

Strategic Plan

Fiscal Years 2011–2015

Texas Water 
Development Board



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Strategic Plan

Fiscal Years 2011–2015

TEXAS WATER DEVELOPMENT BOARD

BOARD MEMBER	TERM	HOMETOWN
JAMES E. HERRING, CHAIRMAN	12/31/09	AMARILLO
JACK HUNT, VICE CHAIRMAN	12/31/09	HOUSTON
THOMAS WEIR LABATT III	12/31/11	SAN ANTONIO
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JOE M. CRUTCHER	12/31/13	PALESTINE

JULY 2, 2010

A handwritten signature in cursive script that reads "J. Kevin Ward".

J. Kevin Ward, Executive Administrator

A handwritten signature in cursive script that reads "James E. Herring".

James E. Herring, Chairman

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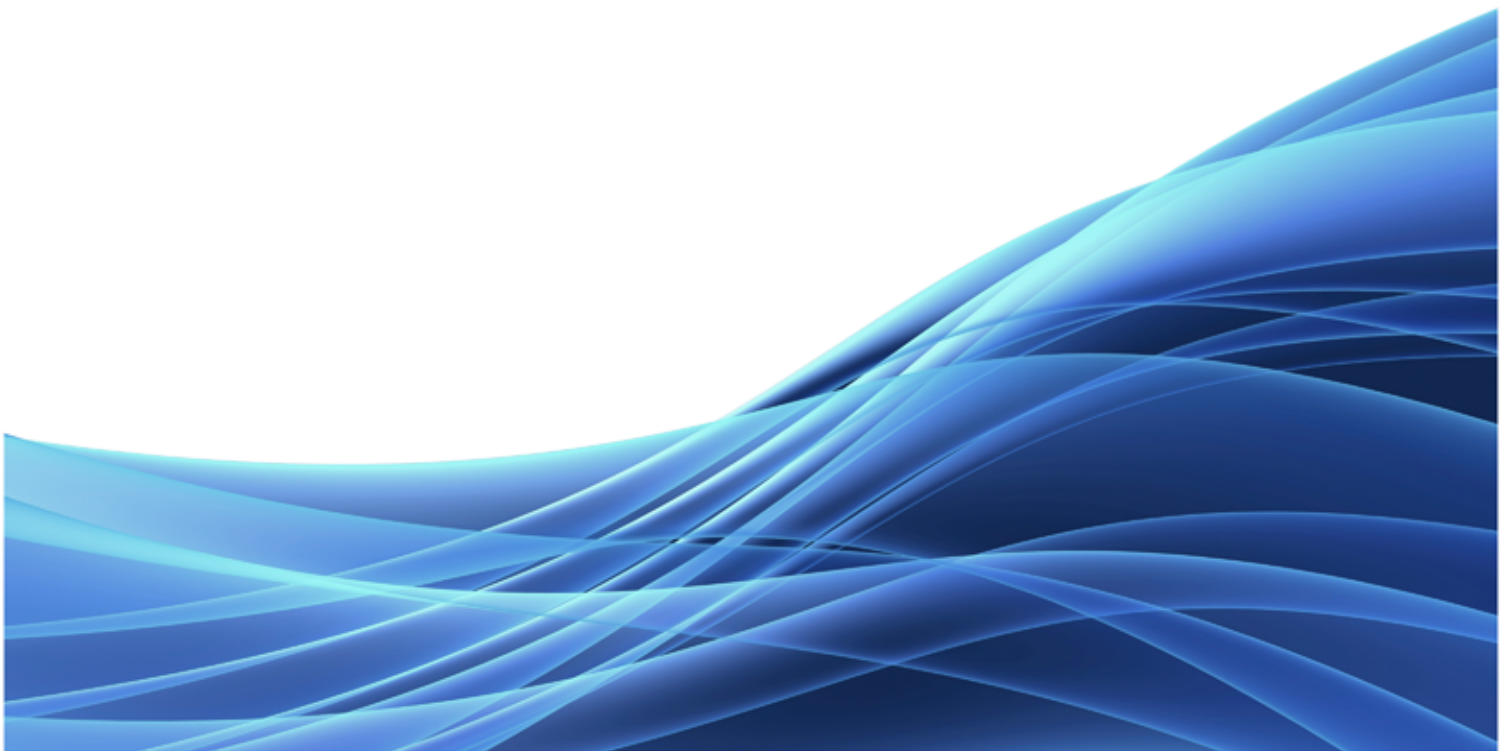
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Introduction

Statewide Vision, Mission, and Philosophy
Relevant Statewide Goals and Benchmarks
Agency Vision and Mission
Agency Philosophy
Fulfilling Our Mission



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Introduction

Statewide Vision, Mission, and Philosophy

Statewide Vision

Texas State Government must ensure that its role is limited and that its endeavors are done with maximum efficiency and fairness. The Governor's dedication to creating greater opportunity and prosperity for the citizens of Texas can be accomplished by focusing on the following critical priorities:

- Assuring open access to an educational system that not only guarantees the basic core knowledge necessary for citizenship, but also emphasizes excellence and accountability in all academic and intellectual undertakings;
- Creating and retaining job opportunities and building a stronger economy that will lead to more prosperity for our people, and a stable source of funding for core priorities;
- Protecting and preserving the health, safety and well-being of our citizens by ensuring health care is accessible and affordable, and our neighborhoods and communities are safe from those who intend us harm; and
- Providing disciplined principled government that invests public funds wisely and efficiently.

Statewide Mission

Texas State Government must be limited, efficient, and completely accountable. It should foster opportunity and economic prosperity, focus on critical priorities, and support the creation of strong family environments for our children. The stewards of the public trust must be men and women who administer state government in a fair, just, and responsible manner. To honor the public trust, state officials must seek new and innovative ways to meet state government priorities in a fiscally responsible manner.

*Aim high... we are not here to achieve
inconsequential things!*

Statewide Philosophy

The task before all state public servants is to govern in a manner worthy of this great state. We are a great enterprise, and as an enterprise we will promote the following core principles:

- First and foremost, Texas matters most. This is the overarching, guiding principle by which we will make decisions. Our state, and its future, is more important than party, politics, or individual recognition.
- Government should be limited in size and mission, but it must be highly effective in performing the tasks it undertakes.
- Decisions affecting individual Texans, in most instances, are best made by those individuals, their families, and the local government closest to their communities.
- Competition is the greatest incentive for achievement and excellence. It inspires ingenuity and requires individuals to set their sights high. Just as competition inspires excellence, a sense of personal responsibility drives individual citizens to do more for their future and the future of those they love.
- Public administration must be open and honest, pursuing the high road rather than the expedient course. We must be accountable to taxpayers for our actions.
- State government has a responsibility to safeguard taxpayer dollars by eliminating waste and abuse, and providing efficient and honest government.
- Finally, state government should be humble, recognizing that all its power and authority is granted to it by the people of Texas, and those who make decisions wielding the power of the state should exercise their authority cautiously and fairly.

Relevant Statewide Goals and Benchmarks

Below are the statewide goals and benchmarks relevant to the Texas Water Development Board (TWDB). Direct linkages from this agency's activities to the Natural Resources, Agriculture, and General Government benchmarks are clear. The TWDB also contributes to the areas of Economic Development, Health and Human Services, and Regulatory Government.

Natural Resources and Agriculture

Priority Goal: To conserve and protect our state's natural resources (air, water, land, wildlife, and mineral resources) by

- *Providing leadership and policy guidance for state, federal, and local initiatives; and*
- *Encouraging responsible, sustainable economic development.*

Relevant Benchmarks:

- Acre-feet of desalinated brackish and ocean water produced for Texas.
- Percent of water conservation through decreased water usage, increased water reuse, and brush control.
- Percent of Texas water that meets or exceeds safe water quality standards.
- Percent of regulatory permits processed while ensuring appropriate public input.
- Percent of implemented new technologies that provide efficient, effective, and value-added solutions for a balanced Texas ecosystem.
- Average time required in responding to natural disasters, such as wildfires and hurricanes.
- Number of jobs created or retained in rural communities through state investment.

General Government

Priority Goal: To provide citizens with greater access to government services while reducing service delivery costs and protecting the fiscal resources for current and future taxpayers by

- *Supporting effective, efficient, and accountable state government operations;*
- *Ensuring the state's bonds attain the highest possible bond rating; and*
- *Conservatively managing the state's debt.*

Relevant Benchmarks:

- Total state taxes per capita.
- Total state spending per capita.
- Percent change in state spending adjusted for population and inflation.
- State and local taxes per capita.
- Ratio of federal dollars received to federal tax dollars paid.
- Number of state employees per 10,000 population.
- Number of state services accessible by Internet.
- Total savings realized in state spending by making reports/ documents/processes available on the Internet.
- Funded ratio of statewide pension funds.
- Texas general obligation bond ratings.
- Issuance cost per \$1,000 in general obligation debt.

Economic Development

Priority Goal: To provide an attractive economic climate for current and emerging industries that fosters economic opportunity, job creation, capital investment, and infrastructure development by

- *Promoting a favorable and fair system to fund necessary state services; and*
- *Developing a well trained, educated and productive workforce.*

Relevant Benchmarks:

- Per capita gross state product.
- State taxes per capita as a percent of personal income.
- Texas unemployment rate.
- Median household income.
- Net number of new non-government, non-farm jobs created.
- Number of Texans receiving job training services.

Health and Human Services

Priority Goal: To promote the health, responsibility, and self-sufficiency of individuals and families by

- *Making public assistance available to those most in need through efficient and effective systems; and*
- *Continuing to create partnerships with local communities, advocacy groups, and the private and not-for-profit sectors.*

Relevant Benchmarks:

- Infant mortality rate.

Regulatory

Priority Goal: To ensure Texans are effectively and efficiently served by high-quality professionals and businesses by

- *Implementing clear standards;*
- *Ensuring compliance;*
- *Establishing market-based solutions; and*
- *Reducing the regulatory burden on people and businesses.*

Relevant Benchmarks:

- There are no relevant benchmarks listed for regulatory agencies that are pursuant to the goal of the TWDB because of the agency's limited regulatory function. In administering the National Flood Insurance Program, the agency has acquired a regulatory role and will adhere to the priority goals set forth for these agencies.

Agency Vision and Mission

Agency Vision

Sustainable, affordable, quality water for Texans, our economy, and our environment.

Agency Mission

To provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas.

Agency Philosophy

To accomplish our mission, the TWDB will continue to focus on these core values:

INNOVATION:

We thrive on innovation and originality by encouraging risk-taking and divergent voices. We search for better ways. We want to stay at the forefront of the water arena.

EXCELLENCE:

Our goal is to develop the best science and most accurate analysis and to provide the highest quality customer service. We want to achieve excellence in everything we do.

COMMUNICATION:

Our standard is openness, accuracy, and accountability in our communications. We value freedom—to seek the truth and express it. We strive toward enhancing our communication and sharing information regarding business performance.

CUSTOMER SERVICE:

We value each of our customers—internal and external—by putting their needs and interests at the center of everything that we do.

EXTRAORDINARY PEOPLE:

We respect each person at the TWDB regardless of their position or role within the agency. We recruit the best people we can to become part of our agency. We look for people who are passionate about our work. We recognize our foremost responsibility is to the people of Texas and expect all employees will perform their duties in the highest ethical manner. We have earned our current positive reputation, which we will guard and build upon.

LEADERSHIP:

To be successful, we must develop the next generation of leaders in water policy/planning, financing, and data collection. We will increase the capacity of our people to learn, to work together, and to lead. Through strong leadership and effective

delegation at all levels, we will strive to create as positive and productive a work environment as possible.

Agency Philosophy of Customer Service

The TWDB strives to achieve excellence in meeting and exceeding customer expectations and in providing information and services in a highly professional and timely manner. To achieve these goals, the TWDB is committed to encouraging customer feedback on products and services provided and to the continual evaluation of our programs to ensure they meet the needs of our customers.

Fulfilling Our Mission

The Texas Water Development Board (TWDB) continues to be committed to the roles and responsibilities set forth by its mission statement. Through leadership, planning, financial assistance, information, and education, the TWDB is working to perfect what we do. The success of the agency can be shown through recognition from organizations such as the Texas Water Conservation Association (TWCA). In March 2010, the TWDB was awarded the TWCA President's Award, which is presented to an individual, group, entity, or organization in recognition of the recipient's outstanding dedication, contributions, and service to the TWCA and the water resources of the state of Texas. The TWDB is the first organization to be so honored.

The following is an overview of some of the best ways the TWDB effectively fulfills its mission on a daily basis.

LEADERSHIP

Public Service

TWDB Board members and staff are devoted to public service, not only in a multitude of capacities at the agency, but also in various roles throughout the water resources arena. TWDB Board members and staff serve on task forces, committees, councils, and other decision making groups. TWDB Board

members and staff also participate as members of numerous organizations dedicated to improving knowledge and management of water resources.

In addition, the TWDB co-sponsors Texas Water Day in collaboration with the Texas Water Conservation Association. Texas Water Day was created for Texas water professionals to brief the Texas congressional delegation in Washington, D.C., on top-priority water policy issues. Held annually since 2005, Texas Water Day has grown considerably, and it now attracts more than 150 Texas water professionals, federal agency leaders, and members of Congress and their staffs.

The list below highlights the major organizations in which TWDB Board members and staff provide leadership or support:

- Advisory Committee on Water Information
- Alliance for Water Efficiency
- Coastal Coordination Council
- Council of Infrastructure Financing Authorities
- Edwards Aquifer Area Expert Science Subcommittee
- Edwards Aquifer Recovery Implementation Program
- Environmental Flows Advisory Group
- National Water Resources Association
- National Waterways Conference
- Rio Grande Project Salinity Management Coalition
- Science Advisory Council
- Secretary of State Interagency Workgroup on Border Issues
- State/Environmental Protection Agency State Revolving Fund Workgroup
- Task Force on Uniform County Subdivision Regulation
- Texas Bioenergy Policy Council
- Texas Environmental Resource Stewards
- Texas Geographic Information Council
- Texas Groundwater Protection Committee
- Texas Water Conservation Association
- University of Texas Bureau of Economic Geology
- Water Conservation Advisory Council
- Western States Water Council

Texas Rain Catcher Award

Steady progress is being made toward continuing the TWDB's reputation as a leader in rainwater harvesting in the state. A Rain Team consisting of staff from various program areas of the agency was formed in 2009 with the goal of strengthening and adding depth to the program. The Texas Rain Catcher Award—the first of its kind in the state—was established in 2007 to promote rainwater harvesting and to recognize excellence in the practice of this water conservation method.

PLANNING

Regional Water Plans

Since 1997, the TWDB has supported the development and adoption of 16 regional water plans during two five-year planning cycles. These plans will map out how to conserve water supplies, meet future water supply needs, and respond to future droughts in the planning areas. Regional water planning provides the opportunity to identify regional solutions to water supply problems, resulting in lower water supply costs. It also helps regions determine what water infrastructure needs exist and how best to meet them, enabling entities to receive low-interest loans from the TWDB.

The most recent regional water plans will be adopted by the 16 regional water planning groups and approved by the TWDB by the end of 2010.

State Water Planning

Since the early 1960s, the TWDB has developed six state water plans, including two (2002 and 2007) based on the regional water planning process. The state plan is partially compiled from information provided by the 16 regional water plans. The 2012 State Water Plan is due to the Governor, Lieutenant Governor, Speaker of the Texas House of Representatives, and the House and Senate Natural Resource Committees by January 5, 2012.

The 2007 State Water Plan, *Water for Texas*, won praise from the American Planning Association, a professional organization focused on city planning and community development. In October 2007,

the Texas chapter of the association presented the TWDB with the 2007 Long Range Planning Award, “given to an outstanding plan that concentrates on a single long-range planning element.” The 2007 State Water Plan also received one of the national association's four Letters of Commendation from the Awards Jury for its nomination for the Planning Excellence Award for Best Practice.

The TWDB is the state's lead agency for providing this type of information and has recently embarked on a major initiative to significantly improve the collection and dissemination of water data by developing Internet information technology applications that will greatly facilitate the availability and exchange of water resources data in Texas.

SB3 Environmental Flows

Senate Bill 3, passed in 2007 by the 80th Texas Legislature, called for a new, accelerated stakeholder-based approach to developing environmental flows for Texas' river basins and bays. Since 2008, the TWDB has played a significant role in supporting this process in both administrative and technical functions. The TWDB has administered funding and contracting, has provided important data and models, and has conducted analyses in support of this process. The TWDB will continue to play an important role in this process as the river basin and bay studies continue across the state and as work plans for the adaptive management component of the process are developed.

FINANCIAL ASSISTANCE

Conservative Fiscal Management

The TWDB has traditionally been conservative in the fiscal management of its debt and loan portfolio. This approach has served the TWDB well, especially in times of economic hardship. During the recent economic downturn, the TWDB continued to issue debt and provide loans to borrowers throughout the state to address water and wastewater infrastructure needs. The TWDB's ability to access the market at very cost effective rates is due to the agency's stellar reputation developed through its conservative management of debt.

The TWDB administers affordable financing for

water and wastewater infrastructure to hundreds of utilities across Texas. In FY 2009, the TWDB made 110 commitments of grants and loans valued at more than \$1.1 billion. Since its inception, the TWDB has committed approximately \$13 billion in funding, representing more than 3,656 commitments.

American Recovery and Reinvestment Act of 2009

The TWDB received \$339 million from the U.S. Environmental Protection Agency through the American Recovery and Reinvestment Act of 2009 (ARRA) to help communities across the state improve their water and wastewater infrastructures.

To be successful, the TWDB developed an ARRA-specific process for ranking projects for funding. A team of employees and temporary staff was formed and moved to new office space. Because of shortened time frames for the projects, tracking tools were developed and deadlines were strictly enforced.

Through ARRA, the TWDB was able to fund 25 drinking water projects and 20 wastewater projects.

ARRA posed new policy and procedural requirements resulting in a complete review of how the agency develops and finances projects through the State Revolving Fund and the impact to all programmatic functions of the agency. The executive administrator recognized the need to bring all parts of the agency into the fold on these processes and directed a change in organizational structure to allow expedited decision making for key TWDB financing programs.

State Water Plan Financing

In 2007, the 80th Texas Legislature appropriated debt service for the issuance of \$762 million in bonds that allowed the TWDB to offer attractive financing for projects that are recommended water management strategies in the State Water Plan. The appropriated funds were used to implement the TWDB's Water Infrastructure Fund (WIF) and State Participation programs. Grant funds were also made available from TWDB's Economically Distressed Areas Program (EDAP) to assist disadvantaged communities with implementing water plan projects. The programs offer low-interest financing for construction of immediate needs and low-interest, deferred payments

for planning, design, and permitting costs for long-term projects.

The 2007 legislative appropriations were based on the amount of low-interest and deferred-principal and interest loans that the TWDB recommended for each of these programs, and in an amount that would allow the TWDB to meet its debt service obligations for the bonds that the TWDB issues to raise funds for these programs. In 2009, the 81st Texas Legislature continued funding for the state water plan in the amount of \$470 million.

Since March of 2008, the TWDB has committed over \$918 million from these attractive and unique programs to implement 35 recommended strategies in the state water plan. More than \$165 million has been committed to finance the planning and development of new reservoirs, raw water conveyance, surface water treatment plants, and wetland reuse. More than \$753 million has been committed to finance the construction of surface water treatment plants, new well fields, raw water intakes, transmission lines, and recycled water pipelines.

Some of the projects funded by these programs had been recommended water plan strategies for many years but had not been able to begin the planning, design, or construction due to lack of an affordable option for financing. The funding options made available by the TWDB through the WIF, State Participation, and EDAP created the impetus for project sponsors to commence these projects so that long term water supplies will be available in the future for the citizens of Texas.

State Revolving Fund Improvements

The ARRA required projects to be ready to proceed into construction because of the ARRA deadline of February 17, 2010. Owing to recent significant changes by Congress to federal appropriation language, the TWDB is modifying its existing State Revolving Fund programs to gear up for new priorities to target assistance.

Additionally, the U.S. Environmental Protection Agency and Congress are now focused on the "pace" at which funds are delivered to applicants, requiring the TWDB to develop and promote "ready to

proceed” projects over ones that previously would have been allowed years to plan and design. As such, the State Revolving Fund will now be offered in phased funding: (1) planning, acquisition, and design funding, and (2) construction funding. Phased funding has the advantage of giving applicants the opportunity to have their project ready to apply for construction funding in a future cycle of the State Revolving Fund from the TWDB, as well as for any future ARRA funds or for funding through other agencies that may require completion of the planning, acquisition, and design phase.

The TWDB’s Contract Administration section revised and enhanced the existing State Revolving Fund outlay process and its associated reporting forms. Benefits to our customers include consistency and ease in reporting formats and other detailed filtering improvements. The enhancements are also designed to support the growth and sustainability of the State Revolving Fund programs for the future by ensuring federal funds are drawn into the programs more efficiently.

Severe Repetitive Loss Grant Program

The Severe Repetitive Loss (SRL) grant program, authorized by Congress in 2004, provides states funding to reduce or eliminate the long-term risk of flood damage to SRL structures insured under the National Flood Insurance Program. Since the last TWDB Strategic Plan, the agency has awarded more than \$37 million to communities in Texas through this new program.

The TWDB first awarded SRL grants in 2008. The Harris County Flood Control District was awarded \$15.8 million for buyout and demolition of 117 SRL properties, and the City of Pasadena was awarded \$10.8 million for the buyout and demolition of 19 apartment buildings.

In 2009, the TWDB awarded \$2.1 million to the Harris County Flood Control District for the buyout and demolition of 17 SRL properties. Project awards pending approval by the Federal Emergency Management Agency consist of 2 additional awards to the Harris County Flood Control District for the buyout and demolition of SRL properties (\$3.3 million for 22 properties and \$2.2 million for 15

other properties); \$189,450 to the City of Pasadena for the buyout and demolition of 1 SRL property; \$1.1 million to the City of Beaumont for the buyout and demolition of 9 SRL properties; and \$910,600 to the City of League City for elevating 6 SRL structures above the base flood elevation.

Demonstration Projects

Work on the brackish groundwater desalination initiative continues with sustained financial support from the legislature. To date, the TWDB has funded 13 (note: this number includes those projects that will be funded in 2010) demonstration projects, for a total of about \$3 million on the important issues of concentrate management, energy recovery, and cutting-edge technologies. The projects are spread across the entire state of Texas.

INFORMATION

Texas Natural Resources Information System

The Texas Natural Resources Information System (TNRIS), a division of the TWDB, was established by the legislature in 1968 as the Texas Water-Oriented Data Bank. In 1972, after four years of growth and diversification, it was renamed the Texas Natural Resources Information System.

The mission of TNRIS is to provide a “centralized information system incorporating all Texas natural resource data, socioeconomic data related to natural resources, and indexes related to that data that are collected by state agencies or other entities.” The TNRIS data catalog contains more than one million frames of aerial photography, more than 50 unique data sets equal to 500 gigabytes, and an average of 10,000 data downloads a month. This information has been used in the recent past during disasters for emergency management.

TNRIS hosts the annual geographic information system (GIS) forum, the largest of its kind in Texas, offering GIS and geospatial professionals the opportunity to share products, services, and knowledge and to network with nationally recognized experts in the geospatial field.

Hydrographic Surveys

The hydrographic survey program assesses accurate storage volumes and sedimentation rates in the state's reservoirs. We are the only provider of this service that we are aware of in Texas. The program develops techniques for improving the accuracy of hydrographic surveys. TWDB employees developed the self-similar technique, a technique that overcomes limitations in standard approaches and software for developing lake bathymetric models and for calculating lake volumes. This technique is now being applied to all new lake surveys and is being applied to older data sets to improve estimates of lake sedimentation, information critical to water planning. The TWDB continues to explore new techniques that will further improve the accuracy of lake surveys.

2010 Water Loss Audits

In 2003, the 78th Texas Legislature amended Section 16.0121 of the Texas Water Code to require each of the approximately 4,100 retail public utilities that provide potable water to conduct a water loss audit once every five years and to report the results of the audit to the TWDB. The first water loss audit that was conducted used data collected from 2005. The current water loss audit will be for the year 2010. The results of the 2010 water loss audit will be submitted to the TWDB no later than March 31, 2011. Water loss audits lead to knowledge of deteriorating infrastructure, as well as better conservation practices. In the long run, water loss audits will not only reduce costs to consumers but also ensure a high quality of life for Texans.

Brackish Resource Aquifer Characterization System

In 2009, Innovative Water Technologies with funding from the legislature embarked on an ambitious, long-term program to map and characterize the brackish sections of the aquifers in the state. Named BRACS (Brackish Resource Aquifer Characterization System), the program has the goal to generate more detailed information about the aquifers and water quality in the aquifers and to make this information available to the public. Results will be of great value to entities interested in pursuing brackish groundwater for desalination.

EDUCATION

Water Conservation Education

Water conservation education is an integral component of the TWDB mission. One of the most successful educational components that the agency offers is the Major Rivers program. This program is available for purchase for use in fifth- and sixth-grade science classrooms to teach youth about water sources and water conservation. The program supports many of the Texas Education Agency's Texas Essential Knowledge and Skills and Texas Assessment of Knowledge and Skills objectives for social studies, science, language arts, and math. Annually, the Major Rivers education materials are provided in response to more than 50 orders, with the number of students potentially reached to exceed 50,000.

The TWDB's online Kids' page contains fun activities designed to help youth learn about managing water wisely. The TWDB currently has numerous publications that inform the public of water conservation activities in and around the home. Annually, about 250 orders are received, for a total of 150,000 to 200,000 pieces of conservation literature.

In the fall of 2010 the TWDB is releasing a new online educational resource for high school students. Water Exploration uses a project-based learning approach to promote inquiry learning about water science and critical water-related issues. All learning activities and resources are packaged into Legacy Cycle modules, an innovative approach that engages students in the use of the Internet and computer technology, as well as laboratory and field-based activities, to conduct their research.

The new national Earth Science Literacy Principles provide the organizing framework for the lessons and activities in each Water Exploration Legacy Cycle. The Water Exploration curriculum addresses the Texas Essential Knowledge and Skills for high school science courses such as Earth and Space Science, Advanced Placement Environmental Science, Environmental Systems, Biology, and Aquatic Science, as well as Geography.

Water IQ

A TWDB water conservation public awareness program, Water IQ is designed to educate Texans on where their water comes from and how to use it efficiently in order to conserve it for the future growth of Texas. Water conservation public awareness is promoted through outreach events, materials, and education. Information is provided across the state to help other entities with their own public awareness programs. Water IQ offers an easy-to-identify brand, a variety of materials, and a network of groups and communities dedicated to educating Texans about water conservation. The program complements existing local and regional water conservation efforts. Water IQ strives to make all Texans aware that their natural water resources are limited.

The TWDB intends to continue to improve all current water conservation programs that it offers as well as to provide additional educational outreach in a smarter, more efficient way. These innovations will be in the form of visual media available through our Web site and direct distribution—specifically targeting groundwater conservation districts, municipal entities, and regional water planning groups—to support the mission of providing water to Texans.

Public Outreach

TWDB staff members also offer outreach and education to the citizens of Texas through workshops and conferences throughout the year and regular newsletters and notifications. Other activities include securing partnerships with various entities and developing contacts throughout the state with other public awareness and education leaders. The agency also organizes an information booth at numerous conferences and fairs to promote water awareness and provide information on our water conservation programs.

In order to broaden the agency's reach, the TWDB has developed new ways to reach stakeholders. The agency's monthly electronic newsletter, TWDB News, informs stakeholders of what is going on at the agency, opportunities for financial assistance, and opportunities to comment or provide feedback. The TWDB Communications department also regularly issues press releases regarding financial commitments

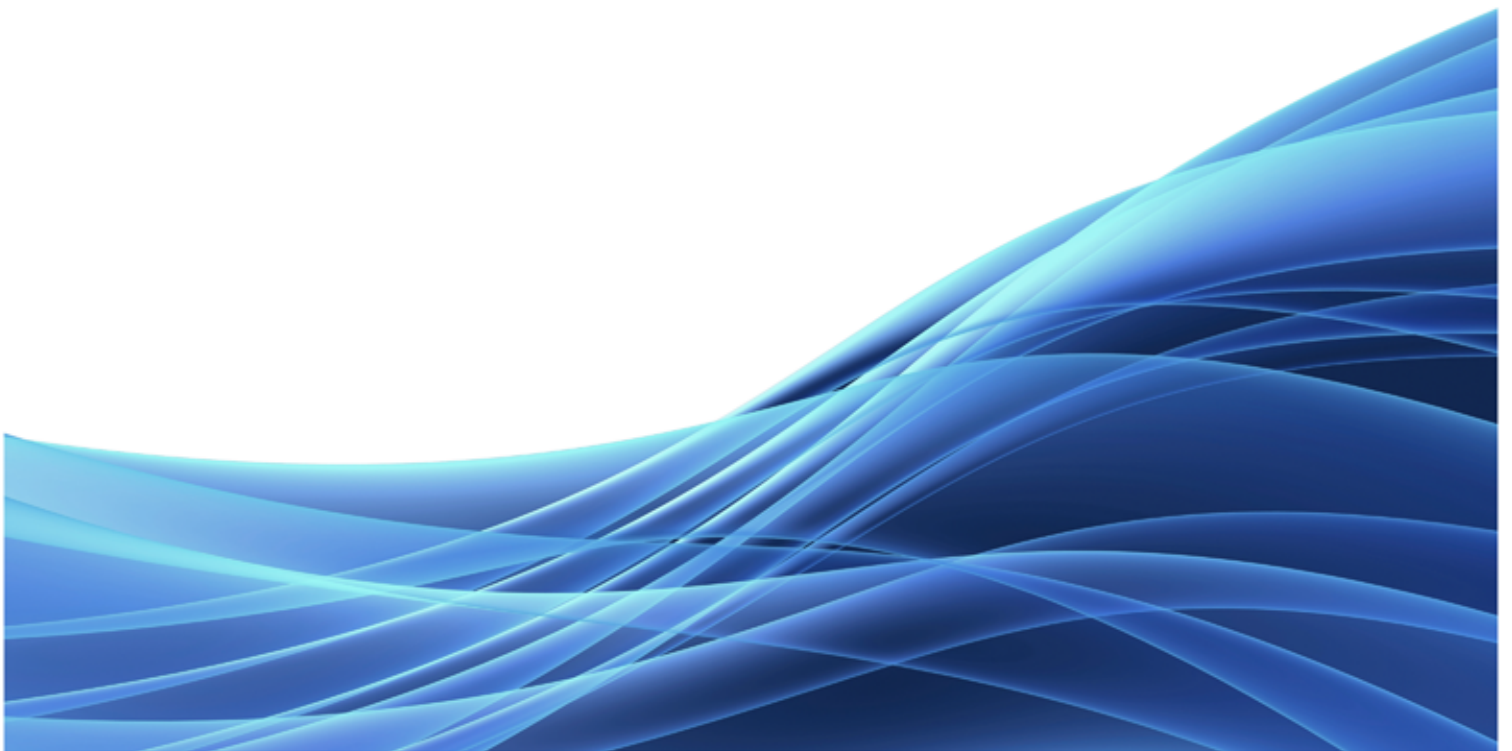
and informational electronic postcards for upcoming events. Water-related news is passed on to TWDB stakeholders through the agency's RSS feed, as well.

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Agency Overview

Enabling Statutes and Legislation

TWDB History



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Agency Overview

The TWDB is the state’s water planning and water project financing agency. The agency’s main 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 Texas Legislature’s passage of Senate Bills 1 (75th Legislature), 2 (76th Legislature), and 3 (80th 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 a leadership and support role through guiding, enabling, and supporting the responsible development of the state’s water resources to ensure that sufficient water will be available at a reasonable cost while protecting the agricultural and natural resources of the state.

Enabling Statutes and Legislation

Strategies	Descriptions	Statutory References
Strategy 01-01-01 Collection, Analysis, and Reporting of Environmental Impact Information	Collect, receive, analyze, process, and facilitate access to basic data and summary information concerning water necessary to support a sound ecological environment in the state’s streams, rivers, bays, and estuaries	Water Code §§11.1491, 16.012, 16.058
Strategy 01-01-02 Water Resources Data	Collect, receive, analyze, process, and facilitate access to basic data and summary information to support planning, conservation, and responsible development of surface water and groundwater for Texas and studies to determine the quantity and quality of water available and environmental flow needs.	Water Code Chapter 15 (Subchapter M), Chapter 16 (Subchapter B), §16.059 Water Code §§11.153, 11.155, 15.4063
Strategy 01-01-03 Automated Information Collection, Maintenance, and Dissemination	Operate statewide program to provide training and to produce, maintain, and disseminate public domain geographic data in support of the state’s water planning programs and related activities.	Water Code Chapter 16 (Subchapter B), §§36.1071, 36.1072, 36.1073, 36.159, 36.160, 36.161, 36.169 Education Code §88.503
Strategy 01-02-01 Technical Assistance and Modeling	Conduct studies on surface water and groundwater resources; provide technical information and assistance to citizens, groundwater conservation districts, river authorities, water utilities, and regional water planning groups; and develop, maintain, and adapt surface water and groundwater availability models to support planning, conservation, and responsible development of water in Texas.	Water Code Chapter 16 (Subchapters B and C), §§16.012, 16.015, 16.019, 16.051, 16.053, 35.004, 35.007, 35.012, 35.013, 35.018, 36.015, 36.108, 36.120, 36.1071 through 36.1073. Local Government Code §§212.0101, 232.0032.

Strategy 01-02-02 Water Resource Planning	<p>Assist in the development and implementation of regional and state water plans and of measures resulting in protection from floodwaters. Efforts include managing contracts and providing technical assistance to regional water planning groups and political subdivisions for: 1) the preparation of regional water plans that are the foundation for the state water plan, 2) regional facility planning that initiates implementation of the state water plan, and 3) researching water resource problems and issues.</p>	<p>Water Code §§6.011, 6.012, 11.1271, 11.1272, 12.0151, Chapter 15 (Subchapters A, B and F), Chapter 16 (Subchapters B, C, D and I), National Flood Insurance Reform Act of 1994, 42 United States Code, Chapter 50, Subchapter III, §§4001 through 4107, 44 CFR, Chapter I, Part 78, §§78.1 through 78.14</p>
Strategy 01-03-01 Water Conservation, Education, and Assistance	<p>Provide water conservation information, data, and other technical assistance and services to promote increased water-use efficiency in Texas through statewide water conservation activities and as included in the regional and state water plans</p>	<p>Water Code §§5.701, 11.1271, 13.146, 15.102, 15.103, 15.106, 15.208, 15.607, 15.701, 15.708, 15.735, 15.910, 15.975, 15.995, 16.012, 16.015, 16.0121, 16.022, 16.051, 16.053, 16.054, 16.055, Chapter 16, Subchapter K, 17.122, 17.125, 17.274, 17.277, 17.857, and 17.927, and Chapter 17, Subchapter J.</p>
Strategy 01-04-01 Perform Community Assistance pursuant to the National Flood Insurance Program	<p>Perform community assistance pursuant to the NFIP.</p>	<p>Water Code §§ 16.314, 16.316, 16.317.</p>
Strategy 02-01-01 State and Federal Financial Assistance Programs	<p>Provide financial assistance through state and federal programs to save money for Texas communities for water supply, water quality protection, and other water-related projects.</p>	<p>Water Code §§6.011, 6.012, 16.093, 17.0821, 17.961, 17.853; Chapter 15 (Subchapter J); 33 United States Code §§1251 et seq. (Federal Water Pollution Control Act); 42 United States Code §§ 300f-300j-26 (Safe Drinking Water Act); Texas Constitution Article III, §§49-c, 49-d, 49-d-1, 49-d-2, 49-d-3, 49-d-4, 49-d-5, 49-d-6, 49-d-7, 49-d-8, 49-d-9, 50-d; Water Code §§6.011, 6.012, Chapter 15, (Subchapters A-F, M, N, O, Q, and R); Chapter 16 (Subchapters E and F); Chapter 17 (except for Subchapter M); §§36.159-.161, 36.371-374</p>
Strategy 02-02-02 Economically Distressed Areas Programs	<p>Provide economically distressed areas access and connections to adequate water supply and/or wastewater treatment systems and/or indoor plumbing improvements.</p>	<p>Texas Constitution Article III, §§49-d-7, 49-d-8, 49-d-9, Water Code §§6.011, 6.012, 15.401, 15.407, Chapter 15 (Subchapters A, B, C, L, P and Q); Chapter 16 (Subchapter J); Chapter 17 (Subchapters K, M), applicable Federal Appropriations Acts.</p>

TWDB History

TWDB Timeline:

1904	A constitutional amendment was adopted authorizing the first public development of water resources.
1913	The 33rd Texas Legislature created the Board of Water Engineers to regulate appropriations of water.
1957	<p>The TWDB was created by legislative act and constitutional amendment. The constitutional amendment, approved by Texas voters, authorized the TWDB to issue \$200 million in State of Texas General Obligation Water Development Bonds for the conservation and development of Texas' water resources through loans to political subdivisions. Additionally, Chapter II of the Laws of the First Called Session of the 57th Legislature, titled, "the Texas Water Planning Act of 1957" created a Water Resources Planning Division within the State Board of Water Engineers.</p> <p>The statewide drought of record that lasted almost eight years ended, resulting in 244 out of 254 Texas counties being declared disaster areas.</p>
1962	The Board of Water Engineers was reorganized, renamed the Texas Water Commission, and given specific responsibilities for water planning by the 57th Texas Legislature. An additional constitutional amendment added powers to the TWDB regarding the acquisition and development of storage facilities in reservoirs using the Texas Water Development Fund.
1965	The Texas Legislature restructured the state water agencies, transferred water resource planning functions to the TWDB, and renamed the Texas Water Commission as the Texas Water Resource Commission (TWRC).
1970	President Richard Nixon established the U.S. Environmental Protection Agency (EPA)
1972	The Texas Natural Resources Information System (TNRIS) was created, succeeding the Texas Water-Oriented Data Bank and incorporating a centralized repository and clearinghouse of maps, census information, and water-related information.
1977	<p>The three existing water agencies:</p> <ul style="list-style-type: none"> -the Texas Water Development Board; -the Texas Water Rights Commission; and -the Water Quality Board <p>were combined by the Texas Legislature, creating the Texas Department of Water Resources (TDWR). This new agency was responsible for developing Texas' water resources, maintaining the quality of water, and ensuring equitable distribution of water rights.</p>
1985	Sunset legislation reorganized the Texas Department of Water Resources, splitting the agency into two separate agencies: the Texas Water Commission and the Texas Water Development Board. The TWDB was charged with long-range planning and water project financing. Four constitutional amendments were passed that 1) added \$980 million in bond authorization for water, water quality enhancement, and flood control projects; 2) gave authority for the TWDB to create special funds in the treasury; 3) created a bond insurance program; and 4) authorized the TWDB to provide financial assistance to nonprofit water supply corporations.

