IX. Policy Issues

Bond Authorization

A. Brief Description of Issue

The TWDB is in need of additional constitutional general obligation bond authority in order to provide financing through the Development Fund, State Participation Program, Water Infrastructure Fund, and Rural Water Assistance Fund and to match future federal Clean Water and Drinking Water State Revolving Fund grants.

B. Discussion

Since 1957, the TWDB has been authorized to issue up to $4.23 billion in general obligation Development Fund bonds under Article 3, Section 49, of the Texas Constitution. Of the $4.23 billion authorized, $2.784 billion has been issued, which leaves $1.446 billion in authority remaining to be issued. The 81st Legislature authorized $698,415,000 to be issued for non-self-supporting bond programs in FY 2010–11. This would leave less than $750 million in authority for self-supporting bonds programs and match for federal grants.

This bond authority may be used for one or more accounts of the Water Development Fund II. Debt issued under the state water plan relies upon that authority for the State Participation and Water Infrastructure Fund.

The TWDB's general obligation bond authority is considered self supporting, unless specifically designated as non-self supporting by the legislature and is not expected to create a General Revenue draw. For this reason, these amounts are not included in the constitutional debt limit calculation.

Due to current economic conditions and the downgrading of municipal insurers, many entities that would normally access the municipal market are unable to do so. Therefore, the TWDB has seen an increased demand for financing through its programs. Due to current and projected demand for the programs that use the constitutional authority, the remaining authority may be fully exhausted by the end of FY 2011.

C. Possible Solutions and Impact

A solution to this issue would be to amend the Texas Constitution to provide additional constitutional authority.

The TWDB is recommending an evergreen authority of $6 billion, which would potentially provide ongoing water funding. The TWDB would be allowed to issue bonds as necessary for one or more accounts of the Development Fund, without additional constitutional amendments as long as the amount outstanding at any time does not exceed $6 billion.

Additional authority requires legislative action and voter approval of the constitutional amendment. Additional authority for the Development Fund would not be included or calculated against the constitutional debt limit as it is considered self supporting, unless the legislature chooses to designate a portion of the authority for non-self-supporting bonds.

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

Utilization of the Bond Authorization to go out as Grant (90/10)

A. Brief Description of Issue

Current statute requires that no more than 90 percent of Economically Distressed Areas Program (EDAP) funds can be in the form of grants. The remaining 10 percent of financing must be in loans specifically from EDAP. To expand the program, the TWDB proposes 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.

B. Discussion

EDAP was created in 1989 to provide financing for water and wastewater projects in economically distressed areas. Financial assistance is in the form of a grant or a grant/loan combination. Current statute requires that no more than 90 percent of the total principal amount of issued and unissued bonds under the EDAP authority may be provided as grant assistance. Thus, the remaining 10 percent of EDAP funds is required to be in the form of loan assistance. The constitutional authority at Article III, Section 49-d-7(b), contains no such limitation.

EDAP includes a requirement that a grant-to-loan calculation be applied to each project. If an applicant is determined to be capable of incurring a loan component, the loan must be from within EDAP. EDAP also includes a requirement that for a project to receive greater than 50 percent of its funds in a grant, a health and safety nuisance finding from the Texas Department of State Health Services must exist. For projects that do not receive a nuisance finding, the 50 percent loan required must be from within EDAP.

The recommendation would allow 100 percent of the total principal amount of issued and unissued EDAP bond authority to be provided as grants. Any loans required of a project through the TWDB's grant-to-loan calculation, or the 50 percent required for projects without nuisance findings, would be provided through other TWDB loan programs. Proposed changes would not eliminate any required loan component but would allow for the loan to be funded from other sources rather than EDAP. This change would allow additional grant funds to be available from the EDAP bond authorization and expand the total program funding by using 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.

C. Possible Solutions and Impact

A solution to this issue would be to remove the statutory limitation, specifically in Chapter 17, Subchapter K, specifically Section 17.933(c) and (d). TWDB rule changes will also be necessary.

Making these changes will have a fiscal impact. Using 100 percent of the constitutional EDAP bond authority for grants will increase the amount of General Revenue required for this non-self-supporting program. Removing the requirement that loan financing for an EDAP project must come from EDAP will result in reducing the principal and interest repayments that have been used to offset the amount of General Revenue requested for this non-supporting program. An increase in General Revenue to support EDAP bond issuance will be necessary.

