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.; Mitasova, 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