1987	Congress established the Clean Water State Revolving Fund through the Clean Water Act Amendments of 1987, creating a permanent, state-administered financial assistance program for water pollution abatement projects.
1989	The 71st Texas Legislature and voters of the state passed comprehensive legislation and constitutional amendments establishing the Economically Distressed Areas Program (EDAP), to be administered by the TWDB.
1993	The North American Development Bank and Border Environment Cooperation Commission were created through the North American Free Trade Agreement. The Bank and Commission charges included financial assistance for water and wastewater projects along the Texas-Mexico border.
1996	Congress established the Drinking Water State Revolving Fund through the Safe Drinking Water Act Amendments of 1996, creating a state-administered financial assistance program for drinking water infrastructure projects.
1997	<p>The 1997 State Water Plan was adopted as a consensus effort by the TWDB, the Texas Parks and Wildlife Department (TPWD), and the Texas Natural Resource Conservation Commission (now the Texas Commission on Environmental Quality or TCEQ).</p> <p>The 75th Texas Legislature passed Senate Bill 1 (SB 1), changing the water planning process in Texas. SB 1 charged local entities with preparing regional water plans every five years and charged the TWDB with incorporating these plans into a comprehensive state water plan.</p> <p>With enactment of SB 1, the Strategic Mapping Initiative was developed and the Texas Geographic Information Council (TGIC) was formed.</p> <p>Sunset review resulted in passage of SB 312, which preserved existence of TWDB for 12 more years and mandated program changes. The TWDB revised all forms and procedures and adopted all necessary rules required to implement program changes mandated in SB 312.</p>
2001	<p>The 2002 State Water Plan was published, the first state water plan to be adopted by the TWDB since the passage of SB 1 by the 1997 Texas Legislature.</p> <p>The 77th Texas Legislature passed Senate Bill 2, which added additional requirements to the TWDB's technical data collection and groundwater modeling programs and created two new funding programs to be administered by the TWDB: the Water Infrastructure Fund and the Rural Water Assistance Fund. Senate Bill 2 also created the Texas Water Advisory Council, a 13-member organization of which the TWDB is a member.</p> <p>Voters approved \$2 billion in bond authorization under the Texas Constitution Amendment 19, Article III, Section 49-d-9.</p>
2003	The 78th Texas Legislature passed several bills focused on conservation: setting new requirements to address conservation issues when applying for financial assistance; requiring water audits by water utilities; consolidating financial assistance programs to provide financial assistance for agricultural water projects; and establishing the Water Conservation Implementation Task Force to review, evaluate, and recommend optimum levels of water use efficiency and conservation in the state.

2005	<p>The Economically Distressed Areas Program was changed from a border initiative to a statewide program, thus providing more money to the program and removing the moratorium on new projects.</p> <p>In 2005, with Executive Order No. RP-50, Governor Rick Perry created the Environmental Flows Advisory Committee, whose charge is to develop recommendations to establish a process that will achieve a consensus-based, regional approach to integrate environmental flow protection into the water allocation process while ensuring that human water needs are satisfied. The committee, made up of the TWDB, TCEQ, and TPWD representatives, examines relevant issues and makes recommendations for action and legislation concerning flow allocation to meet human and environmental needs at all times, including during drought conditions.</p> <p>The legislature passed House Bill 1763, which requires groundwater conservation districts within groundwater management areas to establish desired future conditions of their relevant aquifers.</p>
2007	<p>Congress passed the Water Resources Development Act of 2007, which, as passed, included provisions to facilitate federal assistance in planning and developing water supply projects in Texas. Most notably, the Act authorized \$40 million for the Texas Environmental Infrastructure Program to support implementation of water supply strategies prioritized by the TWDB.</p> <p>Senate Bill 3 was passed, and historic actions on water conservation, environmental flows, and reservoir site designation were made. Unprecedented funding to implement water management strategies and state water plan requests were included in the state's House Bill 1 budget. In addition, the TWDB received \$30.6 million over and above the agency's baseline for agency programs and administration and authority and funding to issue Water Infrastructure Fund bonds.</p> <p>The National Flood Insurance Program was transferred from the Texas Commission on Environmental Quality to the TWDB.</p> <p>Proposition 16, passed by voters in November, gave the TWDB \$250 million in bond authorization, providing funding for the Economically Distressed Areas Program.</p>
2009	<p>Congress passed the economic stimulus package titled the American Recovery and Reinvestment Act of 2009 (ARRA). EPA awarded over \$160 million in ARRA funds to the TWDB to help state and local governments finance improvements to water projects. EPA also awarded over \$179 million in ARRA funds to the TWDB to help state and local governments finance improvement to wastewater projects.</p> <p>81st Legislative Session: House Bill 2275 created the Task Force on Uniform County Subdivision Regulation to ensure that statutory provisions are consistent and clearly achieve the goals of promoting uniform subdivision standards in unincorporated counties near the international border and in economically distressed counties.</p> <p>House Bill 2374, passed by the 81st Legislature, allowed political subdivisions to provide financial assistance to residents in economically distressed areas for the cost of connecting to a public water supply, connecting yard water service, installing indoor plumbing fixtures, or connecting to a sanitary sewer system.</p> <p>House Bill 3861 directed the TWDB to exercise the discretion available under Texas Water Code 16.135(1) to include revenues from a political subdivision not currently under contract with the Angelina and Neches River Authority to participate in paying the costs of the site acquisition stage of the Lake Columbia Reservoir project; or a political subdivision not currently under contract to purchase a portion of the water to be supplied by the project.</p>

<p>2009 Continued</p>	<p>House Bill 4110 granted the TWDB the authority to purchase and sell promotional items to further the purposes and programs of the agency.</p> <p>Senate Bill 1371 removed the requirement in current law that a colonia must consist of 11 or more dwellings if the TWDB determines the project will be beneficial and cost effective, thus removing a limitation on the number of small communities that may benefit from the program. The bill also allowed for a greater pool of sponsors, including political subdivisions, to be eligible for the program. Finally, Senate Bill 1371 allowed for advance financing, not to exceed 10 percent of the total grant, on a determination that participating utilities are sufficiently committed to actually providing service upon completion of the project.</p> <p>Senate Bill 2312 clarified that entities eligible for other programs administered by the TWDB are also eligible to apply for financial assistance through the Water Infrastructure Fund, including nonprofit water supply corporations. Also removed a reference to an obsolete statutory reference and redefined “eligible political subdivision” to include nonprofit water supply corporations created and operating under Chapter 67 of the Texas Water Code and certain categories of districts, such as freshwater supply districts, special utility districts, and municipal utility districts, that had been excluded under the prior definition.</p>
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External/Internal Assessment



Overview of Agency Scope and Functions

Organizational Aspects

Fiscal Aspects

Service Population Demographics

Technological Developments

Economic Variables

Impact of Federal Statutes and Regulations

Other Legal Issues

Self Evaluation and Opportunities for Improvement



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External/Internal Assessment

Overview of Agency Scope and Functions

The Texas Water Development Board (TWDB)

- Supports the development of regional water plans and incorporates them into a statewide water plan for the orderly and responsible development, management, and conservation of the state's water resources.
- Provides loans to local governments for water supply projects; water quality projects including wastewater treatment, municipal solid waste management, and nonpoint source pollution control; flood control projects; agricultural water conservation projects; rural and small community water and wastewater projects; and groundwater conservation district creation expenses.
- Provides grants and loans for the water and wastewater needs of the state's economically distressed areas.
- Provides agricultural water conservation and water-related research and planning grants.
- Conducts studies of the occurrence, quantity, quality, and availability of the state's surface water and groundwater, including development of groundwater availability models for the state's major and minor aquifers.
- Collects data and conducts studies concerning the freshwater needs of the state's bays and estuaries. In conjunction with other natural resources agencies, maintains an instream flow data collection and evaluation program. This effort includes conducting studies and analyses to determine appropriate methodologies for determining flow conditions in the state's rivers and streams necessary to support a sound ecological environment.
- Facilitates the state's efforts to determine the feasibility of and to identify the requirements for implementation of large-scale seawater desalination projects, and supports their implementation as appropriate.
- Supports ongoing desalination research and the sharing of technological information to enhance brackish groundwater and seawater desalination activities throughout the state.
- Maintains a centralized data repository of information on the state's natural resources called the Texas Natural Resources Information System (TNRIS) and manages the Strategic Mapping Program (StratMap), a Texas-based, public- and private-sector cost-sharing program to develop consistent, large-scale digital base maps describing surface water, elevation, transportation, aerial photography, and other information. In addition, TNRIS houses the Geospatial Emergency Management Support System and works in coordination with the U.S. Environmental Protection Agency (EPA), the Federal Emergency Management Agency (FEMA), and the Governor's Division of Emergency Management.
- Coordinates the National Flood Insurance Program (NFIP) within the state of Texas, acting as a liaison between the federal component of the program and the local communities.
- Implements the American Recovery and Reinvestment Act of 2009 (ARRA) providing processes, awards, controls, and oversight of approximately \$377 million in federal stimulus funding. The implementation of ARRA includes identifying 'construction ready' projects with sufficient energy efficiency content and targeted disadvantaged communities to meet federal guidelines. Implementation guidelines also include required compliance with the Davis-Bacon Act and 'Buy American' provisions.

	Total Employees	Caucasian Males	American Females	African Males	African Females	Hispanic Males	Hispanic Females	Other Males	Other Females	Total Males	Total Females
Officials (A)	31	17	10	0	1	2	1	0	0	19	12
Professionals (P)	279	116	78	9	6	27	24	14	5	166	113
Para Professionals (Q)	22	1	12	0	2	1	6	0	0	2	20
Administrative Support (C)	16	0	7	0	4	0	4	0	1	0	16
Technicians (T)	1	1	0	0	0	0	0	0	0	1	0
Total	349	135	107	9	13	30	35	14	6	188	161

Data was extrapolated from the 2009 Equal Employment Opportunity report.

Organizational Aspects

Size and Composition of Workforce FULL TIME EQUIVALENTS

As of FY2010 2nd quarter (February 2010), the agency had 374.3 full time equivalent employees (FTE), including part-time workers and contractors. 387.1 FTEs were appropriated for FY2010. The agency received a significant increase in FTEs due to the American Recovery and Reinvestment Act.

RACE/GENDER

Per the 2009 Equal Employment Opportunity Report for September 1, 2008 to August 31, 2009, the state agency workforce was comprised of the numbers in the chart above. The TWDB is dedicated to ensuring equality in the workforce. Because the figures from the Civil Rights Division (CRD) of the Texas Workforce Commission do not single out a professional profile comparable to that of the TWDB, it is difficult to compare the two figures for professionals. CRD figures for professionals represent a wide variety of professions, of which women are

represented in various proportions depending on the nature of the profession. The profile of professional positions in the TWDB explains part of the shortage of women in the professional category: the TWDB employs many natural scientists and engineers. Women continue to enter the natural sciences and engineering fields in lower proportions than men. Initiatives by the federal government and non-profit organizations to encourage women to enter the natural science and engineering fields are increasing. As women increasingly enter these fields, TWDB expects that it will be better able to approach the CRD figures.

MANAGEMENT-TO-STAFF RATIO

The management to staff ratio at the agency (as of the FY2010 2nd quarter (February 2010) Management to Staff Ratio Report) was 1:10.47. The agency will continue to evaluate its current structure to ensure maximum efficiency regarding staff and management alignment.

The intention behind these minimum management-to-staff ratio requirements is that they should result in increased operational efficiency.

Organizations can allow managers to focus solely on the business of managing without having to perform technical work. However, the TWDB has not been in a position to allow managers to focus solely on management; the TWDB relies on our managers to perform significant amounts of technical work in order to meet statutory and critical program requirements. This is further exacerbated by only a small number of staff available to handle multiple programs. The implementation of this statute has created a situation whereby “working managers” are called upon to oversee a greater number of programs and people. An additional unintended consequence with negative effects is that overloaded staff members have limited time to devote to quality training for succession planning.

HUMAN RESOURCES STRENGTHS AND WEAKNESSES

According to the State Auditor’s Office, the statewide turnover rate for full- and part-time classified employees at state agencies in FY2009 was 14.4 percent, based on a total of 22,184 voluntary and involuntary separations, excluding interagency transfers. The 14.4 percent turnover rate is a decrease from FY2008 (17.3 percent) and the lowest turnover rate in the last five years. Excluding involuntary separations and retirements, the statewide turnover rate decreases to 8.18 percent. This rate is often considered a true turnover rate because it reflects preventable turnover. Employee turnover can be both negative and positive. Negatives include the associated costs of turnover, such as training and orientation of new employees, recruitment and selection of new employees, leave payout to departing employees, and lower productivity in the workplace during the time that a position is vacant and during the time that a new employee is learning the job.

Some turnover will always occur and is normal for any organization. Turnover can create positive outcomes for employers, because they can replace low-performing employees with high-performing employees. There is often a financial benefit gained as a result of the difference in the salary paid to an experienced employee who separates from an agency versus the salary paid to a new employee who takes

the departing employee’s position. However, when organizations start losing their high-performing, highly skilled, and experienced employees, turnover may begin to negatively affect the organizations’ business operations. This holds true for many of the professional positions held in the agency. In the workforce plan, the agency will go into further details regarding how the salary schedule for professionals working for the state is causing us to be a training ground for employees to learn the necessary skills to succeed in the private sector.

It is extremely important for the TWDB to realize that the tenure and age of staff have changed dramatically over the past several years. As the workforce ages, it is important for the agency to develop an active succession plan to ensure that critical skills are adequately replaced. Since the last strategic plan submission, the TWDB has experienced a number of losses to critical management and executive positions. As a result, the TWDB looked from within to fill many of these critical positions. It was through this succession planning that the TWDB has been able to meet the need and continue with critical business functions with little or no disruption in services.

With expected retirements in the next three to five years, the TWDB has to ensure that remaining staff are quickly developed so that the agency will be able to continue running its operations. The agency must continue to develop career ladders and succession plans to ensure the viability and vitality of the agency and so that employees will know what their growth potential is at the TWDB.

Organizational Structure TEXAS WATER DEVELOPMENT BOARD MEMBERS

The TWDB is governed by a six-member citizen Board appointed to six-year staggered terms by the Governor. This Board meets monthly, usually on the last Monday of the month in Austin, and considers loan applications from eligible applicants, awards grants for water-related research and planning, and conducts other TWDB business, such as approving the state water plan.

Texas Water Development Board
Board Members

Member Name	Term/Appointment Date	Qualifications
James E. Herring	Appointed: 01/2004 Appointed Chairman: 02/2008 Term Expires: 12/31/2009	Member and Chairman
Jack Hunt	Appointed: 01/1998 Appointed Vice-Chairman: 03/2002 Re-Appointed: 01/2004 Term Expires: 12/31/2009	Member and Vice Chairman
Lewis H. McMahan	Appointed: 02/2008 Term Expires: 12/31/2011	Member
Thomas Weir Labatt III	Appointed: 02/2002 Term Expires: 12/31/2011	Member
Edward G. Vaughan	Appointed: 02/2008 Term Expires: 12/31/2013	Member
Joe M. Crutcher	Appointed: 02/2008 Term Expires: 12/31/2013	Member

The Board is also divided into two self-functioning committees: the Finance and Audit committees. Each committee consists of a chair and two additional Board members. Meetings occur quarterly for the Audit Committee and monthly for the Finance Committee and usually are held in conjunction with regularly scheduled Board meetings. The TWDB Board members also oversee the TWDB Internal Audit office.

FINANCE COMMITTEE

Jack Hunt, Chair
Thomas Weir Labatt III
Edward G. Vaughan

AUDIT COMMITTEE

Joe M. Crutcher, Chair
James E. Herring
Lewis H. McMahan

AGENCY STRUCTURE

The agency is structured into executive administration, and five separate program areas, each led by a Deputy Executive Administrator. These program areas and their divisions are as follows:

Executive Administration

Office of the Executive Administrator

- General Counsel and Legal Services
- Governmental Relations
- Policy Integration and Federal Coordination
- American Recovery and Reinvestment Act Implementation

Construction Assistance

- Inspection and Field Support
- Project Engineering and Review

Finance

- Accounting
- Budget
- Debt and Portfolio Management
- Financial Monitoring
- Financial Systems

Operations and Administration

- Communications, Strategic Planning and Records Management
- Human Resources
- Information Technology
- Support Services and Contract Administration

Project Finance

- Program Development
- Project Development

Water Resources Planning and Information

- Flood Mitigation Planning
- Texas Natural Resources Information System
- Water Resources Planning

Water Science and Conservation

- Conservation
- Groundwater Resources
- Innovative Technologies
- Surface Water Resources

Internal Audit

- Reports directly to the Board

Geographic Location

The main office of the TWDB is located at 1700 North Congress Avenue, in the basement and on the fourth and sixth floors of the Stephen F. Austin Building. The Executive Administration, Operations and Administration, Project Finance, and Construction Assistance offices moved from the fifth floor to the asbestos-abated sixth floor in February 2010. The Water Resources Planning and Information, Water Science and Conservation, and Finance offices will move from the fourth floor to the asbestos-abated fifth floor in October. The majority of the TWDB employees work at this location. The American Recovery and Reinvestment Act Implementation division is located at 211 East Seventh Street on the ninth floor. Approximately 25 people are temporarily employed at this location.

In addition, the TWDB houses field offices located across the state. Staff members in the field offices provide technical assistance and outreach for the construction site inspection program and serve as contacts for communities in regard to the NFIP. Approximately 20 to 25 employees work in agency field offices, which are located in these cities:

- El Paso
- Harlingen
- Houston
- Mesquite
- San Antonio

Austin staff is also involved directly with regional water planning groups, groundwater management groups, groundwater conservation districts, and other local and regional entities. Each area has dedicated staff divided by region. These staff members regularly attend meetings in each of the various locations throughout the state and are in constant communication with the stakeholders and customers in their region.

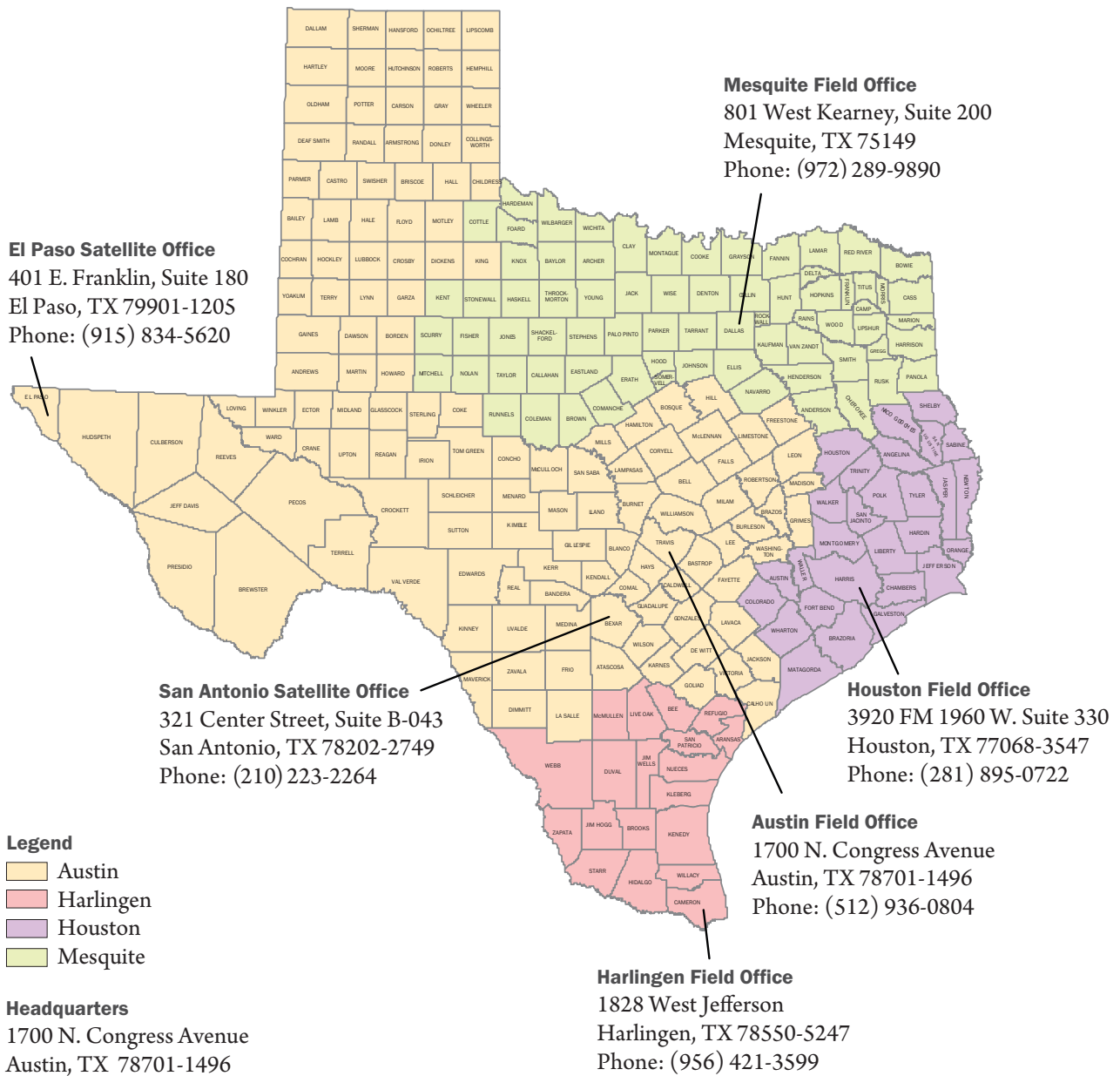


Figure 1. Location of TWDB field offices.

Capital Assets

Capitalized assets are defined as assets having an initial, individual cost of \$5,000 or more and an estimated useful life in excess of one year. These assets are capitalized at cost or, if not purchased, at appraised fair value as of the date of acquisition. These assets are then depreciated over their useful life. The TWDB property manager is ultimately responsible for all agency assets. However, the agency assigns fixed assets directly to agency staff. The property manager conducts an annual inventory to account for each asset. Employees are required to certify the possession of these assets during the annual inventory. All agency assets are continuously tracked, updated, and reported through the State Property Accounting System. As of February 28, 2010, the TWDB has \$27,491,691 in capitalized assets that have been depreciated by \$12,734,861. Examples of capitalized assets at the TWDB are data sets that are part of the geospatial data catalog, vehicles, boats, water meters, and/or gages.

Historically Underutilized Businesses

A Historically Underutilized Business (HUB) is generally defined as a for-profit business enterprise (sole proprietorship, partnership, joint venture, corporation, limited partnership or company) that has its principal place of business located in the state of Texas and meets certain ownership criteria. Such businesses must have at least 51 percent of the assets and interests of all classes of stock and equitable securities owned by one or more persons who are members of the following groups that have been identified as economically disadvantaged: Asian Pacific Americans, Black Americans, Hispanic Americans, Native Americans, and American women. HUB owners must be active participants in the day-to-day operations of the business and must also be citizens of the United States and residents of the state of Texas.

HUB INITIATIVES

The TWDB fully understands the goals of the statewide HUB program and is committed to providing increased opportunities for HUB participation in all agency expenditures. The TWDB has been successful in exceeding and/or improving HUB participation in three of the four applicable procurement categories where expenditures have occurred. The TWDB's executives, managers, and staff will continue current efforts that have proven successful in meeting the statewide goals. They will also explore new opportunities to improve and increase HUB participation wherever possible.

Examples of the TWDB's initiatives include

- Continued assessment of internal policies and procedures to improve the TWDB's HUB program;
- Participation and attendance at Economic Opportunity Forums, where economically feasible;
- Collaboration and communication among the TWDB's staff involved with procurements and contract awards;
- Improvements to the TWDB's Web site to provide notification of current procurement opportunities and updated links to HUB search resources;
- Increasing the utilization of the HUB and Centralized Master Bidder's List in TWDB procurement activities;
- Emphasizing and increasing outreach and marketing efforts to educate current HUB vendors on specific TWDB procurement opportunities;
- Assisting interested HUB vendors with the state's HUB certification process and with the processes of recognized certification programs.

HUB GOALS

Goal	Historically Underutilized Businesses
	<i>To establish procurement and contracting policies and procedures that support the identification, promotion, and utilization of qualified HUBs in all applicable procurements, contracts, and subcontracts awarded by the TWDB.</i>
First Objective	To make a good faith effort to meet or exceed the statewide HUB goals in all applicable procurement categories.
Strategy	Implement good faith efforts to identify, solicit, and utilize qualified HUBs in all applicable TWDB procurement and contracting opportunities.
<i>Output Measure</i>	1. Percent (%) of total combined dollar value of procurements, contracts, and subcontracts awarded to HUBs reflected in the semiannual and annual HUB reports.
Strategy	Participate in economic opportunity forums and other outreach/educational efforts to inform the public about contracting opportunities with the TWDB.
<i>Output Measure</i>	1. Number of forums attended and number of direct contacts made with HUBs.
Strategy	Identify subcontracting opportunities in all TWDB procurements that meet the established criteria for requiring HUB subcontracting plans
<i>Output Measure</i>	1. Percent (%) of TWDB contracts that equal or exceed \$100,000 that have documented compliance with the state's HUB subcontracting plan requirements.

The TWDB regularly assesses our HUB program initiatives and strategies as they relate to actual performance and actively seeks opportunities to enhance and improve the program.

HUB ACTIVITY

Fiscal Year	Total Board Expenditures	Total Expenditures with HUBs	HUB Expenditure Percentage	Number of Certified HUB Bids Received	Number of Certified HUB Awards	Percent of HUB Utilization Bids -vs- Awards
FY 2007	\$ 4,925,876	\$ 1,260,274	25.5%	473	400	84.6%
FY 2008	\$3,626,131	\$709,422	19.5%	508	495	97.4%
FY 2009	\$5,401,678	\$1,345,629	24.9%	541	497	91.9%
Total	\$13,953,685	\$3,315,325	23.76%	1,522	1,392	91.46%

Key Organizational Changes

Since the 2009–2013 Strategic Plan, the agency has undergone significant organizational changes and growth. The organizational changes were implemented to enable the agency to better support its mission and goals. With the expansion of the agency’s responsibilities, and renewed dedication to support its growing staff, reassessment of resources, staffing requirements, work space, and workflow was necessary.

In October 2008, Operations and Administration experienced organizational changes to better serve a growing workforce. Human Resources (HR) enhanced its services through the addition of a new Staff Resources Officer responsible for expanding wellness, employee recognition, employee events, and staff development programs. The Strategic Planning function was moved to Communications, which experienced staffing increases over the next several months to support this function and an expanded commitment to improving internal and external communications and enhancing the agency’s internal and external Web sites.

In January 2009, the agency welcomed a new Governmental Relations director to assist the agency through the 81st Legislative Session. In May 2009, to further support the Governmental Relations division’s federal responsibilities, a new Policy Integration and Federal Coordination division was developed.

In February 2009 Water Science and Conservation came under new leadership, with the retirement of the former Deputy Executive Administrator. This division experienced subsequent staffing increases to meet its growing responsibilities for reinforcing the agency’s position as the “go to” agency for water science and data.

In May 2009, Project Finance and Construction Assistance separated into two divisions to better align its resources and workflow to meet the mission and goals of this area of the agency. Construction Assistance gained a new Deputy Executive Administrator, formerly the director of Inspection and Field Support. Project Finance focused its resources on Program and Project Development, whereas Construction Assistance enhanced its support of Project Engineering and Review and Inspection and

Field Support.

Also in May 2009 the Finance division restructured to add a Financial Monitoring division to strengthen the oversight of financial programs and activities.

In July 2009, Operations and Administration welcomed a new Information Technology (IT) director, who subsequently streamlined the office structure into four areas: Program Management Organization; Application Services; IT Systems and Project Coordination; and Security, Infrastructure, and Service Desk. This new structure will better prepare the agency for current and future IT projects and priorities.

The most significant organizational change occurred in September 2009 with the creation of the new American Recovery and Reinvestment Act Implementation division. Additional office space was secured at the Southwest Towers building in Austin to meet the needs of the temporary staff. Several staff of the Project Finance and Construction Assistance divisions moved to the new office, and temporary employees were added to ensure the continuation of the agency’s regular functions in this area.

More than 50 employees have been hired since September 2009 to meet the responsibilities of the TWDB. Beginning in February 2010, staff members were relocated to different areas of the Stephen F. Austin building as a result of the asbestos abatement and the need to better utilize existing space through implementation of modular office design. Tentatively, in October 2010, the agency’s move will be complete when fourth-floor staff move to the asbestos-abated fifth floor. The agency will continue its focus on meeting the needs of the state while simultaneously meeting the needs of its workforce.

Use of Consultants

The TWDB uses consulting services intermittently. These services are only used when there is a significant need and when agency staff or another agency is unable to perform the service. The TWDB has relied upon the use of consultants in the areas of human resources, legal consultation, water resources analysis, information technology systems development, and engineering design review.

As required by the State of Texas purchase policy,

consultants are selected on the basis of demonstrated competence, knowledge, and qualifications, as well as the reasonableness of the proposed fee for the service. The TWDB uses the services of qualified HUBs whenever the opportunity arises. The agency notifies the Legislative Budget Board and the Governor’s Budget, Planning, and Policy Office prior to contracting any consultant services exceeding \$14,000.

The TWDB anticipates continued use of consulting services throughout 2011–2015 to help achieve our mission.

Fiscal Aspects

The actions of the 81st Legislative Session provided TWDB with funding increases to continue the implementation of the recommendations of the 2007 State Water Plan. TWDB’s overall appropriations decreased by a little over 10 percent from the 2008–2009 biennium for agency operations primarily because of decreases in appropriation authority for collected revenue such as receipts and federal funds. Although overall agency appropriations decreased, there was a 5 percent increase (\$2.6 million) in general revenue for the 2010–2011 biennium.

In addition to the TWDB’s baseline requested funding of \$87.6 million (adjusted for one-time expenses) four of the exceptional items requested by the agency were approved for funding. Those exceptional items included funding for the following areas:

- Administration of the state financial assistance programs;
- Continued implementation of the environmental flows portion of Senate Bill 3 approved during the 80th Legislature;
- Increased funding for groundwater science to provide data to assist groundwater conservation districts in groundwater management; and
- Study of recharge in the High Plains playas.

Funding for new legislation included the enhancement of the National Flood Insurance Program, which was transferred from TCEQ to the TWDB; special legislation related to funding the construction of the Boeye Reservoir in McAllen and a water infrastructure project for the La Joya Special Utility District; implementation of new water legislation (instream flows and conservation); and funding for the statewide Data Center Consolidation initiative.

TOTAL APPROPRIATIONS

FY 2006–2011

FY 2006–2007	\$82,400,833
FY 2008–2009	\$108,787,808
FY 2010–2011	\$97,730,716

GENERAL REVENUE APPROPRIATIONS

FY 2006–2011

FY 2006–2007	\$37,159,733
FY 2008–2009	\$55,484,226
FY 2010–2011	\$58,042,524

In addition to operational funding, TWDB received additional authority to issue bonds for the Economically Distressed Areas Program, the State Participation program and the Water Infrastructure Fund, as well as funding for debt service on these bonds. The TWDB also received authority to issue \$312.8 million in bonds originally authorized, but unissued, in the FY 2008–2009 biennium. In total, the TWDB received appropriations for debt service that will allow the issuance of bonds in the following amounts:

State Participation	\$225,050,000
Economically Distressed Areas Program	\$84,370,000
Water Infrastructure Fund	\$473,365,000
Total	\$782,785,000

Of the debt authorized, \$707,785,000 was designated to be used for implementation of the state water plan.

Service Population Demographics

Historical and Current Characteristics

AFFECTED POPULATIONS

In fulfilling our mission, the TWDB serves an array of customers throughout Texas, including but not limited to these entities:

- Texas Legislature
- political subdivisions
- municipalities
- counties
- industries
- agriculture
- consultants
- environmental interests
- small businesses
- institutions of higher education
- energy sector
- river authorities
- regional water planning groups
- water districts
- water utilities

However, as water is a basic necessity, ultimately the agency's customers are all of the residents of Texas.

Today, Texas has one of the fastest growing populations and economies in the nation. Rapid growth, combined 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. Without abundant and reliable water supplies, Texas could face serious social, economic, and environmental consequences—not only in our large metropolitan cities but also in rural areas. As the state continues to grow, water providers and water resource managers are finding it increasingly difficult to meet growing water demands. As a result, over the past several years water has emerged as a key issue in nearly every legislative session. Much of the recent legislation related to water has expanded the breadth and size of the TWDB's service populations. Keeping up with legislative mandates intended to ensure that Texas

has the water it needs to remain as one of the nation's largest and most robust economies and one of the most geographically and culturally diverse states in the nation has posed challenges for the agency.

Providing the financial assistance, science, planning, administration and management, and data demanded by our expanding customer base is becoming increasingly difficult in light of workforce changes.

Providing the financial assistance, science, planning, administration and management, and data demanded by our expanding customer base is becoming increasingly difficult in light of workforce changes.

Financial Assistance

The TWDB provides financial assistance to customers through grants and loans for water-related projects. In recent years, legislative changes have expanded the scope of customers that may be eligible for the TWDB's Economically Distressed Areas Program (EDAP). Historically, EDAP focused on economically distressed areas along the Texas-Mexico border. However, the passage of House Bill 467 (79th Texas Legislature) changed the definition of an affected county and essentially expanded the TWDB's ability to provide assistance to other disadvantaged, small, and rural communities throughout the entire state.

The 81st Legislative Session focused on expanding funding opportunities in several of the TWDB financial assistance programs, including the State Participation program, EDAP, and the Water Infrastructure Fund (WIF). House Bill 3861 allowed the TWDB to consider future, projected revenues from political subdivisions not currently under contract, or even identified, that might want to purchase a portion of the water supplies by the State Participation project when making the findings necessary to complete the project financing. House Bill 2374 authorized the EDAP fund eligibility for residential plumbing assistance, allowing financial assistance for first-time connection of public water and sewer services to residences in areas already receiving EDAP assistance, and expanded the list of costs that could be provided for under the EDAP.

Additionally, Senate Bill 1371 allowed for a greater pool of sponsors for the Colonia Self-Help Program, to include all political subdivisions, expanded the definition of a colonia, and allowed for advance financing. TWDB is expanding funding opportunities

through the WIF as a result of Senate Bill 2312, which clarified that entities eligible for other programs administered by the TWDB are also eligible for financial assistance through the WIF. Senate Bill 2314 amended statutory authority to provide State

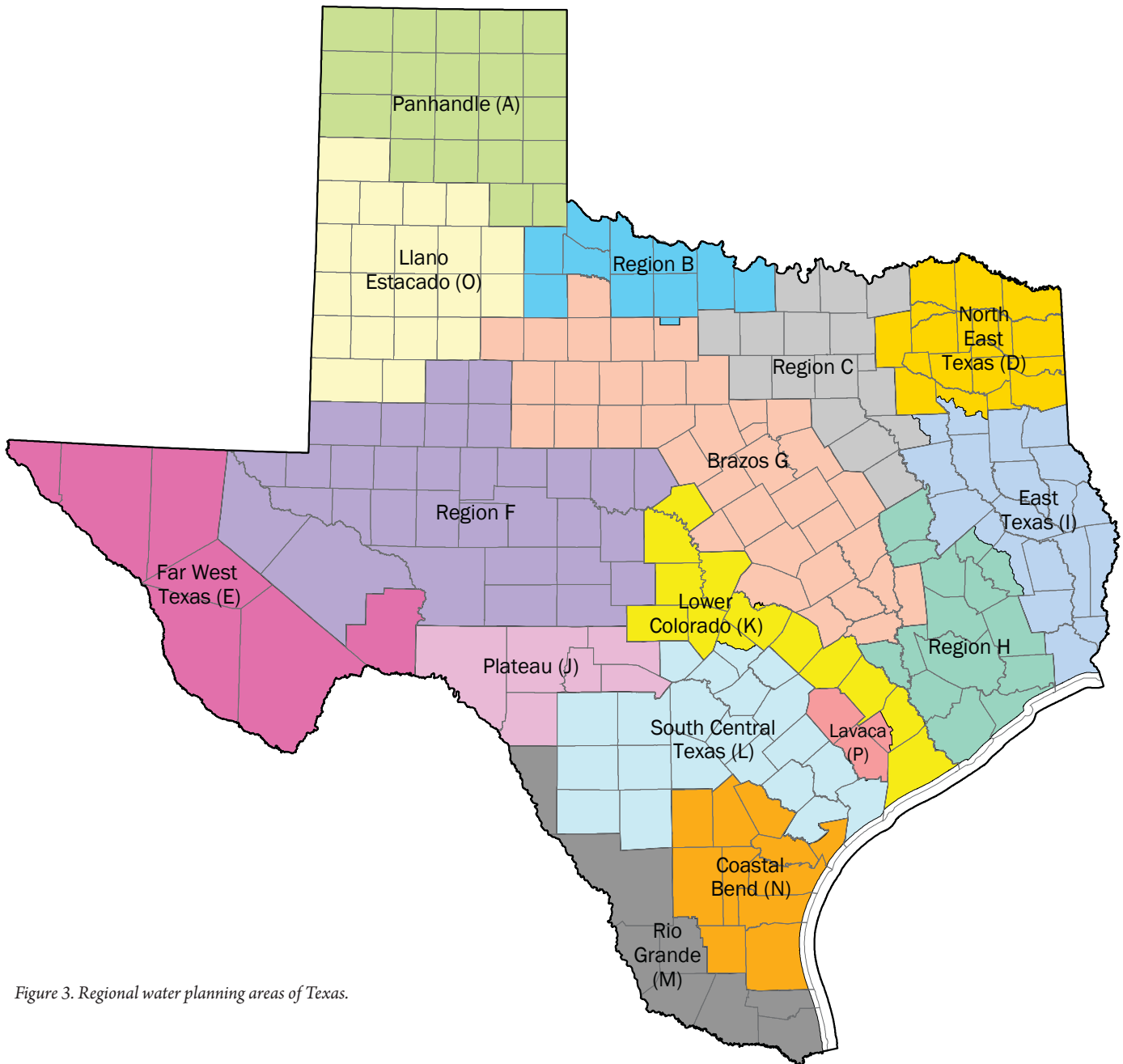


Figure 3. Regional water planning areas of Texas.

Revolving Fund loan proceeds to “eligible applicants,” rather than “political subdivisions” so that the Drinking Water State Revolving Fund (DWSRF) may be used to fund all entities included under the federal Safe Drinking Water Act. The actions of the 81st Legislature will expand demand for the TWDB’s financial programs from customers throughout the state.

State and Regional Water Planning

The TWDB also provides planning, project management, contract management, and technical assistance to the 16 regional water planning groups who formulate water management strategies to ensure that Texas will have adequate water supplies in the future. In addition to providing technical and administrative assistance to these groups, the TWDB collects, manages and disseminates critical water-related data. To effectively manage and plan for the state’s current and future water supplies, water providers and water resource managers need reliable, comprehensive, and current data regarding all aspects of historical and projected water use and water availability.

Groundwater Resources

The TWDB serves customers through three core groundwater services: groundwater monitoring, groundwater technical services, and groundwater availability modeling. These customers are primarily managers and technicians of groundwater conservation districts; hydrologic consultants to regional water planning groups, districts, and municipalities; and private well owners. Customers of the Groundwater Resources division will increase as more groundwater conservation districts are created in the eastern, northeastern, and southern areas of the state. The TWDB also expects that as the Groundwater division completes groundwater availability models for major and minor aquifers in Texas and as joint planning in groundwater management areas progresses, interest in the program will rise, as will the number of customers.

