply yield, cost, potential environmental impacts, and potential WUG/WWP implementation. This task is aimed at incorporating the Dimmit County pipeline project into the Rio Grande Regional Water Plan. It is the intent of the Regional Water Planning Group to obtain all studies previously performed in conjunction with this project. The budget cost for this task reflects all the work necessary to include the pipeline project in the regional water plan as a WMS (strategy description, water supply yield for individual WUGs, cost, environmental impact, implementation issues, and recommendations). In short, the planning group will obtain as much information as possible from the Dimmit County water marketer group. From there, the pipeline project will be evaluated as a WMS based on the information made available. No duplication of work will take place.
- b. Resaca restoration has the potential to water storage capability for a number of WUGs/WWPs in the region. This task will be to develop water supply yield, cost, potential environmental impacts, and potential WUG/WWP implementation. Resacas and reservoirs are used by a number of municipalities and irrigation districts in the region as a form of storing surface water. Preliminary discussions with many of these entities have allowed the planning group to ascertain that dredging and other forms [i.e. refurbishing of earthen liner, removal of plant material and debris, etc.] of restoration have the potential to: 1) provide additional water storage capacity; and 2) reduce the overall percentage of water lost due to seepage and evaporation as a function of storage capacity. The intent of this task is to evaluate resaca and reservoir restoration as a WMS (strategy description, water supply yield for individual WUGs, cost,

environmental impact, implementation issues, and recommendations).

- c. As water usage is transferred from agricultural users to municipal users, infrastructure needs are also altered. Specifically, the need for expanded reservoir storage can shift from one user to the other. This task will be to evaluate the feasibility of transferring reservoir storage from one entity to another. In addition, water supply yields, cost, and potential environmental impacts will be evaluated. Task 3.5 is associated with evaluating the Water Right Conversion Bill in terms of water supply. This task (4.4c) is aimed at evaluating the feasibility of transferring storage capacity from one water user to another based on need. The Water Right Conversion Bill deals solely with water rights and not storage. However, as water rights are transferred from one user to another, there is the potential that storage capacity could also be transferred. Therefore, the planning group wishes to evaluate the potential for transferring storage capacity from one user to another based on need thereby creating a new WMS. This strategy will be evaluated in terms of strategy description, water supply yield for individual WUGs, cost, environmental impact, implementation issues, and recommendations.
- d. The Hidalgo Water Supply project is one in which water from drainage ditches in Hidalgo County will be recaptured and treated. This water supply could potentially serve water users in the region. This will be a new source of water for the region. The proposed water source has not previously been included in the Regional Plan. It should be noted that the water supply will come from drainage ditches, not the irrigation conveyance system. This task will evaluate the potential for this project as a WMS, water supply yield, cost, potential environmental impacts, and potential WUG/WWP implementation. The proposed HCDD project will utilize Hidalgo County's existing drainage/flood control systems to collect rainfall runoff and shallow groundwater discharges for beneficial uses. Task 3.3 will evaluate the extent of this water supply, and this task (4.4.d) will evaluate the HCDD project as a new WMS in terms of strategy description, water supply yield for individual WUGs, cost, environmental impact, implementation issues, and recommendations. The ability to develop this task is contingent on the outcome of Task 3.3 – if a sufficient and reliable firm yield can be established for this water source.

Deliverables

A full analysis of the four new WMSs will be provided in a format similar to the last round of Regional planning. In addition, WMS implementation schedules and WMS yields will be evaluated. Recommendations for WMS implementation will be provided. The database will be modified accordingly.

4.4. Updates to individual WUG/WWP strategies based on changes to water demand and supply

Task Description

Should changes to water supply and demand figures impact an individual WUG/WWP, WMSs will need to be reevaluated. This task will analyze changes to water supplies and yields and develop/alter previous WMSs to meet the needs of the WUG/WWP.

Deliverables

Decision documents will be revised according to changes in water supply and demand figures for individual WUGs/WWPs. WMS implementation schedules and WMS yields will be evaluated and categorically included in the plan. The database will be modified accordingly.