Stakeholders include advocates for state benefits to colonia residents and political subdivisions eligible to receive funding under the program.

Benefits

The proposed changes to EDAP funding would provide numerous benefits to the state:

- Maximizes the amount of grant assistance from EDAP bond proceeds and expands the total EDAP funding.
- Provides a potential increase in the amount of assistance provided for the same total financing cost because of loans from other lower interest rate programs. Applicants will be able to borrow more funds without increasing the amount of the repayment obligation. EDAP loans generally have higher interest rates based on costs of funds associated with EDAP bond sales. Loans would be from other self-supporting TWDB financial assistance programs and, therefore, at no additional cost to the state.
- Reduces the costs to applicants that do not have nuisance determinations through loans from lower interest rate programs.
- Reduces or eliminates the restrictions on EDAP bond sales imposed by the Tax Increase Prevention and Reconciliation Act of 2005 because of the availability of loans from programs.
- Eliminates the potential for leaving bond authorization unused if the entire loan requirement is ultimately unmet.
- Reduces administrative cost of the EDAP loan portfolio with multiple small loans, which for water supply corporations require taxable loans and bonds.

Executive Salary

A. Brief Description of Issue – Executive Salary

The current annual salary of the TWDB's Executive Administrator is capped at $135,000 and the agency is currently categorized as a Group 5 agency. The active involvement and professional familiarity with the complexity of the TWDB's public financing programs provides the members of the governing Board with the judgment necessary to assess the specialized professional skills necessary and appropriate for the Executive Administrator position and the salary necessary to attract and retain qualified individuals. The Board needs to be provided the ability to set the Executive Administrator's annual salary as appropriate within the Group 5 range based on the Board members' judgment and business expertise.

B. Discussion

The TWDB Executive Administrator is responsible for managing financial programs that provide over $554 million annually in grant and loan funding to political subdivisions of the state for water-related projects; managing a portfolio of political subdivision bonds, loans, and securities of over $4 billion; developing a state water plan to manage the water resources of the state; and developing sound science and sophisticated data distribution and reporting systems. As a result, the TWDB must rely on a highly skilled professional staff of engineers, finance analysts, geoscientists, geologists, geographic information systems specialists, hydrologists, surface water and groundwater modelers, and attorneys.

Allowing the Board to set the Executive Administrator's salary within the Group 5 salary range will provide them the ability to retain the current Executive Administrator and give them more flexibility in recruiting future executive and senior level management.

C. Possible Solutions and Impact

A solution to this problem would be to allow the agency's governing Board to set the Executive Administrator's salary within the Group 5 range. Another option would be to add the TWDB to the list of agencies and exempt positions in Subsection (c) of Section 3.05 of the appropriations to allow the governing Board of the TWDB to submit a salary increase request to the Legislative Budget Board and the Governor's office. Fiscal impact to the TWDB would be nominal and could be funded from existing appropriations.

Data Center Services

A. Brief Description of Issue – Data Center Services

As mandated by legislation (HB 1516 of the 79th Legislative Session), the Texas Water Development Board (TWDB) entered into an interagency contract with the Department of Information Resources (DIR) to have a selected service provider, now known as IBM Team for Texas (IBM), to manage our data center to include servers, network storage, systems administration and disaster recovery of agency data. However, IBM's insufficient service is critically affecting the TWDB's essential functions.

B. Discussion

The data that the TWDB maintains is critical and essential to the future management of water in Texas. The Texas Natural Resources Information System (TNRIS) Division, part of the TWDB, also maintains important geographic information systems (GIS) data used by state, local, and federal emergency management decision makers in emergency response situations. IBM's poor performance in maintaining the agency's servers to date has resulted in major concerns about their ability to manage TWDB's mission-critical data and support the creation of vital new GIS-based data for other essential state, local, and federal services. It is also evident through past performance and currently mandated procedures that the TWDB and its customers will receive reduced services in the future compared to what the TWDB was able to deliver prior to the contract.