Surface Water Resources

The TWDB collects, analyzes, and provides the

water-related data necessary to aid water resources planning and management efforts to maintain the ecological health and productivity of Texas reservoirs, streams, rivers, bays, and estuaries. Data, models and results are produced for state water planners, regulatory agencies, lake and reservoir owners, and other decision makers to use as required. Environmental publications are made available to the state library system. Virtually all surface water data, including lake hydrographic survey data, are published. As much of the data as possible is made available to TWDB’s customers, partners, and other interested parties via the agency Web site. The 80th Texas Legislature placed considerable emphasis on water needs for the environment. One of its major accomplishments in this area was the establishment of a basis-by-basin stakeholder-driven process to address instream flow requirements in rivers and streams. Scientist and managers who specialize in surface water resources at the TWDB are heavily involved in this process.

Water Conservation

The 78th Texas Legislature passed measures requiring a greater emphasis on conservation strategies in regional water plans and legislation that requires water utilities to conduct water loss surveys. It also established the Water Conservation Implementation Task Force, which was tasked with developing a report recommending water conservation initiatives. During the 80th Legislative Session, state legislators took several steps to expand water conservation, including educating Texans about the importance of this issue and creating an advisory council to deal with statewide issues around water conservation. In addition, the 80th Legislature passed a law requiring water utilities with more than 3,300 customers to submit water conservation plans to the Texas Commission on Environmental Quality. The legislature also authorized using TWDB’s water assistance fund for grants for water conservation initiatives. The agricultural water conservation program has also been expanded to allow increased funding for grants and loans. These legislative changes, combined with an increasing awareness of water conservation, will likely result in an increased

number of municipal water suppliers and other public subdivisions requesting technical and financial assistance and a greater demand from the general public (such as homeowners, farmers, and teachers) for technical information on water conservation measures and programs.

General Data Collection, Analysis, and Dissemination

As mentioned previously, data collection, analysis, and dissemination is an integral component of the agency’s mission. Increased use of geographic

information systems, and the demand for current data continues to drive the need for more sophisticated capabilities to collect and share key information on water resources, transportation, and other critical infrastructure. Partnerships with local governments are particularly critical for ensuring continuous improvement of these datasets because local entities are the most knowledgeable about changes in their jurisdictions. More outreach and communication with local entities would maintain the currency of these critical datasets and enhance the effective and efficient use of the state’s limited mapping dollars.

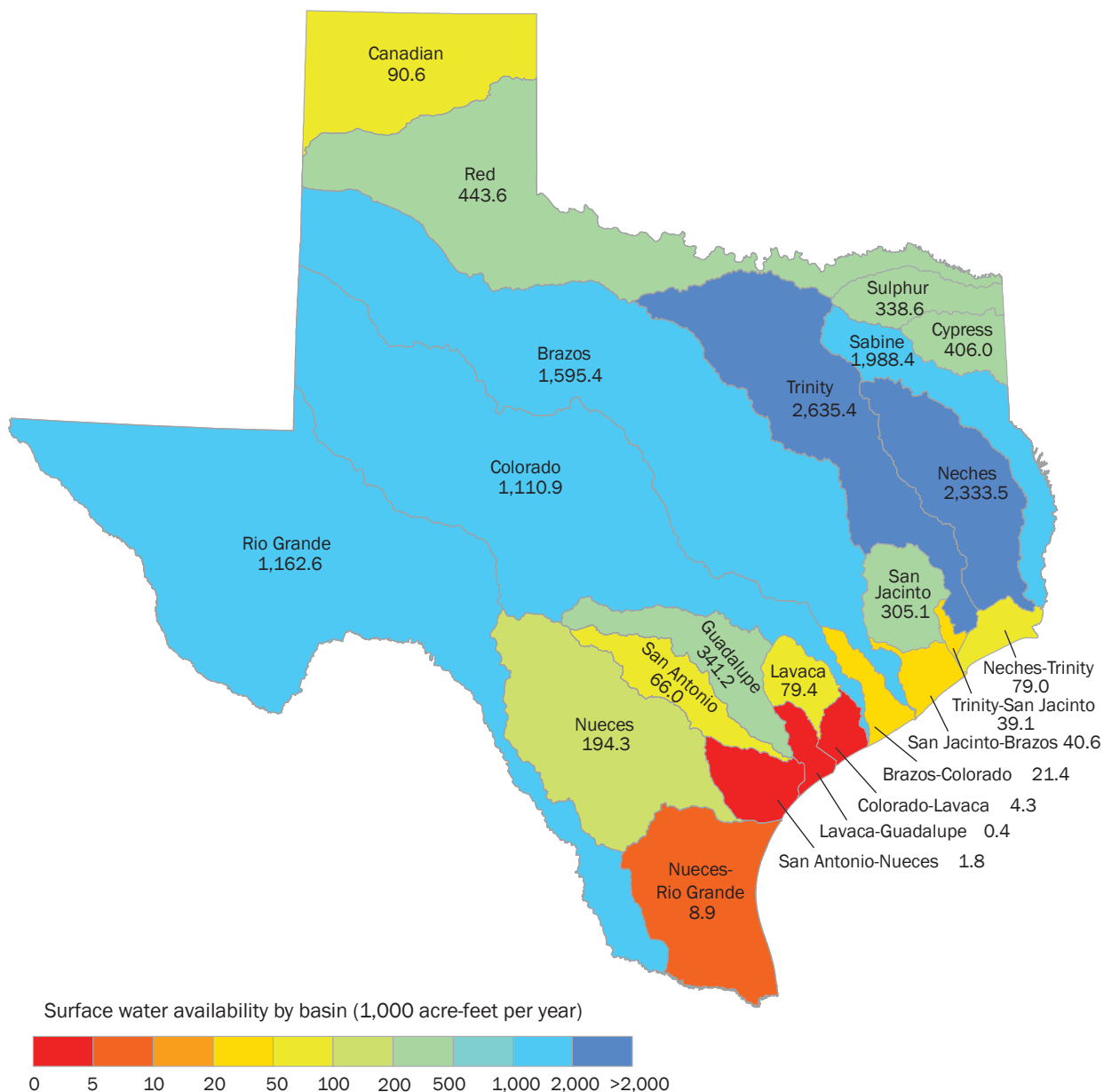


Figure 5. Surface water availability by river basin in 2010.

Technological Developments

In order to enhance customer service; disseminate comprehensive water planning, financial, and natural resource data; and streamline internal program operations, the agency relies on information technology. The agency emphasizes Internet technology usage, internal network and infrastructure upgrades, and enhanced business applications. The ability of the TWDB to collect, manage, and disseminate the most relevant water resource data has a direct impact on the ability of agency stakeholders to make effective decisions regarding economic development, infrastructure investment, water and natural resource management, and public health and safety.

The agency's technology operations focus has been to provide additional information over the Internet in easily accessible formats, increase the amount of information collected in electronic form, expand geospatial technologies, provide increased opportunities for customer feedback, and ensure that data collected is effectively managed and secured.

The TWDB has a major investment and stake in successfully developing and implementing geographic information systems (GIS) technology. Geospatial tools are integrated into the agency's water information portal, making it easier for customers to access and understand the extensive information maintained at the TWDB. Agency staff has continued to develop GIS functionality to support the TWDB, state agencies, local and regional governments, and public.

Impact of Anticipated Technological Advances

Greater broadband access and enhanced electronic services will be the principal drivers for technology in the near future, including

- greater adoption of broadband access and expansion of wireless network capacity,
- expanded implementation of service-oriented architectures emphasizing Web access and presentation,
- deployment of advanced data collection technologies driving the cost effectiveness of

higher resolution information and the demand for real-time data,

- continued trend for lower costs associated with network storage systems, and
- more support for online collaboration and communication tools.

The need for greater Web-centric applications will drive more advanced Web architecture and system design. Greater productivity tools to meet audit and reporting requirements will be essential to support agency decision making, and stronger integration of technical databases with business applications will streamline agency operations.

Integration of real-time data services will foster better modeling and monitoring capabilities. Lower costs for developing mapping and imaging data, combined with greater resolutions and precision, will drive the adoption of greater volumes of data, requiring advanced technologies to make these data available to an expanded user base. Agency employees' expectations for access, as well as customer service needs, will require more integration of agency operations with external data providers.

Degree of Agency Automation

Broadcasting of agency Board meetings over the Internet provides the public near real-time access to agency business throughout the state. Information continues to be added to the agency Web site regarding agency initiatives, operations and events, educational opportunities and curriculum, agency publications, and current water trends.

Through collaboration and coordination between the Department of Information Resources, IBM Team for Texas, Texas Facilities Commission, and TWDB staff the agency successfully moved its server room to a new location. The new server room is secured through electronic badge entry with digital audit logs and access control. Implementation of a secure File Transfer Protocol (FTP) program allows agency staff and customers to send and receive large files in a secure manner. Increased patch management capabilities and increased resources allow for continued focus on security.

Continued collaboration between federal and

private entities will yield a successful implementation of a loan and grant tracking system, thereby providing improved customer service through more interactive data collection and dissemination. More detailed information about the agency's financial assistance programs and application process will better assist political subdivisions in exploring, qualifying, and obtaining loans and grants.

Anticipated Need for Automation

The TWDB's ability to respond to customer demands and maintain a high quality of service depend to a great extent upon continued technological advances and the agency's ability to adopt innovations. Likewise, as the currency and relevance of information available through the Internet and wireless electronic devices increase, so do the expectations and demands that customers place on government to respond. The TWDB will continue to adopt relevant technological advances and improve services. The agency anticipates these changes over the next planning period:

- Improved archiving, storage, and dissemination of agency data will be achieved through the continued expansion of an existing electronic document management system. Vital records on water infrastructure projects, financial data, contract information, groundwater resources, and personnel will continue to be digitized and preserved. Paperless processes for agency operations will be pursued wherever feasible.
- Agency program operations will be supported through better integration of agency databases and business applications. Enterprise-wide assessments of data sources and outputs will drive enhancements, migration of legacy applications, and implementation of standardized Web-based tools. Business processes and rules will be captured and documented for use in a more robust component-based architectural model.
- Dissemination of critical geographic data held by the TWDB and TNRIS will be improved through the deployment of Web-based map services. Online applications for viewing, downloading, and modeling these data will be deployed to

enhance support for state agencies, as well as local governments and the public.

- Centralized services will be created and published to streamline Web-based application development by other entities and reduce the need for state agencies to duplicate data and applications built by TNRIS.
- Continued investment in security protocols and network administration tools will be a high priority to ensure the integrity and protection of agency data while supporting open access to public information.
- Improvements in disaster recovery, data redundancy, and fail-safe applications will be implemented to increase support for emergency response operations.
- Implementation of a wireless solution throughout the agency will provide staff with flexible computing opportunities and provide customers the ability to collaborate better with agency program areas. Improved network connectivity during emergency situations will allow for a broader computing environment, allowing agency staff and constituents immediate access to real-time information.

Economic Variables

Demographic and Economic Growth

Growth brings greater demands for the state's natural resources, including water. Unlike developing infrastructure for delivery of some commodities, creating new water supplies is a capital-intensive effort that can take many years of planning and development.

Texas is one the nation's fastest growing states. From 1950 to 2008, population in the state grew from about 8 million to nearly 24 million. According to TWDB projections, the number of people living in Texas will reach 33 million by 2030 and nearly 46 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. Not only is population rapidly growing, but Texas also has one of the world's most

robust and largest economies. With an annual gross state product valued at around \$1.2 trillion, the state's economy is comparable in size to those of India, Mexico, and Australia. Over the next 30 years Texas' economy is forecast to double.

Many important industries in the state rely heavily on water. For example, agriculture, which consumes about 60 percent of available water, remains a primary consumer, as do many manufacturers such as petrochemical refineries and food processors. New industries have also flourished in Texas in recent years, particularly computer manufacturers and biotechnology, both of which require large quantities of high-quality water. Another critical component of the state's economy is the energy sector. Energy and water are connected in many ways. Power generation requires substantial amounts of water to disperse excess created during the thermoelectric generation processes that accounts for more than 95 percent of Texas' electricity. As Texas grows, electricity use will rise; thus, demands for cooling water will grow as well. Finding ways to balance the water needs of the energy sector with those of agriculture, industry, cities, rural areas, and the environment will become increasingly challenging, and TWDB data, research, and planning will be instrumental in this effort.

Rapid growth combined with Texas' susceptibility to drought makes water supply a crucial issue. One of the most pressing concerns of policy makers is whether existing water supplies will sustain economic and demographic growth and provide ample water during times of drought. Inadequate water supplies would most likely curtail economic activity in business and industries heavily reliant on water. Unreliable water supplies would not only have an immediate and real impact on business and industry, but they might also bias corporate decision makers against plant expansion or plant location in Texas. Ensuring that Texas communities have abundant and dependable water supplies is crucial for the state's economic security. In this regard, regional and state water planning becomes even more critical.

Impact of Future Economic Conditions

Much of the nation has suffered from the global and national financial crisis—some areas more than

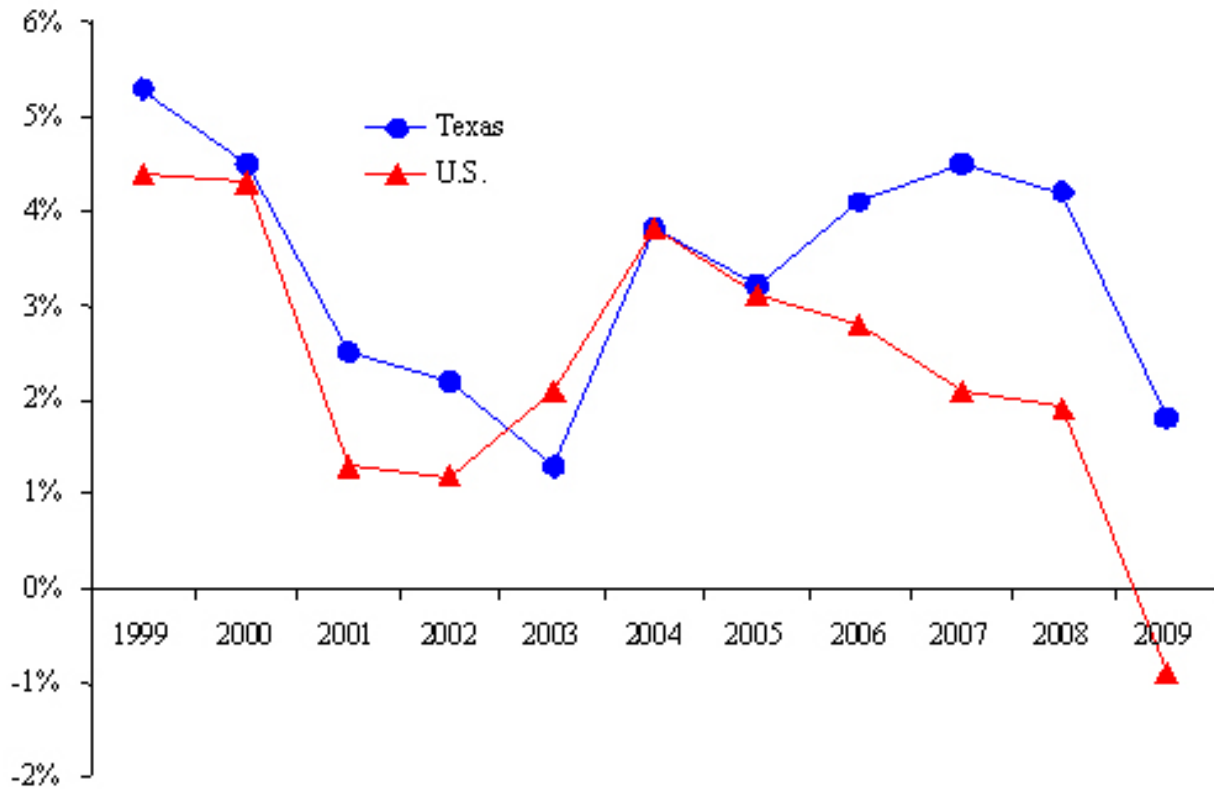
others. Unemployment in some states is approaching levels that could surpass those witnessed during the Great Depression. For example, in Michigan the official unemployment rate is nearing 15 percent, and the real unemployment is probably closer to 25 percent. Until now, Texas has largely remained insulated from the crisis for several reasons. For one, oil and natural gas prices reached historic highs in the second half of the decade. This trend has benefitted the state's economy through sharp increases in oil and gas output and the jobs and income that go along with it. Strong growth in Texas export markets due to a weaker dollar has provided another insulating factor.

However, beginning in late 2008, energy prices plummeted owing to excess supplies and lower demand, and at the same time, the dollar has fluctuated, making Texas' export markets more volatile. As a result, the Texas economy is slumping, and without substantial improvement at a national level the trend is expected to continue (See graph below). According to the State Comptroller, when compared with 2008 and 2009, the next biennium is expected to show some significant economic declines. For 2010–11, the average annual job growth rate is expected to drop to 1.1 percent—down from 2.0 percent for 2008 to 2009.

Despite the volatile economic situation, a mix of factors are increasing demands on agency services. Conditions in Texas are still far better than in many other states, and Texas' low taxes, reasonable regulatory structure, and economic development incentives continue to attract people and businesses to the state. Also, the national housing meltdown has not hit Texas as hard as it has other regions. While home values ballooned in other states earlier in the decade, homes remained affordable in Texas, and they have generally retained their value as prices have collapsed elsewhere.

In a sense, many people are coming to Texas in search of refuge from the economic storm, and even the worst national recession in decades cannot derail Texas' status as the fastest growing state. According to the U.S. Census Bureau, Texas gained 478,000 people between July 2008 and July 2009, and 143,000 of these were people coming from other states. In 2010,

Percent Change in Gross Domestic Product for Texas and the U.S.
(1999-2009)



Texas is one of the only large economies left standing, and this feature, combined with a low cost of living, makes the state an attractive place to come if one is unemployed.

The pace of population growth in Texas has been extraordinary in light of the national economic situation, and more people translate into a sustained increase in demands on our state’s water supplies. Local and regional water providers are scrambling to accommodate the state’s rapid growth. They are doing so at a time when debt markets, including municipal bonds, have tightened significantly. The credit crunch has made it hard for some water suppliers to raise needed capital on the open market, leaving them with a series of tough choices: either put off projects, pay substantially higher interest rates on their bonds at a time when tax revenues are falling, or apply to the TWDB for financial assistance where they may qualify for loans that are typically 2 percent below market rates. Of the three options, coming to the TWDB is the most attractive.

Another factor affecting the agency that is directly related to the financial crisis is the ARRA. Passed by the U.S. Congress in 2009, ARRA is a federal stimulus effort to create jobs and jumpstart economic growth through various programs, including approximately \$377 million worth of capitalization grants to the Clean Water and Drinking Water State Revolving Funds administered by the TWDB. Along with general debt market conditions, the availability of the funds has created a groundswell of demand for the agency’s financial programs.

Impact of Federal Statutes and Regulations

Current and Historical Role

Over the past two decades the TWDB has significantly increased its presence at the federal level, with greater focus on proactive communication and coordination with federal agency partners

and the Executive and Legislative branches of the federal government in regard to a broad range of water-related policy issues. Today's involvement by the TWDB at the federal level is more structured, proactive, and targeted in order to derive greater benefits for water resources management, planning, and development in Texas.

Historically, the TWDB's primary interaction at the federal level was in regard to the State Revolving Funds. The Clean Water State Revolving Fund (CWSRF) was created in 1987 to establish a state-administered financial assistance program for water pollution abatement projects. The CWSRF was capitalized through annual grants from EPA and supplemented by state funds to provide low-interest loans to improve wastewater infrastructure systems throughout Texas. The TWDB was instrumental in developing a sustainable and effective program by collaborating with EPA on program structure, rules, and policies.

Similarly, the Drinking Water State Revolving Fund (DWSRF) was created in 1996 to establish a state-administered financial assistance program for drinking water projects. The DWSRF was capitalized through annual grants from EPA, and also supplemented by state funds. The DWSRF provides low-interest loans and grants to ensure that drinking water systems comply with federal Safe Drinking Water Act requirements. As a result of the TWDB's enormous success in implementing the CWSRF, EPA once again solicited input from the TWDB on critical processes and rules needed to create a successful DWSRF.

Not only did federal financial assistance increase because of the SRFs, but during this period so too did the volume and complexity of federal laws and rules for developing water and wastewater projects. Regulatory and permitting requirements increased the burden placed on state and local entities to plan, design, and construct water-related projects. In the past, the TWDB has been less active on issues that were not directly related to financial assistance programs.

Over the past decade, the TWDB has substantially increased its efforts not only to monitor federal activity, but also to participate more actively in the

deliberation of water policy issues at the federal level. The TWDB has dedicated staff to work directly in partnership with federal agencies and to establish routine contact with congressional staff and committees on current and future legislation and policies.

Currently, the TWDB boasts of coordinated efforts on a broad range of issues with the following federal partners:

- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- Federal Emergency Management Agency
- U.S. Department of Agriculture/Natural Resources Conservation Service
- U.S. Department of the Interior /Bureau of Reclamation
- U.S. Department of the Interior/U.S. Geological Survey
- U.S. Army/Assistant Secretary of the Army for Civil Works
- U.S. Department of Agriculture/Rural Development

The TWDB also works very closely with all offices of the Texas congressional delegation, as well as key congressional committees, to ensure that Texas' interests in water resources policy are thoroughly considered. Texas congressional offices often consult with the TWDB on water policy issues. More and more frequently, the TWDB is invited to testify before congressional committees on specific water resources issues pending in Congress.

The TWDB also participates in membership meetings, conferences, and symposia of a variety of water organizations whose focus includes federal issues, including the Western States Water Council, Council of Infrastructure Financing Authorities, National Waterways Conference, and the Alliance for Water Efficiency, to name a few. The TWDB joins with these groups on advocacy efforts at the federal level, and also helps to plan and conduct national and regional conferences and workshops on key issues, such as groundwater management, water resources planning, flood mitigation, streamgaging, digital mapping, and infrastructure financing.

Of more recent note, the TWDB currently

manages a piece of a huge and unprecedented economic stimulus program to revive the national economy by helping to generate economic activity and create jobs. The American Recovery and Reinvestment Act (ARRA) became law on February 17, 2009. ARRA included appropriations for special capitalization grants under the CWSRF and DWSRF. Under ARRA, the TWDB received \$179 million in federal funds for CWSRF projects and \$160 million for DWSRF projects.

ARRA not only provided an influx of federal funding but also included new requirements that previously had not been mandated under the SRF programs. ARRA provided for a Green Project Reserve, setting aside funds exclusively for more environmentally sensitive, or “green,” projects. The act also required that some of the funding be provided at a deeper subsidy (for example, grants), specifically for communities that may not have the wherewithal to pay for infrastructure improvements. Most notably, the act required that the funds be provided to projects that were ready to proceed to construction. The ready-to-proceed requirement introduced a new approach for awarding SRF assistance in Texas.

Thus, the provisions under ARRA required the TWDB to move quickly to set up rules and processes for awarding financial assistance, despite the lack of certainty on various issues. Consequently, the TWDB worked diligently with EPA to devise an ARRA program that met all of the act’s requirements while serving customer needs. Despite the procedural and logistical challenges, the TWDB successfully implemented the ARRA SRF programs, meeting all requirements and timelines.

ARRA provided a glimpse of future parameters and requirements for the SRFs. In fact, the act may be a sign of things to come for many programs at the federal level, in terms of prescribing policies to the states and asserting greater federal presence in water resources planning, development, and management. This potential future is described in more detail in the next section.

Impact to Agency and Service Populations

The current trend at the federal level points to more federal directives and greater federal control over various aspects of water resources planning, management, and development. Anticipated federal actions could have very significant impact on the TWDB, its stakeholders, and the state of Texas. The TWDB is fully engaged at the federal level to ensure that Texas has a strong voice on policy and legislative issues.

Recently, the Executive and Legislative branches of the federal government have produced legislation, rules, and directives to shift control of water resources issues away from the states and toward federal agencies. The following higher profile initiatives provide a sense of this shift in control:

(a) The Clean Water Restoration Act (S. 787 by Feingold) has been passed out of the Senate Committee on Environment and Public Works. The House version of the bill has not yet been introduced. Generally, the bill would clarify the universe of regulated waters and impose federal jurisdiction over all waters of the United States. Consequently, if the bill were to be passed and enacted into law, water development projects in Texas will be faced with greater regulatory burdens that will generate lengthy delays, increased costs, and possibly forced project terminations as a result.

(b) Staff of the House Committee on Transportation and Infrastructure have circulated various iterations of legislative language—tentatively called the Sustainable Watershed Planning Act—that would create a federal Office of Sustainable Watershed Management and regional watershed planning boards. The proposed federal office would be created within the White House, similar to the President’s creation of “czars” on specific policy topics. The draft legislative language espouses a national water planning process that gives preference to increased water efficiency and ecological protection to the virtual exclusion of economic benefits and public health. The bill does not account for the extensive planning work already being successfully conducted in Texas.

(c) The Water Resources Development Act of

2007 requires the Secretary of the Army to revise the principles and guidelines used to formulate, evaluate, and implement water resources projects carried out by the U.S. Army Corps of Engineers. After an initial draft revision by the secretary in 2008, the incoming administration reassigned the task of revising the principles and guidelines to the Council on Environmental Quality. The Council on Environmental Quality issued a draft revision for comment on December 3, 2009, in which the principles and guidelines provide greater control over water resources projects to federal agencies, with a greater relative focus on environmental considerations (including nonmonetary factors) over economic benefits and a preference for nonstructural solutions. The revised principles and guidelines document expands the factors to be considered in planning (including climate change) and expands the number of federal agencies that must comply with the guidance.

(d) The administration plans to issue an executive order that would revise Executive Order 11988 related to the management of floodplains. The draft executive order would expand federal regulation of the nation's floodplains to more stringently limit state and local land use choices and restrict economic uses of the floodplain. The executive order would also deemphasize traditional flood control projects in favor of nonstructural measures (for example, evacuation of the floodplain), with priority given to ecological benefits over water supply, hydropower, flood control, and agricultural uses.

(e) The U.S. Army Corps of Engineers is working with state agencies to assess state water planning and to identify opportunities for collaboration between the Corps and the states. The initiative, known as "Collaboration for a Sustainable Water Future," included several regional meetings to discuss state water planning authorities and efforts and to identify needs and challenges. Many stakeholders express concern that the Corps of Engineers will subsequently develop a national water policy that might infringe on state primacy or result in more federal control over water resources planning.

In addition to these initiatives, the TWDB is heavily involved in several other evolving issues that

have or would have great impact on the agency's programs. Currently, the TWDB has taken the lead in highlighting major concerns related to EPA's interpretation of the application of Davis-Bacon wage rates on the State Revolving Funds, pursuant to a provision in the FY 2010 appropriations bill for EPA. Despite pleas by the states to reconsider its position, EPA continues to rule that the Davis-Bacon requirements (that is, to pay prevailing wage rates on water and wastewater projects) apply not only to FY 2010 appropriations but also retroactively to financial assistance awarded prior to the provision in the FY 2010 bill. The TWDB will continue to highlight the adverse impacts of this issue.

Other significant issues include the potential for a Water Resources Development Act, which authorizes projects for assistance from the U.S. Army Corps of Engineers. Reauthorization of the CWSRF and DWSRF may be debated in Congress over the next few years. While seemingly providing an opportunity to strengthen these programs to assist the states in water resources planning and development, the reauthorizations also open the door to legislate greater federal control and requirements. The TWDB will monitor progress closely, working with all partners at the federal level to ensure that state input is recognized appropriately. On a more proactive note, the TWDB is advocating for issues and programs that will improve the delivery of its services to communities and other stakeholders, such as an exemption for water and wastewater projects from the private activity volume cap to allow water supply corporations to issue tax-exempt debt to finance projects.

The TWDB is also working positively with the U.S. Army Corps of Engineers and other regulators to streamline permitting processes and to improve understanding of mitigation requirements and methodologies. The discussions with the Corps and others will introduce greater certainty into the process of project development and will increase efficiencies in terms of data needs and coordination.

Other Legal Issues

Impact of Statutory Changes

In the 81st Legislative Session, the TWDB recommended legislative changes that resulted in the filing of 10 bills, 5 of which passed and have been or are being implemented. The requested legislation covered all facets of the agency from the EDAP to TWDB's ability to produce promotional items. Two of the bills that failed, the "evergreen" funding for replenishing the agency's state general obligation bond authorization, and the TWDB's ability to use other state and federal programs to match grants in the EDAP program, will most likely be pursued in the next legislative session.

Significantly, the Sunset review for TWDB was moved from 2013 to 2011. The agency completed its self-evaluation report in September 2009; review by the Sunset Advisory Commission began in March 2010.

Budget

The 81st session secured funding for the state water plan and other non-self-supporting general revenue bond programs through the next biennium by appropriating \$46,447,917 in general revenue for debt service on \$470 million in new bonding authority. Accompanying rider language to use baseline revenues to issue previously authorized bonds of \$312.7 million produced a total of \$782.7 million in bonds for water and wastewater projects. Several riders were granted to the TWDB, including one that directs the agency to use appropriated dollars on recommended water management strategies in the state water plan. The rider also directs the TWDB to give priority to those projects having the earliest implementation date. Another rider allowed for reimbursement of expenses to the members of the Texas Environmental Flows Science Advisory Committee and the Basin and Bay Expert Science Teams established by Senate Bill 3 enacted by the 80th Legislature.

Colonias

Although there is no constitutional impediment,

the TWDB historically has not funded construction of service connections for private residences in TWDB-funded water and wastewater projects under EDAP. However, customers needing services often cannot afford the cost to connect their residences to the public water or wastewater project. Should the community not be able to afford the private hookups, the public investment associated with the project to build the collection, distribution, and treatment facilities may not be usable until the community can obtain additional funding from some other source to make the final service connections to the individual residences. Senate Bill 2374, passed by the 81st Legislature, amends current law relating to financial assistance by the TWDB for the connection of residences in economically distressed areas to public water supply and sanitary sewer systems.

Senate Bill 1371 removes the requirement in current law for self-help projects that a colonia consist of 11 or more dwellings if the TWDB determines the project will be beneficial and cost effective, thus removing a limitation on the number of small communities that may benefit from the program. The bill also allows for a greater pool of project sponsors, including political subdivisions, to be eligible for the program. Finally, Senate Bill 1371 allows for advance financing, not to exceed 10 percent of the total grant, on a determination that participating utilities are sufficiently committed to actually providing service upon completion of the project.

Federal Economic Recovery Legislation

In response to the ARRA, Senate Bill 2314 was passed, allowing the TWDB to adopt rules specifying the manner in which any special or emergency capitalization grant under the state water pollution control revolving fund, the safe drinking water revolving fund, or any additional state revolving fund is authorized to be used to provide assistance to an eligible applicant for public works. The bill authorizes the TWDB to adopt rules in an expedient manner in order to comply with federal funding terms, if necessary, and continues the validity of rules adopted in such a manner if the TWDB readopts the rules as required by the Administrative Procedure Act within

180 days of initial adoption.

Funding

Senate Bill 2312 clarifies that entities eligible for other programs administered by the TWDB are also eligible to apply for financial assistance through WIF, including nonprofit water supply corporations. Senate Bill 2312 also removes an obsolete reference to the Texas Water Advisory Council, which was repealed by the 80th Legislature. The bill redefines “eligible political subdivision” to include nonprofit water supply corporations created and operating under Chapter 67 of the Texas Water Code and certain categories of districts, such as freshwater supply districts, special utility districts, and municipal utility districts that had been excluded under the prior definition.

Promotional Items

The TWDB plays an integral part and important role in the management of our state’s valuable and scarce water resources. The TWDB’s ability to attract employees and raise awareness about financing and conservation programs is an important key to achieving our overarching goals. Prior to the passage of House Bill 4110, the TWDB did not have express statutory authority to purchase and sell promotional items to further the purposes and programs of the agency.

House Bill 4110 grants the TWDB the authority to increase awareness about agency programs and employment opportunities. The bill provides the TWDB the opportunity to use promotional items as one facet of “branding” TWDB in the context of attracting and recruiting job applicants and raising public awareness about programs such as conservation by purchasing promotional items, such as caps or other clothing, posters, banners, calendars, books, prints, and other items as determined by the TWDB. The bill allows the TWDB to donate or sell the items, including sales through advertising on its Web site, in order to promote its programs.

Interim Charges with Potential to Impact TWDB

Several legislative committees have interim

committee charges studying issues that could result in recommendations for the 82nd Legislature Regular Session in 2011 and either statutory or appropriation changes that could pose implications for the TWDB. Below is a list of these committees and several of the relevant interim charges:

HOUSE COMMITTEE ON NATURAL RESOURCES

- Evaluate groundwater regulations and permitting processes throughout the state, including the role of state agencies in groundwater management, the development of desired future conditions, and the adoption of groundwater management plans in relation to regional and state water planning.
- Monitor the effects of current proposed federal initiatives that could impact the implementation of the State Water Plan. Evaluate the policies and investments developed by other states dealing with water issues similar to the State of Texas.
- Monitor ongoing drought conditions and initiatives to promote water conservation through the review of the following: state requirements for the submittal of water conservation plans and annual reporting; the “trigger” for use of drought contingency plans; recommendations by state agencies and the Water Conservation Advisory Council; and the progress toward the development of recycled water resources and desalination projects.

HOUSE SELECT COMMITTEE ON FEDERAL ECONOMIC STABILIZATION FUNDING

- Monitor the use of funds, adherence to state and federal reporting requirements, and ongoing development of federal rules and regulations provided under the American Recovery and Reinvestment Act (ARRA). Evaluate the impact of those funds on the state’s economy. (Joint Interim Charge with House Committee on Appropriations)

SENATE COMMITTEE ON AGRICULTURE AND RURAL AFFAIRS

- Monitor the establishment of the Texas Bioenergy Policy Council and the Texas

Bioenergy Research Committee. (The TWDB is a committee member.)

INTERGOVERNMENTAL RELATIONS

- Monitor the proliferation of municipal utility districts (MUDs) outside the corporate limits or extraterritorial jurisdiction of municipalities and whether increased oversight of these districts by other political subdivisions is needed.
- Review the process for the creation of municipal utility districts (MUDs) through the template developed during the 81st Legislative Session, including any changes needed to increase the efficiency and oversight over the creation of proposed districts.
- Review the process for creating special districts, including whether the creation of a template, similar to the one created for municipal utility districts (MUDs), is feasible and would enable the legislature to more effectively evaluate other proposed special districts during future sessions.
- Review state and local policies related to development and growth in rural and unincorporated regions of the state with regard to annexation and zoning authority. Focus on impacts to private property rights.
- Determine the appropriateness of existing extraterritorial jurisdiction authority.
- Make recommendations regarding possible changes to this authority.

INTERNATIONAL RELATIONS AND TRADE

- Review the effectiveness of the Coordination of Colonia Initiatives and related measures addressed by the Committee and develop recommendations to better address substandard communities across the state where no potable water or sewage services are provided.
- Review state and local laws and policies relating to development and growth in unincorporated regions of the state and develop recommendations aimed at providing local units of government the necessary local control tools to curtail the spread of colonia-like developments in their jurisdictions.
- Examine effectiveness of state home ownership

programs serving colonia residents. Study the need for contract for deed conversions in the colonias within 150 miles of the Texas/Mexico border.

- Examine existing statute regarding statewide distribution of the Texas Bootstrap Loan Program and recommend changes to increase the state's ability to expedite allocation of funds.
- Develop recommendations to address abusive lending practices in distressed areas and fair housing violations in the colonias.

NATURAL RESOURCES

- Analyze and compare the differences in cost between immediate implementation of the State Water Plan compared to staged development over time. When calculating the costs attributable to staged implementation, consider rising material costs, meeting the needs of a growing population with temporary solutions, and the costs related to potential failure of existing, aging infrastructure.
- Review the development of State Water Plan infrastructure projects that have been funded during the FY 08–09 and FY 10–11 biennia. Consider short-term and long-term dedicated sources of funding.
- Review the joint planning process for management of groundwater resources and monitor the progress of groundwater conservation districts' efforts to establish, before the statutory deadline, desired future conditions for aquifers.
- Identify any additional resources or statutory changes necessary to promote sound groundwater management, including promotion of desalination of brackish groundwater, elimination of any exemptions, and coordination between groundwater conservation districts and activities regulated by the Texas Commission on Environmental Quality, the Railroad Commission of Texas, and the state and regional water planning processes administered by the Texas Water Development Board.
- Study the need for the state to regulate the drilling of new wells within prescribed depths and distances of Texas rivers, in order to prevent

the draining of surface water from alluvial plains of river basins.

- Make recommendations for any needed legislation.

OTHER COMMITTEES

In addition, there are several other committees charged with reviewing funding, overlapping jurisdiction, online services, Public Information Act and Open Meetings Act, and other interim charges pertaining to all state agencies. These deliberations could impact the statutory authority and appropriations levels of the TWDB.

Significant Court Cases

CITY OF DALLAS V. HALL/TEXAS WATER DEVELOPMENT BOARD V. U.S. DEPT. OF INTERIOR

562 F.3d 712 (5th Cir. 2009), petition for writ of certiorari denied by the U.S. Supreme Court on February 22, 2010

Summary

In June 2006, the director of the U.S. Fish and Wildlife Service (USFWS) approved the creation of the Upper Neches National Wildlife Refuge by establishing an “acquisition boundary” for up to 25,281 acres. This was accomplished by USFWS’ acceptance of a 1-acre conservation easement from a landowner. The acquisition boundary encompasses the site for Fastrill Reservoir, effectively foreclosing the reservoir as a future water supply for the Dallas metroplex. Following creation of the refuge, the City of Dallas and the TWDB filed lawsuits in different federal district courts. Each claimed that USFWS violated the National Environmental Policy Act (NEPA) by performing an inadequate environmental assessment and failing altogether to undertake an environmental impact study (EIS), asking that the Finding of No Significant Impact (FONSI) be rescinded and that USFWS be ordered to perform an EIS. Following cross-motions for summary judgment, the District Court granted relief to USFWS, largely on the precedent of the Fifth Circuit’s 1992 opinion in Sabine River Authority v. U.S. Department of

Interior, finding that establishing the refuge has no effect on the physical environment (“in fact, preserves the land at issue”) and the refuge “is not the legal and proximate cause of deficiencies in the City’s water supply fifty years from now.”

In 2009, the Fifth Circuit affirmed, holding that the City’s and the State’s plans for building the reservoir were speculative, indefinite, and too far beyond the USFWS 20-year planning for the refuge. The question was whether a federal agency must account for the effects on a municipal water supply of precluding a proposed but-as-yet-nonexistent water source. The Fifth Circuit answered “no,” distinguishing between actions that affect “existing water sources” and those which do not. The City and the TWDB then filed petitions for writ of certiorari, asking the U.S. Supreme Court to review the matter. One of the reasons for Supreme Court review advanced by the Texas Attorney General is that there is a “split” among the federal appeals courts on the requirement for an EIS. On February 22, 2010, the U.S. Supreme Court denied the City’s and the TWDB’s petitions for writ of certiorari, refusing review of the Fifth Circuit’s decision. The Office of the Attorney General is preparing a motion to dismiss a pending State claim, which will conclude the litigation.

Impact on the TWDB

The case could impact the TWDB’s stakeholders, including regional water planning groups, and financing strategies for long-term water supplies. The decision leaves in place an action by the USFWS that effectively precludes the construction of Fastrill Reservoir, a long-term drinking water supply for the city of Dallas and other entities. The interest of the State is to require USFWS to consider the state water planning process as it would any other NEPA-like state process in considering the effects of establishing a wildlife refuge, ultimately resulting in the determination of necessary mitigation of the resulting loss of the potential future water supply. In effect, USFWS does not have to formally coordinate with the TWDB concerning impacts to the state water plan unless an entity has applied for water rights, is acquiring land or easements, or has initiated other costly action to implement a water management strategy. Moreover, even with coordination there is

no deference required for the state's water planning.

