

The image shows the interior of the Texas State Capitol dome, looking upwards. At the top is a large five-pointed star with the letters 'T', 'E', 'X', 'A', 'S' around it. Below the star is a series of ornate, repeating architectural elements including columns and arches. The lighting is bright, highlighting the white and gold tones of the interior.

**TEXAS WATER DEVELOPMENT BOARD**

# **LEGISLATIVE PRIORITIES REPORT**

**81<sup>ST</sup> LEGISLATIVE SESSION**



# Legislative Priorities Report

## 81st Legislative Session

### Texas Water Development Board

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Section 6.156 of the Texas Water Code provides that the Texas Water Development Board shall make biennial reports to the governor and members of the legislature that include a statement of activities of the Board and recommendations for necessary and desirable legislation. This Legislative Priorities Report has been compiled in procession with the TWDB Strategic Plan and Legislative Appropriations Requests. Exceptional item requests are organized by topic and priority in conjunction with recommendations for legislation. These recommendations are not prioritized so as to ensure accessibility to information by topic and allow for potential legislative discretion.



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## Executive Summary

The Texas Water Development Board (TWDB) is the state's water planning and water project

financing agency. The TWDB's primary responsibilities are threefold: collecting and disseminating water-related data; assisting with regional water planning and preparing the State Water Plan for the development of the state's water resources; and administering cost-effective financial programs for the construction of water supply, wastewater treatment, flood control and agricultural water conservation projects.

Since 1957, the TWDB has been charged with addressing the state's water needs. With the passage of Senate Bill 1 by the 75th Texas Legislature, federal and state organizations, political subdivisions, and Regional Water Planning Groups have assumed increased responsibility for ensuring sufficient water supplies for the state. The TWDB has the leadership and support role of guiding, enabling, and supporting the responsible

development of the state's water resources, and ensuring that sufficient water will be available at a reasonable cost while protecting the agricultural and natural resources of the state.

Today, Texas has one of the fastest growing populations and economies in the nation. From 1950 to 2006, population in the state grew from about 8 million to nearly 23 million. According to TWDB projections, the number of people living in Texas will reach 33 million by 2030 and 45 million by 2060. Most growth is expected to occur in the Rio Grande region and in large urban areas surrounding Dallas-Fort Worth, Houston, San Antonio and Austin. Rapid growth, in conjunction with the state's susceptibility to severe drought and the potential long-term impacts of climate change, makes managing current water supplies and planning for future water supplies a crucial endeavor.

Section 6.156 of the Texas Water Code provides that the Texas Water Development Board shall make biennial reports to the governor and members of





the legislature that include a statement of activities of the Board and recommendations for necessary and desirable legislation. Working toward implementing the vision for sustainable, affordable, quality water for Texans, our economy, and our environment, the TWDB examined water management policies and funding issues in order to make recommendations to the 81st legislature.

This report summarizes the TWDB's legislative priorities that include changes in requirements for the Economically Distressed Areas Program, authorization to issue and incur additional General Obligation Bond securities, and a request to increase General Revenue appropriations to provide funding for the administration of the Development Fund Program. The TWDB has also placed an emphasis on expansion of the eligibility of applicants of the Water Infrastructure and Colonia Self-Help Funds, development of guidelines for work on private property in the case of Disadvantaged Community Programs and implementation of possible financing from a Federal Economic Stimulus. Also included are the agency's requests and suggestions regarding reservoir site designation and acquisition, annual water loss audits, and the purchase of TWDB items for promotional purposes. Summaries of recommendations for interbasin transfers of surface water, establishment of the Floodplain Management Account, State Participation Program and water reuse are also addressed.

In conjunction with its legislative priorities, this report includes summaries of the TWDB's Exceptional Item Requests for Fiscal Years 2010-2011 organized by topic with attention to priority.



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## I. Introduction

- Outcomes of the 80th Legislative Session
- Fiscal Year 2010- 2011 Prioritized  
Exceptional Item Summary



# Introduction

## Outcomes of the 80th Legislative Session

The 80th Regular Session of the Texas Legislature may be regarded as one of the most successful for water policy for the State of Texas. Historic actions on water conservation, environmental flows, reservoir site designation, and unprecedented funding to implement water management strategies in the 2007 State Water Plan were investments in the future of Texas' water supply. On the heels of the drought of the 1990s, the 80th Texas Legislature in 2007 made a commitment to invest in the future of Texas by giving the Texas Water Development Board funding to meet both the short and long-term water needs of the state. Existing state financial assistance programs were infused with new capital to open the doors to a new evolution of loans and grants for water and wastewater infrastructure in Texas.

House Bill 1 General Appropriation Act included funding to implement seven of the TWDB's 14 original exceptional item requests and all five of the State Water Plan funding requests. House Bill 1 appropriated an additional \$30.6 million over and above the agency's \$78.0 million baseline request for agency programs and administration. It also appropriated almost \$56 million over and above the agency's \$54.7 million baseline request to pay the debt service on General Obligation Bonds that will finance water and wastewater projects through existing agency programs- the Economically Distressed Areas Program, the State Participation Program, and the Water Infrastructure Fund.

Proposition 16, approved by Texas voters on November 6, 2007, authorized the TWDB to issue up to \$250 million in additional General Obligation bonds for the statewide Economically Distressed Areas Program. The agency would use bond proceeds to issue approximately \$87 million dollars during the next two years in grants and/or low-interest loans for

water and/or wastewater projects in economically distressed communities across Texas. TWDB had sufficient bonding authority to address water and wastewater needs for several years. However, based on the demand anticipated for new water supply project funding, additional bond authorization will be needed as early as the 81st Regular Session in 2009.

Senate Bill 3 designated the unique reservoir sites listed in the 2007 State Water Plan and included provisions for protecting environmental flows, conserving water, expediting regional water planning amendments, promoting voluntary land stewardship, providing lease-back and mitigation protections for landowners impacted by potential reservoirs, designating river and stream segments of unique ecological value for protection, and creating a water supply study commission involving Region C and D water planning areas. House Bill 1 included significant appropriation increases that are an investment in the future water supply, distribution and delivery systems serving Texas communities.

As a result of the legislative investment in infrastructure financing, the TWDB had more than \$762 million available for loans and grants to implement water management strategies identified in the 2007 State Water Plan, approximately \$216 million available for loans and grants for water and wastewater infrastructure in economically distressed areas across the state, and \$600,000 in grant funding to address needs in Colonia communities near the Texas-Mexico border.





# Introduction

## Outcomes of the 80th Legislative Session

<i>Policy Issues</i>	<i>Outcome</i>
Designate remaining viable reservoir sites of unique value for the construction of reservoirs to meet future water demands	Article 4, Senate Bill 3
Authorize expedited amendments to regional water plans	Article 2, Sections 2.14 and 2.15 of Senate Bill 3
Extend the deadline for completing the instream flow priority studies from Dec. 31, 2010 to Dec. 31, 2016	Article 1, Section 1.23 of Senate Bill 3
Require subdivision developers to submit groundwater certification reports to TWDB and GCDs	Senate Bill 662
Authorize collection of a fee to be dedicated to the TNRRIS	Filed as House Bill 3477. Fee provision removed. Amendment added Article 2, Sections 2.12 and 2.13 of Senate Bill 3.
Enhance and clarify Sec. 16.021, Texas Water Code, for TNRRIS	Filed as House Bill 3477. Amendment added Article 2, Sections 2.12 and 2.13 of Senate Bill 3.
Authorize TWDB to acquire intellectual property rights, such as trademark, copyright, or patent.	Senate Bill 616
Financing Water Management Strategies	Appropriations and riders for bond debt service in Article VI, Agency 58a in House Bill 1
Interbasin transfers of surface water	Filed as House Bill 991, but did not pass.
Environmental Water Needs	Article 1, Senate Bill 3
Water Conservation	Article 2 of Senate Bill 3 House Bill 4
Indirect Reuse	Filed as House Bill 3233, but did not pass.
Municipal Water Conservation Program	\$596,020 appropriated in Article VI, Agency 580 in House Bill 1
Restore Drinking Water SRF Match	\$753,800 appropriated in Article VI, Agency 580 in House Bill 1
Disadvantaged Rural Community Water and Wastewater Financial Assistance Fund	Alternative funding through appropriations and riders for bond debt service and FTEs in EDAP and specific set-asides for rural disadvantaged areas.

<i>Policy Issues</i>	<i>Outcome</i>
Groundwater Management for Texas	\$622,489 appropriated and 6 FTEs added in Article VI, Agency 580 in House Bill 1
Environmental Flows	Tasks from Exceptional Item not funded, but new tasks from Article I, Senate Bill 3 funded in Article VI, Agency 580 in House Bill 1.
Restoration of General Revenue for Regional Planning	\$2.5 million appropriated from Water Assistance Fund (WAF) balances and \$2.5 million appropriated from General Revenue
Restoration of General Revenue for Strat Map	Not funded (\$1.09 million requested)
Water Data for Water Planning	Not funded (\$2.1 million requested)
Economically Distressed Areas Program II	Senate Joint Resolution 20 (Proposition 16) authorized \$250 million in General Obligation bond debt for EDAP. Appropriations and riders for bond debt service in Article VI, Agency 58a in House Bill 1.
Restoration of funding for desalination grants	Not funded (\$2.5 million requested)
Water Technology Demonstration Program	Not funded (\$2.1 million requested)
Borderlands Information Center	Not funded (\$693,518 requested)
Colonia Self-Help Program	\$774,891 appropriated for FTEs and grants in Article VI, Agency 580 in House Bill 1
Economically Distressed Areas Program Bond Debt	Appropriations and riders for bond debt service to issue final \$12 million in 1989 authorization included in Article VI, Agency 58a in House Bill 1.
Debt Service for State Participation Program	Appropriations and riders for bond debt service in Article VI, Agency 58a in House Bill 1.
Debt Service for Desalination	Not funded.
Debt Service for Water Infrastructure Fund for Permitting and Design and construction (Municipal Water Supply)	Appropriations and riders for bond debt service in Article VI, Agency 58a in House Bill 1.
Debt Service for Water Infrastructure Fund for Other municipal projects (Interest Deferrals and Low-Interest Loans)	Appropriations and riders for bond debt service in Article VI, Agency 58a in House Bill 1.
Debt Service for Water Infrastructure Fund for Water Distribution and Treatment Grants in Economically Distressed Areas.	Appropriations and riders for bond debt service in Article VI, Agency 58a in House Bill 1.
Debt Service for Water Infrastructure Fund Grants and Subsidized Loans (Rural Areas)	Appropriations and riders for bond debt service in Article VI, Agency 58a in House Bill 1.
Debt Service for Water Infrastructure Fund for State Participation (Project Construction)	Appropriations and riders for bond debt service in Article VI, Agency 58a in House Bill 1.



# Introduction

## Prioritized Exceptional Item Summary

Listed below are the TWDB exceptional item requests for Fiscal Year 2010- 2011 in priority order:

1. Economically Distressed Areas Program (EDAP)- This expanded program is to provide basic technical assistance, training, adequate customer service, and coordination activities associated with the program. \$2,000,000 million in grants for facility planning efforts is also included in the request. Also included is \$4.6 million in the FY2010-2011 biennium for payment of debt service and authorization to issue up to \$50 million in general obligation bonds in the FY2010-2011 biennium for EDAP projects.
2. State Water Plan Debt Service- This item is for debt service associated with \$1.09 billion in additional bonds sold for State Water Plan programs.
3. Federal Regulatory Support- This item addresses the growing backlog of federal regulatory actions, which is creating unreasonable delays in the implementation of water resources projects in Texas.
4. Groundwater Science for Groundwater Management- This is a request for resources to provide information required by groundwater conservation districts, regional water planning groups, and others for groundwater planning and management.
5. Advancing Water Conservation in Texas- This item is for funding to expand water conservation activities to the level necessary to fully implement provisions of Senate Bill 3 (Article 2), and House Bill 4 related to water conservation. Included in this item is funding for three components; funding to support the Water Conservation Advisory Council, funding for a public awareness campaign and a grant program for rainwater harvesting.
6. Enhancing Recharge to the Ogallala Aquifer- This project is the continuation of a project designed to identify and investigate modifying playas in order to increase recharge to the Ogallala aquifer
7. Senate Bill 3, Environmental Flows- The schedule for Senate Bill 3 activities calls for a gradual ramping up of activities from FY08 through FY11 for work on priority basins.
8. TNRIS Data Service- This is a request for resources to support increased demand for dissemination of historical, current, and future statewide digital imagery and elevation data and emergency management mapping services.
9. Flood Protection Planning Grants- This will increase the available grant funding for flood protection planning grants from \$1,000,000 to \$2,000,000 annually.
10. State Participation Program- This item is for debt service associated with \$50 million additional bonds sold for the State Participation program.
11. Support for the Study Commission on Region C Water Supply's Activities- Grant funding is needed to fully implement the Commission's requested scope of work.
12. Seawater Desalination Initiative- This item is for grants to match a 60% cost contribution from the Brownsville Public Utilities Board to implement a demonstration seawater desalination production facility at the Port of Brownsville.
13. Climate Variability and the Water Resources of Texas- This is a request for resources to assess past and possible future climate variations and the effects of those variations on the water resources of Texas and to identify innovative water resource solutions.