IBM performance deficiencies range from their inability to perform back-ups of agency defined critical servers to their inability to provide timely solutions for various problems. The information below provides an overview of some of the problems that the TWDB has had with IBM's performance.

IBM continues to provide insufficient back-up of TWDB systems. At this time, IBM has not been able to successfully back-up all TWDB servers without a failure occurring over a two-week period, and several of the servers are not getting backed-up at all. In November of 2008, the TWDB met with IBM and the DIR to discuss our concerns and develop a plan for addressing those concerns. As a result of that meeting, IBM developed a plan to first focus on ensuring that the critical servers were being backed-up and then on to the noncritical servers. To date, four of the TWDB's noncritical servers have not been added to the back-up schedule and, currently, are not getting backed-up at all. Another additional problem related to this request was that the request ticket in IBM's system was closed even though it had not yet been completed, and another request ticket had to be entered to ensure that the problem is addressed.

For the TWDB to connect to the state data centers, the TWDB had to make an unanticipated purchase of approximately $210,000 of network connectivity equipment. IBM, however, has not yet purchased the required equipment necessary to provide for network connectivity on their end. This is needed in order for IBM to establish a site-to-site encrypted tunnel between the TWDB and the state data centers. This delay is, in turn, causing further delay in the physical movement of TWDB's servers to the state data center.

To date, IBM has not successfully completed the TNRIS division back-up and restoration of approximately six terabytes of special GIS data. This request is older than 26 weeks. This same request would have taken TWDB a maximum of two weeks to complete.

The TITAN production server that houses our GroupWise e-mail archive and the HalFile electronic records

management system was down for one week in July 2009. The server had to be rebuilt because they could not restore the server due to the lack of availability of good tape back-up.

The TNRIS LANDROVAL production server that houses our Geospatial Emergency Management Support System application, Hydrologic Information System, Confluence (collaboration application), and JIRA (ticketing system for TNRIS end users) was down for one week in August of 2009.

Not all servers are being proactively monitored by IBM. The TWDB has identified server outages, servers running out of disk space, antivirus definitions being out of date, etc. Even though these concerns have been reported to IBM, TWDB has seen no improvement in the monitoring of our servers.

Another major problem is IBM's change request process. It is a time-intensive process and often IBM may take up to two weeks to address a simple request. For example, in June 2009, we requested to upgrade our Novell Identity Manager, a free upgrade under the Novell maintenance agreement; however, we are still awaiting approval from IBM.

Recently, DIR granted the TWDB an exemption for our TNRIS development servers. The TWDB was pleased to receive this exemption; however, it continues to have major concerns that IBM is not positioned to maintain TNRIS test and production servers due to the complex nature of maintaining and managing GIS data. Additionally, no process has been defined on how large GIS files can quickly be uploaded/downloaded in emergency response situations, as is the case for hurricanes and floods.

The amount of staff time required to monitor performance and manage the contract has been extensive. Staff efforts include daily monitoring of back-up jobs, responding to DIR inquiries, planning for transformation, monitoring operational status, validating the completion of work requests, ensuring that the physical inventory of TWDB equipment in IBM's system is correct, and completing deep dive analysis for transformation.

C. Possible Solutions and Impact

To solve these significant issues, the TWDB needs to be exempt from this mandate, and resources and operational authority returned to TWDB. This will allow TWDB to ensure that vital and critical water-related data essential to the future management of water in the Texas is secure, backed-up appropriately, and recoverable. This will also ensure that TNRIS can continue to provide emergency response data services to federal entities during emergency situations. In lieu of this, TWDB requests an increased consistent focus from IBM on back-ups and other outstanding issues.

Management-to-Staff Ratio

A. Brief Description of Issue

Texas Government Code, Section 651.004, management-to-staff ratios, requires that state agencies achieve a management-to-staff ratio of one manager for each 11 staff members. Because of the specialized nature of TWDB programs, the ratio requirement has resulted in a disproportionate allocation of staff and managers in areas.

