## **Publications**

## **TR-389**

Application of Expanded WRAP Modeling Capabilities to the Brazos WAM

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## Full Text

The Water Rights Analysis Package (WRAP) is routinely applied in the Texas Commission on Environmental Quality (TCEQ) Water Availability Modeling (WAM) System. However, the Brazos River Basin studies documented by this report represent inaugural applications of the following new WRAP modeling capabilities: (1) conditional reliability modeling to determine short-term storage and flow frequencies and supply reliabilities conditioned on preceding reservoir storage contents; (2) capabilities added to allow simulations to be performed with daily time steps; and (3) simulation of reservoir operations for flood control. The Brazos WAM studies presented in this report provide a data and experience base for evaluating, demonstrating, and developing guidance for applying the new WRAP modeling capabilities. The studies also provide a better understanding of water management in the Brazos River Basin.

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