



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: TX3141

Title: Conditional Reliability Modeling to Support Short-Term River Basin Management Decisions

Focus Categories: Models, Management and Planning

Keywords: simulation modeling, reservoir system operations, drought management, water rights, water supply reliability

Start Date: 03/01/2001

End Date: 02/28/2002

Federal Funds: \$4,393

Non-Federal Matching Funds: \$14,781

Congressional District: 8

Principal Investigator:
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Abstract

This project will build upon previously funded TWRI research to develop water availability modeling (WAM) computer-based simulation tools and the Water Rights Availability Program (WRAP). The goal of this study is to develop a conditional reliability model that can provide decision support for real-time drought management and operations planning. The model would utilize real-time data on water levels in reservoirs as well as streamflows to generate short-term estimates of water reliability. Ultimately, it is hoped that the ability to estimate conditional reliability will be incorporated into WRAP. Case studies and demonstrations of three watersheds - the Nueces, San Antonio, and Guadalupe river basins - will be conducted to test the ability to develop estimates of conditional reliability.