EDWARDS AQUIFER AUTHORITY AND THE STATE OF TEXAS V. DAY AND MCDANIEL

274 S.W.3rd 742 (Tex. App.—San Antonio 2008) rehearing overruled; petition for review granted by Texas Supreme Court on January 15, 2010

Summary

Plaintiffs Burrell Day and Joel McDaniel filed an application in 1996 with the Edwards Aquifer Authority (EAA) for an initial regular permit (IRP) to withdraw 700 acre-feet of groundwater from the Edwards Aquifer for irrigation. The EAA ultimately denied the IRP, determining that there was [i]nadequate use of irrigation during the historical period." Following a contested case hearing, the State Office of Administrative Hearings Administrative Law Judge (ALJ) found that Day and McDaniel adequately demonstrated beneficial use of groundwater through irrigation by flooding on 7 acres during the historical period and recommended issuance of an IRP authorizing the withdrawal of 14 acre-feet of water per year. The EAA issued an order adopting the ALJ's Proposal for Decision, including the granting of the IRP for 14 acre-feet. Day and McDaniel appealed to federal and state court the EAA's final IRP decision to reduce their proposed groundwater withdrawal amount. The federal court refused to take jurisdiction, dismissed the lawsuit, and referred the appeal to state court.

Day and McDaniel asked the trial court to reverse the Authority's Final Order, find they had irrigated 300 acres of land during the historical period, and remand the matter to the EAA for reconsideration. Alternatively, Day and McDaniel asked the court to find in their favor on their constitutional claims, chiefly that the decision constituted a taking of groundwater which they owned without historic production, simply as a matter of ownership of their land. Day and McDaniel and the EAA each filed motions for summary judgment. The trial court entered summary judgment, dismissing all of the constitutional claims, including Day and McDaniel's constitutional takings claims. The district court judge

also entered final judgment, reversing the EAA's decision in adopting the ALJ's conclusion that the watercourses and the water within those watercourses on Day and McDaniel's property are state water and any irrigation was irrigation using state water. The court ruled the water taken was groundwater.

Both parties appealed to the San Antonio Court of Appeals, which issued its opinion on August 29, 2008, authored by Justice Stephen Hilbig. The EAA raised a single issue on appeal: that the trial court erred in granting Day and McDaniel's summary judgment motion concluding that water pumped from the property for irrigation was groundwater rather than state water. Day and McDaniel raised three issues, arguing the trial court erred in granting the EAA's summary judgment motion on constitutional claims and in upholding the denial of Day and McDaniel's well construction permit. The court of appeals (1) affirmed the trial court's dismissal of constitutional claims raised by Day and McDaniel other than the takings claim; (2) reversed the trial court's dismissal of Day and McDaniel's takings claim and remanded the takings claim back to the Authority for further proceedings; and (3) reversed the trial court decision to invalidate the permit (regarding the quantification of historically irrigated acres) and rendered judgment affirming the EAA's final order on the permit application.

Motions for rehearing were denied by the court of appeals, and all parties appealed to the Texas Supreme Court on October 14, 2008. The case went to oral argument on February 17, 2010, and a decision is pending.

Impact to the TWDB

The ruling in this case has the potential of affecting the management of groundwater in the state of Texas. The central issue involves the question of whether groundwater in situ (not produced) underlying a landowner's property is a real property interest entitled to due process protections and possible compensation if that interest is affected by permitting decisions or regulatory determinations by groundwater conservation districts.

Self Evaluation and Opportunities for Improvement

Internal Audit

The Internal Audit office reports directly to the agency's six-member Board. As such, the office is not part of any other program area within the TWDB. The key functions of Internal Audit are outlined below:

- Assists members of management and the Board in the effective discharge of their responsibilities by furnishing them with analyses, recommendations, counsel, and information concerning the activities reviewed
- Reports directly to the Audit Committee of the Board
- Performs audits of the TWDB
- Performs follow-up reviews to determine what corrective action was taken and whether it is achieving the desired results
- Performs assurance services to parties outside of the TWDB, such as contractors or other state agencies
- Acts as a liaison with external auditors reviewing TWDB activities or programs
- Has primary responsibility for the investigation of all suspected fraudulent acts and for coordinating investigative activities

Executive Administration

Introduction

The Executive Administrator is the agency's chief executive officer, reporting directly to the Board. The Executive Office delegates authority for specific program areas to five Deputy Executive Administrators, the Chief Financial Officer, and the General Counsel, as well as the Director of the American Recovery and Reinvestment Act Implementation program.

The Executive Office consists of five main areas:

- Executive Administrator
- Governmental Relations
- Policy Integration and Federal Coordination
- Legal Services

- American Recovery and Reinvestment Act Implementation

The primary objectives of the office are to support the TWDB and represent the agency before policymakers and stakeholders. Internal Audit reports directly to the Board, with administrative support from the Executive Office.

The key functions of the areas within the Executive Offices are outlined below:

Executive Administrator

- Reports directly to the Board
- Implements Board policies and directives
- Is accountable for the functions and operations of the agency
- Manages agency priorities and budgets
- Directs and oversees agency initiatives
- Is responsible for prudent management of Board assets

Governmental Relations

- Reports directly to the Executive Administrator
- Coordinates agency interaction with the state legislature
- Leads development of action plan for legislative session
- Advises the Executive Administrator and Board on legislative and policy initiatives
- Briefs the Board and Executive Administrator on status of legislative activity
- Promptly responds to inquiries from state legislators, legislative oversight agencies, and other state agencies

Policy Integration and Federal Coordination

- Reports directly to the Executive Administrator
- Leads the coordination and integration of the agency's policy decisions to ensure consistent and comprehensive application
- Serves as liaison to the Texas congressional delegation, congressional committees, and federal agencies

- Monitors and provides input into the development of legislative, policy, and appropriations initiatives by Congress and federal agencies
- Supports the Executive Administrator and Board on memberships in regional and national water resources and financing organizations
- Coordinates and participates in agency-wide initiatives

Legal Services

- Provides legal advice and representation to
- TWDB Board members
- Executive Administrator
- TWDB staff in the areas of financial assistance, water planning, water policy, natural resources, environmental compliance, legislation, tort claims, human resources, contracting and purchasing, real estate, ethics, open records, open meetings, and rule making
- Prepares and reviews documents
- Researches and prepares formal and informal legal opinions
- Represents the agency on interagency working groups
- Drafts and reviews regulations and policies
- Works with the Office of the Attorney General regarding agency litigation

Effectiveness and Efficiency

The Executive Office is a vital function. It coordinates activities with the legislature, ensuring prompt and adequate response to inquiries from the legislature, customers, and stakeholders. The Executive Office also performs the monthly mailout of agenda items for Board meetings, coordinates correspondence for prompt response, and ensures that all Board member communications are in place.

The Executive Office is responsible, through the efforts of the Executive Administrator, for ensuring all areas of the TWDB operate as effectively, efficiently, and strategically as possible. One of the TWDB's most significant stakeholders, the Texas Water Conservation Association (TWCA), recently recognized the Board's performance by awarding

the agency its President's Award in March 2010. The President's Award is presented to an individual, group, entity, or organization in recognition of the recipient's outstanding dedication, contributions, and service to the TWCA and the water resources of the state of Texas. The TWDB is the first organization so honored. Mr. Jeff Taylor, president of the TWCA declared "This agency, from top to bottom, in my view, has never performed any better. Whether it is water planning, providing financial assistance for water projects, or addressing tough policy issues at the federal and state level, the agency's leadership has been exemplary."

Although the day-to-day activities of the Legal Services division include a number of matters that are not easily counted, the following are a few statistics that reflect the work of the Legal Services division:

- In FY 2008, assisted with the application review and loan process for the CWSRF program, which resulted in the closing of 19 loans totaling \$93,634,236.
- Assisted with the application review and loan process for the DWSRF program, which resulted in the closing of 30 loans totaling \$426,735,000. Also assisted with the application review and loan process for state programs, resulting in the closing of 35 loans totaling \$119,445,000.
- In FY 2009, provided legal advice and assistance pertaining to funds received as part of the ARRA, which solicited more than 726 CWSRF program projects and 800 DWSRF program projects. The Legal Services division worked closely with the development of special rule modifications and waivers necessary to accommodate the strict time deadline in order to avoid reappropriation of the ARRA grant monies to the state. Legal Services was closely involved in closing 46 loans and grants with expedited construction contracts (required by ARRA) for a total of \$326,186,784 in ARRA money.
- Developed and proposed/adopted 261 new rules or rule amendments and 23 miscellaneous documents in FY 2008 and 133 new rules or rule amendments and 30 miscellaneous documents in FY 2009.

- Worked with the Office of the Attorney General in defending six lawsuits pending against the TWDB in FY 2008 and FY 2009. Assisted the Office of the Attorney General in pursuing lawsuits.
- Responded to four complaints filed with the Equal Employment Opportunity Commission in FY 2008 and one complaint filed in FY 2009.
- Responded to approximately 50 open records requests in FY 2008 and 153 open records requests in FY 2009.
- Prepared bill analyses for more than 400 bills during the 81st Texas Legislative Session.

Agency Characteristics Requiring Improvement

A Survey of Employee Engagement was conducted in January 2010. The TWDB is pleased to report that the agency had a high response to this survey, about 95 percent of all staff. Based on the results of that survey, the areas of most concern for the agency are compensation, internal communications, and information systems. The agency has formed a team of staff members charged with providing innovative solutions to issues identified by the survey. The deputy executive administrators will be addressing those areas of concern for their particular section. The agency is committed to continually striving to increase satisfaction among staff and to obtain and respond to agency stakeholder feedback.

Key Obstacles

The state's budgetary shortfalls for 2011 and beyond will adversely impact the TWDB. It is a challenge to continue to meet our core functions in an atmosphere of increasing budgetary constraints.

One of the agency's most urgent challenges is to keep pace with the growing water demands of a population that is expected to double by 2060. Texas takes great pride in being a leader in regional water planning, emphasizing an open and collaborative process to account for a wide range of needs and interests. Both the Executive and Legislative branches of the federal government—through a sweeping array of pending legislation, proposed executive orders, and agency rulemaking—have embarked upon a path that, left unchecked, will dramatically alter the

way water resources planning and development are conducted.

This direction shifts critical decision making from the local and state level to the federal level. The momentum in Washington, D.C., toward such policy directives will result in an erosion of state and local primacy over water resources planning and management and will severely constrain the planning and implementation successes achieved in Texas. Increased federal requirements and control over water planning and development will greatly complicate and lengthen the process of securing federal permits for many water-related projects sought by local interests, rendering some vital projects simply unviable.

Judicial remedies to enforce specific covenants and obligations in bonds and other securities, including loan and grant agreements, executed or issued by financial assistance applicants, are not always clear. Statutory revisions may be recommended to the 82nd Legislature so that Legal Services may better serve the agency in enforcing loan agreements and bond covenants and obligations.

Legal Services staff should better educate the TWDB staff about privileged communications and the role of the attorneys within the agency by providing additional training opportunities.

For the Legal Services division to provide excellent representation to agency staff, the Board and the Executive Administrator, it is necessary to have the funding to hire and retain talented lawyers. Potential fiscal shortfalls may impact the agency's ability to replace retiring attorneys or to provide salary increases to retain critical staff.

Opportunities

Continual dialog with policy makers at the state and federal level allows us both to promote the agency's mission and to stay current regarding policy and funding issues. We have had an increase in funding for our state revolving funds through the ARRA, as well as through recent increases to ongoing annual appropriations. Increased federal funding will allow us to provide more financial assistance to Texas communities. The funding has also been accompanied, however, by increased federal

regulations and requirements.

Coordination

Staff in the Executive area are commonly called on to provide specific input on draft legislation and appropriations related to water resources policy and funding. We also coordinate federal communications with various regional and national water organizations to ensure a cohesive message where appropriate.

Executive area staff coordinate the agency's federal outreach with regional and national water organizations, including the Texas Water Conservation Association, Western States Water Council, Interstate Council on Water Policy, Council of Infrastructure Financing Authorities, and Alliance for Water Efficiency. In addition, where applicable, the Executive Office coordinates with other state and federal agencies on water policy and funding.

The Executive Office works closely with a broad range of governments, from local to federal levels. The Executive Office interacts directly with municipalities, water districts, river authorities, state and federal agencies, and the executive and legislative branches of Texas and the federal government.

The Legal Services division works with entities seeking loans and grants from the TWDB, including but not limited to, cities; counties; local and special districts created under Section 52, Article III or Section 59, Article XVI, Texas Constitution; groundwater districts, other political subdivisions of Texas; any interstate compact commission to which the state is a party; and any nonprofit water supply corporation created and operating under Chapter 67.

The Legal Services division also supports agency staff in water science and conservation and water planning issues, as well as groundwater matters involving hearings on desired future conditions for the state's aquifers. This support might include interacting with the groups involved in these issues, such as local governments, special and local districts, regional water planning groups that have been designated by the TWDB, and groundwater management areas designated by the TWDB.

The Legal Services division supports the work of other TWDB divisions in their routine work with

other agencies, including the Office of the Governor on ARRA and reporting and general government issues; the TCEQ, the Texas Department of Rural Affairs (formerly the Office of Rural Community Affairs), the Secretary of State's Office, the Health and Human Services Commission, and the EPA on CWSRF and DWSRF; FEMA on flood mitigation planning issues; the U.S. Geological Survey (USGS); the Comptroller's Office, the Texas Facilities Commission, the Texas State Library and Archives Commission, and the Department of Information Resources on general government issues; the Office of the Attorney General on claims and litigation, as well as public information matters; and the Texas Workforce Commission and federal Equal Employment Opportunity Commission regarding claims of discrimination. Other TWDB divisions may also be very involved in such matters, but Legal Services is the lead division for such contacts.

Key Resources

The high caliber of our agency staff and the staff's consistent dedication to excellence are our greatest resource. The Executive area continues to place the highest level of confidence in the staff's ability to meet challenges and to provide innovative solutions to challenging situations. Technology is valued and employed where appropriate. However, there is no substitute for solid knowledge, consistently high professional standards, and commitment to the agency's mission.

Legal Services staff can take advantage of resources in other state agencies, including interagency meetings such as the State Agency Coordinating Committee, Legal Subcommittee; Public Information Act Council meetings, coordinated by the Comptroller; and other ad hoc task force entities like the Records Management Information Coordinating Committee. These groups can provide easy access to the latest legal requirements and discussions about implementation practices.

Additionally, Legal Services employees should develop relationships with in-house attorneys at other state agencies such as the TCEQ, Texas Parks and Wildlife Department (TPWD), Department of State Health Services, Office of the Attorney General,

and the Department of Rural Affairs, whose work is related to TWDB programs. Similarly, TWDB lawyers should identify persons with specialized knowledge at other entities who can provide assistance on issues of first impression. Continuing legal education attendance is a good way to meet people from state agencies and other relevant entities, such as river authorities and groundwater districts. Legal Services employees are encouraged to take the extra step in building relationships by regularly communicating with lawyers from other entities.

Finance

Introduction

The Finance office consists of the following areas:

- Debt and Portfolio Management
- Financial Monitoring
- Accounting
- Financial Systems

Finance issues bonds, and recipients of financial assistance through the TWDB are subject to monitoring by the Finance office. All internal programs of the agency are supported by the accounting and budget functions.

Effectiveness and Efficiency

The staff in Finance have maintained an effective organization in meeting legal and audit requirements.

Agency Characteristics Requiring Improvement

The staff continue to seek ways to improve their processes, security of information, and timeliness by adopting or improving automated processes. With the development of best practice procedures, appropriate documentation, and quality control reviews staff strive to ensure effective and efficient management of our financial resources, including the debt and loan portfolios. These improvements are advanced through training, communication, and ongoing review of processes and procedures.

Key Obstacles

The dynamic market will continue to present challenges and will require diligence and constant review of the TWDB's loan and debt portfolio.

Increased diligence and oversight will be required and expected of the TWDB. Staff must be flexible and responsive in the issuance of debt, management of debt, and oversight of borrowers, who are also dealing with difficult market and economic conditions. With limited resources, it is important to identify and prioritize potential issues in order to address them in a timely manner.

Opportunities

Along with the challenges presented by market and economic conditions, staff are monitoring prepayments to be able to take advantage of market opportunities related to repayment and refunding debt. Additionally, initial debt structures are being reviewed to provide the greatest benefit to the state, the TWDB, and financial assistance recipients.

Coordination

Appropriate fiscal prudence requires ongoing coordination with oversight agencies, federal grantors, borrowers and grantees, and internal staff to ensure the timely issuance of debt, the timely disbursement of loan and grant funds, and the monitoring of the use of public funds. The office has built and sustained relationships with the Comptroller, Legislative Budget Board, State Auditor's Office, and the Bond Review Board.

Key Resources

Staff expertise is an invaluable asset, especially in the current economic conditions.

Project Finance

Introduction

The Project Finance office is organized into three areas:

- Administration
- Program Development
- Project Development

Administration

- Provides management and oversight
- Is responsible for completion of Legislative Budget Board performance measures assigned

to the Project Finance office

Program Development

- Markets, develops, and implements the TWDB financial assistance programs
- Facilitates management of the financial assistance programs
- Monitors and ensures agency compliance with state and federal laws, policies, and standards
- Conducts water and wastewater needs assessments and projections for two federally funded programs, CWSRF and DWSRF
- Completes all annual and interim reports

Project Development

- Processes financial assistance requests
- Provides project oversight
- Reviews and analyzes financial data provided by potential applicants requesting financial assistance
- Oversees projects to ensure they are progressing in a timely manner
- Ensures progress on projects is achieved from the pre-application phase through commitment, closing, and final completion
- Coordinates loan closing activities associated with the financial applications
- Ensures program requirements are being followed
- Coordinates, compiles, reviews, and completes monthly Board presentation material regarding proposed projects and presents financial applications to the Board for consideration

Effectiveness and Efficiency

The Project Finance office ensures that its financial assistance programs and all applications for financial assistance are administered in compliance with federal and state statutes and regulations, including, but not limited to, the Clean Water Act, the Safe Drinking Water Act, and the Texas Water Code. The federal financial assistance programs are subject to annual financial reports and annual performance evaluation reviews, which have historically been acceptable to the EPA, the Texas State Auditor's Office, and the TWDB's internal auditor.

The Project Finance staff conduct workshops, attend conferences, and make presentations across the state to teach potential applicants more about TWDB financial assistance programs. The Project Finance office has a three-pronged marketing plan for the CWSRF and DWSRF, targeting: (1) the top five metropolitan statistical areas; (2) small, rural, and disadvantaged communities, and (3) projects to implement the state water plan. In FY2009, Project Finance staff conducted pre-application 89 meetings, and has held 26 in FY2010 as of March.

The TWDB has several performance measures that track the success the financial assistance programs have had at targeting critical populations, such as communities with state water plan projects and small, rural, and disadvantaged communities. In FY 2009, the TWDB made 26 commitments of low-interest loans with a value of more than \$411.7 million to implement state water plan projects. In FY 2009, the TWDB made 63 commitments of grants and loans to small, rural, and disadvantaged communities valued at more than \$194 million. In FY 2009, the TWDB continued to fulfill its mission of funding projects to serve economically distressed areas that have inadequate water and wastewater services by closing more than 16 loans and grant agreements funded through the EDAP.

Agency Characteristics Requiring Improvement

Although the agency on a whole is effective and efficient, it needs to continue to improve project coordination with other state/federal agencies and enhance project management to reduce time between funding commitment and construction. The TWDB needs to improve procedures in the outlay process between project sponsors and the TWDB to reduce potential unliquidated obligations (ULOs) and expand utilization of technology and other alternative marketing strategies to market financial assistance programs to customers. Staff need to continue to enhance outreach to small and disadvantaged communities through technical assistance in addition to financial assistance while establishing relationships with potential new customers and continuing to reestablish and maintain relationships with existing customers and those who have not utilized TWDB financial assistance programs recently.

Key Obstacles

Bond Authority

The primary obstacle facing the Project Finance office is funding limitations for future grants and loans. Grants and subsidized interest rate loans are in high demand from TWDB customers. The agency is fast approaching its General Obligation (GO) bond authority cap, which will limit funds for EDAP, the Rural Water Assistance Fund (RWAF), WIF, and the State Participation program. Projects, including state water plan projects, may be delayed until additional TWDB funds are available. Entities may have to seek more expensive, market rate loans that are immediately available rather than wait for TWDB funds to become available.

During the 81st Legislative Session in 2009, a constitutional amendment giving the TWDB evergreen, or perpetual, bonding authority—a priority policy recommendation from the Board—was passed separately in both chambers but did not finally pass.

The proposed amendments would authorize the TWDB to issue, in addition to the bonds authorized by other provisions of the Texas Constitution, GO bonds, at its determination and on a continuing basis, for one or more accounts of the Water Development Fund in amounts such that the aggregate principal amount of such bonds issued by the TWDB that are outstanding at any time does not exceed \$6 billion.

As the amendments did not pass, the TWDB is currently evaluating a prioritization system for EDAP projects. In the EDAP and WIF programs, the TWDB has already committed funds for the planning, acquisition and/or design phases of some projects, but funds for construction may not be available. The prioritization process will set in place a system for choosing which entities will receive funding.

Budget Cuts

The TWDB's financial assistance programs will be affected by the FY 2011–2012 biennium's proposed budget cuts. At the request of the Legislative Budget Board, the TWDB identified \$2.5 million in General Revenue reductions in the DWSRF Disadvantaged Match and \$100,000 in reductions to the Colonia Self-Help program grants.

The \$2.5 million reduction will not affect the overall amount of federal project funding, although a 33 percent decrease will impact the ability to utilize the DWSRF for grants to disadvantaged communities. When the 82nd Legislature convenes in 2011, agencies may face additional reductions for the next biennium (FY 2011–2012), which would most likely impact availability of financial assistance for water and wastewater infrastructure projects.

Davis-Bacon Act

In late 2009, the EPA began to require all construction activities funded by SRF programs to conform to the prevailing wage requirements of the Davis-Bacon Act. This requirement applies to any agreement that provides financing for a project executed on or after October 30, 2009, and prior to October 1, 2010, for construction under the CWSRF or the DWSRF.

The Davis-Bacon Act requires, among other things, that not less than the locally prevailing wage be paid to mechanics and laborers employed, under contract, on construction projects. The retroactive application of the act presented an additional hurdle to TWDB customers who were progressing toward closing on an SRF loan and had to stop and take steps to ensure compliance. Some customers are unable to become compliant retroactively, and their loan commitments with the TWDB are in jeopardy. The TWDB is exploring both administrative and legal remedies to resolve this dispute.

Tax Increase and Reconciliation Act

In May 2006, Congress enacted the Tax Increase Prevention and Reconciliation Act of 2005. The act was passed and put into effect for bonds issued after May 17, 2006. The act contains several provisions affecting tax-exempt bond issues by state and local governments. Among those provisions is a modification of the federal pooled financing rules that apply to most of the programs funded with the proceeds of tax-exempt bond issues by the Board.

The newly enacted amendments provide the following changes to the pooled financing rules:

- Expectation that 30 percent of the proceeds will be used to make loans within one year of the

- bond sale and 95 percent of the proceeds will be used to make loans within three years of the bond sale.
- If the expectations are not fulfilled, then the issuer of the pooled bonds will be required to redeem the portion of the bonds representing the unexpended proceeds (the difference). This redemption must be made within 90 days of the end of the respective period.
- The status of the borrower as being a small issuer (issuer of less than \$5 million annually) must now include the principal amount of the pooled bonds. Effectively, the Board will always exceed the \$5 million limit and will not be eligible for the small issuer rebate exemption.

The act introduces the element of financial risk to pooled loan programs and their underlying borrowers. The act would have a direct impact on the TWDB's program capacity if the cost of the extraordinary call option were at par. The act changed some processes and procedures of loan commitments/closings and bond sales. Customers wanting to close Board commitments quickly may have to wait for the TWDB to sell bonds so funds are available and the penalties associated with the act are minimized.

EDAP Grant-Loan Ratio

Current statute states that no more than 90 percent of EDAP funds can be in the form of grants. The remaining 10 percent of financing must be in loans specifically from EDAP. During the 81st Legislative Session in 2009, the TWDB proposed (1) removing the statutory limitation that no greater than 90 percent of EDAP funds be used for grants and (2) allowing for any loan requirements to be met through loan programs other than EDAP.

This bill did not pass. The proposed changes would not eliminate any required loan component but would allow for the loan to be funded from other sources than EDAP. This change would allow additional grant funds to be available from the EDAP bond authorization and expand the total program funding by allowing the use of other existing programs for the loan components. Loans used in the calculation, regardless of the program, would still be required

to meet EDAP eligibility requirements for all the facilities to be constructed.

Maturation of EDAP

EDAP has been in existence for more than 20 years, and more than 100 projects have been completed under the program. As the program has matured, it has grown statewide, and problems in the most densely populated economically distressed areas have been addressed. Many new projects may occur in more rural, less densely populated areas, making it more costly per connection to deliver infrastructure and services.

Lack of Municipal Bond Insurance

The lack of municipal bond insurance affects the TWDB programs in two ways: (1) demand by nonrated applicants has increased because of their inability to access the market, and (2) the number of nonrated, noninsured entities in the TWDB portfolio increases the risk and possible portfolio rating, which could increase the TWDB cost of funds and ultimately the cost of funds to applicants.

The Economy

The TWDB financial assistance programs will be impacted if the state's economic recovery is slowed. The TWDB must be more flexible in structuring grants and loans to ensure its services fit the needs of its customers.

Opportunities

Statutory Changes

HB 2374 (Effective 9/1/09) - Amended Chapter 17 of the Texas Water Code to authorize EDAP fund eligibility for residential plumbing assistance, allowing financial assistance for first-time connection of public water and sewer services to residences in areas already receiving EDAP assistance. Under the bill, a political subdivision would be able to use financial assistance to pay for

- Costs to connect a residence to a water distribution system constructed under EDAP;
- Costs to provide yard service connection;
- Costs to provide a residence with indoor plumbing facilities and fixtures;

- Costs of connecting a resident to a sewer collection system constructed under EDAP;
- Necessary connection and permit fees; or
- Necessary costs of design-related plumbing improvements.

SB 1371 (Effective 9/1/09) - Allows for a greater pool of sponsors, including all political subdivisions—rather than only nonprofits organized under Section 501(c)(3) of the Internal Revenue Code—to be eligible for the program. Allows for advance financing, not to exceed 10 percent of the total grant, on a determination that participating utilities are sufficiently committed to actually providing water or wastewater service upon completion of the project.

SB 2312 (Effective 9/1/09) - Clarifies that entities eligible for other programs administered by the TWDB are also eligible to apply for financial assistance through WIF, including nonprofit water supply corporations. Redefines “eligible political subdivision” to include nonprofit water supply corporations created and operating under Chapter 67 of the Texas Water Code and certain categories of districts such as freshwater supply districts, special utility districts, and municipal utility districts that had been excluded under the prior definition.

Cost Reductions

One benefit of the slow economy is the resulting reduction in materials and supplies on construction bids. TWDB customers benefitted when some bids came in at less than the loan or grant commitment for the project. Customers were able to either increase the scope of their project or return unneeded funds to the TWDB to be committed to other projects.

Talent Pool

Because of higher unemployment rates, the TWDB benefitted from the availability of experienced and talented professionals to fill job openings, such as financial analysts, project leads, and engineers.

Web-Based Meetings

The TWDB began using Web-based meetings

to reach out to customers and reduce their travel expenses for preapplication meetings, training, and so forth. The TWDB may expand the use of Web-based meetings to market its programs and services to customers across the state.

Readiness to Proceed

Because of what the TWDB learned through the ARRA solicitation and project selection process, Project Finance staff are implementing a “readiness to proceed” factor in rating of mainstream SRF projects for FY 2010 and FY 2011. A project is ready to proceed to construction if it has all required permits, environmental clearances, land acquisitions, plans, and specifications, and meets other federal requirements. Ready-to-proceed projects can be started and completed quickly.

Coordination Opportunity

Since the beginning of 2010, the TWDB began monthly coordination meetings with the TCEQ to identify utilities/entities that need financial assistance to build, repair, or replace infrastructure in order to become compliant with federal and state statutes and regulations. The TWDB can become an affordable funding option for these entities in need.

Coordination

The TWDB coordinates with both the Texas Department of Rural Affairs (TDRA) and the U.S. Department of Agriculture—Rural Development (USDA-RD) in providing financial assistance. The General Appropriations Act regularly includes a rider for both the TWDB and the TDRA that continues a memorandum of understanding. The focus of the memorandum is to ensure that none of the appropriated funds are used to aid in the proliferation of colonias and to maximize the delivery of the funds and minimize administrative delay.

The TWDB also works closely with the Texas Border and Mexican Affairs division of the Texas Secretary of State’s Office to ensure project coordination among the various funding and oversight agencies. The Texas Secretary of State leads coordination of the entities and holds quarterly meetings in which the TWDB participates.

The TWDB coordinates with the various councils of governments on all grant projects to avoid duplicating projects.

The primary federal governmental entity Project Finance interacts with is the EPA, which provides capital grants to support the DWSRF and the CWSRF programs. A new initiative undertaken by the Program Development division of the Project Finance office is enhanced coordination between the TWDB, EPA, the TCEQ, the TDRA, the USDA-RD, and other potential funding and technical assistance sources to address water and wastewater infrastructure funding needs.

Certain levels of EDAP grant funding are impacted by health and safety nuisance determinations made by the Texas Department of State Health Services (TDSHS). The TWDB maintains an interagency contract with the department to perform nuisance findings.

Coordination efforts between the TWDB and the Texas Historical Commission (THC) are necessary on various projects receiving financial assistance. The THC assesses and protects archeological, architectural, and historical state landmark resources. Federal and state antiquities laws require all funded projects to be evaluated for their potential effect on archeological features present on a project site and cleared by the THC. To facilitate this coordination, a memorandum of understanding between the TWDB and the THC has been established.

The TWDB also coordinates with the TDRA and the USDA-RD in providing financial assistance to economically distressed areas.

For the DWSRF, the TCEQ performs the priority ranking of applications. The TCEQ, as the state primacy agency, is responsible for state program management, small systems technical assistance, source water protection, and capacity development, in addition to ranking of applications.

Key Resources

- TCEQ – Annually provides scoring of Project Information Forms (PIFs) for the DWSRF program, which is used in the rating and ranking of the draft Intended Use Plan (IUP).
- EPA-Region 6 for help with SRFs, including

green business case, Davis-Bacon, Buy American, and so forth.

- TDSHS contracts with the TWDB for nuisance findings on EDAP projects. Nuisance findings help determine a project's eligibility for EDAP.
- Other federal agencies – USDA-RD, Border Environment Cooperation Commission, the North American Development Bank
- Others – Council of Infrastructure Financing Authorities

Construction Assistance

Introduction

The Construction Assistance office consists of two main areas:

- Project Engineering and Review
- Inspection and Field Support

Project Engineering and Review

- Meets with entities regarding funding options from the conceptual stage, through funding commitment and closing, planning, design, and construction
- Reviews and approves engineering feasibility reports for proposed projects
- Reviews environmental documents and issues environmental determinations
- Reviews and approves plans and specifications for every contract of each project
- Reviews contract bid tabulations and authorizations to awards
- Reviews and approves executed construction contract documents
- Reviews and approves contract change orders
- Reviews and approves payment requests and fund releases

Inspection and Field Support

- Performs bidability and constructability reviews of plans and specifications
- Participates in and reports on preconstruction conferences
- Conducts monthly construction inspections and writes progress reports
- Conducts contract and project final

- inspections and writes final reports
- Gathers contract close-out documents and issues a Certificate of Approval for each contract
- Conducts postconstruction performance and warranty assistance as required
- Maintains a project database with current and historical project information

Effectiveness and Efficiency

Meeting Legal Requirements

Construction Assistance (CA) is very effective in meeting its legal requirements. CA jointly administers, with other agency offices, a variety of state and federal programs. These programs carry specific legal directives and constraints. For example, the DWSRF is derived from the Safe Drinking Water Act and is targeted to provide funding to communities in the state to resolve health and compliance issues. EDAP is a state program directed at aiding distressed areas of the state with funds to address inadequate water and wastewater systems in these areas.

Critical Populations

The programs that CA administers benefit a broad spectrum of citizens and needs in Texas. For example, EDAP addresses infrastructure needs in areas of the state that are deemed economically distressed. These areas are usually smaller communities that do not have a large amount of experience in the financing and construction of water and wastewater facilities. As a result, CA provides technical assistance to aid them in the development and implementation of their project. The DWSRF and CWSRF programs provide assistance to areas that are deemed to be disadvantaged. These areas, as well, are typically smaller communities that require technical assistance.

The DWSRF and CWSRF programs also meet needs in non-disadvantaged areas in small, middle, and large communities across the state. These programs are thus also used to augment the Capital Improvement Plan processes of larger communities. This effort requires CA staff to understand the needs and processes of larger communities and to interface with them to meet the needs. The State Participation

and WIF programs are targeted to provide funding for projects identified in the state water plan. These projects typically involve large water storage and transmission facilities, including reservoirs. These programs provide funding to allow larger areas of the state to meet future water needs as the state grows.

These programs impact virtually every citizen of the state, and they require a significant level of expertise on the part of CA staff. The Rural Water Infrastructure Fund (RWIF) is targeted to help small rural communities, particularly water supply corporations. The program has unique characteristics that allow CA staff to aid these areas in meeting the unique needs of rural areas. The 2009 ARRA program was targeted to aid the creation of jobs statewide. The program, therefore, aided the entire state. Finally, the Texas Water Development Fund (Dfund) is a program that all communities in the state can access for water and wastewater infrastructure financing. As such, it potentially touches all population groups across Texas.

Recognition

The programs that CA helps to administer have yielded nationwide recognition through PISCES Awards (Performance and Innovation in the SRF [State Revolving Fund] Creating Environmental Success) provided by the EPA and in the sheer volume and demand for funding. The agency and CA continue to receive positive feedback from customers.

Agency Characteristics Requiring Improvement

Maintaining organizational stability is important to the TWDB. Efforts have been implemented and need to continue through management meetings, newsletters, and updates. It is important to continue to emphasize cross-office communication, as the entire agency works interactively on virtually every program.

Key Obstacles

A key challenge is the continued demand for funding in a national environment of growing federal bureaucracy. Each new administrative requirement represents one more thing with which our customers must comply. This procedure can be burdensome

to the citizens of Texas and could ultimately slow down demand for funding or cause customers to seek funding sources other than the TWDB.

Opportunities

CA has worked with a consultant, Northbridge, to assess the TWDB's SRF programs. Through this assessment, through the recent ARRA experience, and through the internal identification of needs, significant changes in our method of operation are being considered and implemented. These include the following:

- The inclusion of "green" and Davis-Bacon requirements in our CWSRF and DWSRF programs
- Opening the SRF programs to encourage more nontraditional types of funding such as nonpoint source and source water protection projects
- Loosening the SRF programs to allow us to target special needs such as arsenic. This change may involve less reliance on rules and more reliance upon the IUP each year to govern SRF activities.
- Obtaining invoices on all CWSRF projects to provide a more efficient collection and submittal of payment requests to EPA
- Implementation of an integrative database called Texas Water Information System Expansion (TxWISE) to govern management of TWDB programs. This database will aid CA in the tracking and management of projects to ensure schedules and avoid unliquidated obligations (ULOs).
- In the SRF programs, the potential use of separate commitments for the various stages of project development from planning, acquisition, design, and construction. This change would be in lieu of the predesign funding option to aid in addressing ULOs.
- Implementation of project close-out procedures to ensure that project funds remaining at the end of a project are either used or put into the fund to aid other communities of the state.
- Establishment of an EDAP priority system
- Obtaining better information, through draws estimates, to better aid bond sale timing
- Establishment of a better file organization. CA is

working with the file room personnel to develop better file compilation.

- Implementation of mail duties in CA to facilitate a more efficient management of information into and out of CA

Coordination

CA will continue to meet interactively with customers and state and local officials. This is done through project-related activities such as preapplication meetings, project management conferences, marketing trips, participation in professional organizations, direct mailings, statewide trainings through WebEx and other media, the use of the Internet, and the use of statewide focus groups/ stakeholder meetings, and because of it. CA's intent is to be a positive force toward the common goal.

Key Resources

The implementation of TxWISE is key internally. Resources have been devoted to this implementation through the hire of Northbridge and various staff to dedicate to its success. This financial and resource priority needs to continue as we move through the various phases of implementation.

Technical assistance is key for customers. Resources in terms of money, staffing, and time need to be devoted to this effort as we continue to work with smaller and disadvantaged/distressed areas. In addition, there is a growing need for assistance as more federal requirements are attached to funding programs.

Operations and Administration

Introduction

The Operations and Administration office encompasses the following areas:

- Human Resources
- Communications, Strategic Planning and Records Management
- Information Technology
- Support Services and Contract Administration

Human Resources (HR)

- Advises supervisors and managers in

- personnel matters
- Maintains a position classification system to evaluate jobs
- Provides recruitment programs
- Establishes training programs
- Administers employee benefits
- Processes employee grievances
- Announces job vacancies and screens applicants

Communications, Strategic Planning and Records Management

- Responsible for the agency's communications services
- Develops the agency's strategic plan
- Responsible for Web development and maintenance for all agency sites
- Administers publications and graphic support, including all print reproduction for the agency
- Provides policies, procedures, support, and training to all divisions of the agency to ensure the efficient and economical management and preservation of records and information
- Ensures compliance with all applicable state and federal records laws and provides centralized records disposition
- Operates a file room and maintains water project files for the agency

Information Technology (IT)

- Provides program management organization
- Provides application services
- Provides IT systems and project coordination
- Maintains IT security and infrastructure
- Maintains service desk assistance and support to the agency staff and customers

Support Services and Contract Administration

- Provides facility management (building maintenance and associated repairs, space management, lease management)
- Provides staff support (telecommunications, fleet management, mail services, supplies)
- Ensures fraud prevention coordination
- Conducts annual inventory, safety management, and cost-savings initiatives

- Develops and administers contracts
- Procures goods and services
- Coordinates contract payment
- Coordinates outlay processing

Effectiveness and Efficiency

Divisions of the Operations and Administration office work effectively and efficiently to benefit the agency as a whole.

The HR division has been recognized statewide for its wellness programs and charitable campaigns. Currently, four HR staff members have attained certification as a Professional in Human Resources through a nationally recognized and accredited professional human resources certification program. A recent survey conducted by the division indicated an overall satisfaction rate of good or excellent in 18 of 23 categories.

The results of past internal surveys indicated the need to improve HR services in some areas, specifically, in the area of staff training and development. FY 2009 was the first attempt by HR to develop and implement in-house training. The addition of a new staff member to coordinate training and wellness activities was an important factor in HR's ability to provide such training. It is anticipated the HR will continue to provide this training, as well as additional training modules, in the upcoming fiscal year.

Communications staff work to inform our stakeholders of agency and Board activities and actions, answer inquiries from the public and the media, aid in processing public information requests, and organize, develop, and finalize the strategic plan. They also work to ensure that the rest of the agency staff are aware of current events that affect the TWDB, and to help them comply with agency information procedures.

