2008-09 USGS Research Grant Recipients

**Brigit Afshar**, University of Texas
Microbial Source Tracking in Drinking Water from Rainwater Harvesting

**Deepti Puri**, Texas A&M University
Uncertainty Analysis of a Statistical Model for Pathogen Contamination Assessment in Two Texas River Basins

**Eric Hersh**, University of Texas
An Environmental Flows Information System for Texas

**Champa Joshi**, Texas A&M University
Uncertainty Analysis of Recharge to the Edwards Aquifer using Bayesian Model Averaging Scheme

**Kranthi Mandadi**, Texas A&M University
Mitigating demand for irrigated water used in agriculture by genetically enhancing crop plants to be productive in minimal water conditions

**Emily Martin**, Texas A&M University
Development of Library-Independent Bacterial Source Tracking Markers for Species-Specific Discrimination of Deer and Cattle Fecal Contamination in Surface Waters

**Sivarajah Mylevaganam**, Texas A&M University
Effect of grid sizes as subbasins on SWAT model hydrologic and water quality predictions

**Emily Seawright**, Texas A&M University
Economic Impacts of Biological Control of Arundo donax in the Rio Grande Basin

**David Watts**, Texas A&M University
Ecohydrology and ecophysiology of Arundo donax (giant reed)

**Bo Yang**, Texas A&M University
Using SWAT to Compare Planning Methods for Neighborhoods: Case Study of Stormwater in The Woodlands, Texas

2007-08 USGS Research Grant Recipients

**Narendra Das**, Texas A&M University
Development of an algorithm to create repository of soil moisture and evapotranspiration maps for the State of Texas
Stephanie Johnson, University of Texas
Intra-Watershed Modeling of Bacterial Contamination

Tae Jin Kim, Texas A&M University
Reallocation of Reservoir Storage Capacity between Flood Control and Conservation Purposes

Steve Oswalt, Texas Tech University
Optimizing Irrigation of oilseed crops on the Texas High plains

Nithya Rajan, Texas Tech University
Comparative evaluation of actual crop water use of forage sorghum and corn for silage

Kendra Johnson Riebschleager, Texas A&M University
Bacterial Impairment Assessment for Lake Granbury Watershed

Ronnie Schnell, Texas A&M University
Chemically Treated Composted Biosolids Enhance Water Conservation and Quality on Urban Landscapes

Theodore Valenti, Baylor University

Corinne Wong, University of Texas
Evaluating the impacts of brush clearing on recharge of a karst aquifer

Fanwei Zeng, Rice University
Carbon isotopic measurements of dissolved inorganic carbon: A new tool to assess groundwater-river exchanged in the Brazos River Basin

2006-07 USGS Research Grant Recipients

David Barre
Determining effects of brush clearing on deep drainage using soil chloride; a feasibility study for south Texas rangelands

Yongxia Cai
Impacts of Texas Interbasin Water Transfers on the Water Transfers on the Water Dependent Economy and the Environment

Bassil El-Masri
Estimation of Water Quality Parameters for Lake Kemp Texas Derived From Remotely Sensed Data
Dongsuk Han
Arsenic Removal by Novel Nanoporous Adsorbents

Mohammad Islam
Development of a Coastal Margin Observation and Assessment System to Monitor the Water Quality in the Corpus Christi Bay

Andrew Karvonen
A Socio-Technical Case Study of Sustainable Stormwater Management in Austin, TX

Megan Meier
Post-restoration Evaluation of Urban Streams in Central Texas

Arwa Rabie
Property Based Management and Optimization of Water Usage and Discharge in Industrial Facilities

Debabrata Sahoo
Modeling the Effect of Urbanization and Optimizing Land Use for Estuarine Environmental Flows

Robert Taylor
A Pricing Model to Assess the Effects of Groundwater Availability on Land Valuation

2005-06 USGS Research Grant Recipients
Lindsay Birt
Evaluation of Standards for Compost Blankets in Stormwater Control

Josh Bynum
Evolution of Irrigation Scheduling using the Biotic Model

Zheng Fang
Enhancing a Distributed Hydrologic Model for Storm Water Analysis within GIS Framework in an Urban Area

Omar Richard Harvey
Assessing the Potential of Zero-valent Iron to Reduce Nitrate Mobility

Jeremy L. Hudgeons
Determining the Efficacy of Biological Control of Salt Cedar on the Colorado River of Texas

Muthukumar Kuchanur
A Decision Support System to Develop Sustainable Groundwater Management Policies for a Multi-county Single Aquifer System
Marc Russell  
Watershed Development and Climate Change Effects on Environmental Flows and Estuarine Function

Thad Scott  
Spatial Patterns in Wetland Nutrient Biogeochemistry: Implications for Ecosystem Functions

Sanjay Tewari  
Carbon Aerogel Electrodes: Absorption-Desorption and Regeneration Study for Purification of Water

Xuesong Zhang  
Evaluation of Spatial Heterogeneity of Watershed through HRU Concept Using SWAT

2004-05 USGS Research Grant Recipients

Adrian Dongell  
Removal of Hormones through a Conventional Wastewater Treatment System

Timothy Goebel  
Novel Polymeric Water Treatment for In Situ Removal of Organic Contaminates from Water Bodies

Vivekanand Honnungar  
Estimating Water Availability and Sustainable Yield in Coastal Semi-arid Region of South Texas

Greg Landreth  
Assessment of Four Economic/Managerial Models for Operation of Public Water Systems in Texas

Eva M. Lovelady  
Development of Optimal Water Conservation and Management Strategies for Industrial Facilities

