

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
Water Quality Influences on Ionizable Contaminants in the Brazos River Basin: Implications for Water Resource Management of Urbanizing Watersheds

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 Honnunar

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 Hydrrous 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 ArchHydro

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 Atrazineon 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-Domínguez, 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