Water Supply Planning and Project Funding in Texas

Dan Hardin, Interim Deputy Executive Administrator

Water Resources Planning & Information
Water Planning: Legislative Response to Drought

• Late 1950s Drought of Record
  – 1957: Creation of TWDB
  – $200 million Water Development Fund
  – 9 State Water Plans, 1961-2012

• Late 1990s: Potential New Drought of Record
  – ~$6 billion economic losses in ‘96 (mostly agriculture)
  – ~300 entities with threat to water supplies
  – 1997 & 2001: Passage of SB 1 & 2 which created & refined regional water planning
  – 5-year cycle, state plan follows regional plans next year
Regional Water Planning

Statutory interests:
- Public
- Counties
- Municipalities
- Industries
- Agriculture
- Environment
- Small businesses

- Electric-generating utilities
- River authorities
- Water districts
- Water utilities
- Groundwater management areas
Regional Water Planning Process

- Project future population and water demand over 50-year planning horizon
- Quantify existing and future water supplies available during repeat of drought of record
- Identify surpluses and needs
- Evaluate and recommend water management strategies

Existing Water Supplies

Projected Water Demand

= Surplus (+) or Need (-)
Planning for Water User Groups

Cities: 971 (>500 pop)
Utilities: 362
County-Others: 254
Manufacturing: 174
Steam-Electric: 85

Livestock: 254
Mining: 229
Irrigation: 239
2012 State Water Plan – Quick Facts

• Population to increase by 82% by 2060
• Water demand to increase by 22%
• Existing water supply to decrease by 10%
• Need for additional water supply:
  – 3.6 million acre-feet per year in current decade
  – 8.3 million acre-feet per year by 2060
• Strategies recommended to result in additional 9 million acre-feet per year by 2060
Relative Volumes of Recommended Strategies (2060)

- Other Surface Water: 33.8%
- New Major Reservoir: 16.7%
- Irrigation Conservation: 16.7%
- Other Conservation: 0.3%
- Municipal Conservation: 7.2%
- Seawater Desalination: 1.4%
- Groundwater Desalination: 2.0%
- Conjointive use: 1.5%
- Aquifer Storage and Recovery: 0.9%
- Weather Modification: < 1%
- Drought Management: 0.2%
- Brush Control: 0.2%
- Surface Water Desalination: < 1%
Cost of 2012 State Water Plan

- $53.1 billion to implement
- Project sponsors need access to $26.9 billion of project capital costs through state assistance

Financing State Water Plan Projects

- $26.9 billion
- $26.2 billion

- Other mechanisms
- State loan and grant programs
What Does it Cost if We Do Nothing?

• In the current decade:

  – $12 billion annual lost income
  – $1 billion annual lost state/local business tax revenue
  – 115,000 lost jobs

• By 2060:

  – $116 billion annual lost income
  – $10 billion annual lost state/local business tax revenue
  – 1 million lost jobs
  – 1.4 million lost population growth
U.S. Drought Monitor

Texas

Drought Conditions (Percent Area)

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Intensity:

- **D0 Abnormally Dry**
- **D1 Drought - Moderate**
- **D2 Drought - Severe**
- **D3 Drought - Extreme**
- **D4 Drought - Exceptional**

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

Released Thursday, January 13, 2011
B. Fuchs, National Drought Mitigation Center
U.S. Drought Monitor

Texas

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http://droughtmonitor.unl.edu
The “Best” Drought in History

• 2011 proved to be the worst single-year drought in Texas history
• Close to $8 billion in economic loss to agricultural enterprises, significant losses to many other industries
• Throughout 2012, the attention of the public and the Legislature became more focused on recommendations to provide funding assistance to implement State Water Plan projects.
Funding for State Water Plan Projects

• 2013 Legislative session authorized $2 billion to be withdrawn from Economic Stabilization Fund and deposited in State Water Implementation Fund for Texas – if the creation of that fund is approved by voters in November.

• The fund will provide bond and credit enhancements to help make loans for State Water Plan projects more affordable.
Prioritization of Regional Water Plan Projects

• Projects will be prioritized in each regional water plan and in the State Water Plan
• Regional prioritization based on:
  – Decade of need
  – Feasibility, including availability of water rights
  – Viability, including whether the project is a “comprehensive solution”
  – Sustainability
  – Cost effectiveness
• TWDB will convene stakeholders committee in September 2013 to determine standards
Prioritization of State Water Plan Projects

• State Water Plan prioritization based on:
  – Serving a large population
  – Serving a diverse urban and rural population
  – Provide regionalization
  – Meet high percentage of water needs
  – Also consider: local contributions, repayment capacity, emergency needs, ready to proceed, demonstrated or projected impact on conservation
• **State Water Implementation Fund for Texas Advisory Committee**, consisting of:
  
  – Comptroller of Public Accounts (or designee)
  
  – Three members of Senate, appointed by Lieutenant Governor, must include 1 member of Finance and 1 member of Natural Resources
  
  – Three members of House, appointed by Speaker, must include 1 member of Appropriations and 1 member of Natural Resources
SWIFT Advisory Committee

• Role of committee:
  – Provide comments and recommendations to the Board regarding rulemaking related to SWP project prioritization and use of money in the fund,
  – Provide evaluations of various aspects of operation of the fund

• Committee recommendations on rules regarding SWP prioritization and disbursement of loans from the fund must be submitted to Board by September 1, 2014.
SWIFT Operations

• Rules for disbursement of loans from the fund will be finalized in March 2015
• 20% of loan funds to target conservation and reuse projects
• 10% of loan funds to target rural and irrigation conservation projects
For More Information

2012 State Water Plan:
www.twdb.texas.gov/waterplanning/swp/2012/

State Water Implementation Fund for Texas
http://www.twdb.texas.gov/newsmedia/swift/index.asp

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