

RECLAMATION

Managing Water in the West

Collaborative Desalination Research

Partnering with the Texas Water Development Board

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Oklahoma-Texas Area Office (OTAO)

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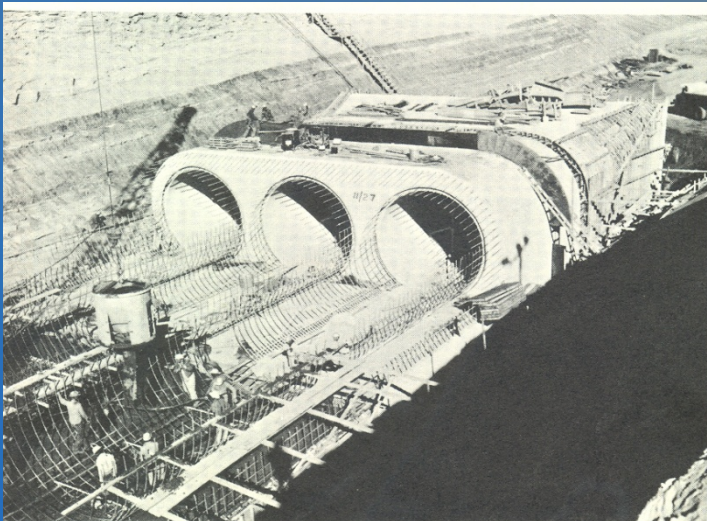
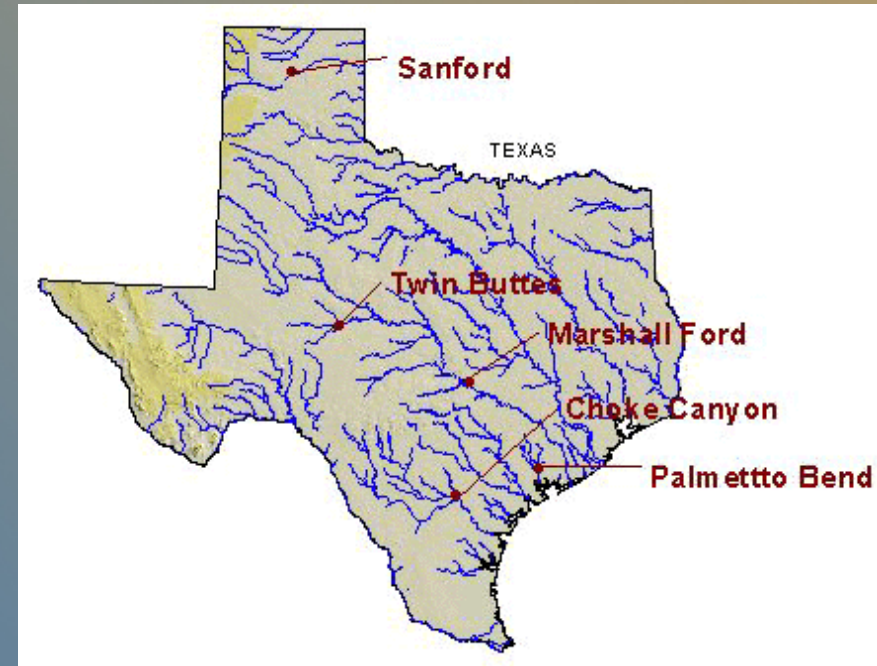
U.S. Department of the Interior
Bureau of Reclamation



Collaborative Desalination Research

Brief Background

- Long history in Texas
- 22 general and project-specific planning authorizations
- 29 general and project-specific construction authorizations
- 400 publications
- 25,000 records and drawings