4.5. Establishment of alternative WMSs

Task Description

Recent changes to guidelines governing WMSs for individual WUGs/WWPs allows for alternative WMSs to be evaluated and included in the Regional Plan. This task will evaluate alternative WMSs for individual WUGs/WWPs should the strategy originally recommended no longer be feasible. In addition, to address potential changes to water supply due to previously unaccounted-for water losses (such as invasion of aquatic weeds and noncompliance of water deliveries by Mexico to the Rio Grande per the 1944 Treaty), alternative WMSs will be evaluated to make up for these potential deficits.

Deliverables

Alternative WMSs will be evaluated and included in the Regional plan. The database will be adjusted accordingly.

4.6. Evaluate WMSs for Ethanol Production Plants

Task Description

As previously described, there has been much discussion regarding the water usage of Ethanol production plants throughout the Region. The water demand is expected to be great, and it is necessary to include this specific industry in the Regional Plan. This task will evaluate WMSs needed to meet the water demand of such plants.

Deliverables

WMSs will be developed for Ethanol production plants. These WMSs will be included in the Regional Plan and the database.

Task 4B. Chapter 4. Revisions of Groundwater WMSs due to revised Groundwater Availability

- 4.7. Revisions of groundwater WMSs due to revised groundwater availability. This task is contingent on the completion/availability of MAGs (managed available groundwater estimates) from the TWDB.

Task Description

Based on the recommendations put forth by the Groundwater Management Areas, the potential supply of groundwater for additional WMSs will be altered. This task will revise existing groundwater WMSs (groundwater wells and brackish water desalination) according to the revised water supply numbers.

Deliverables

Groundwater WMS implementation schedules and quantities will be reevaluated and revised accordingly. Revised firm yields for groundwater WMSs will be provided. The database will be modified accordingly.

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

- 5.1. Address new WMSs

Task Description

For new WMSs, the impacts associated with such must be evaluated based on the criteria laid forth by the TWDB.

Deliverables

Writeups for new WMSs will be developed according to guidelines laid forth by the TWDB.

- 5.2. Update impact of moving water from rural and agricultural areas based on the results of the current Irrigation District study

Task Description

Information obtained as a result of the Irrigation District study currently being performed by the Region must be analyzed in terms of the environmental and socioeconomic impacts. Results of the Irrigation District study will include data quantifying urbanization. This task will explain the impacts of urbanization in terms of water quality changes and other impacts associated with moving water from agricultural to municipal users.

Deliverables

A summary of impacts associated with Irrigation District urbanization will be included in the Regional report.

- 5.3. Evaluate the impact of WMSs, in which alternative sources of water (groundwater and seawater) will be used in lieu of water from the Rio Grande, on Irrigation Districts

Task Description

The Region relies heavily on the distribution system of Irrigation Districts to provide irrigation water to agricultural users as well as raw water to municipalities and other water users. As alternative sources of water (groundwater and seawater) are developed for use by WUGs throughout the Region, there is the potential for decreased flows through the existing raw water distribution network. The decrease in flows throughout the distribution system can have an impact on a number of environmental factors. This task will evaluate environmental impacts such as increased sedimentation in the distribution system, a decrease in water quality (i.e. higher total dissolved solids concentration and less dissolved oxygen), a potential decreased need for storage and the associated impact on riparian vegetation, and the impact that decreased conveyance system flows may have on ancillary water sources that are fed by distribution system seepage. In addition, socioeconomic factors associated with decreased distribution system flows will be evaluated. These factors include the potential loss of revenue for Irrigation Districts who depend on water deliveries for income as well as the potential socioeconomic factors associated with a decrease in push water.

Deliverables

A summary of impacts of municipal WMSs on Irrigation Districts and other agricultural water users will be included in the Regional plan. These impacts will include loss of income, environmental impacts due to changes in distribution flows, and environmental impacts associated with potential conveyance system improvements. This specific task will be performed according to TWDB regulations and rules regarding Task 5.

- 5.4. Evaluate the impact of WMSs, in which alternative sources of water (groundwater and seawater) will be used in lieu of water from the Rio Grande, on environmental flows

Task Description

The issue of environmental flows, more specifically the impact that an increase or decrease in Rio Grande flows will have on the environment, is a critical component to the overall success of region wide water planning. As alternative sources of water (groundwater and seawater) are developed for use by WUGs throughout the Region, there is the potential for decreased flows down the Rio Grande. However, there also

remains the possibility that additional water may be available for environmental flows. The task objective is to identify and evaluate these potential impacts.