B. Discussion

The management-to-staff requirement has limited the TWDB's ability to establish solid management structures within the program areas. The limitation of requiring one manager for each 11 staff prevents the TWDB from having smaller workgroups focusing on their respective specialized areas. Furthermore, it is not possible to maintain parity across the agency in terms of a 1:11 ratio. Instead, some managers may have twice this ratio, while others may have a staff of only four or five. The TWDB has a varied and diverse group of professionals working in highly specialized fields. It is not feasible to have a manager oversee areas that are not within their scope of work or professional discipline simply to maintain parity. This has resulted in the disproportionate allocation of staff to their respective managers. The TWDB is not a large enough agency to develop a structure that completely accommodates the management-to-staff ratio requirement without some disparity among management. This disproportionate staff allocation places a greater burden on some managers in regard to staff development. In some cases, the volume of work effort created by increased staff responsibility has limited managers' ability to complete programmatic initiatives because they have had to dedicate extensive time and effort to staff related matters.

C. Possible Solutions and Impact

A solution to this problem is to enact legislation that would no longer require agencies to adhere to a management-to-staff ratio. This would greatly benefit the TWDB by allowing management to structure the organization based on specific programmatic initiatives. Because of the relatively small size of the TWDB, managers not only perform their respective oversight duties but may also have to engage in specific projects and initiatives. The term "working manager" best describes almost all TWDB managers in both directing staff's work effort and engaging in specific projects. There would be no significant cost impact to the TWDB as a result of changing this requirement.

Adequacy of Judicial Remedies

A. Brief Description of Issue

Judicial remedies for the TWDB to enforce specific covenants and obligations in bonds and other securities, including loan and grant agreements, executed or issued by financial assistance applicants to obtain financial assistance from the TWDB may be extended or more clearly defined in statute. These remedies will help protect the TWDB's investment of state funds.

B. Discussion

The TWDB administers a number of financial assistance programs, including water supply, water quality enhancement, flood control, and economically distressed areas projects. Financial assistance applicants include river authorities and other districts created under Article III, Section 52, and Article XVI, Section 59, of the Texas Constitution, such as municipal utility districts, freshwater supply districts, water control and improvement districts, and special utility districts; municipalities; nonprofit water supply and sewer service corporations created under Chapter 67, Water Code; certain counties; and, in the case of the Drinking Water State Revolving Fund under Section 15.6041, Water Code, private entities that own or operate public water systems. Whether the financial assistance is provided through the TWDB's purchase of bonds or securities or through a loan or a grant, specific covenants and provisions typically are included to ensure the proper expenditure of public monies and timely repayment of principal and interest on loans.

Statutory Remedy for Default Does Not Apply to All Financial Assistance Programs and Debt Instruments

In the event of a default in payment of the principal of or interest on bonds purchased by the TWDB or any other default as defined in the proceedings or indentures authorizing the issuance of the bonds, Section 17.180, Water Code, authorizes the Attorney General to institute judicial proceedings "by mandamus or other legal remedies" as appropriate to compel a defaulting "political subdivision or its officers, agents, and employees to cure the default by performing those duties which they are legally obligated to perform." Proceedings are to be filed in a district court in Travis County.

The remedy for default in Section 17.180, Water Code, is provided only for bonds purchased through the TWDB's Development Fund programs and EDAP under Subchapters D, E, F, G, K, and L, Chapter 17, Texas Water Code, and the Water Infrastructure Fund (Subchapter Q, Chapter 15, Water Code). Section 17.180 does not apply to financial assistance made available from the Water Loan Assistance Fund under Subchapter C, Chapter 15, Texas Water Code; the Storage Acquisition Fund under Subchapter E, Chapter 15, Water Code; the Clean Water and Drinking Water state revolving funds under Subchapter J, Chapter 15, Water Code; the Rural Community Water and Wastewater loan fund under Subchapter O, Chapter 15, Water Code; the Colonia Self-Help account under Subchapter P, Chapter 15, Water Code; or the Rural Water Assistance Fund under Subchapter R, Chapter 15 Water Code. The Agriculture Water Conservation Bond Program includes a default remedy at Section 17.9022(b), Water Code, that is similar to Section 17.180. Furthermore, Sections 17.180 and 17.9022(b) do not appear to apply to securities other than bonds or to loan and grant agreements.

