

NIFA Agriculture and Food Research Initiative (formerly NRI): Water and Watershed Competitive Grants

Note: Each proposal number is linked directly to its respective NIFA Current Research Information System (CRIS) record.

Principal Investigator: Scott, H. D.; Dixon, B.; Mauromoustakos, A.; Brahana, J. V.; Dixon, J. C.
Proposal Number: [2001-01082](#) ➔
Performing Institution: University of Arkansas, Fayetteville
Amount of Award: Grant 2001-35102-10830; \$305,000; 3 Years
Title of Award: Ground Water Vulnerability Delineation Using Neural Networks, Fuzzy Logic and Neuro-Fuzzy

Principal Investigator: Harwood, V. J.; Hagedorn, C.; Wiggins, B. A.
Proposal Number: [2001-01111](#) ➔
Performing Institution: University of South Florida
Amount of Award: Grant 2001-35102-10790; \$310,000; 2 Years
Title of Award: Bacterial Source Tracking to Identify Nonpoint Fecal Pollution in Agricultural Watersheds

Principal Investigator: Nachabe, M. H.
Proposal Number: [2001-01085](#) ➔
Performing Institution: University of South Florida
Amount of Award: Grant 2001-35102-10829; \$165,000; 3 Years
Title of Award: Impacts of Landscape Change on Variable Saturation Areas in a Humid Subtropical Environment

Principal Investigator: Bennett, S. J.; Alonso, C. V.; Barkdoll, B. D.
Proposal Number: [2001-01100](#) ➔
Performing Institution: USDA Agricultural Research Service; National Sedimentation Laboratory
Amount of Award: Grant 2001-35102-10788; \$104,000; 3 Years
Title of Award: Restoring Degraded Stream Corridors Using Woody, Riparian Vegetation: An Experimental Study

Principal Investigator: de los Reyes III, F. L.; Cheng, J.
Proposal Number: [2001-01139](#) ➔
Performing Institution: North Carolina State University
Amount of Award: Grant 2001-35102-10783; \$320,000; 3 Years
Title of Award: Fundamental Analysis of a Novel Swine Wastewater Treatment Technology

Principal Investigator: Hanson, G. M.
Proposal Number: [2002-01204](#) ➔
Performing Institution: Louisiana State University in Shreveport
Amount of Award: Grant 2002-35102-12372; \$24,500; 1 Year
Title of Award: A Geographical Information System (GIS) for Red River Watershed Management Research

Principal Investigator: Noble, R. T.
Proposal Number: [2002-00829](#) ➔
Performing Institution: University of North Carolina at Chapel Hill
Amount of Award: Grant 2002-35102-12408; \$265,000, 3 years
Title of Award: Use of Viral Pathogens as Tools to Differentiate between and Quantify Sources of Fecal Contamination in Three Different Watersheds

Principal Investigator: Dunbar, J. A.; Allen, P.M. Bennett, S.J.
Proposal Number: [2002-00593](#) ➔
Performing Institution: Baylor University
Amount of Award: Grant 2002-35102-12383; \$204,862; 3 Years
Title of Award: Variable-Frequency Acoustic Profiling for Sediment Surveys of Flood Control Reservoirs

Principal Investigator: McInnes, K.J.; Senseman, S.A.; Simanek, E.E.
Proposal Number: [2002-00830](#) ➔
Performing Institution: Texas A&M University
Amount of Award: Grant 2002-35102-12504; \$200,000; 3 Years
Title of Award: Novel Polymeric Soil Amendments to Remove Pesticides and Protect Buffer Zones, Filter Strips and Waterways

Principal Investigator: Chaubey, I.; Haggard, B.; Srivastava, P.
Proposal Number: [2003-01584](#) ➔
Performing Institution: UNIVERSITY OF ARKANSAS
Amount of Award: Grant 2003-35102-13599; \$75,000; 24 months
Title of Award: DIFFERENTIATING RUNOFF CONTRIBUTING AREAS FOR EFFECTIVE WATER QUALITY MANAGEMENT