Deliverables

An environmental flow evaluation will be performed in which changes in flow rates down the Rio Grande will be evaluated in terms of environmental impacts. This specific analysis has not been performed in the past. This evaluation will be included in the Regional report.

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

- 6.1. Update drought management recommendations based on changed conditions

Task Description

Update the section to address new WMSs for the Region. Additional work will include updating drought management recommendations, water conservation tips, and potential drought relief programs based on changes in water conservation rules and regulations for individual entities.

Deliverables

An updated Chapter 6 will be furnished. A revised water conservation plan will be provided. New WMSs will be summarized in terms of drought specific recommendations.

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

- 7.1. Update based on changed conditions

Task Description

This task will revise recommendations regarding the protection of the State's water, agricultural, and natural resources. Drawing on new information proposed to be completed in Chapters 1, 2, 3, and 4, these recommendations will be altered based on changes in water supplies and demands. In addition, much work is proposed to be accomplished regarding individual Irrigation Districts. The impacts of such a change, and the data gathered during the evaluation, will be used to develop recommendations.

Deliverables

An analysis and summary describing the Regional plan to protect the State's water, agricultural, and natural resources will be provided based

on the aforementioned changed conditions. Chapter 7 will be revised according to TWDB rules and regulations.

7.2. Update based on new WMSs

Task Description

This task will revise recommendations regarding protection of the State's water, agricultural, and natural resources based on changes in the Region's WMS recommendations. These alterations will be based on changes in WMS allocation and overall usage. As individual WUGs/WWPs revise their strategic plans, there is the potential for WMSs to change on an individual WUG/WWP basis. Therefore, impacts of these WMS changes on water, agricultural, and natural resources will also change.

Deliverables

An analysis and summary describing the Regional plan to protect the State's water, agricultural, and natural resources will be provided based on changes in WMSs. Chapter 7 will be revised based on TWDB rules and regulations.

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

8.1. Potential revisions to recommendations for unique stream segments and/or reservoir sites

Task Description

The topic of unique stream/reservoirs will be revisited in the next round of regional planning. Specifically the areas around Laredo, Chicon Creek, and Brownsville will be evaluated.

Deliverables

A recommendation, whether it be to classify a reservoir/stream segment as unique or not, will be made.

8.2. Update legislative recommendations

Task Description

Legislative recommendations will be updated and developed by the planning group in a similar manner as was performed during the last round of regional planning.

Deliverables

Legislative recommendations will be made in a similar fashion as was prepared during the last round of regional planning.

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

- 9.1. The Regional Planning Group will update the assessment of funding needs based on changed conditions in the Region in terms of WMS implementation and all ancillary items.

Task Description

The planning group will update their assessment of funding needs through a user group survey.

Deliverables

A report to Legislature will be provided in which a description of how affected entities propos to pay for WMS in the Regional plan.

Task 10A. Chapter 10. Public Participation and Adoption of the Plan

Administration, public participation, and board member travel

Task Description

In a similar fashion as the previous round of regional planning, this task will encompass all administration costs associated with plan implementation. These administrative costs include attending board meetings, preparing planning group meeting agendas, public notifications, and additional costs associated with the final report (printing, mailing, labeling, etc.) In addition, public participation efforts will be targeted towards informing members of the public, translating the final executive summary in Spanish, preparing and faxing monthly media advisories about planning group meetings, and the development of additional PR information including website updates. Finally, board member travel expenses will be included in this task.

Deliverables

One of the main deliverables will be the final report in English with an executive summary in Spanish. Additional deliverables include media advisories and website updates.

Task 10. Chapter 10. Scope of Work Development

Scope of Work Development

Task Description

This task is specifically associated with preparing the scope of work. Tasks include planning group meetings, review of planning group recommendations, cost estimating, task description writeups, and deliverables writeups.

Deliverables

A scope of work as submitted to the TWDB.