Remedies May Be Limited by Debt Instruments
Although the Attorney General is authorized by Sections 17.180 and 17.9022(b) to institute proceedings to compel a borrower to perform their duties under the bond proceedings and indentures, it is possible that a court could limit the available remedies to those listed in the bond documents. Typical bond documents do not provide for specific injunctive relief to compel a borrower to perform specific covenants. Rather, the bond documents typically provide for acceleration of payment of the bonds in the event of default, which is defined as violation of any of the covenants.

If the bond is secured by a lien on real property, the bond documents may also provide for foreclosure under the Deed of Trust. The TWDB typically takes a security interest in the facilities, permits, real estate, and customer service accounts of nonprofit water supply and sewer service corporations. This security interest, in the form of a lien, serves the purpose of preventing another creditor from taking possession of the facilities and real estate in the event of foreclosure, thus better ensuring payment of principal and interest on the TWDB's loans.

In the event of default, the TWDB typically has no interest in accelerating the debt or foreclosing on the property of a debtor as a remedy. However, the courts are likely to view these remedies as appropriate and will be reluctant to entertain a petition for mandamus or injunction in the event of default by a nonprofit water supply or sewer service corporation because those remedies are not provided in the debt instruments.

C. Possible Solutions and Impact

The legislature would need to enact statutory authority in the Texas Water Code to provide for judicial remedies in the event of default under Chapter 15 financial assistance programs similar to the authority provided for Chapter 17 programs, Section 17.180, Water Code.

Under both Chapters 15 and 17, Water Code, the TWDB would also need statutory authority to enforce specific terms and requirements of bonds and other securities, as well as loan and grant agreements, in addition to any remedies provided in the debt instruments and loan documents. Specified judicial remedies will need to be declared as in in the public interest and venue established in Travis County.

The statutory changes would provide the TWDB with a more complete array of judicial remedies to protect the agency's investment of public monies.

Interested persons will include "political subdivisions" as defined at Sections 15.001(6), 16.001(7), and 17.001(6), Water Code.

Water Conservation

A. Brief Description of Issue

The 2007 State Water Plan indicates that water conservation is projected to provide more than 20 percent of the new supplies Texas needs by 2060. In many cases, conserving water is the most cost-effective way a water user can acquire additional water. Even though water conservation will not satisfy all future state water needs, it is an important strategy for providing water for a rapidly growing state. However, to encourage statewide water conservation, the agency needs to implement a more robust statewide public awareness campaign.

B. Discussion

Some water conservation activities are specific requirements in statute, including water conservation strategies in regional and state water plans, municipal water conservation plans, utility water loss audits, and a statewide public awareness program. Many TWDB activities in support of conservation efforts are a result of voluntary requests for information and assistance from the public, water suppliers, and various water user groups. When local water supplies are limited or there is a drought, interest in water conservation increases. Water conservation is often used first, often in conjunction with other water sources, as a water management strategy in meeting any identified needs in the regional and state water planning process. However, there are significant perception obstacles to implementing water conservation activities:

- Public—Water is always available, so why should I have to conserve if I can afford to use it as I wish?
- Utilities—If we promote conservation, our water sales revenue will decrease, so won't we have to raise rates?
- Public and utilities—If we implement a minimal amount of conservation is that sufficient to meet any requirements?

C. Possible Solutions and Impact

Potential improvements would be funding to

- conduct a viable multi-media statewide water conservation public awareness program that can offer Web site presence and materials and access to a network of groups and communities dedicated to educating Texans about water conservation;
- develop an education program with sufficient resources to provide classroom programs and other materials in quantities sufficient for distribution throughout the fiscal year;
- implement water conservation activities identified as a water management strategy in the regional water plans and state water plan;
- create a matching grants program to local utilities for water conservation programs; and
- support research and development regarding water conservation best management practices and other innovative water conservation resources.

Desired Future Conditions

A. Brief Description of Issue

In 2005 the legislature passed House Bill 1763, which required groundwater conservation districts within groundwater management areas to establish desired future conditions for their relevant aquifers. There is concern among a variety of stakeholders that the process of determining desired future conditions may not take into consideration the physical effects of implementing the conditions adopted nor provide adequate analysis and notice to all affected users of the related groundwater resources when they are harmed by new pumping restrictions that result from the process.