Communications staff have developed effective processes to reduce the number of complaints due to inaccessible Web page content or information while speeding up the time required to resolve complaints. Providing training on accessibility and developing accessibility guidelines for the agency have helped to meet the accessibility requirements of the Department of Information Resources, as well

as preparing for the Web revamp. Content posting and updates have been improved, most notably, eBoard Books and Communication materials such as eNewsletter and daily news through RSS feed, through established processes.

The Records Management Services (RMS) department meets its legal requirements as stated in Texas Government Code, Chapter 441, and serves the agency and the citizens of Texas through efficient record keeping practices.

In the last two years, the Publications and Graphic Support department has developed and documented processes to ensure the agency meets its legal requirements for state printing bids and state library distribution. It has also met all required deadlines for state-mandated reports. The department's performance is best measured by the numerous high-quality publications that have been produced over the last two years. As a result of its own review of printing and budget processes, publications staff have implemented a publications tracking database. This software helps staff track print bids, job status, and budget information for each project in the office.

Another major initiative for the Operations and Administration office is accessibility. A team of staff are working to ensure compliance with listed standards for accessibility when developing or procuring software applications and operating systems. Additionally, this team is researching how to comply with accessibility requirements and coordinating with content providers on making their information accessible.

Security and infrastructure are an important function of the IT division and have been a priority for the TWDB. Recently, IT has implemented a new employee systems access procedure; purchased and implemented a new "spam" and virus defense system (IronPort gateways); established site-to-site encrypted tunnels for the Inspection and Field Support Services field offices, allowing them to have access to agency resources and protection from agency security systems; moved hardware and provided IT support for the new Eighth and Brazos location; implemented the Surface Water Modeling PC cluster; and updated the TWDB's business continuity plan and disaster recovery plan and

emergency response procedures.

The service desk has implemented procedures to provide efficient services to its customers. These procedures include a monthly live stream access and recordings of the agency's monthly Board meetings and implementation of a service request tracking tool known as "c.Support."

A summary of key statistics from the Support Services and Contract Administration division for FY 2009 includes

- Number of new contracts executed: 127
- Total dollar amount of executed contracts: \$61,363,098.65
- Number of purchase orders processed: 1,350.
- Total dollar amount of purchase orders: \$5,401,678
- Number of outlays processed: 402
- Total dollar amount of processed outlays: \$124,140,436
- Number of contract payments: 593
- Total dollar amount of contract payments: \$38,304,688.94

The division is composed of 14 FTEs at the present time and has eliminated 3 FTE positions over the past years by using existing staff to perform the work once performed by these FTEs. These efficiencies provided the agency cost savings without affecting customer support. Additionally, the staff are consistently praised for providing excellent customer service and response, which is a reflection of the division's effectiveness.

Contract Administration maintains a contract tracking database that records process efficiencies. These data are used for various agency reports and for tracking contract status. Information is reported to the Board members and TWDB management staff on a monthly basis and has been well received by stakeholders. In total, Contracting and Purchasing staff members have processed more than 2,500 individual work assignments/transactions during FY 2009.

In FY 2010, Contract Administration was faced with the challenge of executing multiple agreements under the 2009 ARRA. ARRA program requirements demanded that all contracts be

executed in an extremely short timeframe. The demands required staff to communicate effectively with internal and external stakeholders and to execute their assignments with precision. All program requirements were achieved in a timely manner, which is a credit to the current staff and their internal business processes.

The application services department of the IT division has developed numerous applications to allow the TWDB staff to be more effective and efficient in their daily activities. These applications target multiple areas of the agency, including groundwater, water conservation, governmental relations, communications, performance measure activities, records management, and the recently implemented ARRA program.

Agency Characteristics Requiring Improvement

The area of recruitment is difficult to address because the economic downturn affecting the job market has greatly increased the number of applicants applying for TWDB positions. As a result, several recruitment activities and career fairs were cancelled because of increased hiring for ARRA positions and an abundance of job applicants for every position. Another indication of successful recruitment is the filling of positions that traditionally lacked a sufficient applicant pool. Positions for engineers, groundwater modelers, and hydrologists have all received an increase in the number of qualified applicants, resulting in well-qualified applicants selected for the positions.

Record keeping practices need improvement throughout the agency. RMS has recently implemented internal training sessions to improve record keeping processes and instituted record liaisons in each area. RMS will continue to develop more training opportunities.

The current navigation on the agency's Web site is based on the agency's organizational paradigm, which is not efficient for users who are unfamiliar with the agency. Moreover, the agency Web site does not have an efficient content management system. These two major areas have been identified and documented in the Web revitalization project, a high-priority project approved by the agency leadership.

To assist the publications team, the agency could improve its ability to prioritize publication projects and align those priorities with the budget.

An agency characteristic requiring improvement for IT is the development of a formal project prioritization process.

Contract Administration is consistently seeking to review and improve its processes to better serve customers. Examples of recent improvements include the following:

- Conversion of the Contract Administration system to the TxWISE system. This project is under way, and conversion is scheduled to be complete in late 2010. The implementation of this new system will better secure contracting data and provide information on a consistent platform with other agency programs.
- Collocation of contract working files. All contract files are now located in a secured file room, which is maintained and monitored by Contract Administration staff.
- Electronic Files. All contract agreement files and related payment records are now stored electronically in portable document formats. These files provide stakeholders with easy access to critical documentation—and also serve external stakeholders that need access to our records for audit or examination purposes.

Key Obstacles

As the economy begins to recover, retention of critical staff, specifically those of the younger generations, will become a key issue for HR. Strategies beyond compensation will need to be developed to address both recruitment and retention of critical staff.

An obstacle that the communications staff faces regularly is the ever-changing way TWDB stakeholders receive information. Keeping up with morphing technology is a challenge.

One technological obstacle that RMS seeks to overcome is the effective management of electronic records. Management of electronic mail, Web content, shared drives, and digital preservation of historical resources is needed to meet statutory requirements.

The biggest challenge Web administration faces is getting all divisions in the agency to agree on the Web revitalization project plan and enable communication. In the past, the staff time was divided between supporting content providers, maintaining multiple Web sites, customer support, and the Web revitalization project. Web administration hired one new FTE, and the work output has more than doubled and helped the Web revitalization project to move ahead.

Accessibility to electronic information is a major obstacle because of training and resources. Although the staff in Web administration received appropriate training for accessibility, resources and training for others are both still needed.

Implementing Web servers, URLs, and services through IBM requires extra time and steps to accomplish that may hinder the timely process of Web revitalization.

For the publications area, the significant challenges are insufficient financial and staff resources. Because the agency has grown and its programs are expanding, more printed materials are required. Budget cuts have reduced our ability to print materials and our ability to upgrade aging equipment. In addition, we do not have sufficient staff to produce the volume of materials requested of us, particularly for large projects such as the state water plan.

The Department of Information Resources Data Center Services contract was executed on May 1, 2007. This is a single, legislatively mandated contract between the TWDB and the Department of Information Resources to have a selected service provider, now known as IBM Team for Texas (IBM), manage the agency's data center.

The general purpose of this contract is to consolidate 27 state agency data centers into two state data centers managed by a single contract. For the TWDB, this means IBM now manages our data center to include servers, network storage, systems administration, and disaster recovery of agency data.

The methods used to ensure accountability for funding and performance include a monthly invoice, validation of invoices, and continual monitoring of servers, backups, and IBM's ticketing system known as Remedy, which is used to track changes, incidents,

and solution requests. Service provided by IBM continues to degrade and is hampering the ability of the TWDB to work efficiently.

Purchasing, contracts, and payments are all manual processes that involve physical file distribution to complete assignments. The implementation of systems to electronically route documentation could improve program efficiency and reduce the risk of lost documentation or delayed routing of assignments.

Opportunities

The critical nature of the TWDB's mission will always require a qualified and well-trained workforce. This need will always create both obstacles and opportunities for the HR division in terms of recruitment and retention. It is important for the TWDB to continue its partnerships with colleges and universities to develop courses and curriculums based on water resource technologies.

RMS seeks to use new technology tools to manage electronic records. One such tool is content management software that may provide records retention capabilities. RMS is dedicated to raising the awareness and knowledge of records management concepts and principles and will provide or enable training designed to raise the agency's level of awareness with the goal of institutionalizing the records program. Through the creation of policies, procedures, and best practices that are widely disseminated throughout the agency, RMS can achieve its goal and provide a continuing and active program.

Through the use of business process analysis and redesign, the agency strives for a less paper intensive environment. The section is also working to create file plans for both paper and electronic records using standardized metadata and taxonomies.

There is an increasing number of free workshops, trainings, and meetings, including Public Electronic Services On-the-Internet (PESO), Knowbility, and several others to improve Web site usability and accessibility. Web administration is taking full advantage of this new opportunity.

To address the many requests for editing assistance, the publications department has recently

begun using contract editors. This opportunity expands the number of publications the agency is able to produce.

The implementation of TxWISE to incorporate the functions of the Contract Administration system is the prime opportunity for improvement. Data formats will be consistent with those of other programs. We are also encouraged by the prospect that the system may be able to capture and upload electronic documents to reside with the data.

Coordination

The HR division maintains close contact with local, state, and federal entities through membership and participation in various groups and organizations such as the Society for Human Resource Management, Texas State Human Resources Association, Austin Human Resource Management Association, and several others.

RMS will work with the Texas State Library and Archives Commission staff on a periodic basis to keep abreast of current changes in state law. Staff will also attend National Archives and Records Administration seminars to keep up to date on national trends and best practices.

Web administration works with accessibility coordination group, IT, leadership, Web teams, and content providers, as well as DIR, Knowbility, and staff from various state agencies through PESO. The communication has been a huge success since Web administration has the established communication system.

The publications department works with state printers to produce materials and distributes all publications to the state library. In addition, the department frequently calls staff members in other agencies for their opinions when troubleshooting or problem-solving publication issues.

The TxWISE project, which involves consolidating data from various agency data systems into one application, is in part funded with federal funds from the EPA. In addition to the federal funding, the TWDB uses an EPA national consultant from Northbridge Consulting for developing and deploying this new data management information system. Also, because the EPA consultant has

deployed systems of this type in other states, project management staff members have the opportunity to network with government staff in other states such as California, Arizona, New Mexico, and Louisiana to share information.

Support Services and Contract Administration (SSCA) works very closely with external stakeholders to ensure we are meeting program expectations. State and federal regulations and rules are key drivers that compel SSCA to remain connected with agencies such as the Legislative Budget Board, Texas Comptroller of Public Accounts, FEMA, and EPA, among others. SSCA business requirements call for tailored communications with federal, county, and municipal partners. The ability to track documentation is a core element in remaining connected.

Key Resources

Currently the HR division does not have a Human Resources Information System (HRIS). As a result, most processes and schedules are tracked manually or through Access databases or Excel spreadsheets. HR is working with the IT division to develop an in-house HRIS. The estimated pilot date for the project is mid-summer 2010.

RMS has taken advantage of the agency's human capital by instituting a coordinated approach to managing agency records by assigning division-level records liaisons. These staff members will assist RMS by attending training, providing consulting and guidance to staff, and preparing file plans and disposition forms.

The agency's top management has realized a need to better manage its information. This effort is necessary in order to institute a successful records management program. Agency leadership is committed to sponsoring and supporting RMS activities. To achieve agency-wide management of all information resources, IT support is needed. RMS has that support.

Hiring one FTE last year is a big improvement for Web administration to provide Web-related service to the agency and the public. Other key resources, which may be available, are a search engine appliance and content management system.

A key resource that could help the agency with its publication needs would be the addition of an upgraded laser printer/copier. We have investigated printers that would allow us to print, copy, and fold more materials in house.

The IT division consists of 24 FTEs and 3 consultants. The project management section has eight project managers and systems analysts; the applications services section has seven developers and database administrators; and the infrastructure and help desk section has six resources.

Key resources on which SSCA depends to carry out its mission include

- The Contract Administration System
- TWDB Purchasing Database
- Texas Water Information System Expansion (TxWISE)
- Document scanning technology and adequate network/server allocation to store electronic documents
- Texas Fleet System
- Inventory Database

Water Resources Planning and Information

Introduction

Water Resources Planning and Information (WRPI) consists of three divisions:

- Water Resources Planning
- Flood Mitigation Planning
- Texas Natural Resources Information System

Water Resources Planning (WRP)

- Supports the development of the 16 regional water plans
- Prepares the state water plan, a comprehensive guide to the state's water resources, every five years
- Develops projections of population and water demand for each of the state's water user groups, including municipal, industrial, and agricultural water uses
- Works with state, federal, and local partners to implement water management strategies recommended in the planning process

- Compiles annual municipal and industrial water use data and information regarding water sales and purchases among users and suppliers
- Develops estimates of agricultural water use

Flood Mitigation Planning (FMP)

- Serves as the liaison between the federal component of the NFIP and local communities, providing community assistance and training
- Manages the state flood protection planning grant program and the federal Flood Mitigation Assistance and Severe Repetitive Loss grant programs.

Texas Natural Resources Information System (TNRIS)

- Serves as the state clearinghouse for geographic information, including socioeconomic and emergency management-related data
- Maintains authoritative sources of geographic data that serve as the universal base map for managing the state's resources
- Provides a source for public access to historical and current maps, photography, and data

Effectiveness and Efficiency

WRP has continued to receive recognition as one of the leading water planning organizations in the nation. The FMP division draws its authority specifically from 44 Code of Federal Regulations (CFR) §60.25, Designation, duties, and responsibilities of State Coordinating Agencies. In addition FMP adheres to 44 Code of Federal Regulations (CFR) Sections §59.1–§78.14 and Texas Water Code 16.311–16.319 to help encourage and guide community participation in the NFIP within Texas.

FMP has six staff in field offices in the state of Texas. Since 2007 (when the TWDB assumed administration of the program), FMP staff members have conducted 68 community assistance visits, more than 1,000 community assistance contacts, and 53 training workshops pursuant to the NFIP. Additionally, the grants department has distributed

the following:

- Total funding for Flood Mitigation Assistance Project Grants from 1998 through 2009: \$40,935,750
- Total funding for Severe Repetitive Loss Project Grants from 2008 through 2009: \$28,676,035
- Total Flood Protection Planning grant funding by the TWDB from 1987 through 2009: 104 grants totaling \$15.5 million in awards.

Recognizing the importance of having highly trained individuals to be able to effectively assist in implementing the NFIP in Texas, all staff members are nationally certified floodplain managers. In addition, Texas has received recognition as the only state within the nation to implement a program that maintains a dedicated staff for each of six predefined service areas within the state. The combination of the Community Assistance Program–State Support Services Element grant (CAP-SSSE) and state appropriations has made Texas one of the most successful state coordinating programs within the nation. Compared with other states within our region, we have, on average, successfully outperformed every state in conducting community assistance contacts, community assistance visits, general technical assistance, workshops, and ordinance reviews.

TNRIS has met its legal requirements through administration of programs, contract management, and fulfillment of its mission to serve the state's needs for efficient and coordinated acquisition, development, and dissemination of geographic data and related technology resources. TNRIS's statute provides for service to government agencies and the public. This charge has created a universally accessible and transparent resource for meeting the needs of critical populations. The program has received several awards and recognition over the course of its development. Texas has been a national leader in the adoption of advanced geographic data technologies and a strong and consistent funding partner with federal mapping programs. TNRIS has consistently met targets for its performance measures in acquiring data and serving the needs of the public for training and access to key data resources.

TNRIS and the state in general compare favorably with other states. The primary emphasis has been

to improve accessibility for online geographic data resources. Texas can be considered a leading state because all TNRIS data are provided for free access through Internet download.

Key Obstacles

WRP seeks to continuously improve the effective planning and management of the state's current and future water supplies by providing reliable, comprehensive, and current data regarding all aspects of historical and projected water use and availability in Texas. The division continues a major initiative to significantly improve the collection and dissemination of water data by developing Internet applications that will greatly facilitate the availability and exchange of water resources data in Texas. To achieve this goal, WRP needs to acquire and maintain employees with technical expertise to focus on developing, implementing, improving, and maintaining the TWDB's water resources planning data interfaces.

Federal authorization for the NFIP has been extended by continuing resolutions since March 2010. On April 16, 2010, Congress passed and the President signed H.R. 4851, which extends the NFIP through May 31, 2010.

TNRIS has been unable to increase its information technology infrastructure capacity to serve its stakeholders because of delays in deployment of Data Center Services (DCS). In addition, the original contract did not allow for specialized geospatial data technologies that are large-scale, high-intensity services. TNRIS's mission includes dissemination of and accessibility to mission-critical geographic data that should include multiple venues and means to acquire and use data. Multiple data services are available commercially, in addition to unused capacity at universities. These options represent opportunities to provide reliable and flexible access to data but are currently unavailable for consideration in the state computing services strategy.

The lack of authority to leverage commercial and university resources for maximum benefit is an obstacle. The DCS contract effectively limits the ability of TNRIS to seek the best value for the state in developing and managing large-scale data resources.

Opportunities

WRP provides technical support to the Water Conservation Advisory Council. The continuing emphasis on conservation of the state's water resources may lead to the need to develop revised and improved measures of water use to better track the efficiency of conservation initiatives. Efforts to measure the rate of implementation of conservation strategies included in regional water plans will also require increased attention.

The TWDB has received authority from the Council on Competitive Government to manage the acquisition of High Priority Imagery and Data Sets (HPIDS) for the state. This purchasing authority provides an efficient means for any public entity in Texas to access a qualified pool of commercial data providers for competitive pricing of key data. This program has the potential to unify technical and budgetary processes to achieve significant saving for the state and promotes interoperability across municipal, regional, and state services.

Not all data in Texas are freely accessible to the public. Two large metropolitan areas have adopted licensing arrangements for local participation in data collection programs. This policy effectively limits public access to data and is based on historical requirements to secure funds in advance of aerial imagery and elevation data collections. Oftentimes these projects have significant contributions from state or local entities that represent a large majority of contributed funds (80 percent), yet the local managing entity constrains access to create incentives for small community participation.

Common association of maps and data is now prevalent. The expectations for current and reliable maps and data are expanding, creating an opportunity to relate the value of state programs that coordinate and combine funding with systems that provide greater access to data.

Coordination

WRP works extensively with other state agencies and local government representatives in coordinating the regional water planning program and supporting the Water Conservation Advisory Council. Coordination is provided through the

Texas Geographic Information Council (TGIC) and TNRIS management of StratMap and the recently implemented HPIDS purchasing program. TGIC provides for state agency coordination and cooperation to attract multiple funding sources for statewide data collection projects.

As FMP staff in the field offices interact with communities, new methods are often introduced and therefore benchmarked for future use. Staff bring back new ideas and inform their peers of what they learned. Additionally, the staff meet in Austin on a quarterly basis, during which new thoughts and ideas are shared, discussed, adopted, or discarded. The overall goal is to improve ourselves, thereby improving the communities with whom we work. The division works very closely with FEMA in administering the NFIP and the Flood Mitigation Assistance and Severe Repetitive Loss programs. FEMA administers these programs at the national level, and the TWDB serves as the state coordinator, providing services, awarding funds, and managing contracts with communities in Texas.

FMP also coordinates with the Texas Floodplain Management Association (TFMA), a state-accredited chapter of the Association of State Floodplain Managers (ASFPM). TFMA is a professional organization of those involved in floodplain management, flood hazard mitigation, NFIP, flood preparedness, and warning and disaster recovery within Texas. The organization certifies professional floodplain managers and provides educational opportunities and professional skills to the state's floodplain management professionals. The division also coordinates with the ASFPM, a national professional organization involved in similar activities.

FMP works closely with the Governor's Division of Emergency Management, an agency charged with carrying out a comprehensive all-hazard emergency management program for the state and for assisting cities, counties, and state agencies in planning and implementing their emergency management programs.

The Community Assistance Program—State Support Services Element (CAP-SSSE) has semiannual meetings at FEMA, along with other

states in Region VI, to learn about and share best practices and new ideas, as well as new regulations. The HPIDS program contract has already demonstrated a new and effective means for local government to partner with the state to realize savings and efficiency in acquiring local data that are interoperable with state and federal systems. Coordination is based on unified technical standards, program cycles, and universal data priorities.

TNRIS attends technical meetings of the Texas Federal Geographic Information Working Group to provide regular updates with federal agencies. TNRIS also works closely with the USGS state liaison to pursue funding for common projects.

TNRIS is pursuing greater involvement in national geographic data issues through membership in the National States Geographic Information Council. This group promotes national programs and recommends coordination across federal agencies to the benefit of individual states. This group is the leading voice of the states to the federal government and can serve a key role in advocating for federal budgetary and programmatic benefits to Texas.

Key Resources

A technology revolution in widely distributed, large-scale data storage environments called “cloud services,” or just “the cloud,” offers a new model of large-scale data management for intensive services such as geographic data. Adopting a model that would allow the use of these services provides significant opportunities for greater use and realized value for data. Commercial cloud services are able to provide redundant and remotely hosted capacity at fractions of current state-contracted and -managed services. Some private data hosting service providers have proposed arrangements whereby costs of service could be discounted for special or premium access to data and would allow a greater service capacity to reach a global user base.

The total available capital for mapping of statewide data resources is currently \$1.5 million annually. The state has historically achieved matching funds of three federal dollars to each dollar of state-allocated capital. The data products acquired with these funds are publicly accessible and represent a key advantage

for government and private users to use these data without cost or time delays.

Recent studies in other states have indicated that a 30:1 return on investment has been achieved when all direct and indirect impacts are considered for the benefit of immediate access to current and reliable data for planning, engineering, and decision making.

It is evident that these funds provide multiple direct benefits to Texas. The capital receives matching funds to lower the unit cost of products and increases the area of coverage. Additional funding can increase the “refresh” cycle of key data such as aerial imagery, making it more current and enhancing its value.

Deployment of Internet mapping systems represents another significant benefit to accessibility and utility of geographic data. Historically, these data required expensive computing systems and software, along with highly specialized knowledge and experience. This investment of resources was manageable for large municipal and regional governments but was out of reach of local and rural governments. Recent deployments have demonstrated that all of the specialized requirements are eliminated and local data can now be added or displayed on the Internet map service at no cost to local government. These scarce local funds can now be better directed to acquiring better data or other programs.

Water Science and Conservation

Introduction

Water Science and Conservation (WSC) is divided into the following departments:

- Surface Water Resources
- Groundwater Resources
- Conservation
- Innovative Water Technologies

Surface Water Resources

- Monitors the state’s surface water resources
- Researches and evaluates instream flows and flow requirements into the state’s bays and estuaries
- Supports the environmental flows process
- Runs water availability models to support

water planning

- Measures sedimentation rates in reservoirs

Groundwater Resources

- Monitors the state's groundwater resources
- Develops and runs groundwater availability models
- Provides technical assistance to citizens, cities, groundwater conservation districts, and regional water planning groups
- Researches groundwater resources
- Supports the joint planning process in groundwater management areas

Conservation

- Develops and distributes literature on water conservation
- Estimates agricultural water use
- Administers agricultural water conservation demonstration projects
- Reviews water conservation plans and water loss audits
- Provides technical assistance on water conservation

Innovative Water Technologies

- Researches and promotes new methods for enhancing the state's water resources, including seawater and groundwater desalination, rainwater harvesting, water reuse, and aquifer storage and recovery

The WSC program area is charged with providing technical assistance and information to various internal and external customers. WSC's nationally and internationally recognized efforts directly implement statute and legislative priorities.

Effectiveness and Efficiency

WSC has been effective and efficient in meeting its required duties. We are focused on meeting our legislative requirements on data collection, technical assistance, model development, and program implementation. Our efforts have been recognized by national and international entities. For example, the National Ground Water Association recognized

our numerical groundwater modeling program with a technology award, and Global Water Intelligence recognized our efforts in desalination.

As part of our internal strategic planning, each section in WSC holds a retreat and conducts an analysis of strengths, weaknesses, opportunities, and threats. On the basis of this analysis, staff identify which initiatives to improve processes and products can be undertaken in the ensuing year. In addition to this analysis, staff stay abreast of scientific literature, technology, and activities of other state and federal agencies to ensure we are doing the best we can. This benchmarking is built into this strategic analysis.

To promote efficiency, WSC use work process documents, meeting reports, analysis papers, teams, stakeholder processes, Web sites, and agency publications. Work process documents detail standard procedures for tasks to ensure consistency among staff members for frequently repeated tasks or to document infrequently completed tasks to retain institutional knowledge. A key ingredient for efficiency is effective communication. A tool WSC uses to promote internal communication is meeting reports—reports that document what occurred and any action items at internal and external meetings. We use our Web sites and agency newsletters to push information and data out to our customers. We always reach out to stakeholders and customers for input on how and what we are doing to build improvement into our services and products.

Agency Characteristics Requiring Improvement

Results of our Survey of Employee Engagement indicate the agency could improve in the areas of pay, information systems, and internal communication issues. In WSC, the Groundwater Resources and Conservation divisions need to make improvements in management (being accessible, visible, and an effective communicator of information) and in providing constructive feedback to employees to improve their performance.

Opportunities

One opportunity WSC has is to leverage state resources to the maximum extent possible. To leverage resources with federal resources, WSC monitors a variety of activities at the federal level and works closely with the Texas congressional delegation and federal agencies on all water-related issues and policy. Our involvement in federal issues has given us a greater presence on Capitol Hill and strengthened partnerships with federal agencies. Unfortunately, as we increase our ability to secure federal funding and legislative provisions, the federal government is experiencing funding shortfalls equivalent to those at the state level. As a result of the shortfalls, Congress is reducing budgets, as well as shifting certain tasks to state and local governments.

Coordination

In addition to coordinating activities internally, WSC works closely with our customers, sister agencies, universities, and federal agencies to coordinate our activities. For surface water, we coordinate with the TCEQ, TPWD, USGS, Environmental Flows Science Advisory Committee, river authorities, and the Corps of Engineers, among others, to coordinate research studies and data collection. For groundwater, we work with the TCEQ, USGS, Natural Resources Conservation Service, groundwater conservation districts, regional water planning groups, Texas Groundwater Protection Committee, stakeholder advisory forums, and the Corps of Engineers, among others.

For water conservation activities, we coordinate with the Water Conservation Advisory Council, Natural Resources Conservation Service, various water suppliers, and TCEQ, among others. For innovative water technologies, we coordinate activities with TCEQ Bureau of Reclamation, South Central Membrane Association, and Water Reuse Foundation, among others.

Key Resources

People and technology are our key resources. We have been fortunate that the legislature has supported our programs, especially in groundwater with the implementation of joint planning in groundwater

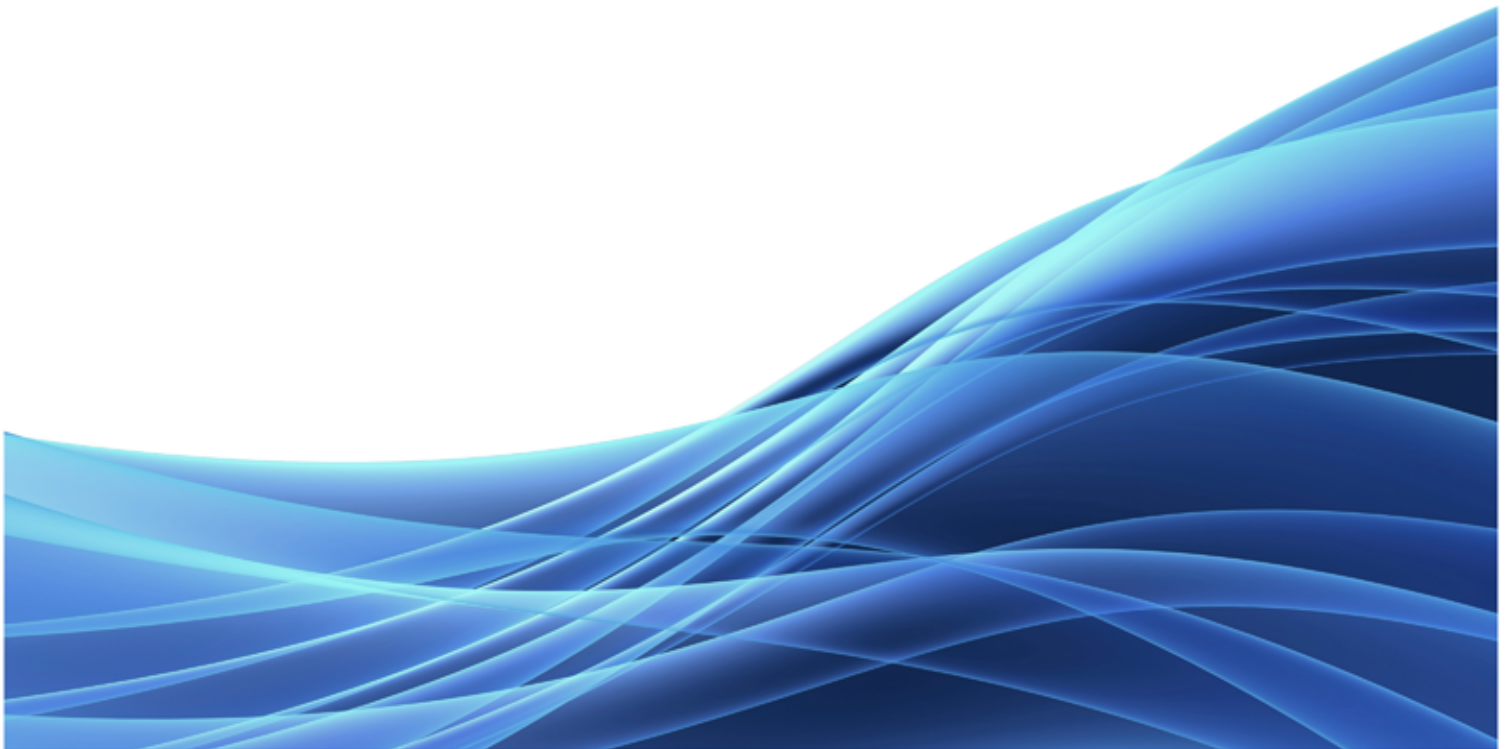
management areas but also with continued support for conservation, environmental flows, and brackish groundwater desalination.

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Agency Goals

Objectives and Outcome Measures

*Strategies and Output, Efficiency,
and Explanatory Measures*



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Agency Goals and Strategies

Agency Goal 1	Water Resources Planning
<i>Plan and guide the conservation, orderly and cost-effective development, and best management of the state's water resources for the benefit of all Texans.</i>	
First Objective	Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources projects.
<i>Outcome Measures</i>	1. Percent of information available to adequately monitor the state's water supplies
Strategy	Collect, receive, analyze, process, and facilitate access to basic data and summary information concerning water necessary to support a sound ecological environment in the state's streams, rivers, bays, and estuaries
<i>Output Measures</i>	1. Number of bay, estuary, and instream study elements completed.
Strategy	Collect, receive, analyze, process, and facilitate access to basic data and summary information to support planning, conservation, and responsible development of surface water and groundwater for Texas and studies to determine the quantity and quality of water available and environmental flow needs.
<i>Output Measures</i>	1. Number of data units collected/processed by TWDB staff.
Strategy	Operate statewide program to provide training and to produce, maintain, and disseminate public domain geographic data in support of the state's water planning programs and related activities.
<i>Output Measures</i>	<ol style="list-style-type: none"> 1. Number of person-hours in training classes and conferences sponsored by TNRIS. 2. Number of strategic mapping pool.
<i>Explanatory Measures</i>	1. Number of responses to requests for TNRIS-related information that are filled.
Second Objective	Conduct water planning and financial assistance activities to ensure adequate long-term water supplies, wastewater treatment, and flood protection.
<i>Outcome Measures</i>	1. Percent of key regional and statewide water planning activities completed.
Strategy	Conduct studies on surface water and groundwater resources; provide technical information and assistance to citizens, groundwater conservation districts, river authorities, water utilities, and regional water planning groups; and develop, maintain, and adapt surface water and groundwater availability models to support planning, conservation, and responsible development of water in Texas.
<i>Output Measures</i>	1. Number of responses to requests for water resources information that are filled.

Strategy	Assist in the development and implementation of regional and state water plans and of measures resulting in protection from floodwaters. Efforts include managing contracts and providing technical assistance to regional water planning groups and political subdivisions for 1) the preparation of regional water plans that are the foundation for the state water plan, 2) regional facility planning that initiates implementation of the state water plan, and 3) researching water resource problems and issues.
<i>Output Measures</i>	1. Number of active grants for regional water, wastewater, flood, and research studies funded from the Research and Planning Fund.

Third Objective	Provide eligible political subdivisions in Texas with technical and/or financial assistance for water conservation to support planning, conservation, and responsible development of water supplies to meet the future demands for water as identified in the regional and state water plans.
<i>Outcome Measures</i>	<ol style="list-style-type: none"> 1. Percent of communities receiving technical and/or financial assistance. 2. Percent of water saved with financial assistance.

Strategy	Provide water conservation information, data, and other technical assistance and services to promote increased water use efficiency in Texas through statewide water conservation activities and as included in the regional and state water plans
<i>Output Measures</i>	1. Number of responses to requests for water conservation information, literature, data, technical assistance, and educational activities provided by TWDB staff.

Fourth Objective	Administer the National Flood Insurance Program (NFIP).
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Strategy	Perform community assistance pursuant to NFIP.
<i>Output Measures</i>	1. Number of communities assisted through Community Assistance Contacts and Community Assistance Visits

Agency Goal 2	Water Project Financing
	<i>Provide cost-effective financing for the development of water supply for water quality protection and for other water-related projects.</i>

First Objective	Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.
<i>Outcome Measures</i>	<ol style="list-style-type: none"> 1. Dollars committed as a percent of total financial assistance dollars. 2. Dollars saved from TWDB assistance.

Strategy	Provide financial assistance through state and federal programs to save money for Texas communities for water supply, water quality protection, and other water-related projects.
<i>Output Measures</i>	<ol style="list-style-type: none"> 1. Number of state participation projects receiving financial assistance. 2. Dollars committed to projects to implement the state water plan. 3. Number of commitments to state water plan projects. 4. Number of financial assistance commitments made. 5. Number of commitments to small, rural, or disadvantaged community projects. 6. Total dollars of financial assistance committed. 7. Total dollars committed to small, rural, or disadvantaged community projects through agency programs targeting such communities. 8. Number of communities with active financial assistance agreements. 9. Number of construction contracts managed. 10. Number of non-EDAP financial assistance agreements closed/executed. 11. Number of new or updated water or wastewater facility needs.
<i>Explanatory Measures</i>	<ol style="list-style-type: none"> 1. Number receiving water or wastewater services from regional systems. 2. Dollars saved on water and wastewater services from regional systems. 3. Dollars of financial assistance made available.
<i>Efficiency Measures</i>	<ol style="list-style-type: none"> 1. Administrative cost per active financial assistance agreement. 2. Financial assistance dollars managed per full-time equivalent.
Strategy	Provide economically distressed areas access and connections to adequate water supply and/or wastewater treatment systems and/or indoor plumbing improvements.
<i>Output Measures</i>	<ol style="list-style-type: none"> 1. Number of economically distressed areas project loans and grants closed. 2. Number of economically distressed areas projects that have completed all construction. 3. Construction in progress for economically distressed areas projects.
<i>Explanatory Measures</i>	<ol style="list-style-type: none"> 1. Economically distressed area residents provided adequate water supplies or wastewater systems.
<i>Output Measure</i>	<ol style="list-style-type: none"> 1. Number of economically distressed areas projects that have complete non-construction activities in planning, acquisition or design.

Agency Goal 3**Indirect Administration**

Strategy

Central Administration

Strategy

Information Resources

Strategy

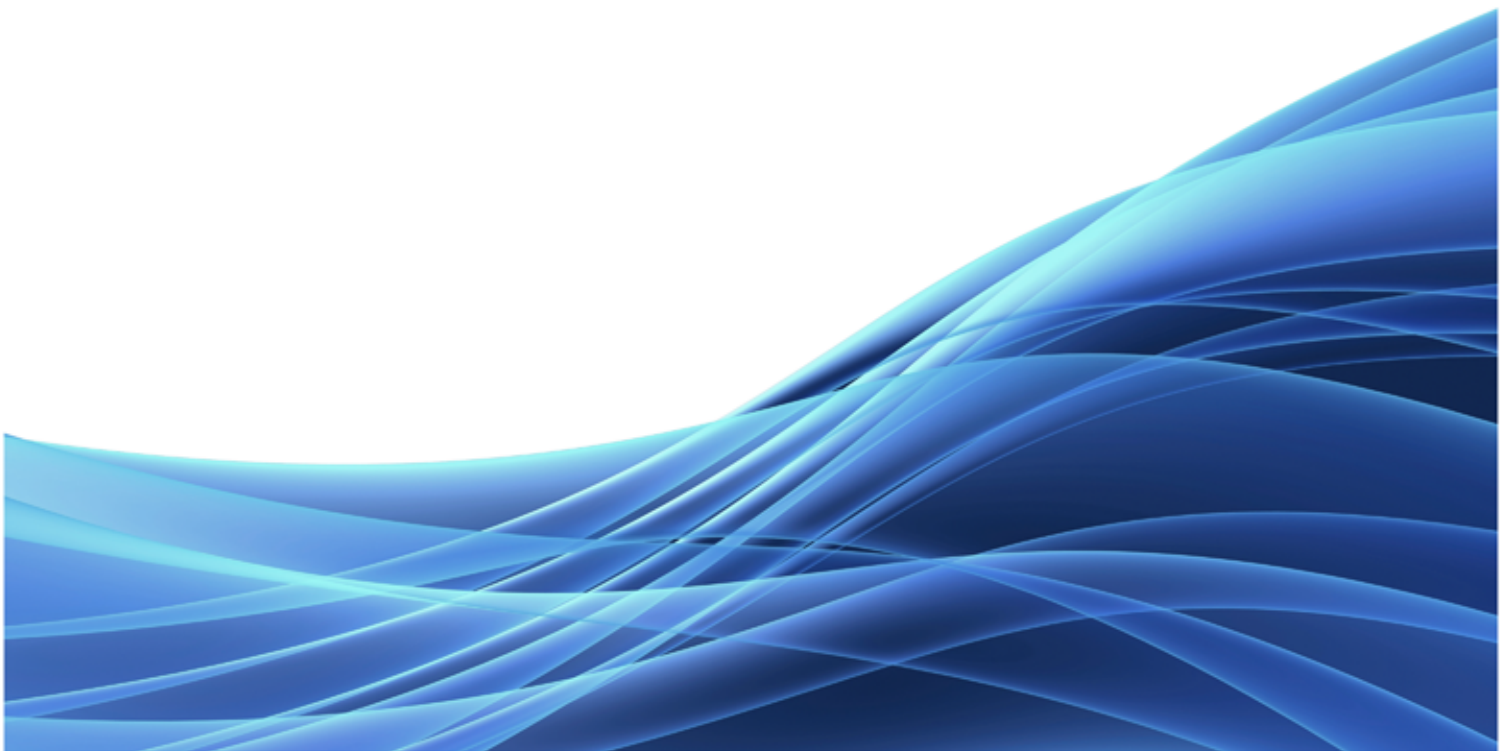
Other Support Services

Technology Resources Planning



Technology Assessment Summary

Technology Initiative Alignment



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Technology Resources Planning

Part 1: Technology Assessment Summary

Historical and Current Characteristics

AFFECTED POPULATIONS

The Texas Water Development Board (TWDB) has many planned initiatives that respond to the key factors that will affect the agency. These initiatives are centered on providing accurate and detailed information to the public, to our customers, and to our business partners.

