



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: TX3201

Title: Sublethal Effects of Cadmium and Linear Alkylbenzene Sulfonate Mixtures on *Pimephales promelas*
Exposure and Effect Endpoints: Laboratory and Field Assessments

Focus Categories: Ecology, Waste Water

Keywords: *Pimephales promelas*, LAS, cadmium, chemical mixtures, municipal effluents

Start Date: 03/01/2001

End Date: 02/28/2002

Federal Funds: \$4,950

Non-Federal Matching Funds: \$12,047

Congressional District: 26

Principal Investigator:

Bryan Brooks

Student, The University of North Texas

Abstract

This investigation will evaluate how pollutants such as cadmium and linear alkylbenzene sulfonate (LAS) may affect the hormones, vertical bone strength, calcium content, and swimming performance of fathead minnows (*Pimephales promelas*). The study seeks to determine if LAS concentrations increase cadmium bioavailability, in turn magnifying the chronic toxicity of these waters. The project will also explore the extent to which surface water ecosystems that are dominated by wastewater effluents may reduce the bioavailability of cadmium, thus possibly decreasing chronic toxicity.