

Water Efficiency in Texas

Presented at the CIFA SRF Workshop
October 20, 2008
Providence, Rhode Island

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History of Water Conservation in Texas

1984 – 1990

- Changes to include more water conservation in water planning studies were first evident in the 1984 and 1990 State Water Plans and became more apparent in the 1997 State Water Plan.
 - **1985 HBI, 69th Legislature**
 - ✓ Required a water conservation plan as part of approval of TWDB loan applications.
 - ✓ Established the Agricultural Water Conservation Trust Fund to fund grants and loans.
 - ✓ Conservation Division was created and staffed at TWDB.

1997

- **Senate Bill 1 passed by the 75th Texas legislature** established the Regional Water Plans process which included optional consideration of water conservation strategies as a means to meet future water supply needs.

History of Water Conservation in Texas

2003

Senate Bill 1094 created the Water Conservation Implementation Task Force.

- ✓ Considered and responded to six specific tasks in the legislation.
- ✓ Provided a report to the Governor and 79th Legislature in November 2004. The Task Force also
- ✓ Developed a Water Conservation Best Management Practices Guide (TWDB Report 362)

House Bill 3338 implemented a requirement that every five years retail public utilities providing potable water shall perform and then file a report to the TWDB on a water audit computing the utility's most recent annual system water loss.

History of Water Conservation in Texas

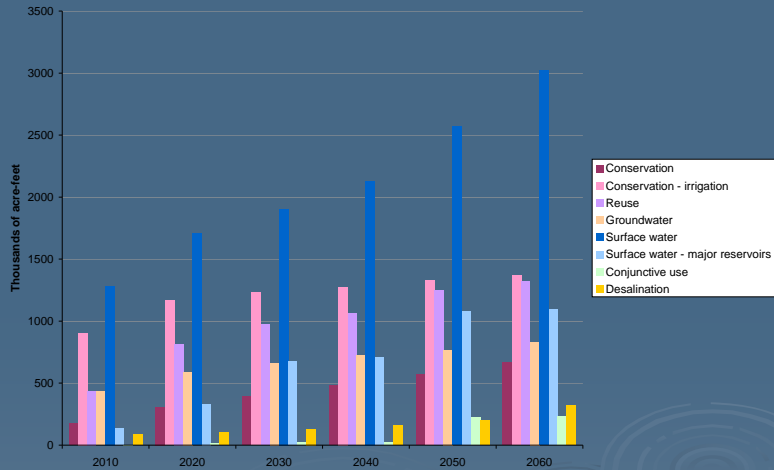
2007

Senate Bill 3 authorized the TWDB to implement a statewide water conservation public awareness program.

- ✓ *Requires retail public utilities that provide potable water service to 3,300 or more connections to submit a water conservation plan and annual reports to TWDB.*
- ✓ *Requires that the TWDB shall give priority to loan applicants that:*
 - *have already demonstrated significant water conservation savings; or*
 - *will achieve significant water conservation savings by implementing the proposed project for which the financial assistance is sought.*
- ✓ *Created the Water Conservation Advisory Council*

2007 Texas Water Plan

State water management strategies over planning period



Water Efficiency as Strategy

- Water For Texas 2007 identifies water efficiency activities and projects as major strategy for meeting needs
 - ✓ 13 of 16 regional planning groups recommend reuse as a strategy to meet needs, creating 1.3 million ac-ft of new water per year by 2060
 - ✓ Reuse accounts for 14% of new water supply at an estimated capital cost of \$4 billion
 - ✓ 15 regional planning groups recommend conservation measures to account for nearly 23% of water supply
 - ✓ Conservation costs are small; estimated capital cost is \$939 million

Water Efficiency Policy

- TWDB recommends water efficiency policy

The legislature should review the Water Conservation Implementation Task Force recommendations and implement those that will result in optimal levels of water use efficiency and water conservation

- TWDB recommends an evaluation and clarification of current reuse issues

Texas Funds Efficiency

- Water Infrastructure Fund

- ✓ Tarrant Regional Water District constructed wetlands

- Agricultural Water Conservation Demonstration Program

- ✓ Projects in Panhandle and Lower Rio Grande Valley to demonstrate conservation and producer profitability