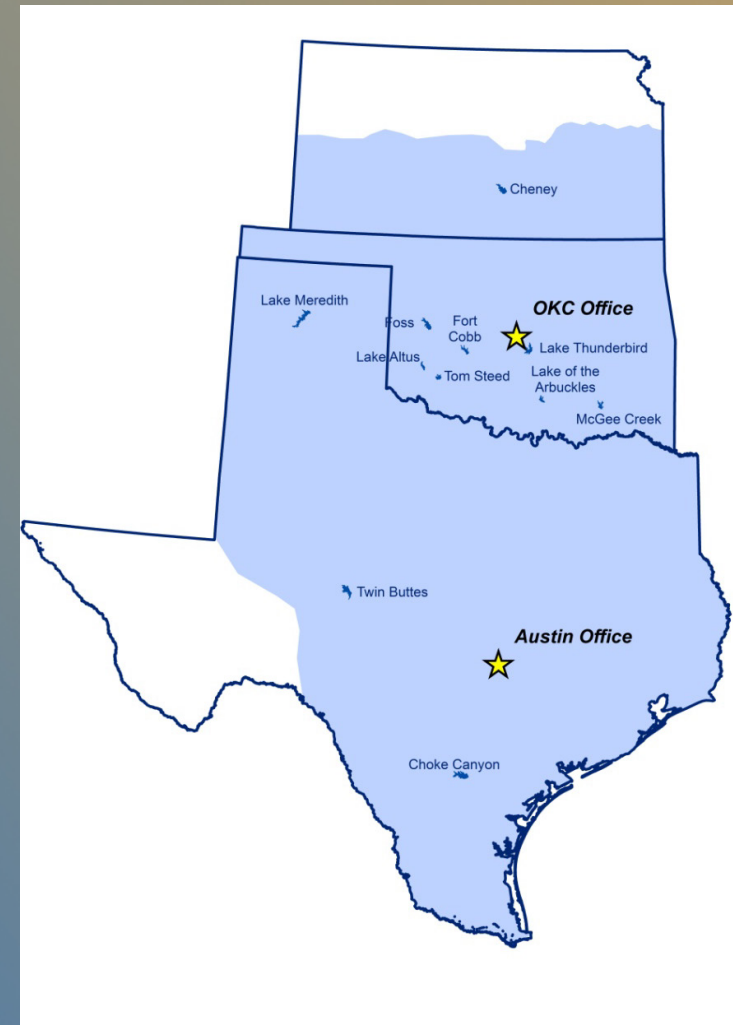
Concrete placement in the outlet works pressure conduit, Twin Buttes Reservoir, San Angelo Project, 1960.

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Our Goals and Perspective

- Provide technical expertise in support of desalination research activities conducted through TWDB's innovative water technologies program
 - Target activities that address joint Federal and state desalination priorities
 - Target activities that leverage TWDB leadership/in-kind support and utilize Reclamation expertise



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How Do We Accomplish Our Goals?

- **Building good relationships. Building trust.**
- **Communicating often through regularly-scheduled “strategy sessions”.**
- **Good project management**
 - **Developing clear objectives that are achievable within budget and time constraints.**
 - **Outlining tasks and milestones, along with roles and responsibilities of our respective agencies.**
 - **Developing a process for technical peer review for quality control purposes;**
 - **Identifying key deliverables; and**
 - **Public outreach**

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Case Study – Variable Source Desalination Pilot Project

- Improve supply reliability in coastal communities by building a flexible desalination plant that can treat various sources of saline waters (seawater, estuary/brackish, etc) when available.
- Determine the physical and economic viability of adapting a seawater RO system to a brackish system to increase recovery and reduce energy costs

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FINAL June 9, 2011

Variable Salinity Source Desalination Pilot Study Test Plan



U.S. Department of the Interior
Bureau of Reclamation
Technical Service Center – M.S. 86-68221
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Case Study – Variable Source Desalination Pilot Project

- Testing by Expeditionary Unit Water Purifier (EUWP)
- Testing at the SRWA Regional Desalination Plant, TX
- International Peer Review Team convened
- Results and workshop forthcoming



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Case Study – Cost Curves for Brackish Groundwater Desalination Plants, TX