Item Name	Rank	FTE		TWDB		Debt Service		Biennial Total
		FY10	FY11	FY10	FY11	FY10	FY11	
Economically Distressed Areas Program (EDAP)	1	1.00	4.50	\$1,079,400	\$1,280,300	\$1,975,417	\$4,066,092	\$8,401,209
State Water Plan Debt Service	2					\$40,952,084	\$57,988,459	\$98,940,543
Federal Regulatory Support	3	1.00	1.00	\$270,000	\$264,900			\$534,970
Groundwater Science for Groundwater Management	4	7.50	7.50	\$1,883,863	\$1,845,088			\$3,728,951
Advancing Water Conservation in Texas	5			\$3,367,500	\$3,367,500			\$6,735,000
Enhancing Recharge to the Ogallala Aquifer	6	1.00	1.00	\$411,515	\$406,345			\$817,860
SB 3 Environmental Flows	7	1.00	1.00	\$319,952	\$243,852			\$563,804
TNRIS Data Services	8	5.00	5.00	\$225,350	\$199,250			\$424,600
Flood Protection Planning Grants	9			\$1,000,000	\$1,000,000			\$2,000,000
State Participation Program	10					\$1,260,417	\$2,635,417	\$3,895,834
Support for Study Commission on Region C Water Supply's Activities	11			\$2,000,000				\$2,000,000
Seawater Desalination Initiative	12			\$13,600,000	\$14,600,000			\$28,200,000
Climate Variability and the Water Resources of Texas	13	8.00	8.00	\$3,667,499	\$3,518,054			\$7,185,553
<b>Total</b>		<b>24.50</b>	<b>28.00</b>	<b>\$27,825,149</b>	<b>\$26,725,289</b>	<b>\$44,187,918</b>	<b>\$64,689,968</b>	<b>\$163,428,324</b>

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## II. Debt Management

- Economically Distressed Areas Program
- EDAP Funding Requirements
- State Water Plan Debt Service
- State Participation Debt Service
- Additional General Obligation Bonds
- Administration for the Development Fund



# Debt Management



## Economically Distressed Areas Program

<b>Exceptional Item Priority Ranking: 1</b>		
<b>General Revenue Requested</b>	<b>FY2010: \$3,054,817</b>	<b>FY2011: \$5,346,392</b>
<b>FTE's Requested</b>	<b>FY2010: 1.00</b>	<b>FY2011: 4.5</b>

### **Description and Justification**

The 71st Legislative Session created the Economically Distressed Areas Program (EDAP) to provide financial assistance in the form of grants and loans for water-related services to economically distressed areas. The program includes measures to prevent future substandard development, specifically the requirement that all recipients' county or city adopts Model Subdivision Rules, as legally applicable. As of March 2008 the EDAP has funded 94 projects in 22 counties, totaling approx. \$535 million. An estimated 270,000 residents will have adequate water-related services because of these projects. The EDAP was initially funded with \$250 million in general obligation bonds and \$300 million in EPA grants. The 79th legislature passed House Bill 467 that changed the definition of an affected county to any county that had an economically distressed area. Essentially, this bill changed the EDAP to a state-wide program. The 80th legislature passed Senate Joint Resolution 20 and in November 2007 voters passed a \$250 million bond election.

This expanded program requires an additional one FTE in Fiscal Year 2010 and 4.5 FTEs in Fiscal Year 2011 to provide basic technical assistance, training, oversight, adequate customer service, and coordination activities associated with the program (inspection, project and program management, auditing). Two million in grants for Facility Planning efforts is also included in the request, in addition to \$18,700 in other operating expenses that reflect computers, office furniture, and new employee set up costs. The funds are needed to provide funding for the pending 16 applications (as of May 15, 2008) for project planning, acquisition and design costs. These applications represent over \$200 million in construction phase costs that will be required once the planning, acquisition and design phases are complete. Additional applications are also anticipated to be received shortly based on the high volume of pre-application conferences being held.



### **Factors**

Should appropriations for program funds not be approved, projects in economically distressed areas would be delayed or not funded. Projects that previously received planning, acquisition and design funding would not have EDAP grant or loan funding available to begin and complete construction. Staff to adequately administer existing and new projects is also needed.



# Debt Management

## Economically Distressed Areas Program- Funding Requirements

### **Proposed Recommendation**

Remove the statutory requirement that 10% of Economically Distressed Areas Program (EDAP) funds be repaid with interest, and allow any loan requirements be met with loans provided through other loan programs.

### **Background**

The EDAP was created in 1989 to provide water and wastewater service to economically distressed areas. Financial assistance is in the form of a grant or grant/loan combination.

Current statute requires that no more than 90% of the total principal amount of issued and unissued bonds under the EDAP authority may be provided as grant assistance. The remaining ten percent (10%) is currently required to come from loans from EDAP program to meet the Chapter 17, Section 17.933 (c) provision requiring the remaining 10% not be in the form of loans.

The proposed recommendation would allow that 100% of the total principal amount of issued and unissued EDAP bond authority to be provided as grants. The recommendation would recognize that any loans required of the project through the Board's grant-to-loan calculation would be provided through other Board loan programs. Proposed changes would not eliminate any loan component required, but would allow for the loan to be funded from other sources rather than the EDAP program. This change would allow additional grant funds to be available from the EDAP bond authorization and expand the total EDAP program funding by utilizing other existing programs for the loan components. Loans used in the calculation, regardless of the program, would still be required to meet EDAP program eligibility requirements.

In addition to the 10% requirement in Chapter 17, Section 17.933 (c), Section 17.933 (b) would require amendment. This section limits applicants that do not have a nuisance determination to no more than 50% of the project costs from EDAP grant funds and the remaining loan amount must come from the EDAP loan program. The same reasoning for amendment applies to this provision as the 10% requirement, namely that a loan would still be required but it could come from other Board loan programs and would expand the total EDAP program funding.

### **Statute(s) to be amended**

A complete review of Chapter 17, Subchapter K, to ensure all references to loans as a financing mechanism be removed. Specifically, Section 17.933(b) and (c), under Subchapter K will be amended or stricken to remove the 50% and 10% requirements. Board rule changes will also be necessary.

### **Fiscal Impact**

Yes, providing 100% of the bond proceeds to be granted under the EDAP program will increase the amount of general revenue required for this not self-supporting program. Based on projected cash flows for the issuance of the remaining authority as grants, the proposed recommendation would increase projected General Revenue draws by over \$38 million through 2030.

Removing the 10% loan requirement from the EDAP program will result in the absence of principal and interest repayments

that has been used to offset the amount of general revenue requested for this non-supporting program. An increase in general revenue to support EDAP bond issuance will be necessary.

### **Stakeholders**

Colonia Advocates

Political subdivisions eligible to receive funding under the program.

### **Benefits**

- Maximizes the amount of grant assistance from EDAP bond proceeds and expands the total EDAP program funding.
- EDAP bond issuances under the recommended changes would not require Tax Increase Prevention and Reconciliation Act (TIPRA) call provisions as 100% of the proceeds would be utilized for grants and are not subject to TIPRA requirements.
- Eliminates the potential of leaving bond authorization unused if the entire 10% requirement is ultimately unmet.
- Reduces administrative cost of EDAP loan portfolio with multiple small loans, which for water supply corporations requires taxable loans and bond proceeds.





# Debt Management

## State Water Plan Debt Service

<b>Exceptional Item Priority Ranking: 2</b>		
<b>General Revenue Requested</b>	<b>FY2010: \$40,952,084</b>	<b>FY2011: \$57,988,459</b>
<b>Water Infrastructure Fund</b>	<b>FY2010: \$0.00</b>	<b>FY2011: \$26,422,500</b>

### **Description and Justification**

This item describes debt service associated with a total of \$1.09 billion additional bonds sold for the following programs that will be used to fund State Water Plan projects:

- Water Infrastructure Fund (WIF)- \$905 million;
- State Participation- \$150 million; and
- Economically Distressed Areas Program (EDAP)- \$35 million

Funding for the EDAP is necessary because this program allows for grants that can be used in conjunction with WIF bond proceeds in order to adequately fund State Water Plan projects in rural and economically distressed areas. Bond proceeds from the WIF program are not eligible to be used in the form of grants. Water suppliers with water management strategies in the 2007 State Water Plan that were anticipated to require grants in order to implement their water projects must utilize the EDAP program for the grant portion of their projects. \$30.7 billion will need to be spent by regional and local water supply entities and the private sector between 2007 and 2060 to fully implement the 2007 State Water Plan. Surveys from water user groups indicated that \$1.7 billion would need to come from state assistance programs by 2020. The 80th Texas Legislature (2007) appropriated State Water Plan funding for the financial assistance programs to enable issuance of \$762 million in bonds through the current biennium. This FY 2010- 2011 request represents the additional funds that are necessary to meet the additional water supply needs through the 2020 planning horizon as identified in the 2007 State Water Plan.

### **Background and Additional Considerations**

The Texas Water Development Board has implemented a semi-annual application cycle that began January 1, 2008. As of the July 1st cycle, the TWDB had received over \$1.1 billion in applications, mostly for WIF construction funds. The 80th Legislature allocated \$278.2 million in funding to WIF construction loans, and there are currently over \$581 million in applications above the allocation. Conversely, the 80th Legislature allocated \$276.1 million in funding to the State Participation program, for which currently only \$47.7 million in applications have been received. There are two application cycles left in the biennium, and staff have been contacted by several potential applicants for the remaining January 1st and July 1st 2009 application cycles. The current rider for State Water Plan funding is very specific as to the authorization of funding by program and type of assistance within the program. It is possible to develop modified language to afford more flexibility in future biennia, should the Legislature desire.

Several applicants have voiced a need for the TWDB to request that the 81st Legislature consider additional deferral of interest costs for State Participation assistance. The current long term cash flow model provides for a graduated payment schedule that requires an entity to start payments in the third year that increase every other year until a full average annual principal and interest payment schedule is attained. When the State Participation program was used to fund major water



supply projects in the 60's and 70's, the state allowed for deferral of payment until there was a use of the State's ownership interest in a project, which effectively allowed the participating entity to repay local debt obligations first before beginning principal and interest payments to the State, thereby allowing for the optimal development of the regional project and maximizing the benefit of the State's participation in the project. The current appropriation request does not contemplate this change, but the impact in the current biennium would not be significant should the Legislature either fully or partially consider a change to the long term cash flow model for the program.

**Factors**

Legislation creating the WIF was passed in 2001, however, the program was not funded until the 80th Legislative Session in 2007. Implementation of rules, development of marketing and education of potential applicants was crucial to development of the programs. Continued education and marketing to insure that those entities to whom the program is directed are aware and knowledgeable will be essential. If funds are not appropriated some water supply projects will not begin and will not be implemented in time to insure long-term water needs are met. Statutory provisions in EDAP regarding nuisance determinations will restrict the amount of grant funds these entities will be able to utilize for their projects.

The economic impacts of implementing water supply management strategies identified in the 2007 State Water Plan including the following:

A. Avoided Costs of Implementing Water Management Strategies Recommended in the 2007 State Water Plan:

As part of the state water plan, the TWDB developed economic impact models to measure the potential economic costs of not developing water supplies as recommended in the state water plan. If water supply strategies are not implemented, an event similar to the 1950s drought of record could cost water consumers in Texas an estimated \$9.1 billion in 2010 (Table 1). In subsequent years, costs could increase substantially. For example, in 2060 estimated economic costs total \$98.4 billion.

Table 1: Potential avoided costs of implementing water management strategies identified in the 2007 State Water Plan			
Decade	Costs to water consumers (\$billions)	Lost state and local businesses taxes (\$billions)	Number of full and part time jobs lost
2010	\$9.1	\$0.5	119,000
2020	\$19.7	\$1.0	244,000
2030	\$29.8	\$1.5	376,000
2040	\$44.0	\$2.2	552,000
2050	\$66.1	\$3.3	802,000
2060	\$98.4	\$5.4	1,234,000
Source: 2007 State Water Plan.			



# Debt Management

## B. Economic Impacts Associated with Expenditures on Project Planning, Design, and Construction Supported through State Financial Assistance Program:

Constructing water supply infrastructure projects would have an economic stimulus effect on the state's economy. Expenditures on materials, labor and increased income in economic sectors that provide planning, design and construction services would result in greater demands for goods and services in the state. In addition, investments could generate additional jobs and an overall increase in consumer spending. Using IMPLAN Pro software and data, regional economic models and multipliers that capture the direct and indirect economic impacts of implementing municipal water management strategies were estimated and applied to projected expenditures. Measured variables include:

- Total sales revenues;
- Income including wages and salaries paid by industries, corporate income, rental income, interest and corporate transfer payments;
- State and local business taxes consisting of sales taxes, excise taxes, property taxes, fees, licenses and other taxes paid during the normal operation of an industry (does not include any type of income tax); and
- Employment measured by the number of full and part-time jobs (annual average) required by a given industry.

## C. According to the state water plan, state appropriations to leverage TWDB financial assistance programs could provide approximately \$2.4 billion worth of funding from 2009 through 2015 for project planning, design and construction. In terms of economic stimulus impacts this would:

- Generate \$3.41 billion in total sales revenues in the construction, engineering and materials sectors and supporting businesses;
- Create \$1.90 billion worth of income for Texas residents;
- Generate \$0.61 billion in state and local tax receipts; and
- Support and/or create 32,840 full and part-time jobs. (Employment impacts refer to positions created or supported by spending. While it is true that many businesses affected by spending may hire new workers, many firms may not, and thus employment impacts should be considered an upper bound.)



## State Participation Debt Service

**Exceptional Item Priority Ranking: 10**

<b>General Revenue Requested</b>	<b>FY2010: \$1,260,417</b>	<b>FY2011: \$2,635,417</b>
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### **Description and Justification**

This item describes debt service associated with \$50 million in additional bonds to be sold for the State Participation program. The State Participation program was created by the Texas Constitution to facilitate the construction of optimally-sized regional water supply, wastewater, or flood control projects. Frequently, local interests lack sufficient customer base to afford the excess capacity to build an optimally-sized regional facility at the time implementation of the project needs to begin. In order to provide assistance, TWDB sells general obligation bonds and uses the proceeds to purchase an ownership interest in the excess capacity of a facility. TWDB uses the state appropriations to offset TWDB's debt until the program becomes self-sustaining. The project participants' repayments are initially deferred. Then, as the population of the project's service area grows, project participants begin progressively purchasing TWDB's ownership interest based on an agreed schedule. When TWDB is made whole with respect to its original investment, ownership of the project passes completely to the project participants. Each biennium the legislature authorizes the amount of bonds that can be issued for State Participation projects and it acknowledges the amount of general revenue appropriation needed to pay the debt service on the bonds. As financial assistance needs are identified for specific projects recommended through the State and Regional Water Planning process, additional funding might be necessary to implement large-scale regional projects. Several entities have expressed interest in pursuing state participation projects if the funding were available. Legislative authorization is requested to issue up to \$50 million in general obligation bonds in the FY2010-2011 biennium for State Participation projects and to pursue additional legislative appropriations of approximately \$4.25 million in the FY2010-2011 biennium for payment of debt service. Since 1999 the legislature has authorized a total of \$120 million in general obligation bonds for the State Participation program. In 2007, the legislature appropriated funds sufficient to issue



up to \$50 million for the State Participation program. Those bonds have not yet been issued.

