

StormCon Austin

The North American Surface Water
Quality Conference & Expo

August 2-6, 2015

Austin, Texas

Texas Water Law and Developing
Innovative Water Supplies

Presented by:

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Groundwater

- Definition
 - Exceptions
 - Underflow of a Watercourse
 - Underground Streams in Defined Channels
 - Artesian Water
 - The “Rule of Capture” and Common Law Restrictions

Groundwater

- Groundwater Conservation Districts
 - Creation
 - Powers – Chapter 36 Texas Water Code
 - Texas Water Development Board
 - Texas Alliance of Groundwater Districts
 - Management of Groundwater Resources
 - Groundwater Management Areas (GMA)
 - Desired Future Conditions (DFCs)
 - Modeled Available Groundwater (MAG)



Surface Water

- State Ownership of Surface Water
 - General Doctrine of Prior Appropriation
 - Exceptions
 - Diffused Surface Water
 - Developed Water and Water Reuse
 - Domestic and Livestock Exemption

Surface Water

- Appropriative Water Rights
 - Generally
 - Historic Development of Appropriation Doctrine
 - Statewide Applicability
 - State Agency and Permitting Requirement
 - Filing Requirement for Prior Appropriations
- Water Rights Cancellation
- Water Rights Adjudication



Obtaining a Water Right Under Current Statutory Procedures

- Availability of Unappropriated Water
- Beneficial Use
- Non-Impairment of Existing Water Rights
- Public Welfare



Obtaining a Water Right Under Current Statutory Procedures

- Conservation and Drought Contingency Requirements
- Environmental Flow Requirements
- Other Requirements
- Interbasin Transfers
- Different Types of Appropriative Permits



Water Development and State Assistance

- Texas Water Development Board
- Planning and Forecasting
 - State Water Planning
 - Regional Water Planning
 - Local Water Planning
 - Drought Response Planning



Water Development and State Assistance

- Financial Assistance
 - Water Development Fund
 - State Loan Program
 - State Participation Program
 - Economically Distressed Areas Program
 - Water Assistance Fund
 - Water Loan Assistance Fund
 - Storage Acquisition Fund
 - Research and Planning Fund
 - Disadvantaged Rural Community Water and Wastewater Financial Assistance Fund
 - Colonia Self-Help Account
 - Rural Water Assistance Fund



Innovative Water Supply Projects

Direct and Indirect Reuse of Wastewater:

- City of Huntsville sale of treated wastewater to Montgomery County Municipal Utility District Nos. 8 and 9
- City of Wichita Falls blended treated wastewater reuse project
- Colorado River Municipal Water District's blended treated wastewater reuse project



Innovative Water Supply Projects

Aquifer Storage and Recovery Projects:

- Currently, there are three facilities in Texas:
 - City of Kerrville (surface water)
 - El Paso Water Utilities (groundwater)
 - San Antonio Water System (groundwater)
- What is aquifer storage and recovery?
 - Injection of treated water into the ground, storing the water during wet periods, recovering the stored water by the same or alternative well.
- Used extensively in the west and southeast United States.



Innovative Water Supply Projects

Desalination Projects:

- Brackish groundwater desalination:
 - El Paso Water Utilities
 - 27.5 MGD
 - San Antonio Water Systems
 - 12 MGD in Phase I
 - 30+ MGD in Phases II and III
- Seawater desalination
 - No operating projects
 - Pilot projects
 - Brownsville Seawater Desalination Pilot Project
 - Laguna Madre Water District Seawater Desalination Pilot Project
 - City of Corpus Christi Large Scale Demonstration Desalination Feasibility Study
- Recent Legislation
 - HB 2031 and HB 4097



Innovative Water Supply Projects

Non-traditional surface water supply projects:

- Brazos River Authority's System Operation Permit
- Hidalgo County Drainage District No. 1's Lower Rio Grande Valley Regional Water Project
- Tarrant Regional Water District and the City of Dallas Water Utilities Integrated Pipeline
- LCRA's Excess Flows and Off-Channel Reservoir Project



Evolving Issues in Water Law

- Environmental Flows Requirements
- Indirect Reuse
- Regulatory Takings
- Water Marketing
- Water Rates and Utility Regulation



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