B. Discussion

These desired future conditions are used by the TWDB to calculate managed available groundwater numbers. The agency then provides these numbers to regional water planning groups and groundwater conservation districts. If received in time for the regional water planning process, planning groups are required to use managed available groundwater numbers in their regional water plans. Groundwater conservation districts are required to include the desired future conditions and managed available groundwater numbers in their groundwater management plans and, to the extent possible, for permitting groundwater use. Before the passage of House Bill 1763, groundwater conservation districts were required to have "managed available groundwater numbers" that did not disallow the implementation of the regional water plans. With the passage of House Bill 1763, regional water planning groups are now required to use the numbers based on desired future conditions determined by the groundwater conservation districts—regardless of whether or not the numbers disallow implementation of the previous water plan.

Although it is still early in the implementation of House Bill 1763 (groundwater conservation districts are required to adopt desired future conditions by September 1, 2010; districts in only 4 of the 16 groundwater management areas have submitted desired future conditions as of August 2009), there are concerns that this process will result in much lower groundwater availability numbers, thus affecting the ability of cities and industries to meet future demands for water. In addition, there are concerns that groundwater conservation districts are not considering all of the possibilities in their deliberations and that stakeholders are not aware of the desired future condition process and what the process may mean for their groundwater resources.

C. Possible Solutions and Impact

One possible way to address these concerns is to (1) require groundwater conservation districts to consider, as part of their deliberations on desired future conditions, the total amount of drainable groundwater and the maximum amount of groundwater that can be pumped sustainably and (2) require districts to notify each groundwater permit holder, each named water user group that uses groundwater in the regional water planning process, each river authority, each regional water planning group, and each house and senate representative in the groundwater management area (a) when a vote will be taken to adopt any desired future condition and (b) what that desired future condition means to current users, permit holders, and the future use of the resource. In this manner, groundwater conservation districts will consider a fuller range of possibilities of desired future conditions, consider the effect these conditions will have on current and future groundwater use, and ensure that stakeholders and regional water planning groups are part of the process. A statutory change would be needed to implement these considerations.

Environmental Flows

A. Brief Description of Issue

State statute defines environmental flows as "a schedule of flow quantities that reflects seasonal and yearly fluctuations that typically would vary geographically, by specific location in a watershed, and that are shown to support a sound ecological environment and to maintain the productivity, extent, and persistence of key aquatic habitats in and along the affected water bodies." The scope of the environmental flows legislation enacted in 2007 is such that additional funding and support is needed in future biennia.

B. Discussion

As far back as the 1970s, the TWDB, along with the Texas Parks and Wildlife Department and the Texas Commission on Environmental Quality, has grappled with how to adequately define, determine, and ultimately apply environmental flows for rivers, bays, and estuaries in water planning and water rights permitting. Accurate environmental flow numbers allow the state to plan for the use of its surface water resources while protecting the state’s commercial, recreational, and environmental resources.

Critical reviews of the data, models, and methods used to develop the state's bays and estuaries flow recommendations, the desire to provide accelerated instream flow recommendations, delays and lack of uniformity in implementing permitting standards for environmental flows, and a desire for expanded stakeholder input in developing flow recommendations led to the passage of Senate Bill 3 in 2007. The Senate Bill 3 environmental flows process aims to provide environmental flow recommendations for nearly the entire state by approximately the summer of 2013; however, the Senate Bill 3 process is limited to the best science available. Results will, therefore, be subject to fairly large uncertainties. In addition, due to the accelerated schedule, it is not yet clear whether flow recommendations will be made for more than a few locations in each major river basin. To address uncertainties, adaptive management based on revisiting recommendations in the future (at least on a 10-year interval) has been incorporated into the Senate Bill 3 process.

C. Possible Solutions and Impact

The TWDB recommends that the legislature continue to support this process. Additional funding will be required in subsequent biennia to finish the Senate Bill 3 environmental flows process. Continued funding will also be required for the state agencies to continue to conduct and refine the scientific studies needed to support the Senate Bill 3 process.

Interbasin Transfer

A. Brief Description of Issue

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

B. Discussion

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

In 1997, the legislature, as part of Senate Bill 1, expanded the requirements for obtaining a permit for an interbasin transfer and also required that any interbasin transfer become the most junior water right in the basin. Since these provisions were added to the Water Code, there has been a significant drop in the amount of interbasin transfer authorizations issued. According to Texas Commission on Environmental Quality data, only three interbasin transfer permits have been granted. Furthermore, the difficulty in moving surface water has increased pressure to move groundwater, which does not have similar restrictions.