### **Factors**

If this request is not approved, additional projects will not be funded. Projects may possibly be constructed by other financing means but would not be optimally-sized as is the intention of the State Participation program. Therefore, overall project cost impacts to the residents may be increased.



# Debt Management

## Additional General Obligation Bonds

### **Proposed Recommendation**

Authorize the Texas Water Development Board, at its discretion, to issue and incur additional general obligation public securities for one or more accounts of the Texas Water Development Fund II.

Authorize the Texas Water Development Board, at its discretion, to issue and incur additional general obligation public securities in a principal amount not to exceed \$6 billion at any one time outstanding for one or more accounts of the Texas Water Development Fund II.

### **Background**

The Texas Water Development Board is authorized to issue General Obligation debt under constitutional provisions for the Texas Water Development Fund II (DFund II) and has approximately \$1.9 billion of remaining authority. Debt issued under the state water plan draws upon that authority for the State Participation Account and Water Infrastructure Fund. Other ongoing TWDB financial assistance programs also draw on the DFund II authority. Based on the projected debt issuance for the state water plan and ongoing DFund II program debt, the current authority is projected to be fully utilized by Fiscal Year 2011. An alternative to the proposed permanent debt cap of \$6 billion would be to use the same type of consumptive authorization as was used in past authorizations. In that case TWDB would recommend a \$2 billion increment. Based on the projected debt issuance for the state water plan and ongoing DFund II program debt, using the historical approach would consume the \$2 billion increment by Fiscal Year 2021. Using the proposed \$6 billion limit for total outstanding debt would potentially provide ongoing water funding perpetually.

### **Statute(s) to be amended**

Texas Constitution, Article III, Section 49d

### **Fiscal Impact**

No. Passage alone will not have a fiscal impact. The fiscal impact will not occur until bonds are issued.

### **Stakeholders**

Applicants eligible for financial assistance under current funding programs include regional water authorities, districts, cities, counties, water supply corporations and other political subdivisions.

## Administration for the Development Fund

### **Proposed Recommendation**

Increase general revenue appropriations in FY 2010-2011 to provide funding for administration of the Development Fund program.

### **Background**

Historically, the administration of the Development Fund (Fund) has been funded through general revenue appropriation. This has allowed the Fund to remain self supporting through issuing bonds, lending the proceeds, and repaying the Fund. In the 80th Legislature, TWDB was appropriated \$3.2 million in receipts supported by drawing from cash flows in the Fund for administration. Although this funding was accommodated in FY 2008-2009, the continued funding of the program's administration from the Fund proves to be problematic. The minimum debt service coverage ratio (the ratio of available cash flow to debt service) for the Fund is 1:10. Analysis of the Fund's cash flows shows that if the Fund continues to support administration from within, the debt service coverage will fall below the minimum level within the next few years. This threatens the ability of the Fund to remain self supporting and could result in a draw on general revenue to pay debt service. Additional pressure is brought on the Fund by prepayments, potential restructuring of payments by entities affected by Hurricane Ike, and market impacts to interest rates. Continued funding of administration from the program cash flows will limit the ability to be responsive to borrowers' and communities' financing needs under current economic conditions.

### **Statute(s) to be amended**

N/A

### **Fiscal Impact**

Yes. There would be a fiscal impact since general revenue would be required to fund the administration of the program.

### **Stakeholders**

Although individual stakeholders may not be identified, the maintenance of the self-supporting Fund impacts the bonded indebtedness of the State.

### **Benefits**

This recommendation would allow the Development Fund to continue to operate as a self-supporting fund providing loans for water supply, water quality enhancement, flood control, and municipal solid waste.

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### III. Financial Assistance

- Federal Regulatory Support
- Water Infrastructure Fund: Conservation Grants and Loans
- Water Infrastructure Fund Eligibility
- Disadvantaged Community Program: Work on Private Property
- Colonia Self-Help Program
- Federal Economic Recovery Funding



# Financial Assistance

## Federal Regulatory Support

<b>Exceptional Item Priority Ranking: 3</b>		
<b>General Revenue Requested</b>	<b>FY2010: \$270,070</b>	<b>FY2011: \$264,900</b>
<b>FTE's Requested</b>	<b>FY2010: 1.00</b>	<b>FY2011: 1.00</b>

### Description and Justification

Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged or fill material into the waters of the United States. Activities in waters of the U.S. regulated under this program include fill for development, water resources projects, infrastructure development and mining projects. Section 404 requires a permit before a project may proceed, unless the activity is exempt from Section 404 regulation (e.g., certain farming activities). The U.S. Army Corps of Engineers (USACE) administers the permitting program, with review by the U.S. Environmental Protection Agency. The number of permit applications awaiting action in the territory overseen by the USACE Southwestern Division (covers most of Texas) has grown from about 800 permits a year ago to near 3,000 as of May 2008. Meanwhile, respective regulatory staffing has decreased. In addition, as a result of a recent Supreme Court decision related to the definition and regulation of “waters of the U.S.,” greater uncertainty exists in how USACE should act on permit applications. USACE regulatory documentation requirements and staff workload has increased significantly, likely adding greatly to the huge backlog of pending regulatory actions. TWDB proposes entering into an agreement with USACE, under Section 214 of the Water Resources Development Act of 2000, to pay for USACE to hire a dedicated regulator to focus on permit applications associated with water resources projects identified by TWDB. In addition, TWDB proposes to hire Full Time Equivalent at the TWDB Austin office to provide technical assistance to stakeholders and coordinate activities with federal, state and local regulators. These resources will enable TWDB to achieve performance measure targets in addition to the impacts of the issues described above.



### Factors

In addition to this exceptional item request, TWDB has submitted a federal appropriations request to the Texas congressional delegation to increase the USACE regulatory budget by \$540,000, specifically to hire three regulators in Texas. USACE has entered into Section 214 agreements with other non-federal entities, and TWDB’s agreement will be modeled after similar actions. TWDB has also been working closely with USACE and other federal and state regulatory entities to conduct public workshops on the federal and state permitting processes. Currently, the group is developing actions to potentially streamline the permitting process, specifically in terms of the communication and coordination conducted amongst the various regulatory entities.







# Financial Assistance

## Water Infrastructure Fund— Water Conservation Grants and Loans

### **Recommendation**

Request an appropriation of general revenue to the Water Infrastructure Fund to provide grants or loans to political subdivisions for water conservation activities, which may include water conservation audits to utility customers; incentive programs to utility customers for installing high-efficiency plumbing fixtures, appliances, or landscape irrigation equipment; or the implementation of water conservation educational and public awareness programs.

### **Background**

If the Texas Legislature appropriates general revenue to the TWDB for water conservation activities, the agency could make grants and loans to political subdivisions that could result in water conservation savings by individual customers. For example, the TWDB could develop a grant program (not to exceed 50 percent state funding) for retail public water suppliers to implement water conservation activities included in their water conservation plans. Activities eligible for grant funding could include the following:

- Water conservation audits for utility customers.
- Incentive programs to utility customers for installing high-efficiency plumbing fixtures, appliances, or landscape irrigation equipment, as certified by the U.S. Environmental Protection Agency's Water Sense Program.

In order to maximize any available funding, the TWDB could prioritize by the following criteria:

- Utilities must have the water conservation strategies to be funded included in their 2010 or 2020 strategies in applicable regional water plans.
- Utilities whose conservation strategies provide a high percentage of their total water supply strategies would be given a high priority.
- Utilities that have a high percentage reduction in gallons per capita per day by implementing the funded activities would also be given a high priority.

An entity could use a grant award over a one- to three-year period and would be required to report on the use of funds and results of activities during that period. The remaining 50 percent could be provided either by Water Infrastructure Fund loans or a match of local funds or labor to implement the project (such as installing devices in homes).

### **Statutes to be Amended**

None. Texas Water Code, Sections 15.979 and 15.980, currently authorizes the grants, contingent on appropriation. Rule making would be required to implement the appropriation.

### **Fiscal Impact**

Yes. Political subdivisions that receive TWDB loan funds for these activities would be responsible for repaying loan principal and interest the same as other TWDB loan programs. Political subdivisions that are recipients of TWDB grants for these activities would not have any repayment responsibility but would have to provide any required matching funding from their revenues.



## **Stakeholders**

The immediate, first benefactors would be the political subdivisions eligible to receive the TWDB grants and loans to assist with their water conservation programs. The residents in these political subdivisions are also stakeholders since they would become recipients of the assistance, either indirectly benefiting from education and similar programs or directly through the incentive or audit programs.

## **Benefits**

- Participating political subdivisions would have access to funding, either from loans or grants, to implement additional water conservation programs.
- Residents of the participating political subdivisions would benefit from receiving information about water conservation, which could lead to reduced water use. Residents would also receive monetary benefits from the incentive programs.
- TWDB's regional and statewide water supply planning efforts would benefit from a potential increase in the implementation of water conservation strategies and the associated savings projected in the regional and state water plans.



# Financial Assistance

## Water Infrastructure Fund Eligibility

### **Recommendation**

Clarify who is eligible to apply to the TWDB for the Water Infrastructure Fund (WIF). Two options are possible:

- Amend Texas Water Code, Section 15.971(1)(C), to remove “listed in [Texas Water Code] section 9.010(b).”
- Amend the Texas Water Code, Section 15.971(1)(C), to remove “listed in [Texas Water Code] Section 9.010(b)” and add water supply corporations as a defined subdivision in a newly created Section 15.971(1)(H).

### **Background**

In 2001, the 77th Legislature created the WIF through Senate Bill 2. Among other provisions, the 2001 act lists the political subdivisions eligible for funding under WIF. Those subdivisions include municipalities, counties, water improvement districts, irrigation districts, water control and improvement districts, groundwater districts, and river authorities or special law districts listed in Texas Water Code, Section 9.010(b). That same legislation created the Texas Water Advisory Council and enumerated certain “authorities” that were to provide the Advisory Council with information on performance standards and administrative policies. The authorities were listed by name in what was codified as Texas Water Code, Section 9.010(b). Thus, at the time the act was passed, the river authorities or special law districts eligible for WIF funding were those listed in section 9.010(b).

In 2003, the legislature repealed section 9.010(b) as part of a revision of the provisions related to the Texas Water Advisory Council. However, the definition of an eligible political subdivision for purposes of the WIF program was not revised accordingly. Consequently, Section 15.971(1), which reads in part “Eligible political subdivision means . . . (C) a river authority or special law district that is listed in Section 9.010(b),” now contains a reference to a section of the Water Code that no longer exists.

The legislation did not include water supply corporations as eligible applicants for the WIF. These corporations make up a large percentage of the water suppliers to rural areas of the state. Although not identified in the original legislation, the statutory changes to include water supply corporations as eligible applicants would mirror the TWDB’s other water programs.

### **Statute(s) to be Amended**

Texas Water Code, Section 15.971

### **Fiscal Impact**

No. Passage alone will not have a fiscal impact. The fiscal impact will not occur until bonds are issued.

### **Stakeholders**

Applicants eligible for financial assistance under current funding programs, including regional water authorities, districts, cities, counties, water supply corporations, and other political subdivisions.

### **Benefits**

Clarify eligibility to apply to the WIF program.



3298 Rio Grande off FM 170 near Redford. 1/62



# Financial Assistance

## Services on Private Property for Disadvantaged Communities

### **Recommendation**

Fund connections of disadvantaged residences to public water and/or wastewater service facilities funded through the Drinking Water State Revolving Fund (DWSRF), the Clean Water State Revolving Fund (CWSRF), and the Economically Distressed Areas (EDAP) and Colonia Wastewater Treatment Assistance (CWTAP) programs.

### **Background**

Since the TWDB administers public funding, it historically has not funded construction of service connections on private property for TWDB-funded water and wastewater projects. An exception has been limited to cases associated with the EDAP/CWTAP, Colonia Plumbing Loan Program (CPLP), and Colonia Self-Help Program.

In cases where funding is being provided to disadvantaged applicants, this limitation has been problematic because customers benefitting from the funding often cannot afford the cost to connect their residences to the public water/wastewater project. Should the community not be able to afford the private hook-ups, then the public investment associated with the TWDB funding to build the collection, distribution, and treatment facilities may not be usable until the communities can procure additional funding from some other source to make the final service connections to the individual residences.

Funding sources available to applicants have been Community Development Block Grants through the Office of Rural and Community Affairs, the Texas Plan associated with TWDB's EDAP funding, the CPLP and Self-Help programs, and other TWDB programs in which easements and agreements specify that a public entity will own and operate facilities built to connect to private residences. In each case, however, the source of funding is limited and extra coordination is required.