- LRGV irrigation conservation projects

- ✓ Federal funding to improve efficiency in irrigation delivery systems

- CWSRF

- ✓ Variety of projects that promote efficient use of water

CWSRF and Efficiency

- Ranking of projects in Texas IUP
- Texas has been also been innovative in funding for efficiency through the CWSRF

Funding Efficiency - CWSRF

- In September 2008, TWDB approved CWSRF commitment in the amount of \$74.5 mil to the City of Ft. Worth
 - ✓ Project includes enhanced distribution of treated effluent for reuse
 - ✓ Fourteen mgd pump station and 27,000 linear feet of up to 30 inch transmission line
 - ✓ Cost of reuse portion of project is \$16.5 million

Funding Efficiency - CWSRF

- Texas CWSRF has funded a variety of efficiency projects. For example:
 - ✓ 1998 - Wastewater reclamation initiative for the City of Austin (\$10 million)
 - ✓ 2000 - Treated wastewater effluent reuse program for the City of San Antonio (\$27.5 million)
 - ✓ 2008 - Renovation of wastewater reclamation plant for the City of El Paso (\$36 million)

Texas Promotes Efficiency

Texas Water Day

- ✓ Educate Congress on Texas water policy and funding priorities
- ✓ Key priority is “Sustainable Water Supplies: Reuse, Conservation and Desalination”

Increasing Water Efficiency Implementation

- Texas expects increase in efficiency-type projects seeking funds through CWSRF
 - ✓ Better understanding of eligibility under CWSRF (TWDB marketing effort)
 - ✓ Increased awareness statewide, through various educational and planning efforts
 - ✓ More acceptance of reuse and other water management approaches

Texas Promotes Innovation

TWDB established

Innovation Water Technology group to:

- participate in research
- fund demonstration projects
- develop educational materials

Texas Promotes Innovation

Texas Seawater Desalination Authorization

Texas Water Code, Section 16.060, requires TWDB to undertake necessary steps to further the development of cost-effective water supplies from seawater desalination in the state.

Texas Promotes Innovation

Texas Seawater Desalination Key Milestones

2002-2004

Sites selected with most potential to demonstrate (large-scale) seawater desalination; feasibility studies prepared for three sites; and funding secured for pilot plant studies.

2006

Pilot plant study phase initiated for seawater desalination. TWDB awards \$1,340,000 to Brownsville Public Utilities Board for pilot plant study at a site on the Brownsville Ship Channel.

TWDB awards a grant for a seawater desalination pilot plant study in South Padre Island by the Laguna Madre Water District.

Texas Promotes Innovation

Texas Seawater Desalination Key Milestones

2007

Seawater desalination pilot plant study begins at the Brownsville Public Utilities Board's site on the Brownsville Ship Channel.

2008

Pilot plant study at the Brownsville Ship Channel site concludes.

TWBD submits an Legislative Appropriation Request Exceptional Item for a Seawater Desalination Initiative in the amount of \$28,200,000.

Texas Promotes Awareness



Literature Resources

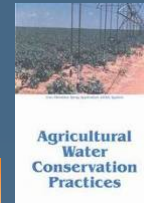
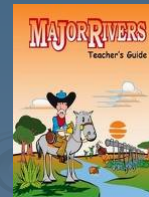
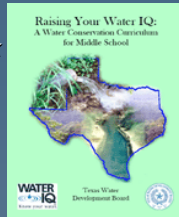
- ❖ *Top Water Smart Tips In and Around the Home*
- ❖ *Be Water Smart Indoors*
- ❖ *Be Water Wise Outdoors*
- ❖ *Texas Manual on Rainwater Harvesting*
- ❖ *The Best Practices Guide*

The Texas Manual
on
Rainwater Harvesting



Education Resources

- ❖ *Raising Your Water IQ*
- ❖ *Major Rivers Program*
- ❖ *TWDB Kids*
- ❖ *Coloring Book*



For Additional Information Contact

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