C. Possible Solutions and Impact

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

Reservoir Site Designation and Acquisition

A. Brief Description of Issue

Texas has 196 major reservoirs, a major reservoir being defined as an impoundment that currently has at least 5,000 acre-feet of storage capacity at its normal operating level. Of the 196 major reservoirs, 175 have a water supply function. The major reservoirs of the state vary in size from 5,200 acre-feet conservation storage capacity for the Upper Nueces Lake to 4,472,900 acre-feet for the Toledo Bend Reservoir, which includes both the Louisiana and Texas portions of the reservoir. Making the best use of existing reservoirs, controlling watershed erosion to maintain their holding capacity, and identifying viable sites for new reservoirs are key to effective long-term water supply management and planning in Texas.

B. Discussion

The following discussion of "Reservoir State Designation and Acquisition" in Volume I of the 2007 State Water Plan provides a good framework for this policy issue:

"Reservoir construction in Texas was most prolific before 1970. By 1950, Texas had constructed approximately 60 major reservoirs (5,000 acre-feet or greater of conservation storage capacity). Between 1950 and 1980, the number grew to a total of 179, but the pace of construction began to slow in the 1970s and continued the downward trend through the remainder of the 20th century. The reduced number of potentially high-quality reservoir sites, environmental issues or concerns, and increasing costs of reservoir development all contributed to the slow down. Texas currently has 196 major reservoirs. Ten reservoirs that were able to hold more than 5,000 acre-feet of water at conservation pool elevation upon initial impoundment are now no longer able to due to sedimentation and are currently classified as minor reservoirs.

"Over time, Texas' state water plans have reflected this slowdown in reservoir development. The 1984 State Water Plan identified 65 major reservoir sites and allocated water from 44 of the new reservoirs to meet needs through 2030. The 1990 State Water Plan included 20 new reservoirs. In contrast, the 1997 and 2002 State Water Plans each recommended only eight major reservoirs to meet needs for additional water supplies through 2050. Major reservoir projects absolutely must remain a strong and viable tool in our water development toolbox if the state is to meet its future water supply needs. Recognizing this, planning groups have recommended 14 new major reservoirs as water management strategies in their 2006 Regional Water Plans to meet future water supply needs.

"A number of factors will determine whether or not the major reservoirs recommended in the 2006 Regional Water Plans will actually be developed. One of the primary factors involves the reservoir site itself and the manner in which the state addresses issues associated with preserving the viability of the reservoir site for future reservoir construction purposes.

"Certain governmental actions, such as developing public utility infrastructure or actions by federal, state, or local governments to protect natural ecosystems located within the reservoir footprint can significantly impact the viability of a site for future construction of a proposed reservoir. The proposed Waters Bluff Reservoir on the main stem of the Sabine River was prevented in 1986 by the establishment of a private conservation easement. In addition, the proposed Lake Fastrill, which is included in the 2006 Region C Water Plan and the 2007 State Water Plan as a recommended water management strategy to meet the future

water supply needs of the city of Dallas, is a current and significant case in point. Land located within the reservoir's footprint is also included within the recently designated Neches River National Wildlife Refuge. If the designation of the Neches River National Wildlife Refuge by the U.S. Fish and Wildlife Service prevails in any legal challenges, it would effectively preclude future use of the site for the proposed Lake Fastrill.

"Lack of action by the state legislature in protecting reservoir sites has been cited as a problem in precluding federal actions that would otherwise be considered as circumventing the state's primacy over water in the state.

"Also, it should be noted that between the time a reservoir site is selected and construction is initiated, the value of land and improvements escalate due to market forces and that protecting reservoir sites from commercial development and inordinate price increases will require new legal and public policy approaches.

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

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

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

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

C. Possible Solutions and Impact

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

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

develop additional surface water supplies to meet the future water supply needs identified in the 2006 Regional Water Plans and those that will occur beyond the 50-year planning horizon.

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

The benefits include the following:

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