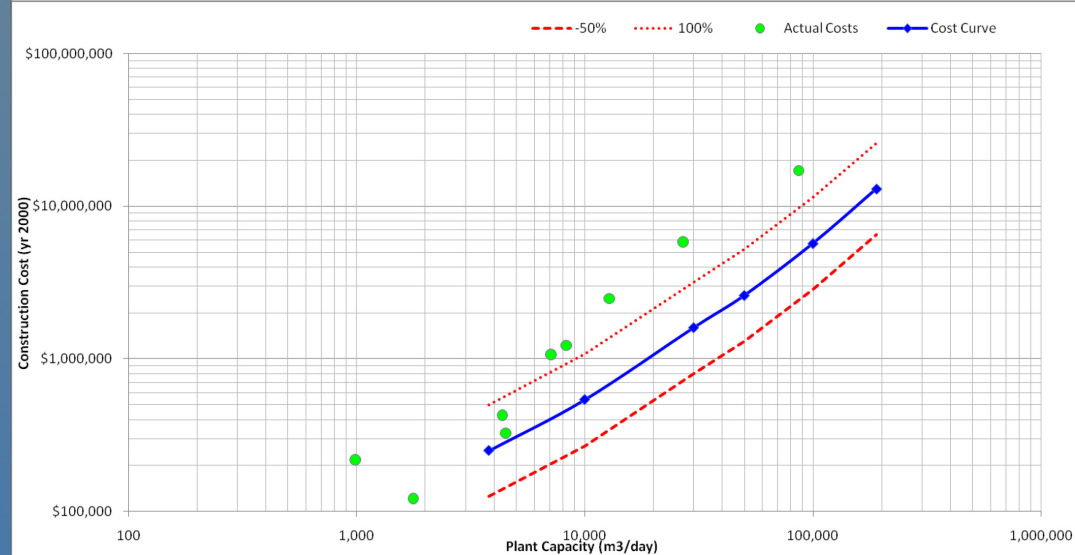
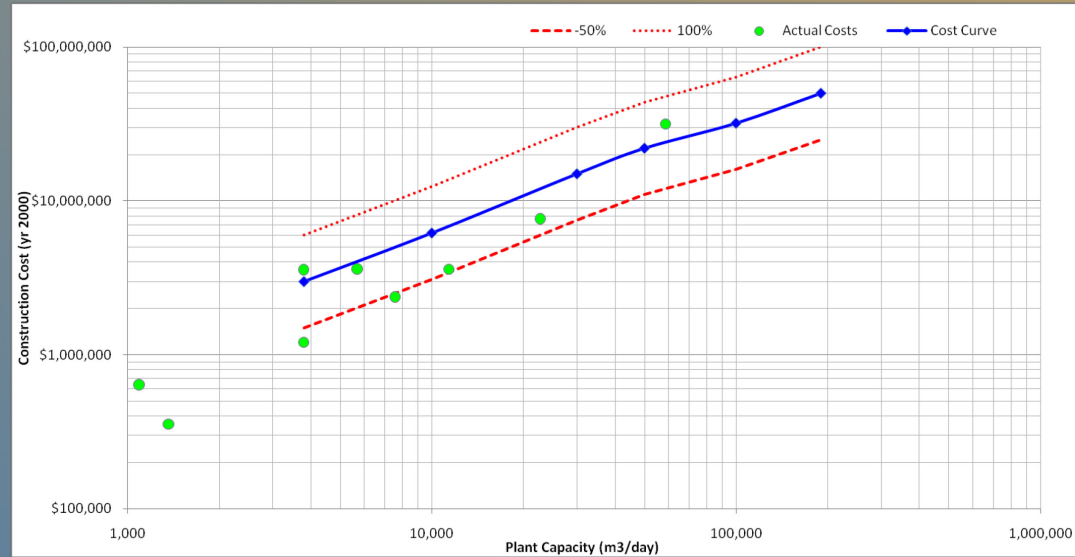
A proposal to develop Brackish Groundwater Desalination Cost Curves for Texas¹

Desalting Handbook for Planners

3rd Edition, July 2003

Desalination and Water Purification Research and Development Program Report No. 72

United States Department of the Interior
Bureau of Reclamation
Technical Service Center
Water Treatment Engineering and Research Group



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Summary

- Vision and leadership are needed at all levels to make advances in desalination research.
- We remain committed to working within our programs and budget to respond to the needs of Texans and to ensuring that the Federal investments we are making at the local level in desalination yield tangible results, and are being managed in a transparent manner in the best interest of the public and stakeholders.

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