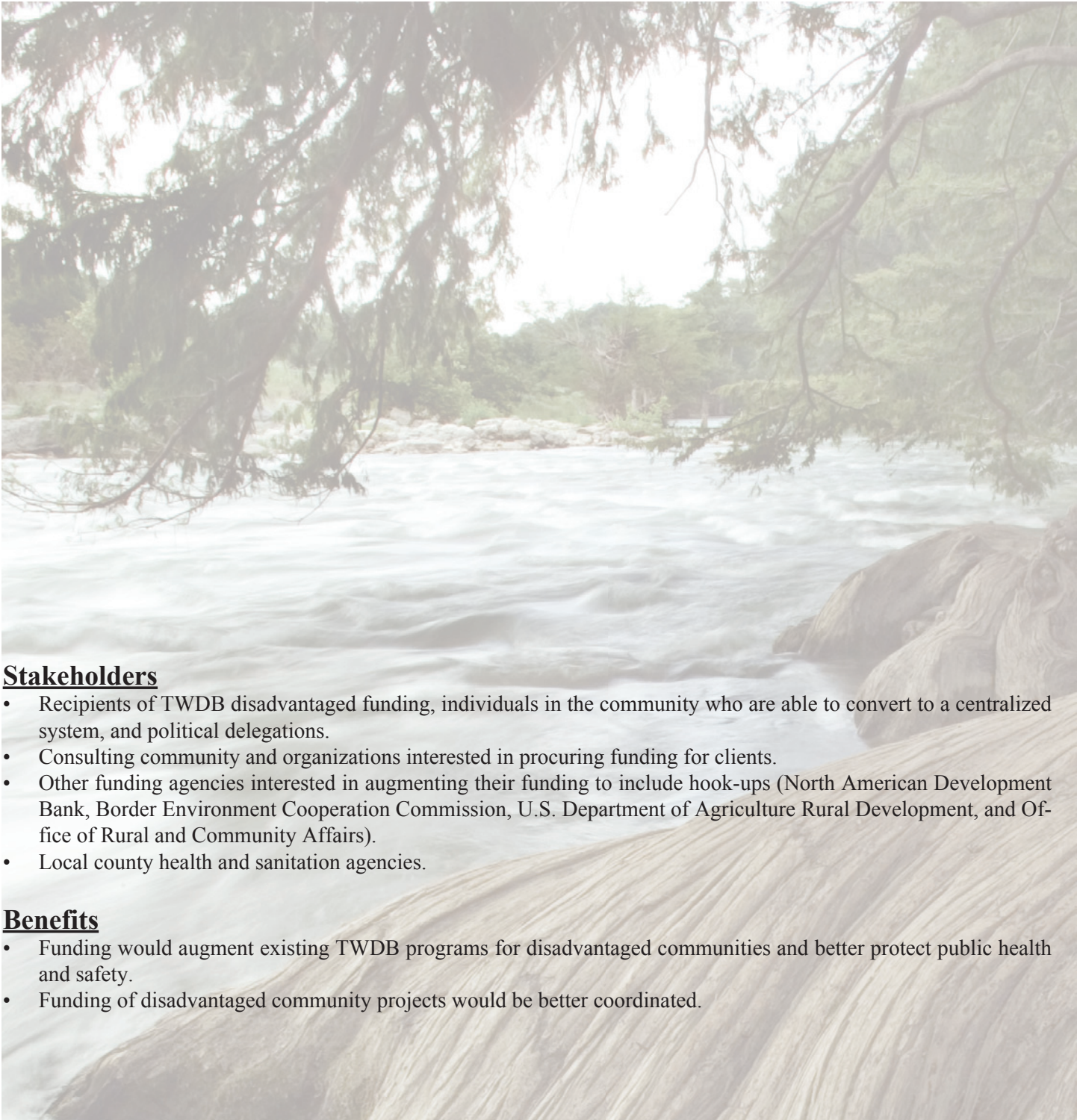
Due to the continuing need for funding household connections and the limitations on funding improvements on private property, the legislature should consider statutory changes that would allow the TWDB to provide grant funding for water and wastewater service connections necessary to maintain public health. These funds would be administered to eligible political subdivisions on projects that are otherwise being funded by the TWDB.

### **Agency Rules or Statute(s) to be Amended**

Texas Water Code, Chapter 15, Subchapters L, O, and P  
31 Texas Administrative Code, Chapters 363, 371, and 375

### **Fiscal Impact**

No. Since this proposal potentially involves the use of grant funds for private hook-ups, there does not appear to be an impact on applicants. Also, since the TWDB envisions that this funding would apply only to aid TWDB projects, there does not appear to be a fiscal impact on staff. Staff can manage this additional funding in tandem with our existing funding programs.



**Stakeholders**

- Recipients of TWDB disadvantaged funding, individuals in the community who are able to convert to a centralized system, and political delegations.
- Consulting community and organizations interested in procuring funding for clients.
- Other funding agencies interested in augmenting their funding to include hook-ups (North American Development Bank, Border Environment Cooperation Commission, U.S. Department of Agriculture Rural Development, and Office of Rural and Community Affairs).
- Local county health and sanitation agencies.

**Benefits**

- Funding would augment existing TWDB programs for disadvantaged communities and better protect public health and safety.
- Funding of disadvantaged community projects would be better coordinated.



# Financial Assistance

## Applicants of the Colonia Self-Help Program

### **Recommendation**

Expand the pool of applicants eligible to apply for the Colonia Self-Help Program.

### **Background**

The legislature created the Colonia Self-Help Program during the 77th Legislative Session in 2001. The program was created to provide reimbursement funding to non-profit organizations that had a history of participating in self-help projects along the Texas/Mexico border. A self-help project is one in which the community residents actively participate in the construction of the projects, resulting in significant cost savings. Projects must be located in one of the 27 counties within 50 miles from the international border. Only two non-profit organizations were active in Texas self-help projects at the time of the initial legislation, Border Waterworks and The Rensselaerville Institute (TRI). Border Waterworks no longer sponsors self-help projects in Texas.

Texas Water Code, Section 15.954, requires an applicant to the Self-Help Program to be a 501(c)(3) non-profit organization that has a demonstrated record of completing, in coordination with a retail public utility, construction self-help projects prior to January 1, 2001. Only TRI currently qualifies to participate in the Colonia Self-Help Program. TRI is primarily working only in Hidalgo County.

The proposed recommendation is to expand the pool of applicants eligible to apply for the Colonia Self-Help Program by expanding the type of eligible non-profit organizations and deleting the date of January 1, 2001, for a demonstrated record of completing construction self-help projects in coordination with a retail public utility.

Statute(s) to be Amended

Texas Water Code, Section 15.954. TWDB rule changes will also be necessary.

### **Fiscal Impact**

No. Existing program funds in addition to administrative funds are currently available in the program.

### **Stakeholders**

Political subdivisions, non-profit organizations, and residents of Texas within 50 miles of the Texas/Mexico border eligible to receive funding under the program.

### **Benefits**

Additional applicants to the program would use existing program funds and provide needed water and wastewater services to residents of economically distressed areas at reduced project costs. The 80th Legislature appropriated \$600,000 in program funds plus administrative costs for the Colonia Self-Help Program. Only one project was committed during FY 2008. It is anticipated that with additional applicants more projects would be funded.



## Federal Economic Recovery Funding

### Recommendation

Enhance the TWDB's ability to expeditiously enact rules that may be necessary to implement possible financing from an economic recovery appropriation by the U.S. Congress.

- Amend Texas Water Code, Section 15.601(b), to clarify the TWDB's statutory authority to act as necessary to implement federal funding.
- Amend Texas Water Code, Section 15.604(b), to authorize the TWDB to promulgate rules necessary for implementing federal funding without delays under standard rulemaking requirements of the Texas Administrative Procedure Act, Texas Government Code, Chapter 2001.

### Background

In the wake of a significant economic downturn, HR 7110, the Job Creation and Unemployment Relief Act of 2008, was introduced in the 110th Congress. HR 7110 passed the House on September 26, 2008, but failed passage in the Senate. The bill would have appropriated \$6.5 billion in capitalization grants for Clean Water State Revolving Funds under Title VI of the Federal Water Pollution Control Act and an additional \$1 billion in capitalization grants for the Drinking Water State Revolving Funds under Section 1452 of the Federal Safe Drinking Water Act. The intent was to provide an immediate infusion of funds to water and wastewater projects that are essentially ready to proceed, providing employment and materials purchases along with a multiplier effect on state and local economies.

It is anticipated that a similar economic recovery bill may be introduced in the 111th Congress. The U.S. Environmental Protection Agency (EPA) conducted a conference call with states on November 20, 2008, to discuss a possible economic stimulus package that could include funding for water-related infrastructure. An additional conference call took place on December 3, 2008. During these conferences, EPA has underscored the importance that states move quickly with the monies allocated to each state. They emphasized the need to commit these monies and close on projects within 120 days from the date of the capitalization grant. Failure to

close on projects likely will mean that Texas' allocation will lapse to other states. However, congressional requirements on any economic recovery appropriation and the specific requirements of any capitalization grant are unknown at this time. The likely timeline for expending the funds is such that any rulemaking necessary to effectively implement the economic recovery program would need to proceed much more quickly than is currently possible under the requirements of the Texas Administrative Procedure Act. Clear statutory authority to adopt any necessary rules or changes to existing rules needs to be effective immediately. Additionally, the Legislature should clarify that any additional statutory rights and powers necessary or appropriate for the TWDB to implement an economic recovery appropriation are for both water pollution control revolving fund purposes and drinking water revolving fund purposes. Currently, this statutory extension of state authority is restricted to the Clean Water State Revolving Fund.

### Fiscal Impact

Yes. There may be additional demands on staff resources for expedited processing of eligible applications through commitment and closing within a short time frame. In addition, EPA has indicated there may be more accounting and reporting requirements for the states. Political subdivisions should be favorably impacted, depending on specific terms that will be authorized for the loans.

### Stakeholders

The immediate, first benefactors would be the political subdivisions eligible to receive the TWDB loans.

### Benefits

- Participating political subdivisions would have access to immediate funding to proceed with projects.
- The total amount of financial assistance should be increased by at least as much economic recovery capitalization as the State of Texas receives.
- Local economies in the state should benefit by additional economic activity generated by jobs and materials purchases associated with projects as well as the multiplier impact from those jobs and purchases.

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## IV. Water Conservation

- Advancing Water Conservation in Texas
- Water Loss Audits



# Conservation

## Advancing Water Conservation in Texas

<b>Exceptional Item Priority Ranking: 5</b>		
<b>General Revenue Requested</b>	<b>FY2010: \$3,367,500</b>	<b>FY2011: \$3,367,500</b>

**Description and Justification**

The 2007 State Water Plan includes an increased emphasis on utilization of water conservation strategies to help meet the future needs for additional water supplies. The 80th Legislature approved legislation which included a number of new water conservation initiatives for implementation by the TWDB. The TWDB has implemented these activities within the limits of funding provided for Fiscal Years 2008-2009. This exceptional item requests funds to expand these activities to the level necessary to fully implement provisions of this legislation. Included in this item are three components:

TWDB staff is required to provide staff support for the Water Conservation Advisory Council. This request includes increased funding for TWDB support of the Council to provide web site maintenance, printing, and any necessary consultant studies. Total for this component is \$110,000 annually.

Requested funding is for stakeholder research, TWDB educational materials, literature, public events, development of media materials, and purchase of media services for a statewide water conservation public awareness program as contemplated by Senate Bill 3 and House Bill 4 of the 80th Legislative Session. The comprehensive public awareness program strategy consists of implementation of a balanced, umbrella statewide communication mix by leveraging the funding to create added-value support for outreach programs. Total for this component is \$3,007,500 annually.

The 79th Legislature established the Texas Rainwater Harvesting Committee. This committee submitted a report to the 80th Legislature and requested an appropriation to provide matching grants to local political subdivisions for rainwater harvesting projects. This item would provide \$250,000 annually in matching grant funding which was not provided in Fiscal Years 2008-2009.

**Factors**

In 2004, the Water Conservation Implementation Task Force recommended the creation of a statewide water conservation public awareness program and creation of a Water Conservation Advisory Council. The 80th Legislature authorized these programs but did not provide adequate financial support for full implementation. There is considerable public and utility support needed for full implementation.





# Conservation

## Water Loss Audits

### Recommendation

Require an annual water loss audit from retail public water suppliers who are TWDB loan recipients, have surface water permits from the Texas Commission on Environmental Quality (TCEQ), and serve 3,300 or more connections. The audit should be submitted to the TWDB and include evidence that the water loss audit data was provided to the entity's governing body. All other retail public water suppliers should continue to be required to complete and submit a water loss audit once every five years.

### Background

In numerous instances, water loss is a significant aspect of a supplier's need for system improvements and/or increased water supply. According to Section 16.0121(b) of the Water Code, every five years all Texas retail public water suppliers shall perform and file with the TWDB a water loss audit computing the water supplier's most recent annual system water loss. The first required audit report was requested for the year 2005, with the next scheduled report to be due in 2011 for the year 2010.

As the information from the 2005 audits is used in reviewing TWDB loan applications, the completeness and timeliness of the data is becoming an issue in the review process. Submitting the audits more frequently would provide better information to the TWDB for use in reviewing loan applications and would be a benefit to the water supplier in improving its water system operations. A completed audit should assist water suppliers in identifying areas within their systems that could benefit from improvements and also provide estimates of revenues affected by the various categories of loss.

This recommendation would involve about 750 to 800 utilities that are currently required to provide annual reports on their water conservation plans beginning in 2010. Recent data indicates that the level of reporting required for water conservation plans would include data from retail public water suppliers that provide between 70 to 80 percent of the current total municipal water use in Texas. Based on the 2005 audit, these entities had a combined response rate of about 65 percent and a combined average of 25 percent total reported water loss.

### Agency Rules or Statutes to be Amended

31 Texas Administrative Code, Section 363.15  
Texas Water Code, Section 16.0121

This statute now requires all Texas retail public water suppliers to perform and file with the TWDB a water loss audit every five years computing the water supplier's most recent annual system water loss. The Water Code would be amended to require all retail public water suppliers who are TWDB loan recipients, have surface water permits from TCEQ, and serve 3,300 or more connections to complete and submit to the TWDB a completed water loss audit on an annual basis. This requirement could take effect in 2011 after the next scheduled report due in 2011 for the year 2010.