The TWDB plans to strengthen and/or expand its capabilities through the initiatives described in Statewide Technology Goal 1 in the following ways:

Enhance Capabilities of the Shared Infrastructure

DATA CENTER SERVICES INFRASTRUCTURE

The TWDB is one of the 28 agencies under the Data Center Services (DCS) contract. IBM manages the TWDB's current Data Center. As of May 1, 2010, the TWDB has not yet started the transformation process. The TWDB met with staff from the Department of Information Resources (DIR) and IBM on April 7, 2010, to discuss the new "transformation application prioritization" process. The TWDB has experienced significant issues as part of being under the DCS contract and desires to become exempt from the contract.

The TWDB is working with IBM to plan for a firmware upgrade on the Storage Area Network (SAN). Significant pre-work required for the firmware upgrade is also being planned.

In addition, the TWDB is working with IBM to plan for the agency's move from the fourth floor to the newly renovated fifth floor of the Stephen F. Austin building during the fall of 2010. This relocation will require the movement of network equipment, but it will also require network accessibility over the fourth, fifth, and sixth floors for a two-week period.

COMMUNICATIONS TECHNOLOGY INFRASTRUCTURE

The TWDB utilizes the TEX-AN network communications services delivered by the DIR. TEX-AN provides an infrastructure that supports the needs of TWDB.

STATEWIDE PORTAL INFRASTRUCTURE

The TWDB does not currently utilize Texas.gov (previously TexasOnline) to provide Internet-based government services and information. There are currently no plans in place to utilize Texas.gov, but the TWDB will consider Texas.gov for future initiatives as appropriate.

Leverage Shared Applications

ENTERPRISE RESOURCE PLANNING (ERP)

The TWDB does not have a targeted date in which to begin the ERP effort led and hosted by the Office of the Comptroller of Public Accounts (CPA). Currently, the TWDB utilizes MIP accounting software by Sage, and an upgrade to this software is under way.

E-MAIL MESSAGING

The TWDB currently utilizes Novell's Groupwise e-mail as the agency standard. Because Groupwise 8.0 is not currently in the IBM "N/N-1" list for acceptable software, the TWDB has not been able to upgrade for quite some time. Because the TWDB would like to utilize key features included in Groupwise 8.0, the TWDB plans to initiate a dialog with DIR and IBM to pursue a strategy for moving forward with the upgrade to Groupwise 8.0.

Leverage the State's Purchasing Power PRODUCT AND SERVICES PORTFOLIO EXPANSION

The TWDB utilizes the ICT Cooperative contracts

program. This program results in an easy and quick procurement process.

The TWDB has many initiatives that are planned or under way that will strengthen and/or expand its capabilities that leverage enterprise or multi-agency services and infrastructure. Examples of these are below:

TXWISE

On November 1, 2009, the TWDB implemented a new loan and grant tracking system, TxWISE (Texas Water Information Systems Expansion). This application consolidated several applications within the agency and is used throughout. The TxWISE Phase 2 project has commenced and will consolidate two additional applications. The implementation date of Phase 2 is planned for September 2010.

WEB-REVITALIZATION

The Web-Revitalization project is currently in the planning phase. This project will redesign the look and feel, the menu structure, and content presentation of the agency's external Web site. This project will include a transition to a content management system and will be designed to meet accessibility requirements.

COASTAL GEODATABASE

The Coastal Geodatabase project is currently in the execution phase. This application will allow users to locate and access data from multiple data sources that are owned and controlled by multiple entities to include internal TWDB Bays and Estuaries data. It enables sharing of surface water data between multiple state, university, and federal entities through a standardized Web service.

TEXAS NATURAL RESOURCES INFORMATION SYSTEM (TNRIS) VIEWER GEOSPATIAL EMERGENCY MANAGEMENT SUPPORT SYSTEM (GEMSS)

The TNRIS Viewer Geospatial Emergency Management Support System (GEMSS) is a current project that provides an innovative Web-based solution for online mapping. The system has a unique user interface that makes it very easy for

nonprofessionals in geographic information systems (GIS) to use. This project is designed for multi-agency use and provides a mechanism for other state agencies to share geospatial information. It allows the TWDB to provide Emergency Management support to Texas Department of Emergency Management and Federal Emergency Management Agency relating to emergency events in Texas.

STATEWIDE AERIAL IMAGERY PROJECT

The statewide aerial imagery project is creating a new statewide aerial map for Texas. The images are acquired by airborne digital cameras and controlled by global positioning systems. Specialized processing removes optical distortions and assembles all of the images into a unified mapping coordinate system. This production process creates an image that has all of the utility of a map. This project works directly with other state agencies to leverage cost savings through the High Priority Imagery and Datasets (HPIDS) contract and provides a mechanism for shared data acquisition and development at a greatly reduced cost.

TEXAS HYDROLOGIC INFORMATION SYSTEM

Texas Hydrologic Information System (HIS) is an online system being developed by the TWDB and the Center for Research in Water Resources at The University of Texas at Austin. The goals of the Texas HIS are to provide the seamless identification and delivery of water data for Texas. This project works with other water agencies and universities to unify and access coastal water information in a common Web mapping environment.

AGENCY-WIDE CALENDARING SYSTEM

The agency-wide calendaring system will provide a single calendar of events for the agency with enhanced capabilities. This project will result in the reduction of the number of calendars the agency currently maintains and will provide staff with a single location to find up-to-date information.

The TWDB has implemented many of the strategies as noted in the State Enterprise Security Plan. The agency has a defined security program with a Security Officer. The TWDB security program has

- Implemented a set of security policies that have been approved by the Executive Administrator
- Developed a business continuity plan that has been approved by leadership
- Developed a “user awareness” program
- Implemented appropriate hardware to protect agency information resources.

Communication occurs regularly between the TWDB and DIR, providing security threat information and monthly security incident reports. The security program also utilizes many of the resources provided by DIR such as network vulnerability and penetration scans, review of TWDB’s security logs, destruction of data, group purchasing agreements, and DIR training, forums, seminars, and conferences.

Novell’s Identity Management application is in place at the TWDB, synchronizing accounts between multiple systems. Future plans include incorporating a one-stop onboarding/offboarding process for employees. The TWDB also has an Employee System Access procedure in place that requires staff to complete an “Employee System Access Request” form when requesting new system access.

The agency’s plans to expand or enhance access to its services and promote citizen engagement through online services and emerging technologies are as follows:

WEB-REVITALIZATION

The Web-Revitalization project is currently in the planning phase. This project will enhance access to the Web site and provide more access to information.

WATER INFORMATION INTEGRATION AND DISSEMINATION (WIID) REWRITE

This project is a rewrite of the GIS WIID components and is currently in the planning phase. The WIID Rewrite will allow the dissemination of a greater variety of data all in one location. External customers will be able to create custom reports and data downloads online. All public data stored in groundwater databases are available online. All water well information contained in the Groundwater

Database (GWDB) and Submitted Driller’s Report Database (SDRDB), including discrete water level and water quality data, along with entity information from the Groundwater Conservation District Database (GCDDDB), will be available using the Reporting Interface Program (RIP) application and the WIID application.

REGIONAL WATER PLANNING DATABASE REPORTING INTERFACE PROGRAM (RIP)

This project is an enhancement of the existing RIP application to incorporate Water Use Survey (WUS) reports. This project expands the access to information and promotes citizen engagement by centralizing data to one access point on the Web. Incorporating the WUS into the existing RIP application will enable quick and seamless dissemination of data to internal and external customers.

REGIONAL WATER PLANNING DATABASE AND APPLICATION (DB17) – 2017

The DB17 is a complete upgrade and redesign of the water planning database and application. The redesign of the planning database will allow for data to be transferred smoothly between it and the WUS database. Accordingly, the data entry application will be upgraded to create a more user-friendly tool, thereby reducing the amount of work required to complete planning data entry. This project facilitates access to agency information and public data by providing an improved method of gathering and reporting data through the Web. Moreover, redesign of the application will allow customers to input data much faster than the current application allows.

WEB-BASED PUBLIC COMMENT FORM FOR INTENDED USE PLANS (IUP)

This project includes the development of a Web-based public comment form for Clean Water & Drinking Water State Revolving Fund (CWSRF & DWSRF) Intended Use Plans (IUP). It creates a Web-based form to solicit suggestions, revisions, corrections, deletions, additions, criticisms, and questions during the 30-day public comment period on draft IUPs of the CWSRF and DWSRF. This comment form will provide the public with

an additional avenue to make comments on annual draft IUPs. Customers are increasingly interested in utilizing electronic communication instead of sending letters, making phone calls, or traveling to attend the public hearing.

GROUNDWATER AVAILABILITY MONITORING (GAM) LOOKUP

This project is currently in the planning phase and will allow the public to access information directly from the Web. The application will be used to search and find models related to specific projects. The application will produce Portable Document Format (PDF) reports to the public of groundwater model simulations.

Initiatives that the TWDB has planned or in process that will facilitate access to agency information and public data include:

HIGH SCHOOL WATER EDUCATION PROGRAM

This project will provide an educational program for Texas students through the Web. This project will provide students and teachers with information and educational resources for Texas water resources and water conservation. It will provide resources to citizens anytime, anywhere.

COASTAL GEODATABASE

The Coastal Geodatabase project will allow users to locate and access data from multiple data sources that are owned and controlled by multiple entities to include internal TWDB Bays and Estuaries data. It will allow the easy dissemination of TWDB Surface Water data to the public and to other entities.

TNRIS VIEWER GEOSPATIAL EMERGENCY MANAGEMENT SUPPORT SYSTEM (GEMSS)

The TNRIS Viewer Geospatial Emergency Management Support System (GEMSS) is a current project that provides an innovative Web-based solution for online mapping. It provides a free resource to allow any user (public or private) access to data and information through the Web.

STATEWIDE AERIAL IMAGERY PROJECT

The statewide aerial imagery project is creating a new statewide aerial map for Texas. The images are acquired by airborne digital cameras and controlled by global positioning systems. This imagery is placed in the public domain and made available for all users.

TEXAS HYDROLOGIC INFORMATION SYSTEM

Texas Hydrologic Information System (HIS) is an online system being developed by the TWDB and the Center for Research in Water Resources at The University of Texas at Austin. The goals of the Texas HIS are to provide the seamless identification and delivery of water data for Texas. This project provides a free resource to allow any user (public or private) access to data and information through the Web.

Agency plans to implement or enhance workplace productivity and to leverage collaboration tools include:

CONFLUENCE

The TNRIS team utilizes the Confluence collaboration software to work better together and to share information. The team uses it internally as well as externally. The two external entities also utilizing the TWDB Confluence software are Texas Environmental Research Stewards and the Commission on State Emergency Communications. The TWDB plans to extend the software to additional external entities as appropriate.

GROUPWISE INSTANT MESSAGING (IM)

The TWDB recently rolled out Groupwise IM for targeted staff to utilize. The quick question getting a quick response has resulted in time savings at TWDB. The TWDB plans to roll out the capability to additional internal staff.

WEB-REVITALIZATION

The Web-Revitalization project is currently in the planning phase. This project enhances access to the Web site and provides more access to information. This project will incorporate the use of a Web content management tool that will allow designated staff throughout the agency to post items to the Web.

AGENCY-WIDE CALENDARING SYSTEM

This project will result in the reduction of the number of calendars the TWDB currently maintains and will provide staff with a single location to find up-to-date information. It also provides for a single repository of agency events and meetings. This project has not yet started.

INFORMATION TECHNOLOGY PROJECT PRIORITY LIST

The TWDB is planning to implement a consistent and ongoing process between the Information Technology Program Management Office (PMO) and the TWDB leadership to prioritize and rank projects within the agency. Once projects are ranked, the list will be posted on the Intranet site to allow staff to view project status at anytime.

Agency strategies to develop and deploy applications more efficiently are:

.NET FRAMEWORK

The TWDB has developed a .NET development framework that provides developers a consistent methodology on how to develop Web applications. The TWDB is currently using Microsoft .NET version 3.5 technology for Web development and is planning to upgrade to .NET version 4.0 when available. The framework uses a basic three-tier architecture model: data layer, business layer, and Web or presentation layer. Some advantages are

- Allows developers to cross-train between Web applications faster and more easily
- Better code reuse with common libraries
- Easier to develop new Web applications
- Faster to develop future Web applications
- Provides consistent look and feel between applications
- Provides consistent structure between projects
- Get consistent look and feel for Web applications
- Single logon for all Web applications
- Audit trail for data entry actions add/update/delete
- Allows developer to focus more on business rules of application

PROJECT DELIVERY METHODOLOGY

The Information Technology Program Management Office is currently developing a project delivery methodology. The methodology will be based on the Project Management Institute (PMI) methodology and will include project phases and project deliverables. Also incorporated will be software deliverable lifecycle phases and deliverables.

Agency strategies to enhance information asset management practices include:

WEB-REVITALIZATION

The Web-Revitalization project will redesign the look and feel, the menu structure, and content presentation of the TWDB's external Web site. It will provide for better management of agency information than the current system, as well as an audit trail and increased security.

WATER INFORMATION INTEGRATION AND DISSEMINATION (WIID) REWRITE

This project is a rewrite of the GIS WIID components and is currently in the planning phase. The WIID Rewrite will allow the dissemination of a greater variety of data all in one location. Enhancements will provide the retention of historical data so that an audit trail of updates to the database is collected.

SHARED DRIVE CLEANUP AND STANDARDIZATION

The TWDB is preparing to initiate a project to review and analyze the shared drive for duplicate files, aged files, and files not considered "acceptable use." A standard "core" directory structure will be deployed, and record retention will be applied.

TXWISE

On November 1, 2009, the TWDB implemented a new loan and grant tracking system, TxWISE (Texas Water Information Systems Expansion). This application is used across the agency. Integration of TxWISE to the halFILE electronic document management system has been established. Scanned documents are attached to records within TxWISE.

HUMAN RESOURCES INFORMATION SYSTEM (HRIS)

This project is currently being initiated at the TWDB. This application provides a single repository for personnel information and lookup capabilities. It will consolidate 11 different data sources into a single database.

Many of the planned projects will enhance the use and sharing of information with agency business partners. These projects include, but are not limited to, the Coastal Geodatabase project, the Water Use Survey HalFILE project, the Reporting Interface Project, and the Regional Water Planning Database and Application (DB17) – 2017.

In addition, the TWDB Communications department sends information through a newsletter to business partners and business customers. This is a monthly publication.

Part 2: Technology Initiative Alignment

The table below depicts the format and mapping of the Texas Water Development Board's current and planned technology initiatives to the agency's business objectives.

Technology Initiative	Related Agency Objectives	Related SSP Strategies	Current or Planned	Anticipated Benefits	Innovation, Best Practice or Benchmarking
1. Transformation and consolidation of agency data center operations into the State Data Center.	All Objectives	1.1	Planned	Enterprise cost savings, increased disaster recovery, and more flexible growth; foundation for future operational improvements.	Best Practice
2. Revitalization of agency Web site.	All Objectives	3.2	Current	Improved user-friendly interface and navigation system; efficient content management and workflow; improved directory and file system; improved accessibility; consistent look and feel.	Best Practice
3. Redesign of Water Information, Integration and Dissemination geographic information systems components and supporting applications and databases.	Objective 1.1: Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources.	3.2 4.4	Current	Enhance groundwater data dissemination to TWDB customers.	Incorporates Innovation, Best Practice, and Benchmarking

<p>4. Convert the Water Loss Audit application to new TWDB framework, enhance application to allow multiple years' data entry, update survey questions, and improve security for the application.</p>	<p>Objective 1.3: Provide eligible political subdivisions in Texas with technical and/or financial assistance for water conservation to support planning, conservation, and responsible development of water supplies to meet the future demands for water as identified in the regional and state water plans.</p>	<p>2.2 4.4</p>	<p>Current</p>	<p>More complete compliance of data entry by utilities; improved ability of TWDB staff to access data.</p>	
<p>5. Update the Desalination Database that contains data of the full-scale desalination plants of Texas.</p>	<p>Objective 1.2: Conduct water planning and financial assistance activities to ensure adequate long-term water supplies, wastewater treatment, and flood protection.</p>	<p>3.2</p>	<p>Current</p>	<p>Provide key information on full-scale desalination plants located in Texas.</p>	<p>Best Practice</p>
<p>6. Create administrative tools for the user to update the desalination database.</p>	<p>Objective 1.2: Conduct water planning and financial assistance activities to ensure adequate long-term water supplies, wastewater treatment, and flood protection.</p>	<p>3.2</p>	<p>Planned</p>	<p>Provide key information on full-scale desalination plants located in Texas.</p>	<p>Best Practice</p>

<p>7. Redevelop existing Groundwater Availability Model Project - RUN (Look up) system used to search and find models related to specific projects to conform to current agency technical standards and to meet current business requirements.</p>	<p>Objective 1.1: Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources.</p>	<p>3.2 4.2</p>	<p>Planned</p>	<p>Easier access to model run simulations for Groundwater Conservation District Management plans and for joint planning purposes.</p>	<p>Best Practice</p>
<p>8. Develop a comprehensive database for the state-wide wastewater reuse programs and facilities.</p>	<p>Objective 1.2: Conduct water planning and financial assistance activities to ensure adequate long-term water supplies, wastewater treatment, and flood protection.</p>	<p>3.2</p>	<p>Planned</p>	<p>Advanced practice and implementation of wastewater reuse at the local, regional, and state level.</p>	<p>Best Practice</p>
<p>9. Develop a Web-based Educational Program for Texas students.</p>	<p>All Objectives</p>	<p>3.1 3.2</p>	<p>Current</p>	<p>Provide students and teachers information and educational resources for Texas water resources and water conservation.</p>	<p>National Science Digital Library Web development, accessibility and metadata guidelines.</p>

<p>10. Develop an application that will allow users to locate and access data from multiple data sources that are owned and controlled by multiple entities to include internal TWDB Bays and Estuaries data.</p>	<p>Objective 1.1: Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources.</p>	<p>3.2 4.4</p>	<p>Current</p>	<p>Allows easy dissemination of TWDB Surface Water Data to the public and other entities. Enables easy retrieval and use of Surface Water data from other entities that are needed by projects and programs in the Surface Water Division.</p>	
<p>11. Redevelop existing Ground Water Availability Model User registration form to conform to current agency technical standard and to meet current business requirements.</p>	<p>Objective 1.1: Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources.</p>	<p>3.2 4.2</p>	<p>Planned</p>	<p>More participation from public, additional resources for information.</p>	<p>Best Practice</p>

<p>12. Create Web interactive tools for the users of the water reuse database.</p>	<p>Objective 1.3: Provide eligible political subdivisions in Texas with technical and/or financial assistance for water conservation to support planning, conservation, and responsible development of water supplies to meet the future demands for water as identified in the regional and state water plans.</p>	<p>3.1 3.2</p>	<p>Planned</p>	<p>Provide information on water reuse program of the state.</p>	<p>Best Practice</p>
<p>13. Design new relational Water Use Survey database and application with administrative tools.</p>	<p>Objective 1.3: Provide eligible political subdivisions in Texas with technical and/or financial assistance for water conservation to support planning, conservation, and responsible development of water supplies to meet the future demands for water as identified in the regional and state water plans.</p>	<p>3.1 3.2</p>	<p>Current</p>	<p>Provide a more useful and standardized way to store historical data; allow entities to submit information online and provide historical information. Allow quicker turnaround in displaying water use data on the Web.</p>	

<p>14. Increase capabilities of existing system to incorporate the ability to view Water User Survey documents through a Web interface.</p>	<p>Objective 1.3: Provide eligible political subdivisions in Texas with technical and/ or financial assistance for water conservation to support planning, conservation, and responsible development of water supplies to meet the future demands for water as identified in the regional and state water plans.</p>	<p>3.3 4.2</p>	<p>Current</p>	<p>Improved access to surveys and historical records; reduced staff time to locate surveys and historical records.</p>	<p>Best Practice of reducing storage of hard-copy files</p>
<p>15. Increase capabilities of existing Reporting Interface Program application to incorporate 2007 and 2012 Regional Water Planning reports as a stand-alone application.</p>	<p>Objective 1.2: Conduct water planning and financial assistance activities to ensure adequate long-term water supplies, wastewater treatment, and flood protection.</p>	<p>3.2 4.2</p>	<p>Current</p>	<p>Enable quick and seamless dissemination of data to internal and external customers with limited demand on agency resources.</p>	<p>Innovation</p>
<p>16. Redevelop existing Regional Water Planning Groups Membership Information system.</p>	<p>Objective 1.2: Conduct water planning and financial assistance activities to ensure adequate long-term water supplies, wastewater treatment, and flood protection.</p>	<p>2.2 3.2 4.2</p>	<p>Current</p>	<p>Improved usability, maintenance, and security.</p>	<p>Innovation</p>

<p>17. Develop a Web-based map user interface and analysis tool, utilizing Microsoft Virtual Earth, Generalized Environmental Modeling System for Surface Water and utilizing Open Geospatial Consortium standards.</p>	<p>Objective 1.1: Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources.</p>	<p>3.1 3.2 4.4</p>	<p>Current</p>	<p>Provide Emergency Management support to the Texas Division of Emergency Management (TDEM) and the Federal Emergency Management Agency (FEMA) relating to emergency events in Texas. Provide a common viewer to visualize data from various sources on the Web.</p>	<p>Innovation</p>
<p>18. Create a new statewide aerial map for Texas.</p>	<p>Objective 1.1: Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources.</p>	<p>3.1 3.2 4.4</p>	<p>Current</p>	<p>Provide updated statewide base imagery to use in environmental projects for all state agencies and private entities. Data are used in both emergency management scenarios and for spatial reference for other spatial data and mapping updates.</p>	<p>Innovation</p>

<p>19. Collaboratively develop an online Texas Hydrologic Information System to provide the seamless identification and delivery of water data for Texas.</p>	<p>Objective 1.1: Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources.</p>	<p>3.1 3.2 4.4</p>	<p>Current</p>	<p>Provide Web mapping access to coastal geodatabase information for use by resources outside TWDB. Provide ability to tap into time series information.</p>	<p>Innovation</p>
<p>20. Upgrade and redesign the existing Regional Water Planning Database and Application.</p>	<p>Objective 1.2: Conduct water planning and financial assistance activities to ensure adequate long-term water supplies, wastewater treatment, and flood protection.</p>	<p>2.2 3.2 4.2</p>	<p>Planned</p>	<p>Increased security, usability, and maintenance.</p>	<p>Best Practice</p>

<p>21. Create Web-based form (text box) to solicit suggestions, revisions, corrections, deletions, additions, criticisms, and questions during 30-day public comment period on draft Individual Use Plan of the Clean Water and Drinking Water State Revolving Funds.</p>	<p>Objective 2.1: Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.</p>	<p>3.2</p>	<p>Current</p>	<p>Increased opportunity for customers to provide comments from throughout the state.</p>	
<p>22. Integrate Inspection and Field Support System (IFSS) and Contract Administration System (CAS) into agency Loan and Grant Tracking application (TxWISE Phase 2).</p>	<p>Objective 2.1: Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.</p>	<p>3.2</p>	<p>Current</p>	<p>Consolidation approach allows decommissioning of legacy applications into current Loan and Grant Tracking application.</p>	

<p>23. Develop a Web-based application to replace agency's client-server Loan and Grant Tracking Application (TxWISE Phase 3).</p>	<p>Objective 2.1: Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.</p>	<p>3.2</p>	<p>Planned</p>	<p>Comprehensive list of forms, guidelines, and other information necessary for an administratively complete application available in a single location. Improved user-friendly forms with text boxes for narratives, check boxes, and hyper-linked documents.</p>	
<p>24. Modify external display and reporting to utilize TxWISE data rather than Facility Needs Management Information System (FNMIS) data (Wiidtabular).</p>	<p>Objective 2.1: Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.</p>	<p>3.2</p>	<p>Current</p>	<p>Utilize data from TxWISE instead of data from FNMIS for display and reporting; will allow the decommissioning of FNMIS application.</p>	
<p>25. Develop an application for Tech Assist (TA) and Literature Distribution Information (LDI) (Non-Core TxWISE).</p>	<p>Objective 2.1: Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.</p>	<p>3.2</p>	<p>Planned</p>	<p>Migrate Informix data from legacy FNMIS to new platform; will decommission FNMIS application and associated server.</p>	

<p>26. Create Web-based form (text box) to solicit suggestions, revisions, corrections, deletions, additions, criticisms, and questions during 30-day public comment period on draft Intended Use Plan (IUP) of the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF).</p>	<p>Objective 2.1: Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.</p>	<p>3.2</p>	<p>Current</p>	<p>Provides customers an additional avenue to make comments on annual draft IUP. Customers are increasingly interested in using electronic communication instead of sending letters, making phone calls, or traveling to attend the public hearing.</p>	
<p>27. Comprehensive revision to the State Revolving Fund (SRF) Web site to reflect program and rule changes.</p>	<p>Objective 2.1: Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.</p>	<p>3.2</p>	<p>Planned</p>	<p>Comprehensive list of forms, guidelines, and other information necessary for an administratively complete application available in a single location. Most forms will be Word-based documents with text boxes for narratives, check boxes, and hyper-linked documents.</p>	

<p>28. Develop an administrative tool to sort and update a database of Project Finance and Construction Assistance Procedures.</p>	<p>Objective 2.1: Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.</p>	<p>3.2</p>	<p>Planned</p>	<p>Provide rapid sorting and retrieval of any Project Finance and Construction Assistance as well as other agency staff, guidance manuals, forms, procedures and frequently used documents. Improved access to data and reduced network storage thereby improving consistency and ensuring internal and external customers are receiving the most accurate and up-to-date information.</p>	<p>Best Practice</p>
<p>29. Develop a Human Resources Information System (HRIS) database incorporating data currently in 11 separate formats.</p>	<p>All Objectives</p>	<p>3.2 4.2</p>	<p>Current</p>	<p>Improved access to data, quicker response to customer inquiries.</p>	<p>Innovation</p>
<p>30. Develop a single agency online calendar to replace existing online calendars and provide enhanced capabilities.</p>	<p>All Objectives</p>	<p>3.2 4.2</p>	<p>Planned</p>	<p>Increased security, usability, and maintenance.</p>	<p>Best Practice</p>

<p>31. Develop Web Application owner's administration module and integrate into existing systems. Develop Information Technology's Administration Module and integrate into current application framework.</p>	<p>All Objectives</p>		<p>Planned</p>	<p>Improved security of applications; allows business area owners to assign access rights, and provides for a more current platform.</p>	<p>Best Practice</p>
<p>32. Upgrade to MS Access 2007 on agency computers.</p>	<p>All Objectives</p>	<p>3.2 4.2</p>	<p>Current</p>	<p>Provides a current and consistent platform throughout the agency.</p>	<p>Best Practice</p>
<p>33. Upgrade existing e-mail platform to more current version of Groupwise.</p>	<p>All Objectives</p>	<p>3.2 4.2</p>	<p>Planned</p>	<p>Provides for a current and more secure e-mail platform; allows features agency is paying for to be utilized.</p>	<p>Best Practice</p>
<p>34. Increase capabilities of existing Communication Tracking System.</p>	<p>All Objectives</p>	<p>3.2 4.2</p>	<p>Planned</p>	<p>Provides a record-keeping tool for all media that names the agency or from the agency.</p>	<p>Best Practice</p>

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Appendix

Description of Agency's Planning Process

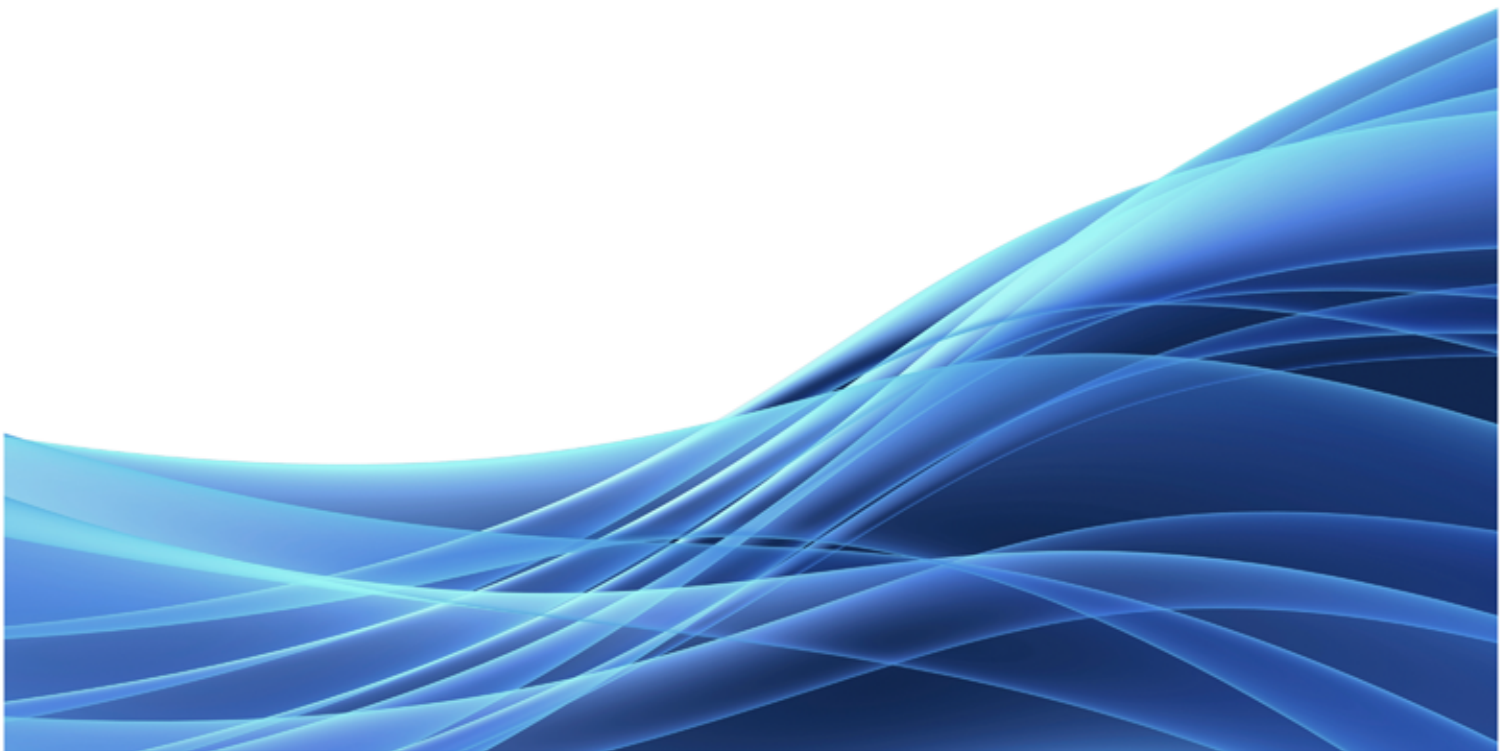
Current Organizational Chart

Five-Year Projections for Outcomes

Performance Measure Definitions

Workforce Plan

Survey of Employee Engagement



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Appendix A:

Description of Agency's Planning Process

The Texas Water Development Board's (TWDB's) 2011–2015 strategic planning process began with leadership meetings in the fall of 2009. The leadership team, consisting of the Executive Administrator, five Deputy Executive Administrators, the Chief Financial Officer, General Counsel, and the directors of Internal Audit, Governmental Relations, Policy Integration and Federal Coordination, and the American Recovery and Reinvestment Act Implementation, meet every Tuesday morning.

In those meetings, pieces of the Strategic Plan were brought in for review and approval. Leadership also used the meetings to decide how to pursue internal and external assessments, as well as to revisit the agency's mission and vision. The process was reviewed for new members of the leadership team at the beginning of the planning stages, and necessary future decisions were laid out for them, as well. Updates on the Strategic Plan were also given to TWDB directors and managers at Monthly Operations meetings and to staff at quarterly agency-wide meetings.

Leadership developed an in-depth survey and sent it to external stakeholders by e-mail to solicit appropriate feedback about each TWDB program area. Program areas chose stakeholders to whom to send the survey in order to receive input from citizens and entities familiar with the work of the TWDB.

Besides providing input on issues specific to each program area, respondents were asked to give their opinions regarding the following issues:

- List in priority order three external trends that will have the most impact on the TWDB over the next five years.
- List in priority order the three most important issues facing TWDB.
- What would you like to see TWDB doing that we currently are not?

Input from the external stakeholder survey, including comments, was distributed to the

leadership and used to develop program area self-evaluations, as well as policy and exceptional items.

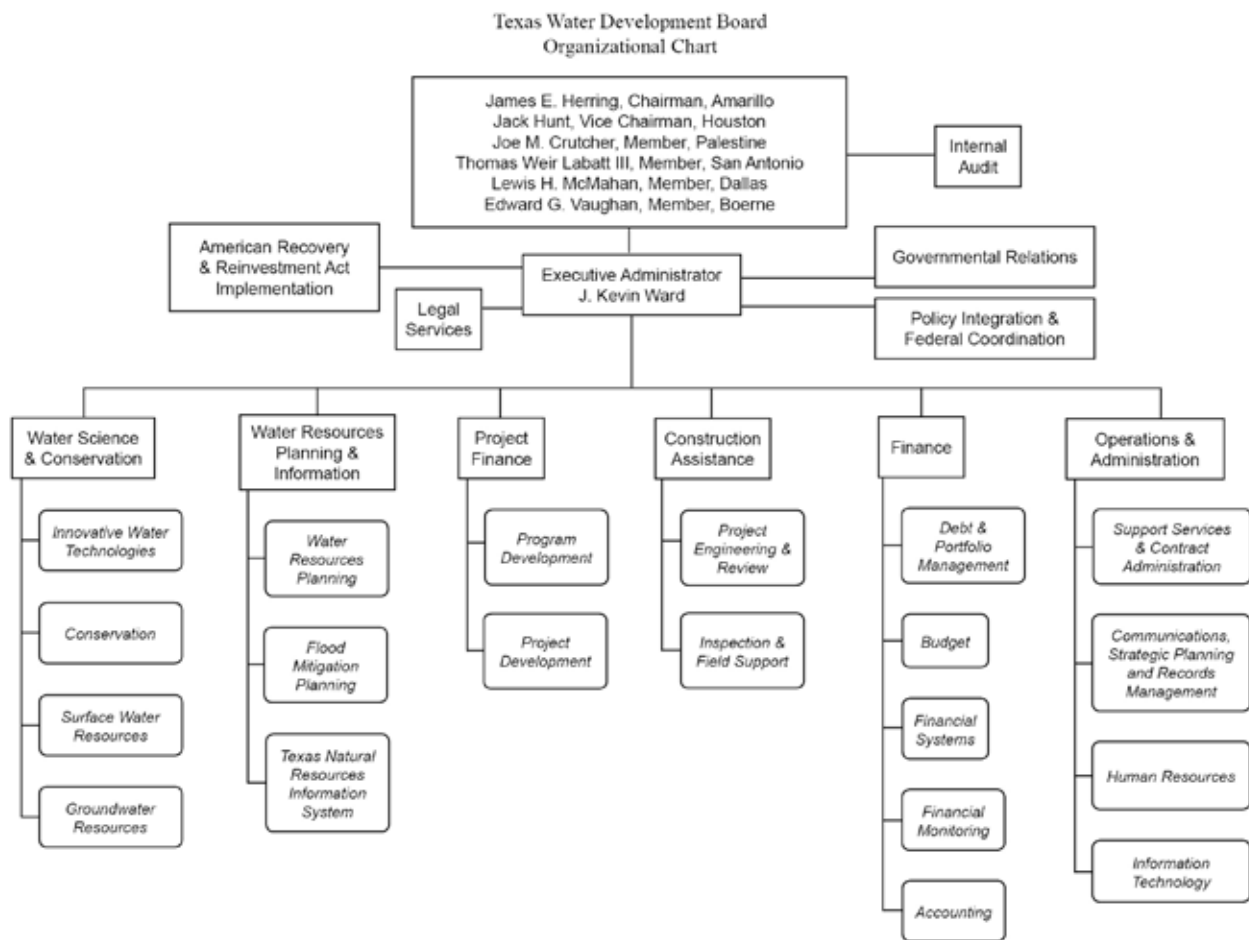
In October 2009, the Survey of Employee Engagement (SEE) steering team met to develop a marketing plan and to set goals for the SEE. The steering team was composed of employee representatives from each program area, and the goal of the group was to develop an action plan based on the survey results to recommend to leadership.

Throughout the process, the agency's six-member Board was briefed on the strategic planning process.

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Appendix B:

Current Organizational Chart



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Appendix C:

Five-Year Projections for Outcomes

Outcome	2012	2013	2014	2015	2016
Percent of information available to adequately monitor the state's water supplies	72.7%	73.2%	73.7%	74.3%	74.8%
Percent of key regional and statewide water planning activities completed	90%	90%	90%	90%	90%
Percent of communities receiving technical and/or financial assistance	9.5%	9.5%	9.5%	9.5%	9.5%
Percent of water saved with financial assistance	7.00%	7.00%	7.00%	7.00%	7.00%
Dollars committed as a percent of total financial assistance dollars	79%	79%	79%	79%	79%
Dollars saved from TWDB assistance	\$277,569,907	\$167,080,532	\$167,080,532	\$167,080,532	\$167,080,532

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Appendix D:

Performance Measure Definitions

AGENCY GOAL 1 WATER RESOURCES PLANNING	
FIRST OBJECTIVE	Operate statewide, water-related data collection, integration, dissemination, and evaluation programs that provide public access to adequate information to conduct planning of water resources projects.
Outcome Measure:	Percent of information available to adequately monitor the state's water supplies
<i>Short Definition:</i>	Percent of information available to adequately monitor the state's water supplies.
<i>Purpose/importance:</i>	This outcome reflects the percent of information available relative to the amount of information needed to adequately monitor the state's water supplies. The measure provides information concerning the adequacy of the state's water supply monitoring network aspects that are the TWDB's responsibility.
<i>Source/Collection:</i>	Information comes directly from TWDB monitoring programs for collection and analysis of groundwater, surface water, and environmental flow (bay, estuary, and instream) data, including data from cooperators, both paid, such as the USGS, and non-paid, such as groundwater conservation districts. Information is available when it has been collected by TWDB or other sources and processed by TWDB.
<i>Method of Calculation:</i>	Percent performance is calculated by dividing the amount of information available associated with adequately monitoring the state's water supplies from each TWDB monitoring program by the amount of information needed for each TWDB monitoring program to adequately monitor the state's groundwater and surface water supplies and multiplying by 100. These percentages are summed and their average is the reported measure. The amount of information needed for each TWDB monitoring program to monitor the state's water supplies adequately is contained in the Water Science and Conservation's Performance Measure Procedures document. The amount of information available associated with adequately monitoring the state's water supplies from each TWDB monitoring program is maintained by designated staff in spreadsheet form.
<i>Data Limitations:</i>	The TWDB does not have total control over either the amount or the time during which the information is received because this number reflects contributions from outside cooperators.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Actual performance higher than targeted reflects a greater amount of information available and is desirable.

