

Report for 2001TX3121B: Incorporation of Salinity in Evaluating Water Availability

There are no reported publications resulting from this project.

Report Follows:

Incorporation of Salinity in Evaluating Water Availability

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Project T3121

This research will address associated with salinity in evaluating and modeling the availability of water rights. Most of the work focuses on modifying the Water Rights Analysis Package (WRAP) model Wurbs developed to better deal with issues associated with saline surface waters.

So far, work on the WRAP model has stressed modeling the extent to which waters may be available at specific points in a watershed, based on hydrologic and water use data.

Recently, Wurbs and a team of graduate students have worked to improve the model by incorporating new features, including assessing how salinity constrains usable water supplies, and, in a different project, examining conditional water availability.

In this project, Hoffpauir is developing new computer codes for WRAP, using FORTRAN, that address issues related to salinity. He is also reviewing research that TAMU conducted throughout the 1990s that examined how salinity may affect reservoir operations.

A TWRI-funded research project is helping a Texas A&M University graduate student examine how to incorporate salinity problems into water modeling efforts.

This project worked to expand the modeling capabilities of the WRAP computer model to include the ability to assess issues related to natural salt pollution. The study identified how salinity may limit the availability and reliability of water supplies.