



Future Municipal Water Supplies: From Planning to Implementation

TCAA Fall Meeting

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Presented by:

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- Overview
 - Regional and State Water Planning.
 - Water Supply Strategies.
 - Permitting of Water Supply Projects.
 - Permitting Challenges.
 - Funding and Implementation.
 - 2011 Legislative Session.

- State Water Planning

- 1950s drought drove the creation of the TWDB in 1957.
- TWDB has prepared 8 state water plans.
 - Early plans focused on reservoir development.
 - Since the 1980s, plans have focused on water management and infrastructure development.
- 1996 drought re-focused state water planning.
 - SB 1 passed in 1997 to create a bottom-up approach to water planning through the use of regional planning groups.

- Regional Water Planning
 - State divided into 16 regions.
 - Regional Water Planning Groups comprised of stakeholders with various interests, including municipal suppliers.
 - 50-year plans developed and revised every 5 years.
 - Future water supplies and demand based on population growth and projected industrial and steam electric demands.
 - Recommended and alternative water management strategies.

- Regional Water Planning (continued)
 - TWDB oversight, review, and consolidation.
 - Regional plans comprise State Water Plan.
 - Why is regional water planning important?
 - Consistency provision in TWC §11.134.
 - TWDB funding per TWC §16.053(j).



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- Water Supply Strategies
 - Surface Water
 - 23 surface water basins in the state.
 - TCEQ-issued permit required.
 - Groundwater
 - Rule of capture governs.
 - Groundwater Conservation Districts created.
 - Conjunctive Use
 - Alternative supplies used to meet peak daily demand.
 - Water quality considerations.

- Water Supply Strategies (continued)
 - Reuse
 - Direct vs. indirect reuse.
 - Surface water-based vs. groundwater-based.
 - Conservation
 - Reduces overall water demands.
 - Use of water conservation plans.
 - Desalination
 - Significant treatment required.
 - Challenge of by-product disposal.

- Water Supply Strategies (continued)
 - ASR
 - TCEQ approval required.
 - Significant land requirements.
 - System Operations
 - Enhances the yield of water supplies.
 - TCEQ approval required if surface waters supplies involved.
 - Portfolio Management
 - Value of diversifying sources.
 - Need for emergency back-up supplies.

- Obtaining a Surface Water Right from TCEQ:
 - Unappropriated Water Must be Available.
 - Beneficial Use Requirement.
 - No Impairment of Existing Water Rights.
 - Not Harmful to the Public Welfare (social, economic, environmental).
 - Environmental Impacts Assessed.
 - Consistency with Regional and State Plans.
 - Conservation and Drought Contingency Plans.

- State Surface Water Permitting Challenges
 - Securing priority.
 - Environmental flows.
 - 1985 Legislation mandated that TCEQ assess the effects of a water right on aquatic environments, fish, wildlife, and water quality.
 - Senate Bill 3 mandated a bottom-up process via stakeholders, expert science teams, and TCEQ rulemaking.
 - Interbasin transfers.
 - “Junior rights provision”.
 - Undefined water conservation standard.
 - Enhanced notice requirements.
 - Four corners and permit amendments.
 - Protests and contested case hearing process.

- Groundwater Regulation
 - Areas outside of GCDs governed by the rule of capture.
 - Only limitations are wanton or wasteful use, subsidence, or malicious intent to harm a third party.
 - Groundwater Conservation Districts created by the Legislature or TCEQ.
 - Political subdivisions of the state.
 - General laws of TWC Chapter 36 govern.
 - 90% of groundwater withdrawals occur within a GCD.
 - 144 counties within a GCD.

- Groundwater Conservation Districts
 - Groundwater management plans and permitting.
 - TWDB approval.
 - Limit production based on tract size, aquifer characteristics, or service needs.
 - Preserve historical use.
 - Control rate and amount of withdrawal.
 - Managed depletion.
 - Groundwater transports out of GCD boundaries.
 - Planning through Groundwater Management Areas.
 - Desired future conditions of the aquifer.
 - Managed available groundwater.

- Federal Permitting of Water Supply Projects
 - Clean Water Act § 404.
 - Discharge of dredged or fill material into waters of the U.S.
 - Administered by USACE with EPA consultation (veto power).
 - Nationwide and individual permits issued.
 - Alternatives assessment required.
 - Clean Water Act § 401.
 - Certification of compliance with state water quality standards.
 - TCEQ tiered approach.
 - National Environmental Policy Act.
 - Driven by “major” federal action—ie, § 404 permit.
 - Requires an EA and possibly an EIS.

- Public Entity Financing
 - General obligation bonds.
 - Revenue bonds.
 - Certificates of obligation/double-barreled bonds.
 - Contract revenue bonds.
 - Bond anticipation notes.
 - Public property finance contractual obligations.
 - Commercial paper program.
 - Creation of a nonprofit corporation.

- TWDB Funding
 - Water Infrastructure Fund.
 - State Participation Fund.
 - Economically Distressed Areas Fund.
 - Agricultural Water Conservation Fund.
 - Drinking Water State Revolving Fund.
 - Rural Water Assistance Fund.
 - Clean Water State Revolving Fund.
 - State participation in regional water and wastewater facilities program.
 - Water and wastewater loan program.
 - Regional facility planning grant program.

- 2011 Legislative Session
 - SNRC interim charges:
 - Costs to the State for immediate and delayed SWP implementation.
 - Joint planning process for groundwater resources.
 - Implementation of water conservation and reuse projects.
 - HNRC interim charges:
 - Evaluate groundwater regulations and permitting.
 - Monitor effects of federal initiatives on SWP implementation.
 - Monitor on-going drought conditions and water conservation.
 - Evaluate model for investor-owned water utilities.
 - Monitor agencies and programs.

- For More Information:
 - mrochelle@lglawfirm.com
 - “*Future Municipal Water Supplies: From Planning to Implementation*” (by Martin Rochelle and Michelle Smith, available at www.lglawfirm.com)
 - *Essentials of Texas Water Resources* (by the State Bar of Texas Environmental and Natural Resources Law Section).
 - Chapter 2 “*Meeting Water Supply Needs: Planning, Permitting, and Implementation*” by Martin Rochelle, Brad Castleberry and Michelle Smith.