### Fiscal Impact

Yes. The Water Loss Audit Worksheet is completed from data and estimates that should be available from the retail public water supplier or other municipal department staff. Some additional effort by affected retail public water suppliers will be required to provide the data requested, especially for the initial submissions. With experience, the time and effort needed for completing the audit should be reduced. The worksheet can be completed and submitted either online or on paper copy. Depending on the size of specific water suppliers and their record management systems, estimated staff time costs could range from less than \$1,000 to \$20,000 for completing the annual audit.

To implement the proposed recommendation, the TWDB Conservation Division would have an increased workload, which would require one additional full-time staff position. This position would support existing staff in processing annual reports, handling the expected increase in requests for technical assistance, and preparing reports for use by the TWDB, regional water planning groups, and legislature. Annual cost is estimated to be \$85,000, consisting of staff costs for salary, operating expenses, and travel.

### Stakeholders

Approximately 750 to 800 Texas retail public water suppliers are already required by statute to submit an annual report

on the status of their water conservation plans. This includes those retail public water suppliers who are TWDB loan recipients, have surface water use permits from TCEQ, and serve more than 3,300 connections.

## **Benefits**

- Upon completing the audit worksheet, water suppliers should be able to identify any areas of their system operations that need further analyses to reduce water losses. By reviewing the annual water loss audits, the water suppliers would be able to track their progress in reducing water loss.
- Providing the water loss audit data to their governing bodies, whether a board of directors or a city council, could assist water suppliers in establishing water loss programs and long-term goals.
- Water loss programs could also delay or eliminate the need for new water supply where significant water losses are identified and corrected.
- TWDB staff would be able to identify those utilities with higher reported water losses and offer technical assistance in addressing those losses.
- Data from the annual water loss audits could serve as input to regional water planning and for conservation outreach and assistance programs.
- Water loss data could also be used by the Water Conservation Advisory Council in future studies to assess progress of water conservation in Texas.



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## V. Administration

- Purchase of Promotional Items



# Administration

## Purchase of Items for Promotional Purposes

### **Proposed Recommendation**

Authorize the Texas Water Development to purchase items for promotional purposes and to increase awareness about the Texas Water Development Board and its programs.

### **Background**

The Texas Water Development Board does not have specific statutory authority to purchase promotional items for use at recruitment and career fairs, conferences and seminars. By receiving this authority, the Texas Water Development Board could purchase promotional items for use in increasing awareness about Board programs and employment opportunities. The concept of “branding” is relatively new to the Texas Water Development Board in the context of attracting and recruiting job applicants or raising awareness about programs. These items are only one facet of branding but do provide a tangible means to promote the Board.

### **Statute(s) to be amended**

Chapter 6 of the Water Code addresses the powers and duties of the Texas Water Development Board. A new section of the Water Code, Section 6.198, should be inserted.

### **Fiscal Impact**

The fiscal impact would be the cost associated directly with the purchase of promotional items. This cost would be nominal, less than \$10,000 for the biennium.

### **Stakeholders**

Due to the broad based effect that implementation of this item would have on increasing the effectiveness of the TWDB in accomplishing state mandates, all citizens of Texas, both in the public and private sector are affected.



**TEXAS**

**WATER**

**DEVELOPMENT**

**BOARD**

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**WATER** *for* **TEXAS**

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## VI. Groundwater

- Groundwater Science for Groundwater Management
- Enhancing Recharge to the Ogallala Aquifer



# Groundwater

## Groundwater Science for Groundwater Management

<b>Exceptional Item Priority Ranking: 4</b>		
<b>General Revenue Requested</b>	<b>FY2010: \$1,883,863</b>	<b>FY2011: \$1,845,088</b>
<b>FTE's Requested</b>	<b>FY2010: 7.50</b>	<b>FY2011: 7.50</b>

**Description and Justification**

Groundwater is Texas’s primary source of water, providing 59 percent of all the water used in the state. A critical question for groundwater users, managers and planners is the amount of groundwater available for use. With the advent of regional water planning in 1997, the explosive growth of groundwater conservation districts (in 1990 there were 22; now there are 95), and the focus of joint planning in groundwater management areas on desired future conditions, the question of how much groundwater is available for use has become even more critical. The answer to this question requires data, analysis, and the development and enhancement of groundwater availability models

To address these needs, TWDB proposes to:

- Study the brackish groundwater resources of the state (\$949,650 for the biennium [\$500,000 in grants]; 2.5 FTEs);
- Study the minor aquifers of Texas- a resource of growing importance (\$359,720 for the biennium; 2 FTEs);
- Aggressively update the groundwater availability models (\$1,539,580 for the biennium [\$1,000,000 in grants]; 3 FTEs);
- Increase salaries to retain and recruit groundwater modelers (\$180,000 for the biennium);
- Develop the capability of developing three-dimensional visual tools of the state’s aquifer (\$200,000 for the biennium in grants); and
- Study the effects of natural and anthropogenic-influenced water quality on fresh groundwater quantity (\$500,000 for the biennium in grants).

Funding of this exceptional item will ensure the best information regarding the state’s minor aquifers, brackish groundwater resources, groundwater modeling and monitoring, and educational groundwater tools.

**Factors**

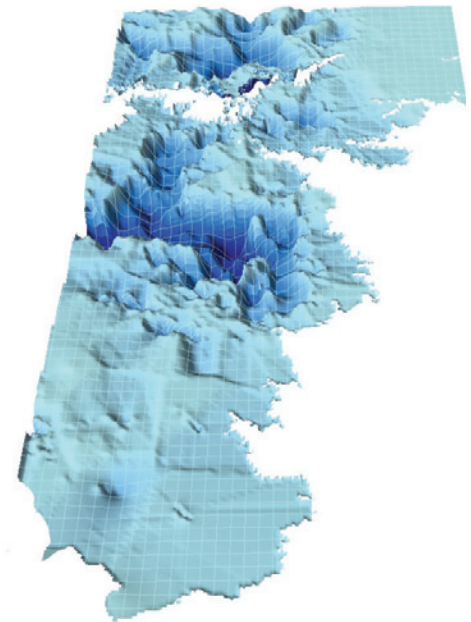
In 1990, there were 22 groundwater conservation districts; there are now 95. This alone has resulted in a four-fold increase in the demand for technical assistance and technical information for groundwater management. In addition, with the passage of House Bill 1763 by the 79th Legislature and the increasing importance of groundwater regulation and its effects on water planning, there is an even greater demand for technical information and assistance. We have proposed this exceptional item based on our internal and external assessments for our strategic planning and testimony given by stakeholders to the legislature. This item will assist us in providing technical assistance to help groundwater conservation districts meet the requirements in House Bill 1763. 4.A.

## Enhancing Recharge to the Ogallala Aquifer

<b>Exceptional Item Priority Ranking: 6</b>		
<b>General Revenue Requested</b>	<b>FY2010: \$411,515</b>	<b>FY2011: \$406,345</b>
<b>FTE's Requested</b>	<b>FY2010: 1.00</b>	<b>FY2011: 1.00</b>

### **Description and Justification**

This item addresses the continuation of a project designed to identify and investigate modifying playas in order to increase recharge to the Ogallala aquifer. Phase I involved surface water modeling and monitoring infiltration in the near surface soils of the National Resource Conservation Service (NRCS) flood retention structures in Hale County. The infiltration could eventually lead to aquifer recharge. In Phase II we used remote sensing data to classify playas potentially suitable to help recharge the Ogallala aquifer due to their soil types and geologic structure. In the proposed Phase III, up to 30 playas- identified in Phase II as being good candidates for enhancing recharge- would be monitored for climatic and hydro geologic parameters over the course of two years. In the second year of monitoring, selected playas would serve as test cases for field-scale studies on playa modification techniques for enhancing aquifer recharge. The local groundwater conservation districts will partner with the TWDB to provide \$50,000 of in-kind services annually to assist field personnel with equipment installation and monitoring. This exceptional item will put Texas in a better position to respond to future water resource demand.



#### **Aquifer characteristics**

- Area of aquifer: 36,515 square miles
- Availability: 5,968,260 acre-feet per year (2010) | 3,534,124 acre-feet per year (2060)
- Proportion of aquifer with groundwater conservation districts: 81 percent
- Number of counties containing the aquifer: 48

### **Factors**

Federal legislation was modified in 2008 to support Texas in our efforts to research enhancing aquifer recharge in the High Plains playas. TWDB began studying recharge enhancement in 1999 and completed Phases I and II of the study in 2003. Phase III was originally blocked in 2004 due to federal legislation, called the Swampbuster provision of the Farm Security Act of 1985, that prevented landowners from being eligible to receive farm program benefits if they participate in converting a wetland to enhance recharge or plant crops on converted wetlands. In 2008 that legislation was modified specifically to address Texas research needs.

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## VII. Surface Water

- Environmental Flows
- Interbasin Transfers of Surface Water



# Surface Water

## Senate Bill 3- Environmental Flows

<b>Exceptional Item Priority Ranking: 7</b>		
<b>General Revenue Requested</b>	<b>FY2010: \$319,952</b>	<b>FY2011: \$243,852</b>
<b>FTE's Requested</b>	<b>FY2010: 1.00</b>	<b>FY2011: 1.00</b>

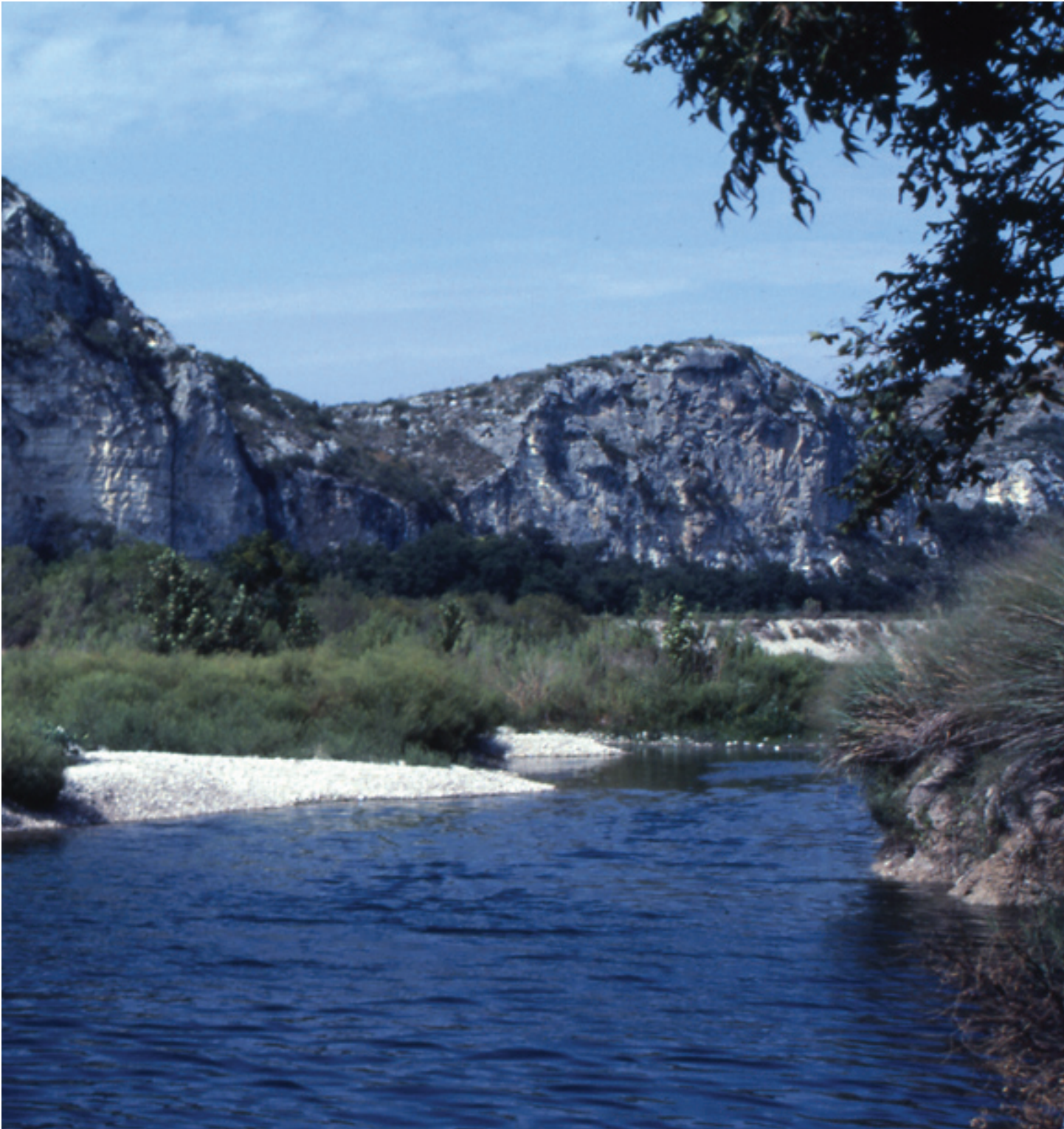
### Description and Justification

TWDB was charged with providing technical support and contract services in support of the Senate Bill 3 (80th Legislature) Article 1 (Environmental Flows) process. TWDB will work with the Science Advisory Committee, the Environmental Flows Advisory Group, the Bay-Basin Area Stakeholders and the Bay-Basin Expert Science Teams to provide information related to the existing instream flow and freshwater inflow programs. Furthermore, staff may be asked to conduct analyses of existing data to help the various groups make environmental flow recommendations. The schedule of Senate Bill 3 activities included in the legislation calls for a gradual ramping up of activities from Fiscal Year 2008 through Fiscal Year 2011, with a slight decline occurring thereafter as the various groups work on environmental flow recommendations for the priority basins identified in statute. Four FTE's were provided for the TWDB in the 2008-2009 biennium. One additional FTE was included for Fiscal Year 2010 and Fiscal Year 2011 in the approved Legislative Budget Board fiscal note. Other costs are primarily associated with the travel and time of the members of the Science Advisory Committee and Bay-Basin Expert Science Teams.