Hector E. Olmos  
Improving Capabilities for Dealing with Key Complexities of Water Availability Modeling

Bakkiyalakshmi Palanisamy  
A Near Real-time Flood Prediction using Hourly NEXRAD Rainfall for the State of Texas

Itza Mendoza Sanchez  
Effect of Flow Velocity on Biodegradation of Trichloroethene (TCE) and Perchloroethene (PCE) During Restoration of Contaminated Groundwater Aquifers
Philip Taucer
Development of Smoke Tracer Instrumentation for Groundwater Recharge Investigations in the Edwards Aquifer Region

Erin E. Williford
Radar Based Flood Alert System for Austin, Texas

2003-04 USGS Research Grant Recipients

Jason Afinowicz, Texas A&M University
Determining a Method for Targeting Brush Control through Remote Sensing, GIS, and Hydrologic Modeling

Jonathan Goodall, University of Texas at Austin
Coupling Modular Hydrologic Models with Geographic Information Systems (GIS)

Roger Havlak, Texas A&M University
Predicting Water Use in Urban Residential Landscapes

Alyce Lee, Texas A&M University
Biotic Responses to Reduced Freshwater Inputs into Texas Bays: Hypersalinity Effects on Benthic Microalgal Community Structure and Function

Ju Young Lee, Texas A&M University
Quantification of Stochastic Crop-Water Production Functions and Net Profit-Water Functions for Agriculture on the Edwards Aquifer

Yoko Masue, Texas A&M University
Adsorption, Desorption, and Stabilization Behavior of Arsenic on Al-3+ Substituted Fe+3 Hydrous Oxides

Alyson McDonald, Texas A&M University
Monitoring and Evaluation of the Pecos River Ecosystem Project

Brandon McDonald, Texas A&M University
Relating Nutrient Imports to Exports and Losses During Sod Production

Catalina Ordonez, University of Texas at El Paso
Natural Remediation of Contaminants Along the Forgotten River Stretch of the Rio Grande

Shane Porter, Texas A&M University
Measuring Infiltration Using a Rainfall Simulator to Comparing Shrub and Water Interactions of Brush Species
Leslie Randolph, Texas A&M University
Spatial and Temporal Characterization of the Radon Distribution in a Region of the Hickory Aquifer in Central Texas: Assessment of Stratigraphy and Groundwater Dynamics on Radon Concentrations

Gil Strassberg, University of Texas at Austin
Groundwater Data Modeling for ArcHydro

2002-03 USGS Research Grant Recipients

Jude Benavides, Rice University
Enhanced Flood Warnings for the Texas Medical Center: A Second Generation Flood Alert System (FAS2)

Amanda Bragg, Texas A&M University
Reduced Phosphorus Pollution from Dairies by Removal of Phosphorus from Wastewater through Precipitation of Struvite

Mandy Burgess, West Texas A&M University
Relationship Between Charcoal Rot, Crop Water Use Efficiency, and Irrigation Management In Grain Sorghum

Nyland Falkenberg, Texas A&M University
Increase Water Use Efficiency: Implementation of Limited Irrigation For Crop Biotic and Abiotic Stress Management

Jordan Furnans, University of Texas
Higher-Order Statistics in Transport and Evolution of Algae Blooms

Jennifer Hadley, Texas A&M University
Real-Time Distributed Runoff Estimation Using NEXRAD Precipitation Data

Kevin Heflin, West Texas A&M University
Reduced Phosphorus Concentrations in Feedlot Manure and Runoff

Audra Morse, Texas Tech University
Fate of a representative pharmaceutical in the environment

Matt Simmons, Texas A&M University
Urban Forested Wetland Restoration

Judy Vader, Texas A&M University
Adsorption & Desorption of Atrazine on in Selected Lake Sediments in Texas
June Wolfe, Baylor University
   The Role of Suspended Clays in Phosphorus Processing by Lotic Periphyton

2001-02 USGS Research Grant Recipients

Jill Brandenberger, Texas A&M University at Corpus Christi
   Arsenic Concentration in Water Resources of the Choke Canyon/Lake Corpus Christi Reservoir System: Surface and Ground Waters

Bryan Brooks, University of North Texas
   Pimephales promelas and Laboratory Bioassay Responses to Cadmium in Effluent Dominated Systems

Yesim Buyukates, Texas A&M University
   Plankton Succession: Investigation Regarding New Approaches to Management

Biswaranjan Das, Texas Tech University
   Towards an Integrated Water Planning Model for the Texas High Plains

Richard Hoffpauir, Texas A&M University
   Incorporation of Salinity in Evaluating Water Availability

Jeffrey Johnson, Texas Tech University
   Regional Economic Impacts of Aquifer Decline in the Southern High Plains of Texas

Balaji Narasimhan, Texas A&M University
   Determination of Regional Scale Evapotranspiration of Texas from a NOAA-AVHRR Satellite

Rafael Pérez-Domínquez, University of Texas Marine Science Institute at Port Aransas
   Fluctuating Environmental Parameters in Red Drum Nursery Habitats: The Influence of Habitat Quality on Larval Growth and Endocrine Function

Andres Salazar, Texas A&M University
   Conditional Reliability Modeling to Support Short-Term River Basin Management Decisions

Daniel Stein, University of Texas at Austin
   Texas Groundwater Management and Global Applications

Kevin Yeager, Texas A&M University
   Resolution of Fluvial Sediment Sources, Residence Times and Resuspension Using Lithogenic, Atmospheric and Cosmogenic Radionuclides, Bayou Loco, Texas