Principal Investigator: Ziegler, S. E.; Hays, P. D.
Proposal Number: [2003-01597](#) ➔
Performing Institution: UNIVERSITY OF ARKANSAS
Amount of Award: Grant 2003-35102-13515; \$74,995; 12 months
Title of Award: A COUPLED BIOGEOCHEMICAL/HYDROLOGICAL APPROACH FOR ELUCIDATING TRANSPORT AND CYCLING OF NITROGEN WITHIN MANTLED KARST WATERSHEDS

Principal Investigator: Hendrickx, J. M.
Proposal Number: [2003-01640](#) ➔
Performing Institution: New Mexico Tech
Amount of Award: Grant 2003-35102-13524; \$25,000; 12 months
Title of Award: A SCINTILLOMETER FOR MEASUREMENT OF SENSIBLE HEAT FLUXES ON 100 TO 10,000 M SCALES OVER HETEROGENEOUS WATERSHEDS

Principal Investigator: Hendrickx, J. H.
Proposal Number: [2003-01287](#) ➔
Performing Institution: New Mexico Tech
Amount of Award: Grant 2003-35102-13654; \$304,000; 24 months
Title of Award: ESTIMATION OF REGIONAL CONSUMPTIVE WATER USE IN WESTERN UNITED STATES THROUGH OPTICAL REMOTE SENSING USING SEBAL

Principal Investigator: Genereux, D. P.; Corbett, D. R.; Mitsova, H.
Proposal Number: [2003-01385](#) ➔
Performing Institution: North Carolina State University
Amount of Award: Grant 2003-35102-13656; \$325,000; 36 months
Title of Award: QUANTIFYING NITROGEN TRANSPORT FROM GROUNDWATER TO A RIVER IN A LARGE AGRICULTURAL WATERSHED IN NORTH CAROLINA

Principal Investigator: Zhang, H.
Proposal Number: [2003-01259](#) ➔
Performing Institution: TENNESSEE TECHNOLOGICAL UNIVERSITY
Amount of Award: Grant 2003-35102-13526; \$20,000; 12 months
Title of Award: GLOBAL BIOGEOCHEMICAL CYCLING OF TRACE METALS: TRANSPORT, TRANSFORMATION, AND FATE OF MERCURY IN WATERSHED: A NEED FOR AN AUTOMATED GASEOUS

Principal Investigator: Fox, G.A.
Proposal Number: [2004-00845](#)
Performing Institution: University of Mississippi
Amount of Award: \$99,766 | 24 months
Title of Award: Experimental Analysis and Modeling of Macropore Flow During Artificial Subsurface Drainage

Principal Investigator: Bryant, S.L.
Proposal Number: [2004-01377](#)
Performing Institution: The University of Texas at Austin
Amount of Award: \$246,317 | 36 months
Title of Award: Influence of Grain-Scale Geometry on Colloid Transport

Principal Investigator: Jenkins, M.B.
Proposal Number: [2005-04017](#)
Performing Institution: ARS, USDA
Amount of Award: \$448,000 | 48 months
Title of Award: The Role of Ponds in Reducing the Threat of Pathogen Contamination from Livestock in Agricultural Watersheds

Principal Investigator: Fernald, A.
Proposal Number: [2005-03970](#)
Performing Institution: New Mexico State University
Amount of Award: \$441,000 | 36 months
Title of Award: Effects of Ditch and Field Irrigation Seepage on Rio Grande Flow

Principal Investigator: Fox, G.A.
Proposal Number: [2005-04022](#)
Performing Institution: University of Mississippi
Amount of Award: \$330,000 | 36 months
Title of Award: Quantifying the Importance of Lateral, Subsurface Flow on Sediment Load to Streams