### Factors

The strategic plan promotes growth and efficiency within the agency. Lack of funds will severely hamper the agency's ability to support the projected increase in activities outlined in Article 1 of Senate Bill 3. By Fiscal Year 2010, stakeholder groups and expert scientists will be working in five major river basin and bay areas, a significant increase from the two in which work is about to begin.







# Surface Water

## Interbasin Transfer Authorization Requirements

### **Recommendation**

Retain the 2007 State Water Plan legislative policy recommendation on interbasin transfers of surface water. This recommendation states that “the legislature should provide statutory provisions that eliminate unreasonable restrictions on the voluntary transfer of surface water from one basin to another.”

### **Background**

Since adopting the 2007 State Water Plan, legislation was proposed in House Bill 911, 80th Legislative Session, by Representative Bill Callegari, which would have eliminated some unreasonable requirements in Texas Water Code, Section 11.085, for interbasin transfers of surface water. House Bill 911 failed to pass the House of Representatives.

In Volume I of the 2007 State Water Plan, the following policy recommendation background is still valid:

Interbasin transfers of surface water have been an important, efficient, and effective means of meeting the diverse water supply needs of an ever-increasing population in Texas. According to Texas Commission on Environmental Quality data, there have been approximately 193 interbasin transfer permits issued either for existing or planned water supply projects. These interbasin transfers are, or will be, used to meet a wide variety of water demands, including municipal, manufacturing, steam-electric power generation, and irrigated agriculture demands.



Both the historical and current importance of interbasin transfers across the state is illustrated by the interbasin transfer of water from Lake Meredith in the Canadian River Basin to 11 cities in the Canadian, Brazos, and Colorado river basins on the High Plains of Texas. Since the original delivery of water from Lake Meredith on April 1, 1968, by the Canadian River Municipal Water Authority, this project has served as the primary source of water supply for Amarillo, Brownfield, Borger, Lamesa, Levelland, Lubbock, O’Donnell, Pampa, Plainview, Slaton, and Tahoka. Without this project, local groundwater supplies from the Ogallala Aquifer, in many cases already severely depleted, would not have been able to meet the increasing municipal and manufacturing demands of the region.

Prior to the passage of Senate Bill 1, 75th Legislative Session (1997), Texas Water Code, Section 11.085, was entitled Interwatershed Transfers and contained the following provisions:

- Prohibited transfers of water from one watershed to another to the prejudice of any person or property within the watershed from which the water is taken;
- Required a permit from the Texas Commission on Environmental Quality to move water from one watershed to another;
- Required the Texas Commission on Environmental Quality to hold hearings to determine any rights that might be affected by a proposed interwatershed transfer; And
- Prescribed civil penalties for violations of these statutory requirements

In Senate Bill 1, 75th Legislative Session, Texas Water Code, Section 11.085, was amended to replace the above provisions with significantly expanded requirements for obtaining an interbasin transfer authorization. Since the amendments to the Texas Water Code requirements for interbasin transfers in 1997, there has been a significant drop in the amount of interbasin transfer authorizations issued. According to Texas Commission on Environmental Quality data, only two interbasin transfer authorizations that were subject to those provisions have been granted since the passage of Senate Bill 1 in 1997. There has been a significant amount of public discussion about whether the 1997 amendments to Texas Water Code, Section 11.085, have had a negative effect on issuing interbasin transfer authorizations.”

### **Statute(s) to be Amended**

Texas Water Code, Section 11.085

### **Fiscal Impact**

No direct impact to agency. Interbasin transfers, in general, can provide economic benefits in both the contributing and receiving basins.

### **Stakeholders**

Water providers, planners, rights holders, and users and environmental interests.

### **Benefits**

Eliminating unreasonable restrictions on the voluntary transfer of surface water from one basin to another could provide more certainty in the permitting process, which would encourage water providers to implement water management strategies recommended in their regional water plans that involve interbasin transfers of water. Over 20 wholesale water providers have projects in the 2007 State Water Plan that involve interbasin transfer authorizations.

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## VIII. Reservoirs

- Designation and Acquisition



# Reservoirs

## Reservoir Site Designation and Acquisition

### Recommendation

The legislature should provide a mechanism to acquire legislatively designated sites unique for the construction of reservoirs.

### Background

Volume 1 of the 2007 State Water Plan includes the following policy recommendation:

The legislature should designate all remaining viable reservoir sites of unique value for protection under Texas Water Code, Section 16.051(g), that are identified by TWDB and planning groups in the 2006 Regional Water Plans and the 2007 State Water Plan. The legislature should also designate any other feasible sites needed beyond the 50-year regional and state water planning horizon identified by TWDB-funded research currently in progress. The legislature should designate all river or stream segments of unique ecological value recommended in the 2006 Regional Water Plans and the 2007 State Water Plan for protection under Texas Water Code, Section 16.051(f). In addition, the legislature should provide a mechanism to acquire viable reservoir sites and possibly associated mitigation areas. These sites could be used to develop additional surface water supplies to meet the future water supply needs identified in the 2006 Regional Water Plans and those that will occur beyond the 50-year planning horizon.





Senate Bill 3, Article 4, 80th Legislative Session, by Senator Kip Averitt and Representative Robert Puente, partially implemented this state water plan recommendation by designating an additional 19 sites as unique for the construction of a reservoir. However, there is a sunset date of 2015 for that designation if a project sponsor has not made an affirmative vote to expend funds necessary for permitting or constructing a reservoir on the site. Senate Bill 3 also designated 16 stream segments as ecologically unique; however, none of the designated stream segments of unique ecological value were considered by the regional plans as potential mitigation areas for reservoir construction. Finally, no separate action has been taken by the legislature to acquire reservoir and mitigation sites, although state water plan funding can be used by applicants to fund such costs.

The following background “Acquisition and Protection of Land for Future Development of Surface Water Supplies” is included in Volume I of the 2007 State Water plan and is still valid:

“In the 1984 State Water Plan, the Texas Department of Water Resources recommended a number of integrated actions to protect suitable sites for future reservoir development, including the following:

- Creation by the legislature of a State Reservoir Site Development Easement System to provide the Texas Department of Water Resources with limited eminent domain power for the purpose of restricting certain land uses that would preclude reservoir construction within sites designated as suitable for reservoir development
- Creation by the legislature of a Reservoir Site Acquisition Fund to be administered by TWDB for the purpose of preserving future reservoir sites
- Appropriation by the legislature of \$100 million in each successive biennium to the Reservoir Sites Acquisition Fund to compensate landowners for easements and land options to secure lands for reservoir site preservation

In its discussion of these recommended actions, the 1984 State Water Plan recognized that implementation will directly impact the traditional emphasis upon protection of rights of landowners in areas outside of municipalities. It also recognized that the proposed actions must include proper mechanisms for reservoir site designation and preservation and ways to mitigate the local tax effects of such actions. Also, it is noted that between the time a reservoir site is selected and construction is initiated, the value of land and improvements escalate due to market forces and that protecting reservoir sites from commercial development and inordinate price increases will require new legal and public policy approaches. In a broad context, the 1984 State Water Plan recommendations and discussion of issues related to the preservation of reservoir sites continue to be relevant.

Texas Water Code, Chapter 15, Subchapter E, contains provisions for a Storage Acquisition Program to be administered by TWDB. These provisions, enacted into law primarily by the 67th Texas Legislature (1981) and 69th Texas Legislature (1985), established a Storage Acquisition Fund and authorized TWDB to use the fund for certain projects including the design, acquisition, lease, construction, reconstruction, development, or enlargement in whole or part of any existing or proposed water storage project.

Texas Water Code, Chapter 16, Subchapter E, contains provisions authorizing TWDB to use the State Participation Program to encourage optimum regional development of projects, including the design, acquisition, lease, construction, reconstruction, development, or enlargement in whole or part of reservoirs and other projects.



# Reservoirs

A recent example of TWDB's use of state participation authorization for this purpose was its approval in 2004 of \$10 million in financial assistance to the Angelina and Neches River Authority to develop an environmental impact survey on and to purchase most of the fee title land necessary to build Lake Columbia in Cherokee County.

Prior to using the Storage Acquisition Fund (Texas Water Code, Chapter 15) and State Participation Program (Texas Water Code, Chapter 16), TWDB is required by statute to determine that the state can reasonably expect to recover its investment in the project.”

## **Statute(s) to be Amended**

NA

## **Fiscal Impact**

Yes. The estimated capital costs of land acquisition of sites designated by the legislature as unique for the construction of reservoirs from the 2007 State Water Plan and the February 2007 Reservoir Site Protection Study funded by the TWDB totals about \$460 million in 2005 dollars. The cost of actual acquisition could be higher due to escalating land values.

In addition to acquiring sites, there could be a positive local economic benefit to landowners, including the price of sale and cost of leasing back property until the time of reservoir construction. There would be a positive economic benefit to water providers and water users by delaying their repayment of water supply capacity until the time of availability of or need for the additional water supply.

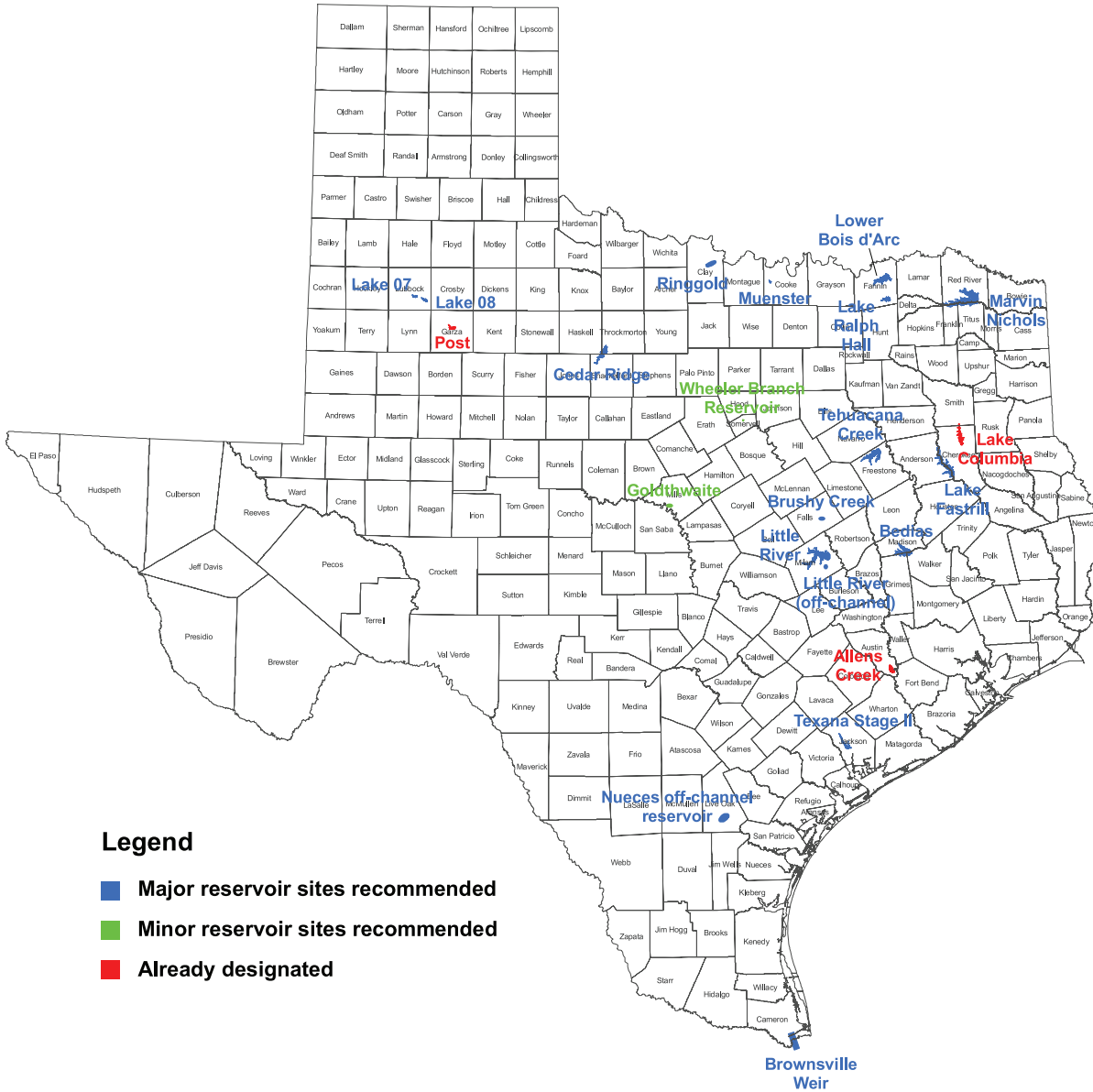
## **Stakeholders**

Water providers and users, landowners, and environmental interests.

## **Benefits**

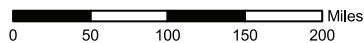
- Ensures unique reservoir sites would be acquired and available for developing reservoirs to meet future water supply needs for the state.
- Provides certainty to project sponsors that they would be able to construct recommended reservoirs for future water supplies.
- Reduces cost of land acquisition for future sites before property costs escalate due to market forces.
- Provides additional protection from federal actions that could prohibit the development of reservoirs.
- Allows the state to lease sites prior to reservoir construction to existing land owners or others for existing land use activities or for wildlife and other environmental recreation.
- Allows for generation of income for the state (leases) until state investment is repaid by a reservoir project sponsor.
- Extends legislative designation of sites past 2015 for those sites acquired with participating project sponsors.
- Demonstrates the state's commitment to provide sufficient water supply for the citizens of Texas and to ensure public health, safety, and welfare and to further economic development.