STRATEGY	ENVIRONMENTAL IMPACT INFORMATION
Output Measure:	Number of bay, estuary, and instream study elements completed
<i>Short Definition:</i>	Number of bay, estuary, and instream study elements completed.
<i>Purpose/importance:</i>	This measure shows the number of bay and estuary inflow and instream flow study elements completed annually as required by Texas Water Code Sections 16.058, 16.059, 11.1491, and 11.147. The measure also provides data on the progress of environmental flow needs studies necessary for planning, management, and availability modeling of the state's surface water as defined in Texas Water Code Section 11.021.
<i>Source/Collection:</i>	A study element is considered complete when designated staff has approved a study element. The number of study elements completed are maintained by designated staff in a spreadsheet according to the Water Science and Conservation's Performance Measure Procedures document.
<i>Method of Calculation:</i>	The number of study elements completed annually is calculated by adding the number of estuarine hydrographic surveys, hydrodynamic and salinity models, sediment analyses, nutrient analyses, fisheries analyses, freshwater inflow optimization analyses, water quality data collection and analysis, biological data collection and analysis, and verifications of needs for bays and estuaries to the number of instream flow study elements completed. The instream flow study elements are: study design, hydrologic and hydraulic evaluation, biological evaluation, physical processes evaluation, water quality evaluation, integration and interpretation, study report, and instream flow program support.
<i>Data Limitations:</i>	The number of study elements completed is dependent on the definition of study elements, which may be revised as necessary to fit the specific environment being studied. Verification of computed environmental flow needs information completed by cooperating agencies can be affected by other priorities in the joint interagency study program with the Texas Parks and Wildlife Department and the Texas Commission on Environmental Quality.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Actual performance higher than targeted would be desirable because it would provide needed information earlier in the process of regional and statewide water planning.

STRATEGY	WATER RESOURCES DATA
Output Measure:	Number of data units collected/processed by TWDB staff
<i>Short Definition:</i>	Short Definition: Number of data units collected and/or processed by TWDB staff in support of monitoring, investigating, and defining the state's surface water and groundwater resources.
<i>Purpose/importance:</i>	Purpose/Importance: This information provides an indication of the availability of data (collected by the TWDB and made available to the public, the TWDB, private companies, and governmental entities) necessary to perform water supply planning.
<i>Source/Collection:</i>	Information comes directly from TWDB staff collecting data and from cooperators, both paid, such as the USGS, and non-paid, such as groundwater conservation districts. Data units consist of: number of semi-monthly reservoir level measurements; number of semi-monthly periods that streamflow measurements are taken from daily streamflow sites funded by the TWDB; number of semi-monthly periods that meteorological reports are provided to TWDB by cooperators from TWDB-maintained stations; number of one-hundred-surface-acre areas surveyed by the TWDB during reservoir surveys; number of groundwater level measurements collected from non-recorder wells; number of groundwater levels (six per month) collected from automatic recorder sites; and number of groundwater quality analyses collected from wells and springs.
<i>Method of Calculation:</i>	The number of data units is calculated quarterly and is maintained by designated staff in spreadsheets and databases according to the Water Science and Conservation's Performance Measures Procedures document.
<i>Data Limitations:</i>	The TWDB does not have total control over the amount nor the time during which the information is received because this number reflects contributions from outside cooperators.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Actual performance higher than targeted reflects a greater amount of information contributed by cooperators and is desirable.

STRATEGY	AUTOMATED INFORMATION COLLECTION, MAINTENANCE AND DISSEMINATION
Output Measure:	Number of person-hours in training classes and conferences sponsored by TNRIS
<i>Short Definition:</i>	This measure reports the number of person-hours in classes and conferences sponsored by TNRIS.
<i>Purpose/importance:</i>	It quantifies the impact of TNRIS in providing technical training related to natural resource information and technology.
<i>Source/Collection:</i>	TNRIS training classes include workshops and short courses presented or sponsored by TNRIS. Outside experts may be hired by TNRIS on a consulting basis to provide instruction in the use of TNRIS-related facilities or technologies, or natural resource information. To be included, conferences must be sponsored or co-sponsored by TNRIS and relate to natural resource information and technologies. This measure is collected through registration records for each event to provide a total number of participants and the hours per event.
<i>Method of Calculation:</i>	The number of participants is then multiplied by the number of hours spent in each workshop, short course, training session, and conference to provide a total number of person-hours per event.
<i>Data Limitations:</i>	Measurement results are not subject to staff interpretation.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Desired performance would be reflected by higher than targeted results.
Output Measure:	Number of strategic mapping pool
<i>Short Definition:</i>	This measure records progress in maintaining the currency of the digital basemap for Texas, as defined by Texas Geographic Information Council (TGIC) in the Digital Texas 2004 report and initiated through the Texas Strategic Mapping (StratMap) Program created by the 75th Legislature in 1998. The digital base map consists of seven main layers or themes, augmented by fourteen additional layers. These layers can be classified in two categories: basemap vector layers and basemap raster themes (elevation, imagery). The modernization of the StratMap and basemap themes is accomplished by creating, updating, enhancing, or maintaining digital data layers. The measure is defined by counting the number of mapping units produced each quarter as a result of updates, maintenance, enhancement, and production of critical base map layers.

<i>Purpose/importance:</i>	The measure is determined by the total number of current mapping units collected. Current mapping units are defined as updated, enhanced or new data at a scale of 1:24,000, or better, for one layer covering the area of one 7.5-minute USGS quadrangle. The Texas Geographic Information Council (TGIC) has identified these layers as requiring ongoing updates or maintenance to ensure that they will remain current. These themes are: transportation, political boundaries, elevation models and contours, watersheds, geographic names, parcel index, surface geology, street addresses, land use-land cover, and digital imagery. This measure is intended to ensure that the state receives, inventories, and integrates changes in these data themes as recorded by local, regional, state, and federal entities within Texas. Imagery and elevation models to update the digital data themes must also be received in a timely manner to ensure that the data remain useful for state and public planning purposes.
<i>Source/Collection:</i>	The measure information will be collected by the Texas Natural Resources Information System (TNRIS) division of the Texas Water Development Board (TWDB). Measure data will be stored and maintained within a database at TWDB.
<i>Method of Calculation:</i>	The measure is calculated as a total number of mapping units received, inventoried, and integrated into the existing basemap digital databases (both raster and vector) maintained by TNRIS. There are 4,376 quadrangle maps covering Texas. Total output for transportation and boundary update/maintenance is based on completing 4,376 mapping units per year. Output for digital imagery requires completion of 550 mapping units, covering 4,376 units over eight years. Annual output for all three data layers totals 9,302.
<i>Data Limitations:</i>	TWDB will be collecting updated transportation and boundary information from other entities of varied scale, quality, and format. Thus, data collected may not be standardized until processed by TWDB. Data updates may be submitted to TWDB at irregular intervals. TWDB will also be collecting data from a diverse group of data providers. Cooperation between these groups and TWDB is essential to ensure timely data updates and maintenance.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Desired performance would be to meet or exceed the targeted results.
Explanatory Measure:	Number of responses to requests for TNRIS-related information that are filled
<i>Short Definition:</i>	Report the number of requests from public or private entities for TNRIS-related information that are filled.

<i>Purpose/importance:</i>	This measure reports the number of responses to requests from public or private entities for TNRIS-related information. This measure quantifies the role that TNRIS plays as the central repository and access for geo-spatial data utilized by governmental and private sector agencies in Texas.
<i>Source/Collection:</i>	<ul style="list-style-type: none"> • Quick Responses: Talled on a notepad and transferred to the Excel application to print monthly reports. • Self-Service: Consultants trained to use TNRIS archives have an access database that resides on the TWDB network. The consultants sign in and then provide a monthly paper summary of their data request. These are tallied by request, not by volume. • Data Delivery: A) Internet: The WebTrends Web tracking software counts data accesses on Web pages with downloadable data. TNRIS does not track “hits,” rather specific accesses to Web pages or sub-files. B) Sales: TNRIS accountant tracks the number of “orders” that have been placed into the accounting database for that month. This number only reflects actual transaction totals and does not reflect the total volume. • Professional Services: Included within the Data Delivery report but category is used periodically to identify products that can be packaged into a data delivery to minimize the use of Professional Services.
<i>Method of Calculation:</i>	<p>This measure is calculated by summing data gathered in the following categories:</p> <ul style="list-style-type: none"> • Self-Service requests: Data acquisitions by customers physically in the TNRIS office. • Quick Response requests: Requests that are answered quickly (approximately five minutes or less), refer the person to the correct location to obtain information, and do not require a product delivery. QRs may be provided verbally (in person or phone), through e-mails or faxes. • Data Delivery requests: Pre-packaged products delivered to a customer in the form of maps, digital data, handouts, and publications. DDs occur through the Internet, e-mails, over-the-counter, and faxes. Internet DDs are captured by a specialized counter that records the actual download of a computerized mapping or database file. • Professional Services requests: Compilations, searches, or analyses performed of available water resource data that is not pre-packaged.
<i>Data Limitations:</i>	A duplicate paper system may be utilized for self-service delivery or in the event the automated system is not available. Measurement results are not subject to staff interpretation.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Desired performance would be reflected by higher than targeted results.

SECOND OBJECTIVE	Conduct water planning and financial assistance activities to ensure adequate long-term water supplies, wastewater treatment, and flood protection.
Outcome Measure:	Percent of key regional and statewide water planning activities completed
<i>Short Definition:</i>	Percent of key regional and statewide water planning activities completed within the five-year planning cycle.
<i>Purpose/importance:</i>	This outcome shows the percent of scheduled activities completed annually that are determined to be critical to the development of Regional and State Water Plans to meet future water supply needs in Texas.
<i>Source/Collection:</i>	<p>Measure annually assesses three activities that are consistently required each year throughout the cycle:</p> <ol style="list-style-type: none"> 1. Contract Management: Annual assessment is based on the number of total payment requests from the Planning Group Political Subdivisions (Contractors), which are paid within the contract specifications. 2. Project Management: Assessment is based on number of all scheduled Planning Group meetings that are supported by the presence and participation of a TWDB representative. 3. Database Management and Technical Assistance: Assessment based on the number of total requests for database information or assistance with database use that are fulfilled within the agreed period.
<i>Method of Calculation:</i>	<p>Annually, numbers of payment requests, database requests, and Planning Group meetings are collected. These numerical data are converted to a percentage for the activities as described above. The individual activities completed are aggregated and divided by number of activities to provide the annual assessment of completed activities.</p> <p>Example Inputs: FY 2003 Contract management (58/64) Project management ((32/44) Database management (60/75)</p> $= (58+32+60)/(64+44+75)$ $= 150/183$ $= 82.0\%$
<i>Data Limitations:</i>	No known data limitations.
<i>Calculation Type:</i>	Non-cumulative.

<i>New Measure:</i>	No.
<i>Target Attainment:</i>	To improve understanding and assessment of TWDB efforts throughout the regional and state water planning process. Higher than targeted performance indicates better progress and is desirable.
STRATEGY	TECHNICAL ASSISTANCE AND MODELING
Output Measure:	Number of responses to requests for water resources information that are filled
<i>Short Definition:</i>	This measure reports the number of requests for groundwater information.
<i>Purpose/importance:</i>	This measure quantifies the role that the Groundwater Resources Division plays in the dissemination of valuable groundwater resource data to governmental and private concerns.
<i>Source/Collection:</i>	<p>This measure is calculated by summing data requests in the following categories:</p> <ul style="list-style-type: none"> • Quick Response requests: Requests for information that are answered quickly (approximately five minutes or less), refer the person to the correct location to obtain information, and do not require a product delivery. QRs may be provided verbally (in person or phone), through emails or faxes. • Data Delivery requests: Pre-packaged products delivered to a customer in the form of maps, digital data, handouts, and publications. DDs occur through the mail, email, over-the-counter, and fax. • Professional Services requests: Compilations, searches, or analyses performed of available water resource data that is not prepackaged.
<i>Method of Calculation:</i>	Requests, entered by staff, are collected and maintained in an electronic format.
<i>Data Limitations:</i>	Back-ups are run nightly on the Novell Network. The maximum data loss from a system failure or crash would be one day's worth of data. A duplicate paper system may be utilized for self-service delivery or in the event the automated system is not available. Measurement results are not subject to staff interpretation.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Desired performance would be reflected by higher than targeted results.

STRATEGY	WATER RESOURCES PLANNING
Output Measure:	Number of active grants for regional water, wastewater, flood, and research studies funded from the Research and Planning Fund
<i>Short Definition:</i>	Number of active grants for regional water, wastewater, flood, and research studies funded from the Research and Planning Fund.
<i>Purpose/importance:</i>	The number of active grants for studies is considered the number of studies funded from the Research and Planning Fund that require any management activity by TWDB staff and provides information on the workload associated with the grant program. A grant is active at the time of board action making a grant commitment until the contract retainer has been processed by designated staff in the Contract Administration Division.
<i>Source/Collection:</i>	Information for this measure is maintained by designated staff in a database according to the Office of Planning's Performance Measure Procedures document.
<i>Method of Calculation:</i>	This measure is calculated by adding the number of grant commitments made for studies during a particular fiscal year to the number of studies from previous fiscal years in progress at the beginning of each quarter.
<i>Data Limitations:</i>	No known data limitations. Measurement data is generated by TWDB staff through tracking of performance of grant studies as defined in the Office of Planning Performance Measures Procedures document.
<i>Calculation Type:</i>	Non-Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	A higher number is desired because this means that more grant money is being handed out.

THIRD OBJECTIVE	Provide eligible political subdivisions in Texas with technical and/or financial assistance for water conservation to support planning, conservation, and responsible development of water supplies to meet the future demands for water as identified in the regional and state water plans.
Outcome Measure:	Percent of communities receiving technical and/or financial assistance
<i>Short Definition:</i>	Percent of communities receiving technical and/or financial assistance for water planning and conservation.
<i>Purpose/importance:</i>	This outcome measures the number of communities that receive technical and/or financial assistance from the TWDB for water conservation and financial assistance for water, wastewater, or flood protection planning relative to the total estimated number of Texas communities eligible for assistance. This outcome provides information on the percent of Texas communities that the TWDB is able to assist with the referenced programs.
<i>Source/Collection:</i>	The total number of Texas communities eligible for assistance is contained in Water Science and Conservation's Performance Measure Procedures document. Records of the communities assisted during each fiscal year for each of the above program areas is maintained in a database by designated staff. Each community receiving assistance is assigned a common but unique identifier in each of the program databases. These databases are then analyzed annually to ensure that individual communities are not double-counted. A particular community is counted only once during each fiscal year regardless of the number of times that community receives technical or financial assistance from TWDB.
<i>Method of Calculation:</i>	The measure is calculated by dividing the combined number of communities and other entities that are provided with technical and/or financial assistance from TWDB related to water conservation and water, wastewater, and flood protection planning by the total number of Texas communities eligible for assistance and multiplying by 100.
<i>Data Limitations:</i>	Technical assistance may be provided to individuals or firms that do not indicate they are associated with an eligible community; and thus, that particular community is not identified and counted.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	A higher percentage of communities being assisted is desirable.

Outcome Measure:	Percent of water saved with financial assistance
<i>Short Definition:</i>	Percent of annual water use saved by recipients of TWDB financial assistance.
<i>Purpose/importance:</i>	This outcome demonstrates the amount of water saved by recipients of TWDB financial assistance due to conservation efforts relative to the amount of water used by the recipients and provides information on the amount of water savings due to conservation efforts by those recipients.
<i>Source/Collection:</i>	The amount of water saved is the annual water savings in acre-feet resulting from: (1) improvements made with systems or equipment purchased with TWDB agricultural water conservation grants or loans or (2) implementation of water conservation programs required as a condition of receiving TWDB loans for water supply or water quality enhancement projects. Recipients of TWDB financial assistance are required by rule to submit an annual report that includes estimates of water savings. Reported water savings are entered into a database by designated staff. The percentage may be adjusted based on the professional judgment of staff to remove or account for abnormal weather conditions or information that may become available in the future for those percentages used after the entity no longer submits reports to the TWDB. Water savings will be calculated for as long as a financial repayment obligation exists to the TWDB.
<i>Method of Calculation:</i>	The measure is calculated by dividing the amounts of water reported as saved for recipients of financial assistance by the total amount of water used by the entities receiving the financial assistance and multiplying by 100. Savings will be entered into a database and the average of all entities will be calculated according to the Water Science and Conservation's Performance Measure Procedures document.
<i>Data Limitations:</i>	The entities' reporting of water savings may be inaccurate or incomplete. TWDB estimates for years after entities have stopped reporting may not include specific data for that entity in a particular year.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	A higher percentage of savings is desirable.

STRATEGY	WATER CONSERVATION EDUCATION AND ASSISTANCE
Output Measure:	Number of responses to requests for water conservation information, literature, data, technical assistance, and educational activities provided by TWDB staff
<i>Short Definition:</i>	This measure reports the number of requests from public and private entities and individuals for water conservation information, literature, data, technical assistance, and educational activities provided by TWDB staff.
<i>Purpose/importance:</i>	This measure is calculated by summing the number of responses to requests for information and assistance such as conservation information, literature, data, technical assistance, professional services, training, or equipment loans that is provided by TWDB Conservation staff.
<i>Source/Collection:</i>	This measure is calculated by summing the number of responses to requests for information and assistance such as conservation information, literature, data, technical assistance, professional services, training or equipment loans that is provided by TWDB Conservation staff.
<i>Method of Calculation:</i>	Requests, entered by staff, are collected and maintained in an electronic format.
<i>Data Limitations:</i>	Back-ups are run nightly on the Novell Network. The maximum data loss from a system failure or crash would be one day's worth of data. A duplicate paper system may be utilized for self-service delivery or in the event the automated system is not available. Measurement results are not subject to staff interpretation.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Desired performance would be reflected by higher than targeted results.

FOURTH OBJECTIVE	Administer the National Flood Insurance Program (NFIP)
STRATEGY	COMMUNITY ASSISTANCE PURSUANT TO NFIP
Output Measure:	Number of communities assisted through community assistance contacts and community assistance visits
<i>Short Definition:</i>	This measure reports the number of community assistance contacts made and the number of community assistance visits conducted. Community Assistance Contacts provide an opportunity to establish or re-establish contact with an NFIP participating community for the purpose of determining if any problems or issues exist and to offer assistance if necessary. Community Assistance Contacts may include telephone or personal contact with a community. Community Assistance Visits are on-site assessments of a participating community's compliance with federal regulations, including a comprehensive assessment of the community's floodplain management program and its knowledge and understanding of the floodplain management requirements of the NFIP.
<i>Purpose/importance:</i>	The measure reflects the combined workload of agency staff associated with ensuring that communities that participate in the National Flood Insurance Program receive sufficient technical assistance and are compliant with federal floodplain management regulations. Failure to be compliant would result in the community being suspended from the program and its citizens losing the ability to obtain federal flood insurance.
<i>Source/Collection:</i>	The numbers of communities assisted through Community Assistance Contacts and Community Assistance Visits are entered by NFIP staff into the Federal Emergency Management Agency's Community Information System database after completion of a contact or visit.
<i>Method of Calculation:</i>	The number of communities assessed is tracked by NFIP staff.
<i>Data Limitations:</i>	No known data limitations.
<i>Calculation Type:</i>	Cumulative
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Desired performance would be reflected by meeting or exceeding targeted results.

AGENCY GOAL 2

WATER PROJECT FINANCING

FIRST OBJECTIVE	Provide savings to Texas communities by making cost-effective financial assistance available for water supply, water quality protection, and other water-related infrastructure needs.
Outcome Measure:	Dollars committed as a percent of total financial assistance dollars
<i>Short Definition:</i>	Total dollars committed as a percent of total financial assistance dollars available.
<i>Purpose/importance:</i>	This measure is intended to: demonstrate the TWDB’s effort to make funds available for financing; measure our effectiveness in marketing and providing technical assistance; and measure our effectiveness at committing funds to cost-effective water related projects.
<i>Source/Collection:</i>	The source of the numerator (“Total dollars committed”) will come from the Board’s Financial Information System (FIS) or subsequent database system. The agency will look at historical periods for establishing the benchmark and at the actual commitment dollars for the budget reporting period, for the reporting period of record. Commitments are Board-approved dedications of funds for specific projects.
<i>Method of Calculation:</i>	The reporting period “total dollars committed” will be divided by the “total financial assistance dollars available” and expressed as a percentage.
<i>Data Limitations:</i>	The denominator is set at the time of the benchmark and should not change. However, if federal grants or state appropriations change during the year, then this could have effects on the target
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Outcome Measure:	Dollars saved from TWDB assistance
<i>Short Definition:</i>	This measure indicates the projected interest savings to local governments resulting from TWDB financial assistance.
<i>Purpose/importance:</i>	This measure is important as it demonstrates the cost effectiveness of financial assistance provided to Texas communities.
<i>Source/Collection:</i>	A spreadsheet is used to calculate this measure. Current Year “Commitment Amounts” from the FIS or subsequent Board database system is the source of the numerator for the calculation.

<i>Method of Calculation:</i>	For loans, using an estimated interest rate differential, calculate the difference in the interest cost for TWDB loans versus estimated market rates, commercial loan rates, or bond interest rates. Depending on the loan program, various differentials are assumed in order to reflect the level of savings estimated for the program. For grants, the savings are calculated by using the total estimated market or commercial loan principal and interest costs. All TWDB loans and grant programs are included, except for General Research and Planning grants, Regional Water Planning grants, and Agricultural grants. The commitment dollar value used in this measure is not adjusted for commitment cancellations that occur when a loan is closed for less than the commitment amount, when a commitment expires without a closing, or when the TWDB formally cancels a commitment. Savings will be calculated as: $\text{Sum (Loans/type * Gross Int-saved Factor/type)} + \text{Sum (Grants/type)} + \text{Sum (Grants/type * GIFT)}$
<i>Data Limitations:</i>	The gross dollar savings resulting from TWDB financial assistance can be limited by highly competitive interest rates.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
STRATEGY	STATE AND FEDERAL FINANCIAL ASSISTANCE PROGRAMS
Output Measure:	Number of state participation projects receiving financial assistance
<i>Short Definition:</i>	Measure indicates TWDB workload activity associated with state participation loans. State participation is when the state may purchase interest in a reservoir, water supply, or regional wastewater treatment project. The state's ownership interest will be purchased by the political subdivision over a specified period of time.
<i>Purpose/importance:</i>	This measure reflects the number of commitments provided to state participation projects and is important because it ensures the optimum development for areas of high growth where the existing customer base is not able to afford proper funding at that current time.
<i>Source/Collection:</i>	This information will come from FIS or a subsequent Board database system.
<i>Method of Calculation:</i>	The measure is calculated each quarter by totaling the number of state participation commitments.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target

Output Measure:	Total dollars committed to projects to implement the State Water Plan
<i>Short Definition:</i>	Sum of committed financial assistance (dollars) to projects identified in the State Water Plan (SWP) during the reporting period. Commitments are Board-approved dedications of funds for projects and are counted at the time of the Board action.
<i>Purpose/importance:</i>	This measure reflects the Board's commitment to the implementation of water management strategies in the SWP. This is important because it indicates progress on the implementation of the SWP, although only those funded through the Board, to prepare the state to meet future water needs and for drought. The breakout of the individual water management strategies in the Comment section of this measure will provide staff with an overview of which SWP strategies are being implemented.
<i>Source/Collection:</i>	Board financial assistance commitments to SWP projects will come from an internal PFCA or subsequent Board database system, which records project information provided by Water Resources Planning & Information (WRPI). Dollars of commitments will come from the FIS or subsequent Board database.
<i>Method of Calculation:</i>	The measure is calculated by summing the amount of financial assistance committed for the recording period and year to date.
<i>Data Limitations:</i>	Recipients may withdraw from the financial assistance commitments without taking any funds. The dollar amount committed is not adjusted for such withdrawals.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Number of commitments to State Water Plan projects
<i>Short Definition:</i>	Count of Board commitments of financial assistance to projects identified in the State Water Plan (SWP) during the reporting period. Commitments are Board-approved dedications of funds for projects and are counted at the time of the Board action. Board actions to increase the amount of grant and loan will also be counted as a commitment.
<i>Purpose/importance:</i>	This measure reflects the Board's commitment to the implementation of water management strategies in the SWP. This is important because it indicates progress on the implementation of the SWP to prepare the state to meet future water needs and for drought. The breakout of the individual water management strategies in the Comment section of this measure will provide staff with an overview of which SWP strategies are being implemented.

<i>Source/Collection:</i>	The number of the Board's financial assistance commitments to SWP projects will come from an internal PFCA or subsequent Board database, which records project information provided by Water Resources Planning & Information (WRPI).
<i>Method of Calculation:</i>	Count the number of commitments made each month from the data supplied by the internal PFCA or subsequent Board database system.
<i>Data Limitations:</i>	Recipients may withdraw from the financial assistance commitments without taking any funds. The count is not adjusted for such withdrawals.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Number of financial assistance commitments made
<i>Short Definition:</i>	Provide financial assistance through SRF Programs and other Federal and State programs to save money for Texas communities for water supply, water quality protection, and other water-related projects.
<i>Purpose/importance:</i>	This data is important because it represents the number of cost-effective financial assistance commitments provided to communities by TWDB.
<i>Source/Collection:</i>	This information is provided in the FIS or subsequent Board database system.
<i>Method of Calculation:</i>	The measure is calculated each quarter by totaling the number of financial assistance commitments provided to communities.
<i>Data Limitations:</i>	Recipients may withdraw from the financial assistance commitments without taking any funds. The count is not adjusted for such withdrawals.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Number of commitments to small, rural, or disadvantaged community projects
<i>Short Definition:</i>	This is a count of the number of loan and grant financial assistance commitments the TWDB makes to small, rural, or disadvantaged community projects through one of the TWDB programs directed at small, rural, or disadvantaged communities.
<i>Purpose/importance:</i>	This measure is important because it represents the number of small, rural, and disadvantaged communities that receive cost-effective financial assistance commitments from the TWDB.

<i>Source/Collection:</i>	The performance data will be based on Board commitments recorded in the database or subsequent Board database system.
<i>Method of Calculation:</i>	Query the FIS or subsequent Board database system to identify the commitments made during the reporting period. A commitment consists of a Board action on one project for funding from one program. Board actions to increase the amount of grant and loan will also be counted as a commitment. Rural is defined as a communities of less than 5,000 in population and in a county not included in a MSA. Small communities are those with populations of less than 5,000. This information is captured in population data from Water Resources Planning and Information (WRPI) and the IUPs. Disadvantaged is defined as those communities receiving funding from any of the programs identified in this measure.
<i>Data Limitations:</i>	Recipients may withdraw from the financial assistance commitments without taking any funds. The count is not adjusted for such withdrawals.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Total dollars of financial assistance committed
<i>Short Definition:</i>	This measure accounts for the total dollars in financial assistance provided to communities per reporting period.
<i>Purpose/importance:</i>	This measure represents a significant workload effort and is an important measure that assesses the TWDB's performance in providing financial assistance to communities.
<i>Source/Collection:</i>	This information is provided in the FIS or subsequent Board database system.
<i>Method of Calculation:</i>	The measure is calculated each quarter by totaling the dollar amount in financial assistance commitments provided to communities.
<i>Data Limitations:</i>	Recipients may withdraw from the financial assistance commitments without taking any funds. The count is not adjusted for such withdrawals.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.

Output Measure:	Total dollars committed to small, rural, or disadvantaged community projects through agency programs targeting such communities
<i>Short Definition:</i>	Sum of the dollar value of loan and grant financial assistance commitments the TWDB makes to small, rural, or disadvantaged community projects through one of the TWDB programs directed at small, rural, or disadvantaged communities.
<i>Purpose/importance:</i>	The performance data will be based on Board commitments recorded in the FIS or subsequent Board database system.
<i>Source/Collection:</i>	Query the FIS database or subsequent Board database system to identify and sum the dollar value of commitments made during the reporting period from TWDB programs.
<i>Method of Calculation:</i>	Query the FIS database to identify and sum the dollar value of commitments made during the reporting period from the programs listed in the source/ collection of data. A commitment consists of a Board action on one project for funding from one program. Dollars associated with Board actions to increase the amount of grant and loan will also be counted in the total.
<i>Data Limitations:</i>	Recipients may withdraw from the financial assistance commitments without taking any funds. The dollars are not adjusted for such withdrawals.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Number of communities with active financial assistance agreements
<i>Short Definition:</i>	This measure accounts for the number of entities having commitments and/or active loan or grant agreements requiring financial compliance, monitoring, and day-to-day portfolio and contract administration.
<i>Purpose/importance:</i>	This measure will provide the TWDB and the legislature a gauge of how many communities the TWDB is interacting with each year.
<i>Source/Collection:</i>	This information is provided in the FIS or subsequent Board database system.
<i>Method of Calculation:</i>	The measure is calculated each quarter by totaling the number of communities that had active financial assistance agreements during the reporting period.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.

Output Measure:	Number of construction contracts managed
<i>Short Definition:</i>	Construction contracts in progress are construction contracts that result from non-EDAP financial assistance commitments approved by the TWDB that are in various stages of construction, from approval of plans and specifications through construction to completion, verified by final inspection.
<i>Purpose/importance:</i>	This measure demonstrates the staff effort required after a financial assistance commitment is made to ensure completion of projects. Once entities are granted commitments, there are a number of construction contracts that must be executed to complete a project. This measure is important because it enables the TWDB to track the progress of the construction contracts, which directly reflects the completeness of a project.
<i>Source/Collection:</i>	This information is provided in an internal PFCAs (Inspection & Field Support database IFS) or subsequent Board database system.
<i>Method of Calculation:</i>	This measure is calculated each quarter by totaling the number of construction contracts in progress.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Number of non-EDAP financial assistance agreements closed/executed
<i>Short Definition:</i>	This measure accounts for the number of non-EDAP financial assistance agreements closings processed per reporting period.
<i>Purpose/importance:</i>	This measure quantifies the amount of information input to the Facility Needs (FN) Section database system or subsequent Board database system. The database facilitates and aids FN participation in two federally mandated water-related infrastructure needs surveys: 1) the Clean Water (Act) Needs Survey, and 2) the (Safe) Drinking Water (Act) Needs Survey. Needs identified for Texas determine the state's allotment of federal funding for the Clean Water and Drinking Water State Revolving Fund Programs.

<i>Source/Collection:</i>	Communities and other entities includes cities, water districts, municipal utility districts, water supply corporations, and other political subdivisions that manage or plan for water resources for which TWDB staff obtains current needs information regarding water, wastewater, and other water-related infrastructure. Update information is collected by: 1) direct contact with communities (e.g., site visits) by TWDB staff, 2) various secondary sources including Texas Commission on Environmental Quality (TCEQ) files and databases, 3) capital improvement planning documents obtained from public utilities, 4) TWDB-funded facility planning studies, and 5) direct mail surveys. A network database is maintained that includes facility needs data for Texas communities. A need is “identified” when a community/entity record is either established or updated in the database.
<i>Method of Calculation:</i>	This measure is calculated each quarter by totaling the number of construction contracts in progress.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Number of new or updated water or wastewater facility needs
<i>Short Definition:</i>	This measure reports the number of updates to information on water-related facility needs for Texas communities and other entities.
<i>Purpose/importance:</i>	This measure quantifies the amount of information input to the Facility Needs (FN) Section database system or subsequent Board database system. The database facilitates and aids FN participation in two federally mandated water-related infrastructure needs surveys: 1) the Clean Water (Act) Needs Survey, and 2) the (Safe) Drinking Water (Act) Needs Survey. Needs identified for Texas determine the state’s allotment of federal funding for the Clean Water and Drinking Water State Revolving Fund Programs.

<i>Source/Collection:</i>	Communities and other entities includes cities, water districts, municipal utility districts, water supply corporations, and other political subdivisions that manage or plan for water resources for which TWDB staff obtains current needs information regarding water, wastewater and other water-related infrastructure. Update information is collected by: 1) direct contact with communities (e.g., site visits) by TWDB staff, 2) various secondary sources including Texas Commission on Environmental Quality (TCEQ) files and databases, 3) capital improvement planning documents obtained from public utilities, 4) TWDB-funded facility planning studies, and 5) direct mail surveys. A network database is maintained that includes facility needs data for Texas communities. A need is “identified” when a community/entity record is either established or updated in the database.
<i>Method of Calculation:</i>	The calculation methodology is a simple sum of the number of facility database records that have been updated.
<i>Data Limitations:</i>	Back-ups are run nightly on the agency’s Unix database server. The maximum data loss from a system failure would be one day’s input. Measurement results are not subject to staff interpretation.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Desired performance would be reflected by higher than targeted results.
Explanatory Measure:	Number receiving water or wastewater service from regional systems
<i>Short Definition:</i>	This measure indicates TWDB workload activity associated with providing communities with water or wastewater service through regional systems with state ownership investment.
<i>Purpose/importance:</i>	This measure identifies the number of communities benefiting from TWDB-funded state participation projects.
<i>Source/Collection:</i>	The information that is used to generate the quarterly performance for this measure is maintained in an internal PFCAs database or subsequent Board database system.
<i>Method of Calculation:</i>	The measure is calculated each quarter by totaling the number of communities that received state participation funds.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Explanatory Measure:	Dollars saved on water and wastewater service from regional systems

<i>Short Definition:</i>	This measure indicates dollars saved by regional project sponsors that received a TWDB financial assistance commitment for a state participation project.
<i>Purpose/importance:</i>	This measure demonstrates the dollars saved by entities receiving a state participation financial assistance commitment. This measure is important, as it provides a basis for comparing TWDB interest rates with commercial market interest rates.
<i>Source/Collection:</i>	The total dollar savings for regional systems with state ownership is determined based on historical trends. The total projected savings provided by the division director for the fiscal year are then entered into a spreadsheet and totaled.
<i>Method of Calculation:</i>	Savings are based on a rate differential and calculated when a commitment is made. Savings are calculated according to the market rate differential between the total projected repurchase cost and the projected market cost, using the commitment report.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Explanatory Measure:	Dollars of financial assistance made available
<i>Short Definition:</i>	The sum of the dollars that are made available for each financial assistance program over the course of a fiscal year. Through Intended Use Plans, sustainable capacity models, and appropriations the agency will establish an amount of funds designated as available for funding.
<i>Purpose/importance:</i>	This measure is important because it establishes a base line of available resources from which the Board staff can develop projects and establish targets and goals for financial assistance commitments. While it may seem that the resources are not limited, except by bond authorization authority, there are, in fact, limits based upon certain program capacities, the amount of federal grants available, and the limitations or enhancements set by Appropriations Bill Riders. Therefore, this is an important benchmark to adequately measure the success achieved in committing funds while respecting the limitations of resources actually available while running sound and prudent programs of assurance to Texas communities.

<i>Source/Collection:</i>	The source of this will be “total financial assistance dollars available” for the specific period for financial assistance commitments. This total will be derived from the sum of money identified as available in the Intended Use Plan for the Drinking Water State Revolving Fund Program, the sustainable capacity models for the Clean Water State Revolving Fund Program and State Loan Program (Development Fund II), program fund balances, pending bond issues, and Legislative Appropriations and/or debt issuance authorization for the other financial assistance programs.
<i>Method of Calculation:</i>	The total will be derived from the sum of money identified as from the various sources listed.
<i>Data Limitations:</i>	This amount available is set as the benchmark for evaluating our performance and should not change after the amounts available for each program are established. Revisions to capacity models made late in the fiscal year will change the benchmark.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Efficiency Measure:	Administrative cost per active financial assistance agreement
<i>Short Definition:</i>	This measure indicates the total dollars spent per active financial assistance agreement.
<i>Purpose/importance:</i>	This measure demonstrates the average cost for each financial assistance agreement.
<i>Source/Collection:</i>	The financial assistance information is provided in the FIS or subsequent Board database system. The administration cost information is maintained in the agency’s MIP system or subsequent Board database system.
<i>Method of Calculation:</i>	Per reporting period, the total number of active financial assistance agreements is divided by the total administrative cost of the financial assistance programs.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Lower than target.
Efficiency Measure:	Financial assistance dollars managed per FTE
<i>Short Definition:</i>	This measure indicates the total dollars managed and administered by staff in the financial assistance programs.
<i>Purpose/importance:</i>	This measure demonstrates the average amount of funds that are managed by program staff.

<i>Source/Collection:</i>	Data on the loan dollars managed is provided in the FIS or subsequent Board database system. The FTE information is maintained in the agency's USAS system.
<i>Method of Calculation:</i>	Data on the loan dollars managed is provided in a database system that was created by TWDB staff called the Financial Information System (FIS). Data on the amount of grant dollars managed are maintained in the agency's EVARE system. The FTE information is maintained in the agency's USAS system.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
STRATEGY	ECONOMICALLY DISTRESSED AREAS PROGRAM
Output Measure:	Number of economically distressed areas project loans and grants closed
<i>Short Definition:</i>	This measure indicates TWDB workload activity associated with economically distressed areas. The number of loans closed and grants executed, which are funded from the Economically Distressed Areas Program Account.
<i>Purpose/importance:</i>	This is a measure of major TWDB activity for the Economically Distressed Areas Program.
<i>Source/Collection:</i>	The information for loans and grants closed or subsequent Board database system.
<i>Method of Calculation:</i>	The measure is calculated each quarter by totaling the number of economically distressed areas loans closed and grants executed.
<i>Data Limitations:</i>	No limitations.
<i>Calculation Type:</i>	Cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Number of economically distressed areas projects that have completed all construction
<i>Short Definition:</i>	This measure indicates the number of projects for which the TWDB has determined construction is complete.
<i>Purpose/importance:</i>	This measure demonstrates the progress of the EDAP by counting the number of completed projects.

<i>Source/Collection:</i>	The information that is used to generate the quarterly performance for this measure is maintained in the Board TxWISE database. The CA Inspection Field Support Division Offices monitor the progress of construction contracts for all of the entities that have a commitment with the TWDB.
<i>Method of Calculation:</i>	The measure is calculated by totaling the number of completed economically distressed areas construction projects contracts.
<i>Data Limitations:</i>	No limitations.
<i>Calculation Type:</i>	Although the measure is cumulative over time, it includes performance data carried over from previous fiscal years.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Construction in progress for economically distressed areas projects
<i>Short Definition:</i>	Construction contracts in progress are regarded as loan/grant commitments approved by the TWDB that are in various stages of construction, from approval of plans and specifications through construction to completion is verified by final inspection.
<i>Purpose/importance:</i>	This measure demonstrates the staff effort required after a financial assistance commitment is made to ensure completion of projects.
<i>Source/Collection:</i>	The information used to generate the quarterly performance for this measure is maintained in a PFCA internal database or subsequent Board database system.
<i>Method of Calculation:</i>	This measure is calculated by beginning with a baseline number of all contracts with approved plans and specifications, built without a final inspection at the beginning of each fiscal year. The measure for the first quarter is calculated by taking the beginning baseline number and adding all plans and specifications approved during the quarter. For the second, third and fourth quarters, the measure is calculated by taking the number at the end of the previous quarter and adding the number of plans and specifications approved during the quarter and subtracting the number of final inspections conducted during the pervious quarter. The fiscal year end number is calculated by taking the fourth quarter, which will then also become the baseline number for the first quarter of the following fiscal year.
<i>Data Limitations:</i>	No limitations.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.

