

## **Bacteria Study on the Tres Palacios River – A Cooperative Water Quality Monitoring Study on the Texas Gulf Coast**

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Alicia Reinmund is the Supervisor of the Clean Rivers Program for the Lower Colorado River Authority, (LCRA). Ms. Reinmund oversees the implementation and coordination of numerous routine chemical and biological water-quality monitoring programs in the Colorado River basin. Previously, she has worked as the Rio Grande data analysis and water quality monitoring coordinator for the Texas Natural Resource Conservation Commission. She has a B.S. degree in petroleum engineering from the Pennsylvania State University and a M.S. degree in planning from the University of Texas at Austin.

Cathy Porter is the Coastal Conservation Education Coordinator for the Nature Conservancy of Texas. She has worked as a fisheries technician and biologist at the Texas Parks and Wildlife Department and has taught earth and marine science at the Palacios Independent School District and the Texas State Marine Education Center. Ms. Porter has a B.S. degree in Wildlife Management from Northwestern State University and a M.S. degree in Biology (with marine emphasis) and teaching certificate from Texas A & M University, Corpus Christi. Since 1991, she has been a volunteer water-quality monitor for the Tres Palacios Bay.

In 1999, a consortium of county officials, students, staff from local governments, private industry, non-profit organizations and the Lower Colorado River Authority conducted a successful water quality monitoring study on the Tres Palacios River. This consortium, called the Clean Water for Tres Palacios Watershed Action Committee, formed to determine where and why known elevated levels of bacteria levels existed in the watershed. The watershed of the Tres Palacios River is located in south central Texas in Wharton and Matagorda Counties and includes the river, ten tributaries and the mouth of the Tres Palacios Bay. It encompasses an area of approximately 322 square miles.

The Bacteria Study on the Tres Palacios River included both dry and wet-weather water quality monitoring at ten locations in the watershed. The LCRA staff conducted the dry-weather monitoring and volunteers from the Committee conducted the wet-weather monitoring which included collecting samples on seven consecutive days following a significant rainfall event. From January through September 1999, the Committee collected 479 bacteria and nutrient samples from six dry-weather and six wet-weather events.

The completeness and the quality of the data collected are measures of the success of the Bacteria Study on the Tres Palacios River. The success of the study was due to a comprehensive training program for all participants, a practical training manual, continuous support from the LCRA coordinating staff and a contingency-based communication plan. Also, the diversity, commitment and the overall cooperative spirit of the Committee members attributed to the success of the study.