# Designated Unique Reservoir Sites



### Legend

- Major reservoir sites recommended
- Minor reservoir sites recommended
- Already designated



**DISCLAIMER**  
 This map was generated by the Texas Water Development Board using GIS (Geographical Information System) software. No claims are made to the accuracy or completeness of the information shown herein nor to its suitability for a particular use. The scale and location of all mapped data are approximate.

Map prepared by Mark Hayes, GISP  
 January 2007

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## **IX. Information Resources**

- TNRIS Data Service
- Climate Variability and the Water Resources of Texas



# Information Resources

## Texas Natural Resources Information System (TNRIS)

Exceptional Item Priority Ranking: 8

General Revenue Requested	FY2010: \$225,350	FY2011: \$199,250
FTE's Requested	FY2010: 5.00	FY2011: 5.00

### Description and Justification

TNRIS provides support for public inquiries and requests for maps and data from the state's geographic information clearinghouse. TNRIS is experiencing an increase in the number of external requests and anticipates an acceleration of this trend due to new statewide data collections as well as broadened authority to support emergency management data services. Approximately 600 person hours are required in a typical month to handle upwards of 500 inquiries and contacts which equates to 4.0 full time equivalents (FTEs). In addition to the existing workload, TNRIS anticipates increased inquiries and requests related to the National Flood Insurance Program (NFIP) mapping efforts including acquisition of a complete statewide aerial imagery update and development of new land surface elevation products. This public service role is important to enable customers to receive the full value of the data, maps and photography that covers the entire state and border regions and is currently provided by 1 FTE and various interns. An additional 3 FTEs will be needed to eliminate the need to use interns with intermittent schedules and a high turnover rate to provide an environment of consistent service, decreased need for supervisor support and provision of appropriate services.

In addition, House Bill 622 of the 79th Legislative Session, gave TNRIS the authority to collect and manage emergency management related geographic data but did not appropriate funds. Through this authorization, TNRIS supports the State Homeland Security Plan and on-demand requirements related to natural disasters including hurricanes, wildfires, and other emergencies. Current support for these activities is funded through grants which are set to expire December 31, 2008. To continue this support, new appropriations are required to fund an additional 2 FTEs.



### Factors

Public use and familiarity of internet based mapping is increasing demand for data and services from TNRIS. The NFIP Mapping Program data requirements will nearly double the quantity of data being collected in support of this program which will increase public requests for map and technical assistance. The NFIP Community Assistance Program has been transferred to the TWDB and will drive increased demand for locally coordinated data and map products. TNRIS support provided to the Governor's Division of Emergency Management (GDEM) in the form of specialized and experienced geographic data services limits the need for expenditures by GDEM to attempt to replicate these skills. GDEM has provided grant funding to establish these skills and has established an ongoing reliance on these services. These type of data and analysis require more technical support due to their high technology sensor system and understanding of complex processing required to generate public data products. A new map and data request fulfillment system is required to serve base data and finished map products.

## Climate Variability and the Water Resources of Texas

<b>Exceptional Item Priority Ranking: 13</b>		
<b>General Revenue Requested</b>	<b>FY2010: \$3,667,499</b>	<b>FY2011: \$3,518,054</b>
<b>FTE's Requested</b>	<b>FY2010: 8.00</b>	<b>FY2011: 8.00</b>

### **Description and Justification**

Many Texans are concerned about how climate variability may affect our water resources. All of the climate models used by the Intergovernmental Panel on Climate Change project increased temperatures for Texas, and most of the models predict an overall drier climate for Texas with the likelihood of more rainfall in the wetter, eastern part of the state and less rainfall in the drier, western part of the state. Climate scientists expect more climatic variability-more of the rainfall occurring in the wetter seasons and more rainfall focused in fewer events and increases in the number of droughts.

The goal of this exceptional item is to:

- Assess past and predicted climate variability (\$700,000 in contracts for the biennium);
- Assess potential impacts to Texas's groundwater resources, surface water resources, and water demand (\$1,039,580 for the biennium [\$500,000 in grants to the regional water planning groups]; 3 FTEs);
- Improve general data collection on surface water and groundwater resources, evapotranspiration, and water use (\$4,086,253 for the biennium [\$2,226,673 in grants and \$720,000 in equipment]; 3 FTEs); and
- Support innovative water technologies such as desalination, water reuse, and other emerging technologies-technologies that will help mitigate water supply issues beyond those that would be experienced in a repeat of the drought of record (the worst drought in the last 100 years) (\$1,359,720 for the biennium [\$1,000,000 in grants]; 2 FTEs).

Climate has changed in the past and will change in the future, with or without the influence of humans. This exceptional item will better position Texas for responding to climate variability and meeting future water demands.

### **Factors**

A number of our stakeholders have asked us to consider climate variability in our assessments of the state's water resources and water planning activities. Understanding and considering climate change for Texas is one of the internal factors identified in our strategic planning process.

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## X. Flood Management

- Flood Protection Planning Grants
- Floodplain Management Account



# Flood Management

## Flood Protection Planning Grants

**Exceptional Item Priority Ranking: 9**

<b>General Revenue Requested</b>	<b>FY2010: \$1,000,000</b>	<b>FY2011: \$1,000,000</b>
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### **Description and Justification**

Historically, floods are one of the most frequent, destructive and costly natural hazards facing Texas, constituting over 90 percent of the disaster damage reported in the state. Moreover, the statistical probability exists that a greater flood could occur in any given area, not only where it has occurred in the past. This exceptional item proposes to increase available grant funding for flood protection planning to eligible communities by an additional \$1,000,000 to a maximum annual amount of \$2,000,000. Flood protection planning grants were established in 1983 as part of the Research and Planning Fund created by the 67th Legislature and were financed out of the Water Assistance Fund. This funding assistance has enabled communities to study and analyze flooding hazards within their jurisdiction and develop technically feasible and cost effective flood mitigation measures to address those flood hazards. Through flood protection planning grants, the state and TWDB have been able to partner with communities in the form of 50/50 cost share grants (or 75 percent state share for those applicants which meet the Economically Disadvantaged requirements) to assist in the analysis of flood hazards and the evaluation of structural and non-structural flood mitigation alternatives. In 2006, the funding availability for flood protection planning grants increased from \$600,000 to \$1,000,000, following five straight years of funding requests that exceeded \$1.2 million annually. Funding requests have continued to increase; from a total of \$1.35 million in 2006, to \$2.14 million in 2007 and \$4.07 million in 2008 from 19 communities. This was the most applications and funding requests ever received. If funded, this exceptional item will allow grant assistance to additional jurisdictions and funding assistance vital for communities to study flooding within their area and to develop mitigation measures.



### **Factors**

There were numerous unfunded applications the past few years for flood protection planning requests due to the lack of available funding. There were 19 applications submitted in 2007 but funding availability only provided grant awards for five of the applications. For 2006 there were 15 applications submitted of which we were able to fund 6. An increase in funding from \$1,000,000 to \$2,000,000 for flood protection planning grants will give TWDB the ability to fund more requests for grant assistance. The internal result of this increased funding will be the consequential increase of grant contracts to manage and administer.





# Flood Management

## Floodplain Management Account

### **Recommendation**

Establish the Floodplain Management Account along with a dedicated funding stream from the maintenance taxes collected by the Department of Insurance.

### **Background**

The 80th Legislature passed Senate Bill 1436, which established the Floodplain Management Account under Section 16.3161 of the Water Code. The account was established as a special fund in the state treasury. Senate Bill 1436 also amended Section 251.004 of the Insurance Code by requiring the comptroller to reallocate to the Floodplain Management Account the first \$3.05 million of the maintenance taxes collected under Chapter 252 and deposited in the general revenue fund. Although the account and the funding stream were established in statute, the Funds Consolidation Act of 2007 did not exempt the account or the dedication of revenue. As a result, the Floodplain Management Account was not established, and the revenue stream was not reallocated; however, for the 2008–2009 biennium, general revenue in the amount of \$3.118 million was appropriated for the support of the National Flood Insurance Program in each year.

### **Statute(s) to be Amended**

Texas Water Code, Section 16.3161

Texas Insurance Code, Section 251.004

Legislation creating the Floodplain Management Account in Texas Water Code, Section 16.3161, would have to be filed again. Additionally, legislation dedicating the revenue in Insurance Code, Section 251.004, would also have to be filed again. The account and the revenue stream would have to be specifically exempted in the funds consolidation bill filed in the 81st Legislative Session.

### **Fiscal Impact**

Any reduction of general revenue is considered a fiscal impact by the state. By reducing the general revenue and transferring the funds to another account or fund, the amount available to the state for appropriation would be reduced by the amount included in statute (\$3.05 million per year based on Senate Bill 1436).

For the TWDB, a separate account would result in staff benefits and general salary increases being paid out of the account rather than by appropriated general revenue. If the revenues for the program do not increase enough to cover program administration or assistance, this could reduce the amount available to the TWDB. However, cash not expended from the separate account within a particular appropriation year would be available for future appropriation. With a general revenue appropriation, funds not expended are lapsed. By reestablishing Floodplain Management accounts, funds would be specifically dedicated, ensuring all premiums would be delegated for the intended purpose.

### **Stakeholders**

Potential beneficiaries of community assistance through the National Flood Insurance Program, including local floodplain administrators, property owners, homeowners, and emergency management response agencies.

## **Benefits**

- Gives staff more time to commit and expend funds in an orderly fashion. TWDB would not have to find ways to commit funds by the end of a fiscal year or biennium so that funds would not lapse back to general revenue.
- Ensures original intent of stakeholders, supporters, and sponsors of the bill if restored to the language as passed by the 80th Legislature in 2007.



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## **XI. Region C Study Commission**



# Region C

## Support for the Study Commission on Region C Water Supply Activities

**Exceptional Item Priority Ranking: 11**

<b>General Revenue Requested</b>	<b>FY2010: \$2,000,000</b>	<b>FY2011: \$0.00</b>
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### **Description and Justification**

The Study Commission on Region C Water Supply was formed by the passage of Senate Bill 3 of the 80th Legislative Session. The Study Commission was created to evaluate all water supply alternatives available to the Region C Regional Water Planning Area and based on this evaluation, to make a recommendation to the legislature as to whether the proposed Marvin Nichols reservoir should remain a designated unique reservoir site. Study Commission membership is comprised of three representatives from the Region C Planning Area and three representatives from the Region D Planning Area. The Study Commission has met three times as of November 12, 2008 and has developed a very detailed and comprehensive scope of work to accomplish the charges set forth in Senate Bill 3. At the November 12th meeting, the Study Commission selected an independent consultant to perform the tasks in the scope of work.



Required tasks include:

- Reviewing the water supply alternatives available to the Region C Regional Water Planning Area, including obtaining additional water supply from Wright Patman Lake, Toledo Bend Reservoir, Lake Texoma, Lake O’ the Pines, other existing and proposed reservoirs, and groundwater;
- Identifying and reviewing all relevant and available plans and studies that have examined water supply alternatives with the potential to supply water to the Region C Planning Area;
- Identifying and summarizing the water supply alternatives described within the plans and studies identified;
- Identifying potential gaps in the existing plans and studies and making recommendations to the Study Commission on what additional studies might be undertaken to bridge any identified gaps;
- Analyzing the socioeconomic effect on the area where the water supply is located that would result from the use of the water in the Region C Regional Water Planning Area;
- Determining whether water demand in the Region C Regional Water Planning Area may be reduced through additional conservation and reuse measures so as to postpone the need for additional water supplies;
- Evaluating measures that would need to be taken to comply with the mitigation requirements of the United States Army Corps of Engineers in connection with any proposed new reservoirs;
- Considering whether the mitigation burden may be shared by the Regions C and D Regional Water Planning Areas in proportion to the allocation to each region of water in any proposed reservoir;
- Reviewing innovative methods of compensation to affected property owners;
- Evaluating the minimum number of surface acres impacted by the construction of the proposed new reservoirs; and
- Identifying the locations of proposed reservoir sites and proposed mitigation sites.



Senate Bill 3 stipulates that TWDB shall provide funding from the regional planning budget to support Study Commission activities. No additional funds were appropriated by the legislature. TWDB diverted \$500,000 in previously appropriated regional planning funds, however, the \$500,000 currently available is much less than the amount required to carry out the tasks in the scope of work. An additional \$2 million is being requested to allow the Study Commission to fund the full scope of work and accomplish the Study Commission's charges as required by Senate Bill 3.

### **Factors**

The Study Commission on Region C Water Supply is required by Senate Bill 3, 80th Legislative Session. Internal resources are strained by the expanding scope of this task.



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## **XII. Innovative Technology**

- Seawater Desalination Initiative
- State Participation Program
- Water Reuse in Texas



# Innovative Technology



## Seawater Desalination Initiative

Exceptional Item Priority Ranking: 12

General Revenue Requested	FY2010: \$13,600,000	FY2011: \$14,600,000
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### **Description and Justification**

Texas Water Code, section 16.060, directs the Texas Water Development Board (TWDB) to take the necessary actions to further the development of cost-effective water supplies from seawater desalination in the state. Additionally, it requires TWDB to issue a biennium progress report and anticipated actions that should be addressed over the following biennium. The report is due on December 1, 2008.

The present request will enable TWDB and the Brownsville Public Utilities Board (B-PUB) to install a 2.5 million gallon per day permanent production facility that would allow it to fully demonstrate and continue the process of desalting ocean water from the Brownsville ship channel. This proposal would not only provide a direct benefit to the B-PUB by giving it access to a drought proof water source, but would also provide continuity to the state's interest in identifying and addressing risks and challenges related to the wide-scale development of seawater desalination supplies.

### **Factors**

The Brownsville pilot study has now provided enough data for the B-PUB to update the capital cost estimate for the project. B-PUB estimates the capital cost of a 25 million gallon per day facility located at the Port of Brownsville is in the order of \$170 million. A substantial portion of the project's cost is due to the intake and pre-treatment systems to ensure a more efficient performance of the reverse osmosis desalination process. The proposed demonstration project is a sound next step that provides a useful deliverable and the means to continue improving the economics of the project and its fundability.





