



## WATER RESOURCES RESEARCH GRANT PROPOSAL

**Project ID:** 2003TX89B

**Title:** Biotic Responses to Reduced Freshwater Inputs into Texas Bays: Hypersalinity Effects on Benthic Microalgal Community Structure and Function

**Project Type:** Research

**Focus Categories:** Surface Water, Wetlands, Ecology

**Keywords:** freshwater management, benthic micoalgae, hypersalinity, biota

**Start Date:** 03/01/2003

**End Date:** 02/28/2004

**Federal Funds:** \$4182.00

**Matching Funds:** \$10406.00

**Congressional District:** 8

**Principal Investigators:** Lee, Alyce R.; Pinckney, James L.

**Abstract:** Demands for water use in Texas are forecast to steadily increase in the next 30 years due to population and economic growth. As a result, many experts anticipate that coastal bays and estuaries will experience reductions in needed freshwater inflows. As a result, salinities in bay systems are expected to increase sharply. This project examines how the composition of benthic algae and related species will likely be altered by higher salinities. The study will examine how salinity may affect the community structure and function of organisms within an intertidal sand flat at Galveston Bay. Results should provide insights into how cutbacks in freshwater inflows may affect coastal ecosystems.

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