

EXECUTIVE SUMMARY

During the 1990s rapid population growth occurred in the immediate watershed of Canyon Lake in Comal County. This Canyon Lake Regional Facility Planning Project was performed to assess the need for infrastructure to protect the quality of Canyon Lake waters. It addresses the need for central wastewater collection and treatment facilities, and also the need for controls of stormwater runoff in an urbanizing area. The study involved close coordination with a technical steering committee selected to represent a broad cross-section of study area residents and interests. The purpose of the steering committee was to guide the study on a range of future growth scenarios, planning objectives, and measures.

This planning study was performed in coordination with the Guadalupe-Blanco River Authority (GBRA) and Comal County, the Texas Water Development Board (TWDB), and PBS&J. The TWDB provided grant funding for this project through the Research and Planning Fund.

Development scenarios were quantified using various methods including estimates of loading from each type of wastewater system and the loads from runoff of rainwater in the watershed. The loadings from each scenario were related to reservoir water quality using simple models of reservoir system water quality. A specific aspect addressed in this task is the relative performance of regional wastewater collection and treatment versus on-site treatment in protecting groundwater resources.

The study team with steering committee input created a preferred regional water quality protection plan, including a facility plan to encourage centralization of wastewater treatment for new development, giving consideration to structural and non-structural alternatives. A set of water quality protection alternatives was developed considering the water quality effects addressed above and the fiscal implications of the alternatives. Specific watershed management practices were recommended that can be implemented by local government and the GBRA.

At the end of the study a disagreement arose within the steering committee over the desirability of including provision for central wastewater systems in the study recommendations. The basic issues were concerns that wastewater collection systems can leak and pollute the Trinity aquifer, and that they might encourage growth in the area. Attempts were made to find common ground and measures to reduce the potential for leakage to a level less than allowed for the Edwards Aquifer Recharge Zone are discussed in the final recommendations. However, it was not possible to reach a consensus within the steering committee on this point. The positions taken and attempts to reach accommodation with the minority view are reflected in Attachment D.