# Innovative Technology

## State Participation Program

### **Proposed Recommendation**

Clarify legislation so that the Board may use the State Participation Program to purchase an interest in existing facilities or in an existing system if the optimum regional development of another, associated facility results in underutilized capacity in the existing facility or system.

### **Background**

The state participation statutes clearly provide that the Board may acquire a new facility or an interest in a new facility for the transmission and treatment of water and wastewater that expands an existing system and results in excess capacity designed to encourage optimum regional development. However, under Section 16.135(4) of the Water Code the Board must find that the interest the Board acquires must be in a facility that is “to be constructed or reconstructed.” Accordingly, it does not appear that the Board may acquire an interest in an existing system or a facility that is not being “constructed or reconstructed”, even though the acquisition supports overall optimum regional development.

There is an increased interest and need to enhance the diversity of regional system portfolios, tap into new sources of water supply, and gain overall system reliability by allowing for a reasonable degree of regional excess capacity. These types of goals fit well into the concept of regional optimization strategies that the state participation account may be authorized to fund.

The state participation account traditionally has been used to purchase capacity in a proposed reservoir that would not otherwise be constructed if the reservoir were built only to serve current customer demand, or a water intake structure that would not otherwise be constructed for future regional use if that structure were designed to supply current wholesale customer contract requirements. This use of the state participation account for optimizing reservoirs or intake structures to be constructed or to be enlarged (reconstructed) does not support the optimum regional development of certain water supply facilities, namely, desalination projects.

Desalination and other modern water treatment technologies provide the ability to insert substantial volumes of new water into a regional system. Optimal use of technologybased projects typically requires that the treatment facility be used at or near design treatment capacity. This creates a disincentive to construct a water treatment project using desalination (or similar) technology with excess capacity, because the technology cannot provide adequate treatment at acceptable efficiencies when operated at less than full capacity. In order to achieve state purposes in the state participation account with desalination projects, the “excess” capacity to be made available for future regional demand would need to be created in existing water treatment facilities. Clarification to the statute could authorize state participation account funding to acquire interest in an existing facility, with appropriate safeguards. (For example, because the Board must also find that “it is reasonable to expect that the state will recover its investment in the facility” under Section 16.135(1), Water Code, staff does not believe that it would be appropriate to acquire an interest in a facility that would otherwise be scrapped or would not be maintained pending recovery of the state’s investment.) Developing these facilities to an optimum economic scale may result in desirable excess regional system capacity. Section 363.1003 of the Board’s rules states that the Board will only use the State Participation Account for all or part of the cost to construct the excess capacity of a water supply project, rather than for the acquisition of excess capacity in an existing “already constructed) facility component of a regional system that would result from the project. This rule reflects a restrictive interpretation of the Board’s statutory authority, as “excess capacity” has been calculated on the new facility to be constructed, rather than in the system as a whole. Changes to the statutes and Board rules could clarify that the Board may acquire an interest in all or part of the regional system, not just the facility being constructed.

### **Statute(s) to be amended**

(1) Section 16.135, Texas Water Code

## **Fiscal Impact**

No. Passage alone will not have a fiscal impact. The fiscal impact will not occur until bonds are issued. The Board funds the State Participation Account with the proceeds of Water Financial Assistance Bonds as authorized by the Texas Constitution and the General Appropriations Act.

## **Stakeholders**

Applicants eligible for financial assistance under current funding programs including regional water authorities, districts, cities, counties, water supply corporations and other political subdivisions. Of specific interest would be the Brownsville PUB which is developing a large-scale, seawater desalination project or San Antonio Water System which is developing a brackish water desalination project.

## **Benefits**

Would allow more entities to access state participation, especially for projects which create system-wide excess capacity and/or that increase the overall reliability of a regional water supply system by adding new, drought-proof supplies from desalination.

§ 16.135. BOARD FINDINGS. Before the board may acquire a facility or interest in a facility, the board shall find affirmatively that:

- It is reasonable to expect that the state will recover its investment in the facility;
- The cost of the facility exceeds the current financing capabilities of the area involved, and the optimum regional development of the facility cannot be reasonably financed by local interests without state participation;
- The public interest will be served by acquisition of the facility; and
- The facility to be constructed or reconstructed contemplates the optimum regional development which is reasonably required under all existing circumstances of the site.





# Innovative Technology

## Water Reuse in Texas

### **Recommendation**

Legislative policy recommendations included in the 2007 State Water Plan concerning water reuse, based on input from regional water planning groups and the Texas Water Conservation Association, have now largely been addressed through the permitting process currently in place. From the water reuse stakeholder perspective, the focus has clearly shifted from questions about legal issues to the advancement of technology and technology transfer. As such, the TWDB, both through the FY 2010–2011 Legislative Appropriations Request and the FY 2009 Priority Research Topics, is already taking significant positive steps toward advancing technology related to water reuse. Therefore, TWDB staff has no further legislative recommendations related to policy issues on water reuse at this time.

### **Background**

In Volume I of the 2007 State Water Plan, the following policy recommendations and background information related to water reuse were included:

The legislature should develop policy in response to the following questions identified by the Texas Water Conservation Association's Reuse Committee:

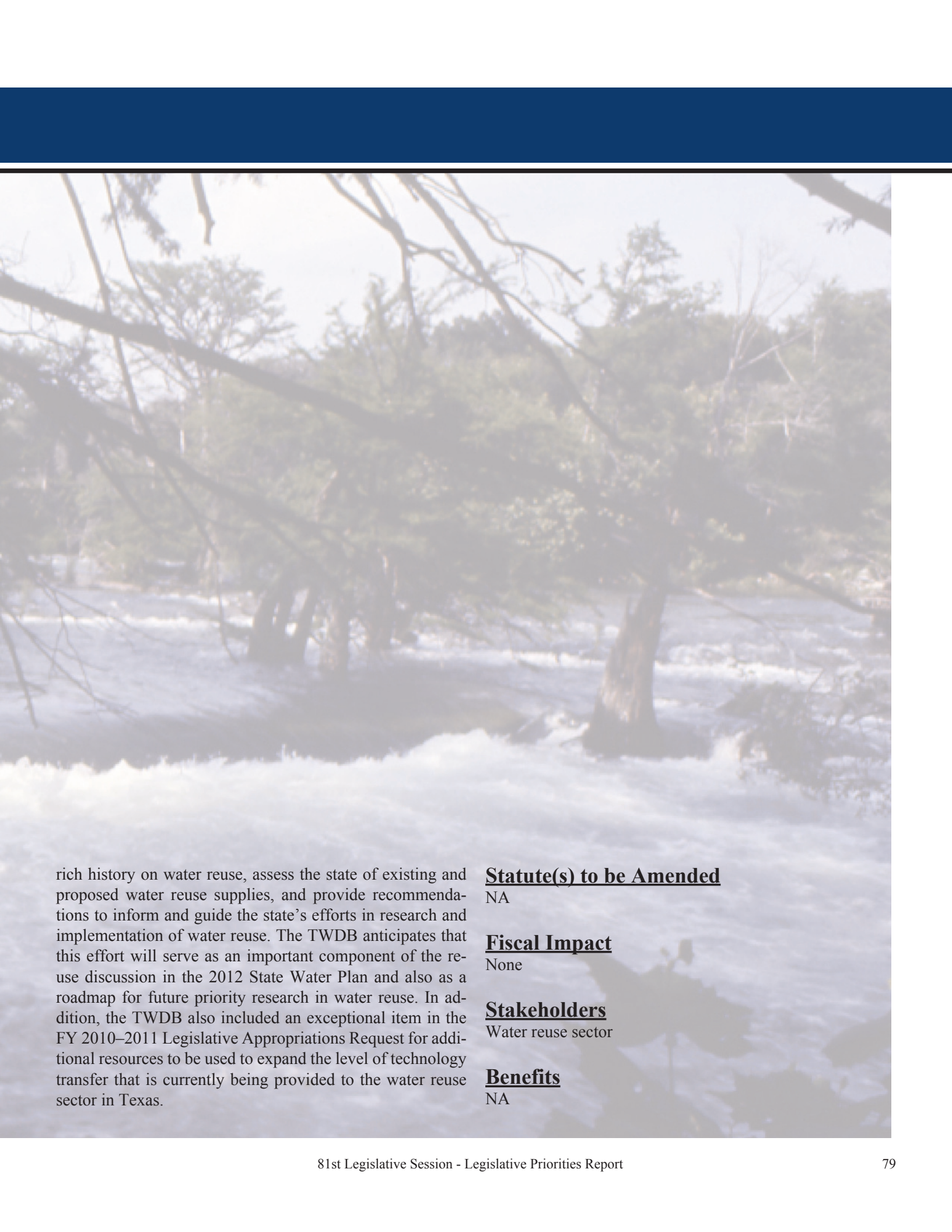
- Under current law, is the use of wastewater effluent after discharge to a stream a use of "state water" subject to the laws of prior appropriation or is it subject to a different regulatory scheme?
- Does current law allow effluent derived from different sources of water to be treated differently for purposes of evaluating a request to reuse this effluent?
- Does current law provide for different treatment of effluent derived from "future" and "existing" return flows, regardless of the source?
- Who can obtain indirect reuse rights?
- To what extent should protection be afforded to the environment in reuse permitting decisions?

The 2007 State Water Plan also includes definitions of indirect and direct reuse:

A briefing memo to the Commissioners of the Texas Commission on Environmental Quality dated February 25, 2005, describes reuse as follows: 'In water rights permitting, 'reuse' is the use of surface water which has already been beneficially used once under a water right, or the use of groundwater which has been used' [30 Texas Administrative Code §297.1(44)]. There are two types of reuse: indirect reuse and direct reuse. Indirect reuse is the reuse of water, usually effluent, which is placed back into a river or stream. This generally occurs when a wastewater treatment plant discharges effluent into a stream and either the discharger or another person or entity diverts the effluent further downstream to use again. In contrast, direct reuse occurs when effluent from a wastewater treatment plant is piped directly to a place where it is used.

In the recent past, water rights issues have dominated the water reuse discussion in Texas. However, there is growing recognition among key stakeholders that, to achieve the expected supply goals for water reuse strategies, there is an even greater need to develop and implement a common agenda focusing on the science, technology, and public awareness aspects of water reuse. Based on this change in emphasis, the TWDB will consider a staff-proposed research topic to examine Texas'





rich history on water reuse, assess the state of existing and proposed water reuse supplies, and provide recommendations to inform and guide the state's efforts in research and implementation of water reuse. The TWDB anticipates that this effort will serve as an important component of the reuse discussion in the 2012 State Water Plan and also as a roadmap for future priority research in water reuse. In addition, the TWDB also included an exceptional item in the FY 2010–2011 Legislative Appropriations Request for additional resources to be used to expand the level of technology transfer that is currently being provided to the water reuse sector in Texas.

**Statute(s) to be Amended**

NA

**Fiscal Impact**

None

**Stakeholders**

Water reuse sector

**Benefits**

NA

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# Additional Reports

## Other Statutorily Required Reports:

The Board is required by various laws to produce a variety of reports detailing financial information, programmatic summaries or research studies involving the agency. Many of the reports being produced by the TWDB prior to the 81<sup>st</sup> Legislative Session also contain recommendations for statutory changes and request funding for projects or programs. The following table lists these reports:

Statutory Reference	Report Name and Requirement	Date Due
TWC § 16.021	<b>Digital Texas:</b> Describes the progress of each Texas Geographic Information Council member entity toward achieving system goals and implementing initiatives. Recommends additional initiatives to improve the state's geographic information system programs.	11/1/2008
TWC § 16.060	<b>Biennial Report on Seawater Desalination:</b> Progress report on the implementation of seawater desalination activities in the state.	12/1/2008
SB 3 & HB 4	<b>Report on Progress of Water Conservation in Texas:</b> Biennial Report of the Texas Water Conservation Advisory Council	12/1/2008
SB 1762 & SB 3	<b>Far West Texas Climate Change Conference: Study Findings and Conference Proceedings:</b> Background regarding the issue of climate change and proceedings of the conference including presentations and recommendations	12/31/2008
TWC § 26.405	<b>Activities and Recommendations of the Texas Groundwater Protection Committee:</b> Report to the 81 <sup>st</sup> Legislature providing recommendations to improve groundwater protection for legislative consideration and describe the GWPC activities for the previous biennium.	1/13/2009
TWC § 35.018	<b>Priority Groundwater Management Areas and Groundwater Conservation Districts:</b> Provides updated information on the designation of priority groundwater management areas, the creation and status of new groundwater conservation districts, and implementation of groundwater management provisions.	1/31/2009
TWC § 26.406	<b>Joint Groundwater Monitoring and Contamination Report 2008:</b> annual report describing the current status of groundwater monitoring activities including Groundwater Protection Program descriptions and Groundwater Contamination Case descriptions.	4/1/2009

### Past Required Reports

TWC § 16.051	<b>Texas State Water Plan, Volumes I and II:</b> Water Plan for the state of Texas based on a "bottom-up" consensus-driven approach to planning involving 16 regional water planning groups. Adopted by the Board November 14, 2006.	1/5/2007
TWC § 16.022	<b>Conservation Supplement to the State Water Plan:</b> Joint Report with Texas State Soil and Water Conservation Board on ways to improve or expand water conservation efforts. Issued as part of, or supplement to, the State Water Plan.	1/5/2007

### Other Recent TWDB Reports

Water Loss Audit Manual for Texas Utilities	2008
Texas Instream Flows Studies: Technical Overview	2008
Reservoir Site Protection Study	2008

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# Photo Citations

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Page 77 TWDB, Barge installing open ocean intake off South Padre Island and transmission pipe  
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