Explanatory Measure:	Economically distressed area residents provided adequate water supplies or wastewater systems
<i>Short Definition:</i>	This measure indicates the number of people who will be able to receive adequate water or wastewater service.
<i>Purpose/importance:</i>	This measure demonstrates the number of residents who may benefit from the EDAP and will have safe drinking water.
<i>Source/Collection:</i>	The number of residents that can be served by a completed construction project is reported in the EDAP monthly status report. When a project has been determined to be complete by running the query identified in Output Measure 02-01-02.03, the information is provided to the administrative technician that maintains the EDAP monthly report. Each month, projects are reported by phase of development at the end of the month. The advancement of a project from construction to completion also reflects the number of economically distressed areas and residents that can be served by the completed project. A running total is calculated in the Financial Summary, which is located at V:\share\status\Fundbrk2.xls - \$_Sum.
<i>Method of Calculation:</i>	The total number of economically distressed areas residents is calculated by adding the number of residents identified in the EDAP Monthly Status Report.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	Non-cumulative.
<i>New Measure:</i>	No.
<i>Target Attainment:</i>	Higher than target.
Output Measure:	Number of economically distressed areas projects that have completed non-construction activities in planning, acquisition or design.
<i>Short Definition:</i>	This measure indicates the number of projects for which the TWDB has determined is complete for Planning or Acquisition or Design, or a combination thereof, as determined by the grant agreement.
<i>Purpose/importance:</i>	This measure demonstrates the progress of the EDAP by counting the number of completed projects.
<i>Source/Collection:</i>	The information that is used to generate the quarterly performance for this measure is maintained in the Board TxWISE database. The CA Project Engineering and Review Division monitors the progress of Planning, Acquisition, and Design for all of the entities that have a commitment for non-construction projects with the TWDB.
<i>Method of Calculation:</i>	The measure is calculated by totaling the number of completed economically distressed areas, non-construction related projects.
<i>Data Limitations:</i>	No data limitations.
<i>Calculation Type:</i>	The measure is cumulative over time.

<i>New Measure:</i>	Yes.
<i>Target Attainment:</i>	Higher than target.

Appendix E:

Workforce Plan

Overview of Operations

Agency Core and Mission

The TWDB is the state's water planning and water project financing agency. The TWDB's main 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 (Planning Groups) have assumed increased responsibility for ensuring sufficient water supplies for the state. The TWDB has a leadership and support role through guiding, enabling, and supporting the responsible development of the state's water resources, to ensure that sufficient water will be available at a reasonable cost while protecting the agricultural and natural resources of the state.

Agency Vision

Sustainable, affordable, quality water for Texans, our economy, and our environment.

Agency Mission

To provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas.

No anticipated changes in the agency's mission or vision are foreseen in the near future, as even with new statutory requirements from the legislature, the core of the agency will remain constant. The agency leadership, however has a different perspective

regarding strategies. With each new program, or mandate from the legislature, the executive leadership team assesses the need for new or changed agency strategies.

Business Functions and Area Missions

The following is an account of the core business functions and missions of each area in the agency.

EXECUTIVE ADMINISTRATION

Executive Administration houses the Executive Administrator of the TWDB, Legal Services, Governmental Relations, Policy Integration & Federal Coordination and American Recovery and Reinvestment Act (ARRA) Implementation.

Legal Services is comprised of the agency's General Counsel, a Deputy General Counsel six staff attorneys, a program specialist, and two executive assistants. The General Counsel represents the agency in all hearings and negotiations. Legal Services is responsible for providing legal advice and representation to the TWDB Board members and staff in the areas of financial assistance, water planning, water policy, natural resources, environmental compliance, legislation, tort claims, human resources, contracting and purchasing, real estate, ethics, open records, open meetings, and rulemaking. This includes, but is not limited to, preparing and reviewing documents, researching and preparing formal and informal legal opinions, representing the agency on interagency working groups, drafting and reviewing regulations and policies, and working with the Office of the Attorney General regarding agency litigation and contested matters.

The TWDB Governmental Relations team works with both state and federal governmental entities and representatives to help carry out the mission of the agency. Before each legislative session, the office compiles a Biennial Report to the Legislature that details where the Board is in regard to carrying out our mission and what tools we need to ensure our ability to move forward.

In 2009, the Executive Administrator created the Policy Integration & Federal Coordination Division to ensure that policy decisions and implementation

accounted for an agency wide perspective. The Policy Integration & Federal Coordination Division is often called on to provide specific input on draft legislation and appropriations related to water resources policy and funding. The office also coordinates its federal outreach with regional and national water organizations, including the Texas Water Conservation Association, Western States Water Council, Interstate Council on Water Policy, Council for Infrastructure Financing Authorities, and Alliance for Water Efficiency.

ARRA

On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act of 2009 (ARRA). ARRA was passed as a nationwide effort to create jobs, jumpstart growth and transform our economy to compete in the 21st century. The compromise package of \$789 billion intended to create or save 3.5 million jobs over two years.

The Texas Water Development Board has provided \$326 million in ARRA funds for 25 drinking water and 20 wastewater projects across the state. These water infrastructure projects will improve water availability, usage, and quality in many communities across the state, as well as create jobs and benefit economies for many years. The funds were committed in the form of grants and loans to 45 cities, water districts and water supply companies.

The TWDB has successfully met all of the federally established ARRA funding goals and requirements. The Act required that 20% of the projects include “Green Project Reserve,” which are projects that demonstrated identifiable and substantial benefits in water efficiency, energy efficiency, or environmental innovation. The act also required that at least 50% of the funding be provided to disadvantaged communities in need of assistance. The TWDB exceeded the established goals for both of these requirements in both the Drinking Water State Revolving Fund program as well as the Clean Water State Revolving Fund program.

INTERNAL AUDIT

The division of Internal Audit is a function required by Texas Internal Auditing Act (Chapter

2102) of Texas Government Code. Internal auditors are governed by Government Auditing Standards and Standards for Professional Practice of Internal Auditing of the Institute of Internal Auditors. In the TWDB organizational structure, this function reports directly to the Board, and therefore is a non-partial, non-biased entity.

The objective of this division is to assist members of management of the TWDB and Board members in the effective discharge of responsibilities. The mission of the Internal Audit division is to present to the management and the Audit Committee determinations of adequacy/effectiveness of internal controls, objective reports, recommendations to management and consultations. Based on recent assessments of the division workload, the need for additional resources was identified. As a result, the Audit division added two additional auditors.

OPERATIONS AND ADMINISTRATION

Operations and Administration strives to provide professional, constructive and formidable support to all areas in the agency in order to ensure delivery of an effective and efficient system of services for the employees and stakeholders of the TWDB.

Additionally, Operations and Administration is responsible for all agency “special projects” such as the conference/seminar planning, the Strategic Planning process, and the agency’s Performance Measures. Operations and Administration has four separate divisions: Communications, Strategic Planning and Records Management; Support Services and Contract Administration; Human Resources and Information Technology.

Communications, Strategic Planning and Records Management

Communications is the Agency’s direct contact with the media and public. The Communications Officer is the point of contact for inquiries for the agency, provides media training for staff, and serves as agency contact for open records requests and general inquiries. The Web Administration division administers the TWDB’s Internet and Intranet websites, ensuring the public effective and quick access to the latest TWDB information. The Publications and Graphics

Support division provides editorial, design, and production assistance on printed resource materials for the agency. The Records Management division processes all incoming mail addressed to the Executive Administrator, Project Finance and Construction Assistance, provides record management services on all TWDB loans, grants and contracts, and assists Legal Services with open records requests.

Support Services and Contract Administration

The Support Services Division of Operations and Administration provides mail services, fleet management, staff support, and provides facility support such as office space management, lease management, building safety, telecommunications, etc. The division also provides Board meeting coordination and Board Member transportation during special events and at regular board meetings. Within this division, Contract Administration provides contract development, contract compliance, contract monitoring, and related payment authorization. Contracting also provides procurement functions to acquire materials, equipment and services in accordance with state and federal rules and regulations.

Human Resources

The Human Resources Department is an essential and indispensable force in facilitating the accomplishment of the TWDB's mission by providing services and administering benefits that promote the security and well-being of TWDB's most important resources-its employees. This division is committed to providing administrative services to the employees of the TWDB in the areas of human resources including: employee benefits, salary administration, human resources development, personnel records, employment, and employee relations.

Information Technology (IT)

Information Technology serves as the Information Resources Liaison to Executive Management, Department of Information Resources, the Legislative Budget Board, and the State Auditor's Office. IT oversees the implementation of new

technology into the TWDB, ensures the agency's network is secure and reliable, manages the agency's Data Center Services contract, trains new employees on agency PC procedures, ensures technology standards are published and followed, and resolves user requests and reported computer problems. Within IT, there are various divisions that help to support all functions of the agency. These staff maintain over 50 agency systems, databases, and applications, manage the Water Information, Integration, and Dissemination web portal, serve as the project manager for the systems integration process with EPA known as TxWISE (Texas Water Information System Expansion), maintain the Online Regional Water Planning Data Submission System (DB12), and create specialized maps requested frequently from the Texas Legislature and other various political entities and the public.

FINANCE

The mission of the Office of the Chief Financial Officer is to provide our customers with centralized, timely, meaningful, and quality financial services; and to ensure fiscal integrity by investing and protecting the Board's assets. The primary responsibilities of the Office of Finance are to oversee day-to-day financial activities, provide support to the agency through the timely and accurate processing of payroll and financial transactions, formulate and monitor the agency budget, report financial and budget information, coordinate all activities related to issuance of bonds, invest funds in compliance with the Public Funds Investment Act, prepare cash flow and loan analyses and interest rate calculations, and provide financial stability reviews of borrowers. Finance is comprised of five areas: Accounting, Budget, Debt and Portfolio Management, Financial Monitoring and Financial Systems.

Accounting

Accounting maintains the general ledger, prepares timely and accurate financial reports for internal and external recipients, processes all payments to vendors, loan recipients, grantees and employees, processes all receipts and loan repayments, and processes employee payroll.

Budget

Budget manages the development, preparation and maintenance the TWDB's operating budget and position control, prepares budget related financial data and reports for the Board, staff and oversight agencies, prepares the Legislative Appropriation Request, and prepares fiscal notes, briefing documents and responses to budget related issues during the legislative session.

Debt and Portfolio Management

Debt and Portfolio Management provides comprehensive financial analysis for the management of the Board's portfolio, issues bonds to obtain money at the most economical cost to the Board to fund loan and grant programs, prepares cash flow analyses, loan analyses, and interest rate calculations, and invests funds in compliance with the Public Funds Investment Act.

Financial Monitoring

The Financial Monitoring Division monitors the loan portfolio ensuring the prevention of loan defaults through financial stability reviews of its borrowers, and monitors financial assistance program requirements to ensure finance-related and contractual compliance by borrowers and grantees.

Financial Systems

The division of Financial Systems directs and/or oversees the financial systems of the agency, provides security and system access for TWDB and oversight agency financial systems, and provides a single point of contact for financial systems.

PROJECT FINANCE

The primary business functions of the office of Project Finance involve various aspects of making loans and granting financial assistance to customers through the TWDB's financial assistance programs. These programs provide funding for planning, designing, and constructing customer's water- and wastewater related projects. The objective of Project Finance is to maximize the availability and effectiveness of the financial assistance programs

accessed by political subdivisions throughout Texas, while providing the appropriate program oversight.

Administration

Administration supports the office's mission and function by providing administrative support, and strategic planning to assist staff with their duties.

Program Development

This division is responsible for marketing, developing, and implementing the TWDB financial assistance programs. The division also develops policies to facilitate the management of the financial assistance programs. Division staff monitors and ensures agency compliance with state and federal laws, policies, and standards as it relates to administering the TWDB financial assistance programs. The division conducts water and wastewater needs assessments and projections for two federally funded programs (CWSRF and DWSRF), in addition to handling all annual and interim reports. Staff actively pursues opportunities to market and provide outreach regarding TWDB programs.

Project Development

This division assesses the financial viability of projects by reviewing and analyzing financial data provided by potential applicants requesting financial assistance. Division staff oversees projects to ensure they are progressing in a timely manner. Staff also leads the efforts of multi-disciplinary project work groups to ensure progress on projects is achieved from the pre-application phase through commitment, closing, and final completion. The division coordinates loan closing activities associated with the financial applications. Staff works closely with the Program Development Division to ensure program requirements are being followed and that they are aware of the program implications of potential and existing projects. The division is responsible for coordinating, compiling, reviewing, and finalizing monthly Board presentation material regarding proposed projects and presenting financial applications to the Board for consideration.

CONSTRUCTION ASSISTANCE

Construction Assistance provides environmental and engineering reviews and approvals required for projects financed with funds administered by the TWDB. In addition, Construction Assistance staff provides technical and construction management assistance to project owners during all phases of project construction.

Administration

Administration supports the office's mission and function by providing administrative support, and strategic planning to assist staff with their duties.

Project Engineering and Review

Project Engineering & Review Division is responsible for processing the engineering and environmental aspects of the financial assistance applications and projects. This includes the engineering feasibility reports, environmental documents, water conservation plans, construction drawings and specifications, construction bidding and contract documents, and related documents.

Inspection and Field Support

Inspection and Field Support Division includes the TWDB's four field offices (Austin, Harlingen, Mesquite, and Houston) and one satellite office (San Antonio). The division provides on-site assistance to the project owners during the construction phase, and information on construction status to the Project Engineering and Review Division and recipients.

WATER RESOURCES PLANNING AND INFORMATION

Water Resources Planning and Information supports the TWDB's mission by collecting, analyzing, and disseminating water-related data and by providing other services necessary to aid in planning and managing the state's water resources. It also provides statewide geographic data services and flood mitigation planning, including administration of federal assistance programs. The Water Resources Planning and Information office is comprised of three areas, Water Resources Planning, Flood Mitigation Planning, and Texas Natural Resources Information

System (TNRIS).

Water Resources Planning

Water Resources Planning provides ongoing technical assistance and administrative support to 16 Regional Water Planning Groups to assist in updating regional water plans, manages grants to regional water planning groups, manages grants to political subdivisions to conduct regional water and wastewater facility planning feasibility studies and assists with preparation of state water plan. This area also supports regional water planning process and assists with preparation of state water plan, provides economic and demographic technical support to regional and state water planning processes, develops water demand projections for municipal, manufacturing, mining, steam-electric power generation, irrigation, and livestock water users.

Flood Mitigation Planning

The Flood Mitigation Planning division manages state grants to political subdivisions to conduct flood protection planning studies, and administers federal Flood Mitigation Assistance and Severe Repetitive Loss grant programs. This area is also responsible for the National Flood Insurance Program (NFIP) and conducts State Coordinating Agency functions for the NFIP, assists communities in enrolling in NFIP, conducts training related to floodplain management, and provides technical assistance and compliance reviews for participating communities with ordinance, floodplain management and other NFIP issues.

Texas Natural Resources Information System (TNRIS)

TNRIS was established to serve Texas agencies and citizens as a centralized clearinghouse and referral center for: natural resource data, census data, data related to emergency management, and other socioeconomic data. TNRIS continues data maintenance and upgrades for the National Hydrography Dataset (NHD), transportation, political boundaries, and Digital Orthoimagery (DOQs); increases participation of local and federal partners in the National Map of Texas,

and coordinates data production efforts among governmental entities. TNRIS also administers StratMap and the Texas/Mexico Borderlands information system.

WATER SCIENCE AND CONSERVATION

Water Science and Conservation comprises the Conservation, Surface Water Resources, Groundwater Resources, and Innovative Water Technologies divisions.

Water Conservation

The TWDB's Water Conservation staff provides help to cities, utilities and districts establish effective water wise conservation programs. They loan out and provide training for leak detection and meter testing equipment, and assist with water audits and provide water conservation brochures and educational materials for schools for free or minimal cost to utilities and government entities. This area also provides grants to political subdivisions to implement conservation programs, and by utilizing either local districts or local lending institutions to provide loans for individual farmers to install more efficient irrigation equipment. The Conservation Division provides irrigation water use estimates by county or regional planning groups, and provides agricultural water conservation educational activities to agricultural trade shows and other related events.

Surface Water Resources

The Surface Water Resources division administers the Instream Flows program and works in cooperation with Texas Commission on Environmental Quality and the Texas Parks and Wildlife Agency as mandated by the legislature. This division also administers the Bays and Estuaries program, the Lake Hydrographic Survey and all state Surface Water Monitoring.

Groundwater Resources

The mission of the TWDB's Groundwater Resources Division is to collect, interpret, and provide accurate, objective information on the groundwater resources of Texas. The Groundwater Resources Division is responsible for all aspects of groundwater studies in the state. The division monitors water levels and

quality in the state's aquifers, conducts regional-scale aquifer modeling, and houses and maintains water well records. This division also approves groundwater districts' management plans, and provides groundwater information to citizens and lawmakers of the state.

Innovative Water Technologies

The Innovative Water Technologies division works to extend the state's water resources through desalination, rainwater harvesting and water reuse. The mission of this division is to explore potential sources of water supply outside of the traditional areas of surface water and groundwater that could be made available for use within the State.

Current Workforce Profile- Supply Analysis

Agency

FULL TIME EQUIVALENTS

As of FY2010 2nd quarter (February 2010), the agency had 374.3 full time equivalent employees (FTE), including part-time workers and contractors. 387.1 FTEs were appropriated for FY2010. The agency received a significant increase in FTEs due to the American Recovery and Reinvestment Act.

MANAGEMENT TO STAFF RATIO

The management to staff ratio at the agency (as of the FY2010 2nd quarter (February 2010) Management to Staff Ratio Report) was 1:10.47. The agency will continue to evaluate its current structure to ensure maximum efficiency regarding staff and management alignment.

GENDER/ RACE

Per the 2009 Equal Employment Opportunity Report for September 1, 2008 to August 31, 2009, the state agency workforce comprised the following:

	Total Employees	Caucasian Males	American Females	African Males	African Females	Hispanic Males	Hispanic Females	Other Males	Other Females	Total Males	Total Females
Officials (A)	31	17	10	0	1	2	1	0	0	19	12
Professionals (P)	279	116	78	9	6	27	24	14	5	166	113
Para Professionals (Q)	22	1	12	0	2	1	6	0	0	2	20
Administrative Support (C)	16	0	7	0	4	0	4	0	1	0	16
Technicians (T)	1	1	0	0	0	0	0	0	0	1	0
Total	349	135	107	9	13	30	35	14	6	188	161

Data was extrapolated from the 2009 Equal Employment Opportunity Report.

The TWDB is dedicated to ensuring equality in the workforce. Because the figures from the Civil Rights Division (CRD) of the Texas Workforce Commission do not single out a professional profile comparable to that of the TWDB, it is difficult to compare the two figures for professionals. CRD figures for professionals represent a wide variety of professions, of which women are represented in various proportions depending on the nature of the profession. The profile of professional positions in the TWDB explains part of the shortage of women in

the professional category: the TWDB employs many natural scientists and engineers. Women continue to enter the natural sciences and engineering fields in lower proportions than men. Initiatives by the federal government and non-profit organizations to encourage women to enter the natural science and engineering fields are increasing. As women increasingly enter these fields, TWDB expects that it will be better able to approach the CRD figures.

TURNOVER RATE

According to the State Auditor's Office, the statewide turnover rate for full- and part-time classified employees at state agencies in FY2009 was 14.4 percent, based on a total of 22,184 voluntary and involuntary separations, excluding interagency transfers. The 14.4 percent turnover rate is a decrease from FY2008 (17.3 percent) and the lowest turnover rate in the last five years. Excluding involuntary separations and retirements, the statewide turnover rate decreases to 8.18 percent. This rate is often considered a true turnover rate because it reflects preventable turnover. Employee turnover can be both negative and positive. Negatives include the associated costs of turnover, such as training and orientation of new employees, recruitment and selection of new employees, leave payout to departing employees, and lower productivity in the workplace during the time that a position is vacant and during the time that a new employee is learning the job. Some turnover will always occur and is normal for any organization. Turnover can create positive outcomes for employers, because they can replace low-performing employees with high-performing employees. There is often a financial benefit gained as a result of the difference in the salary paid to an experienced employee who separates from an agency versus the salary paid to a new employee who takes the departing employee's position. However, when organizations start losing their high-performing, highly skilled, and experienced employees, turnover may begin to negatively affect the organizations' business operations. This holds true for many of the professional positions held in the agency. In the workforce plan, the agency will go into further details regarding how the salary schedule for professionals working for the state is causing us to be a training ground for employees to learn the necessary skills to succeed in the private sector.

Executive Administration

Staff and workforce skills critical to the mission and goals of Executive Administration include, but are not limited to the following:

- An Executive Administrator with extensive institutional knowledge of complex state and federal financial programs, knowledge of planning activities, managerial skills, and the ability to work with the Texas Legislature and bring their requests and visions to fruition;
- A General Counsel that possesses recognized legal expertise in water resources, including water rights, water resources planning, and the TWDB's financial programs;
- Staff attorneys with core skills through continuing education, institutional knowledge in planning and program activities, human resources, contracts, and open records matters;
- A Director of Internal Audit that is a Certified Public Accountant or Certified Internal Auditor with expertise in auditing standards and performance criteria, federal audit requirements, electronic data processing skills and other areas that require extensive experience in governmental auditing;
- Governmental Relations and Policy Integration & Federal Coordination staff with the ability to entertain effective relationships with all levels of individuals that possess excellent project management skills and the ability to analyze, interpret, and react to information in an efficient and effective manner; and
- Successful implementation of the American Recovery and Reinvestment Act of 2009 Program.

Operations and Administration (O&A)

Staff and workforce skills critical to the mission and goals of Operations and Administration include, but are not limited to the following:

- Human Resources personnel familiar with the State of Texas' rules, regulations, and benefits including recruitment, retention, compensation, classification, etc;
- Certified State of Texas Purchasers;
- Qualified Contract Administrator to effectively

maintain all reporting requirements for the state and federal programs;

- Staff with performance measurement, strategic planning experience, and management system analysis skills to review and implement policies and procedures to increase efficiency and effectiveness of workload flow;
- Project Managers with experience in information technology resource and software application development methodologies;
- Business and Systems Analysts with strong facilitation and documentation skills;
- Software Engineers and Database Administrators with experience in standard software development techniques, web development tools, and deployment of web services;
- Network administration and security professionals with knowledge of local and wide area network administration, security protocols and threat protection, identity management, standard computer hardware, software support and troubleshooting;
- Programmers with multiple level web architect skills that can initiate the development, implementation, and maintenance of the internal and external web resources, including updating web content, monitoring web resources and services, analysis of hardware and software, and evaluation of potential enhancements;
- Geospatial technologists with knowledge of geographic information systems and cartographic product development;
- Records management specialists with knowledge of the State Records Retention Schedule, Texas State Libraries and Archives Commission (TSLAC) rules and regulations, and working knowledge of electronic document management systems.

Operations and Administration staff must maintain knowledge and expertise in a fast paced environment while also demonstrating the essential relationship development skills needed to communicate with customers, understand the critical business drivers for the agency, determine business case justifications and return on investment, and

fostering solid partnerships among governmental entities at all levels.

Finance

Staff critical to the mission and goals of Finance include, but are not limited to the following:

- Accountants familiar with governmental accounting, as well as bond debt accounting;
- Budget Analysts familiar with complex funding structures and state governmental budgeting practices; and
- Investment and Portfolio Analysts familiar with the state requirements for investments and with spreadsheet and database functions for preparing cash flow modeling.

These skill sets have remained constant; however, maintaining staff with these skill sets is a challenge. Retaining experienced and skilled staff is imperative to supporting the needs of the agency.

Project Finance

Project Finance is anticipating a number of challenges in the near future. The newly funded Water Infrastructure Fund (WIF) program will require continued fine-tuning of procedures to fully implement the program as needs are identified. The large amount of State Water Plan funding through the various financial programs will also be supported by PF staff. Existing programs will also pose challenges, such as: decreases in federal appropriations for the State Revolving Fund programs, balancing the Environmental Protection Agency's (EPA) requests for information/reporting requirements with other workload requirements, potential project delays due to approval backlogs at the U.S. Army Corps of Engineers, and the challenges associated with the continued growth of the financial assets owned and managed by the TWDB.

Staff and workforce skills critical to the mission and goals of PF include, but are not limited to the following:

- Financial Analysts with significant experience of TWDB financial assistance program experience;
- Administrative Assistants with experience in TWDB financial assistance programs, Board

- mail out procedures and proficiency in Microsoft Office;
- Division Directors with significant experience in TWDB financial assistance programs and policy development;
- Project Leads with significant knowledge of TWDB financial assistance programs;
- Team Leads with significant experience in TWDB financial assistance programs and policy development; and
- Staff with performance measurement, planning, and management system analysis skills to review and implement policies and procedures to increase efficiency and effectiveness of workload flow.

The increasing complexity and number of the TWDB's financing programs has been aggravated by the loss of several senior staff that retired. Retiring staff are being replaced, however, retention and training continue to be an important need and challenge.

Workforce skill needs should not change significantly in the future. However, the key to the successful management of the large number of complex financial assistance programs Project Finance implements is maintaining a large enough pool of agency experience and institutional knowledge in each discipline. This situation requires that we have enough latitude in salary adjustments to be able to retain skilled, experienced staff. The impacts of attrition can be managed, provided that Project Finance continues to hire and retain new employees until they achieve a high level of proficiency and are ready to be promoted into managerial positions.

Construction Assistance

Staff and workforce skills critical to the mission and goals of Construction Assistance include, but are not limited to the following:

- Engineers with significant TWDB financial assistance program experience;
- Environmental Resource Specialists with experience in TWDB financial assistance programs;

- Administrative Assistants with experience in TWDB financial assistance programs, Board mail out procedures and proficiency in Microsoft Office;
- Division Directors with significant experience in TWDB financial assistance programs and policy development;
- Project Leads with significant experience of TWDB financial assistance program experience;
- Team Leads with significant experience in TWDB financial assistance programs and policy development;
- Field Inspectors with experience in conducting inspections on projects funded through the programs; and
- Staff with performance measurement, planning, and management system analysis skills to review and implement policies and procedures to increase efficiency and effectiveness of workload flow.

Water Resources Planning and Information (WRPI)

Staff and workforce skills critical to the mission and goals of Water Resources Planning and Information include, but are not limited to the following:

- Geospatial technologists with knowledge of geographic information systems, geographic data models, remote sensing, Internet map services and cartographic product development;
- Certified Flood Managers to work with the NFIP program in conjunction with EPA, FEMA, and the TWDB;
- Division Directors with significant experience in TWDB water planning programs and policy development;
- Customer service specialists to support public assistance and access and dissemination of public data holdings;
- Economists with significant experience in TWDB water planning programs, statistics, population projections, and policy development;
- Administrative Assistants with experience in TWDB regional water planning programs, Board mail-out procedures, in addition to proficiency in

Microsoft Office;

- Grant and contract management professionals to support joint partnership funding of agency technology initiatives, interagency contracts, and oversight of contract and consulting services.

Water Science and Conservation (WSC)

Staff and workforce skills critical to the mission and goals of Water Science and Conservation include, but are not limited to, the following:

- Hydrogeologists, hydrologists, and geologists knowledgeable about Texas water and geologic resources;
- Other environmental scientists and/or professionals knowledgeable about Texas environmental regulations, research issues, and programs covering a wide spectrum of activities, such as conservation and biology;
- Licensed professional engineers with significant TWDB financial and technical assistance program experience;
- Individuals with solid contract management skills and the ability to maintain effective working relationships with their customers;
- Individuals who possess strong written and verbal communication skills;
- Administrative assistants with experience in TWDB programs and Board mail out procedures;
- Division directors with significant TWDB program and policy development expertise.

Retaining senior and highly skilled staff is of paramount importance in order for the office to provide program continuity while assimilating new technological advances in water modeling, planning, and research. This situation requires that the Office be given enough latitude in salary adjustments to be able to retain skilled, experienced workers and provide sufficient training to all staff.

Future Workforce Profile

The TWDB will need to retain staff with the same or similar work skills that are currently present, and be able to provide training to set new employees up for success.

Because of the evolving nature of the Texas Legislature, the agency must ensure that staff continues to have strong interpersonal skills, project management skills, legislative process knowledge and policy development skills. As state water resource issues become more political and complex, it is important that staff continue to be able to interact with individuals who represent the political and socioeconomic diversity of the State of Texas.

Critical functions of the Finance office include the ability to provide sound accounting advice and opinions to Board members and staff, accurate and timely financial reporting, and maintenance of sound accounting records, municipal bond knowledge, negotiation skills, portfolio management knowledge, advanced spreadsheet and database skills, and agency program knowledge. The development and maintenance of staff in the financial areas is imperative.

Water Resources Planning and Information is constantly affected by the population growth of the state of Texas. In regional water planning and the National Flood Insurance Program, population growth leads to greater demand on the few knowledgeable regional water planners in the state. Additional training and expertise will be needed in the coming years. In regard to the Texas Natural Resources Information System, the need for staff with diverse Geographic Information System and Information Technology backgrounds and improved knowledge of business processes and relationships will become more important along with external customer service.

The anticipated workload brought on by legislative changes and State Water Plan projects will require Water Science and Conservation to maintain and enhance its current level of skills and provide training of both new and existing staff to stay ahead of competition for scientists and engineers from the private sector. Staff will need to continue to expand their expertise in specific technical knowledge, project management skills, writing abilities, new

technology knowledge, and verbal communication skills.

The rapidly changing technology industry affects the Office of Operations and Administration's efforts to facilitate data dissemination. While current staffing levels are projected to essentially remain unchanged, the office workforce profile will continue to evolve, especially in light of the Data Center Consolidation effort being undergone by all agencies as part of the Governor's initiative. The need for staff with diverse IT backgrounds, including strong web-based programming, database management, Internet-based Geographic Information System programming, network management, project/program management expertise, and strong contract management skills will increase with this evolution.

Contract Administration and Records Management will be greatly affected by the implementation of new technology, an electronic document management system, and these areas will face an extreme work load in addition to the ever increasing burden that is inevitable as the agency continues to grow. Future needs in these areas are highly trained staff in records management with institutional knowledge of the state records retention schedule and procedures, and contracting and state certified procurement specialists that are trained in the state of Texas' rules and regulations.

Future workforce needs in the Operations and Administration office include building strong overall knowledge in Human Resources, including compensation skills and becoming a more effective change agent for the agency.

The appropriations of State Water Plan funding through three financial assistance programs will continue to impact Project Finance's current workforce. The additional program funding will not create demands for new skills but may require a level of effort that exceeds the current capacity. Automation will help in this effort through the TxWISE program.

Gap Analysis

If the economy becomes more competitive, as expected, this agency will face greater challenges given the salary levels it can afford to pay staff. The potential retirement of employees in all areas of the TWDB in the immediate future can have the effect of creating a shortage of expertise.

In the Office of Operations and Administration, there is currently need for additional staff in the areas of Contracting, Purchasing, Publications, Web Administration, Records Management and Information Technology. In addition, the office is at risk of the potential simultaneous retirement of multiple persons with vast institutional knowledge, thus creating a shortage of expertise in the Geographic Information System fields, support services and facilities planning areas, information technology and records management.

If the economy picks up, the Finance office may face difficulties in finding qualified staff to work in certain professions. High level accountants are currently at a premium. Furthermore, if the economy becomes more competitive, as expected, this office will face greater challenges given the salary levels it can afford to pay staff.

The Project Finance and Construction Assistance offices face a significant risk if all current managerial and line staff retire upon their eligibility within the next five years. These offices have a large number of senior staff that will be eligible for retirement. Succession planning is underway and will need to be expedited in order to fill all the gaps that may be pending. New staff will need to be hired as soon as possible and developed rapidly.

An issue unique to both of these offices is the availability of General Revenue funding. If a shortfall continues to exist in this source of revenue, the office will be faced with a shortage of workers who perform work related to General Revenue funded projects. There may be a shortage of staff in some areas over the next five years due to the increased workload associated with increased financial assistance opportunities, asset volume, and complexity. As in other offices, if the economy picks up, this area may face difficulties in finding qualified staff to work

in certain professions. Each of these offices must continue to maintain their current level of skills and provide training of both new and existing staff to limit the negative impacts of staff turnover.

The pool of Geographic Information System professionals interested in state employment will continue to dwindle, and at the same time that the state is experiencing new growth in the IT sector, the State Auditor's Office reports that state government employees are still significantly behind in salary scale compared to the private sector. Specialty areas such as Geographic Information System are even more difficult to hire and retain creating a much longer recruitment and hiring process. The quality and quantity of job applications for TWDB vacancies in these areas has dwindled remarkably, even when the agency has done extensive recruitment and advertising.

The same can be said for the National Flood Insurance Program personnel who must be certified in flood management. Finding qualified staff in the field areas throughout the state that meet with minimum qualifications for the job has been a challenge. With regard to the specialized positions that the agency has to offer, the leadership must begin to think outside the box in order to recruit and maintain qualified individuals.

Although Water Science and Conservation (WSC) has done its best to maintain staffing levels, there are shortages for individuals with overall expertise in state of Texas water resources, hydrogeologists, groundwater modelers, surface water engineers and surface water hydrologists. WSC is faced with hiring staff at entry to mid-level positions, providing these individuals with extensive training and development (internally and externally), only to see these scientists and engineers routinely recruited away by private enterprise who can afford to pay them 30 to 50 percent more than the state salary schedule allows. In effect, WSC serves as a training ground. The TWDB is often unable to fill key positions at competitive salaries for two primary reasons: first is simply a matter of inadequate resources and pay scales that are competitive with private enterprise; second, due to the tremendous increase in the demand for water resources needed to sustain the Texas economy,

the demand for water resource expertise in science and engineering is simply not being met by higher education.

Strategic Development

Strategic Development

The workplace has always consisted of many generations working at one time. However, today's age-diverse workforce is working past retirement age which has led to a generation gap of more than 40 years between the oldest and youngest workers. As a result, a one-size-fits-all approach is not appropriate in an age-diverse workforce that may have four generations of workers at one time. The TWDB must be prepared to work with the communication styles of each generation and determine what motivates each generation in order to bridge the generation gap. This is key in developing both succession planning and knowledge transfer for future generations. Furthermore, as society in general becomes more diverse, the TWDB workforce must mirror this diversity, thereby meeting both the needs and expectations of the population it serves.

The TWDB must continue to work with universities and professional organizations to ensure that we have a varied and diverse workforce. In addition to the diversity and composition of the future TWDB workforce, fair pay will continue to impact recruitment and retention. The TWDB and state agencies, in general, currently cannot compete with other organizations in terms of compensating its employees. Many existing staff continue to serve the agency because they value its mission or enjoy the work-life balance that may be lacking in a for-profit company or firm. The TWDB must continue to foster an environment that offers not only fair compensation but other incentives that attract and retain staff. Understanding the importance of the state's most precious resource is the first step in ensuring that TWDB continues its role in serving the water needs of Texas.

Leadership Development

In 2009, TWDB Human Resources launched two training modules to enhance the ongoing development of TWDB leadership. The Effective Performance Management - Supervisor/Employee Partnership interactive learning module focused on defining clear job responsibilities, performance plans and appraisals; discussing performance issues on an ongoing basis; the need for regular documentation; and the role of the supervisor in the development of staff. As of March 2010, 76 staff, composed primarily of team leads, managers, directors, and deputies, have completed this training. The New Hire Process interactive learning session focused on the paperwork required in hiring new staff. The training followed all steps involved in posting a job request and job vacancy notice; the application and screening process; interview process; and audit and offer process. To date 80 hiring managers and administrative staff involved in the hiring process have completed this training. In 2010, modules are being planned for “Managing for Success,” focusing on the progressive disciplinary process, and a cooperative module with Judy Osborne on Managing Attendance and Leave Issues.

Alliance Work Partners, the Employee Assistance Program provider for the TWDB, will offer a series of classes from April through August 2010 including: Communication Principles, Assertive Communications, Generation to Generation, Resolving Conflict, and Effective Listening.

Appendix F:

Survey of Employee Engagement

Survey

The Organizational Excellence Group at The University of Texas at Austin administered the Texas Water Development Board's (TWDB's) internal assessment, the Survey of Employee Engagement (SEE), in January 2010. The survey

assesses workplace dimensions capturing the total work environment. Each dimension consists of survey constructs designed to profile organizational areas of strength and concern so that interventions are targeted appropriately.

SURVEY DIMENSIONS AND CONSTRUCTS:

Dimension I Work Group	Dimension II Accommodations	Dimension III Organizational Features	Dimension IV Information	Dimension V Personal
Supervisor effectiveness	Fair Pay	Change oriented	Internal	Job satisfaction
Fairness	Physical environment	Goal oriented	Availability	Time and stress
Team effectiveness	Benefits	Holographic	External	Burnout
Diversity	Employment Development	Strategic		Empowerment
		Quality		

Results

Out of the 382 employees who were invited to take the survey, 361 responded. As a general rule, rates higher than 50 percent suggest soundness, whereas rates lower than 30 percent may indicate problems. At 95 percent, our response rate is considered high.

Scores above 350 suggest that employees perceive the issue more positively than negatively, and scores of 375 or higher indicate areas of substantial strength. Conversely, scores below 350 indicate issues are viewed less positively by employees, and scores below 325 should be a significant source of concern for the organization and should receive immediate attention.

The following constructs are considered the relative strengths of the TWDB:

Strategic

Score: 394

The Strategic construct reflects employees' thinking about how the organization responds to external influences that should play a role in defining the organization's mission, vision, services, and products. Implied in this construct is the ability of the organization to seek out and work with relevant external entities.

Supervision

Score: 392

The Supervision construct provides insight into the nature of supervisory relationships within the organization, including aspects of leadership, the communication of expectations, and the sense of

fairness that employees perceive between supervisors and themselves.

Benefits

Score: 390

The Benefits construct provides a good indication of the role the benefits package plays in attracting and retaining employees in the organization. It reflects employees' perceptions of how well their benefits package compares with those of other organizations.

External Communication

Score: 387

External Communication looks at how information flows out of the organization to various constituencies and focuses upon the ability of the organization to synthesize appropriately.

The following constructs are considered to be areas of concern for the agency:

Pay

Score: 276

The Pay construct addresses perceptions of the overall compensation package offered by the organization. It describes how well the compensation package "holds up" when employees compare it with compensation for similar jobs in other organizations.

Internal Communications

Score: 346

The Internal Communication construct captures the organization's communications flow from the top down, the bottom up, and across divisions/ departments. It addresses the extent to which communication exchanges are open and candid and move the organization toward goal achievement.

Information Systems

Score: 365

The Information Systems construct provides insight into whether computer and communication systems enhance employees' ability to do their jobs by providing accessible, accurate, and clear information. The construct addresses the extent to which employees feel that they know where to get needed

information, and that they know how to use it once they obtain it.

Diversity

Score: 366

Diversity addresses the extent to which employees feel that individual differences, including ethnicity, age, and lifestyle, may result in alienation and/or missed opportunities for learning or advancement.

SEE Steering Team and Action Plan

SEE Steering Team

The SEE steering team is composed of staff representatives from each area of the agency. The team first met in the fall of 2009 to develop a marketing plan with the goal of increasing the number of participants in the 2010 survey. Marketing strategies developed included t-shirts worn by team members, posters, electronic postcards, and announcements of the upcoming survey at agency-wide and division-level meetings.

After the results were received by the agency, the SEE steering team was responsible for distributing them, as well as developing a recommended action plan for leadership approval.

Action Plan

In order to form a well-informed action plan, the SEE steering team began running focus groups in May 2010 to address the agency's four lowest constructs: pay, internal communications, information systems, and diversity.

The focus groups are made up of 15 to 25 randomly chosen employees from all areas of the TWDB. The groups, led by two to three SEE steering team members, are guided through a discussion of why employees rated the agency the way they did, and what the agency could do to improve employees' opinions. The goal of the focus groups is to create an open and confidential place for employees to share their honest opinions on how to improve the agency. The steering team will take the suggestions and

comments made at the focus group meetings and develop a final action plan to recommend to the agency's leadership.

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