Principal Investigator: Poole, G.C.
Proposal Number: [2005-03980](#)
Performing Institution: Eco-metrics, Inc.
Amount of Award: \$325,000 | 36 months
Title of Award: River Ecosystem Resilience Synergies of Excess Sediment and Nitrogen: Degraded Hyporheic Dynamics and Compromised River Ecosystem Resilience

Principal Investigator: Haggard, B. E.
Proposal Number: [2006-02547](#)
Performing Institution: University of Arkansas
Amount of Award: \$92,915 | 24 months
Title of Award: FECAL BACTERIA TRANSPORT IN OZARK STREAMS

Principal Investigator: Lipp, E. K.
Proposal Number: [2006-02548](#)
Performing Institution: University of Georgia RES Foundation
Amount of Award: \$384,097 | 36 months
Title of Award: WATERSHED SCALE TRANSPORT OF SALMONELLA, CAMPYLOBACTER, AND INDICATOR ORGANISMS IN THE SATILLA RIVER BASIN

Principal Investigator: G. Chen
Proposal Number: [2007-02842](#)
Performing Institution: Florida A&M University
Amount of Award: \$269,950
Title of Award: S. typhimurium and E. coli O157:H7 transport modeling for agricultural practices

Principal Investigator: S. Angadi
Proposal Number: [2007-02882](#)
Performing Institution: New Mexico State University
Amount of Award: \$398,110
Title of Award: Water conservation in forage production systems by sorghum-legume intercropping in the southern high plains

Principal Investigator: G. Fox
Proposal Number: [2007-02846](#)
Performing Institution: Oklahoma State University
Amount of Award: \$397,749
Title of Award: Role of directly connected macropores in pathogen transport to subsurface drainage

Principal Investigator: S.L. Bryant
Proposal Number: [2007-02860](#)
Performing Institution: The University of Texas at Austin
Amount of Award: \$383,067
Title of Award: Quantifying the mechanisms of pathogen retention in unsaturated soils

Principal Investigator: R. T. Noble
Proposal Number: [2008-01772](#)
Performing Institution: University of North Carolina
Amount of Award: \$397,136
Title of Award: Understanding dynamics of microbial contaminant fate and transport in rural and agricultural lands

Principal Investigator: C. H. Huang
Proposal Number: [2009-02475](#)
Performing Institution: Georgia Institute of Technology
Amount of Award: \$400,000
Title of Award: FATE OF ANTIBIOTICS IN POULTRY LITTER BEFORE AND AFTER APPLICATION TO GRASSLANDS

Principal Investigator: J.J. Wang
Proposal Number: [2009-02441](#)
Performing Institution: Louisiana State University
Amount of Award: \$110,000
Title of Award: RUNOFF CHARACTERISTICS AND REDOX CONTROL OF VETERINARY ANTIBIOTICS IN MANURE, SOIL AND WATER

Principal Investigator: K. Xia
Proposal Number: [2009-02467](#)
Performing Institution: Mississippi State University
Amount of Award: \$398,821
Title of Award: THE OCCURRENCE AND FATE OF SEX HORMONES AND THEIR
CONJUGATES IN ANIMAL WASTE AND SOIL AND AQUATIC
ENVIRONMENTS

Principal Investigator: D. A. Newburn
Proposal Number: [2009-02425](#)
Performing Institution: Texas A&M University
Amount of Award: \$110,352
Title of Award: AGRICULTURAL WATER SECURITY AND INSTREAM FLOWS FOR
ENDANGERED SALMONIDS IN COASTAL CALIFORNIA'S WATERSHEDS

Principal Investigator: C. Wang
Proposal Number: [2009-02444](#)
Performing Institution: Texas Tech University
Amount of Award: \$261,662
Title of Award: A HYDRO-ECONOMETRIC ANALYSIS OF PRODUCER WATER USE AND
AQUIFER HYDROLOGY IN THE TEXAS HIGH PLAIN
