

The National Water Program: A National Partnership

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USDA-CSREES

National Program
Leader



Applying knowledge to improve water quality

**National
Water Program**

*A Partnership of USDA, CSREES
& Land Grant Colleges and Universities*

Meet me in St. Louis: 1999



We've come a long way...



Knowledge Continuum for Water Research, Education, and Extension



Multidisciplinary Approaches

- We address complex water issues that reflect physical, biological, social, cultural, and institutional relationships
- Hydrologists, soil scientists, ecologists, economists, behavioral scientists, engineers, and many others



Achieving Integration

- Land grant universities are uniquely positioned to address complex water issues through their three fundamental missions of research, education, and extension



Defining Success

- Changing knowledge:
better understanding
- Changing actions:
behavior change
- Changing conditions:
improved water quality



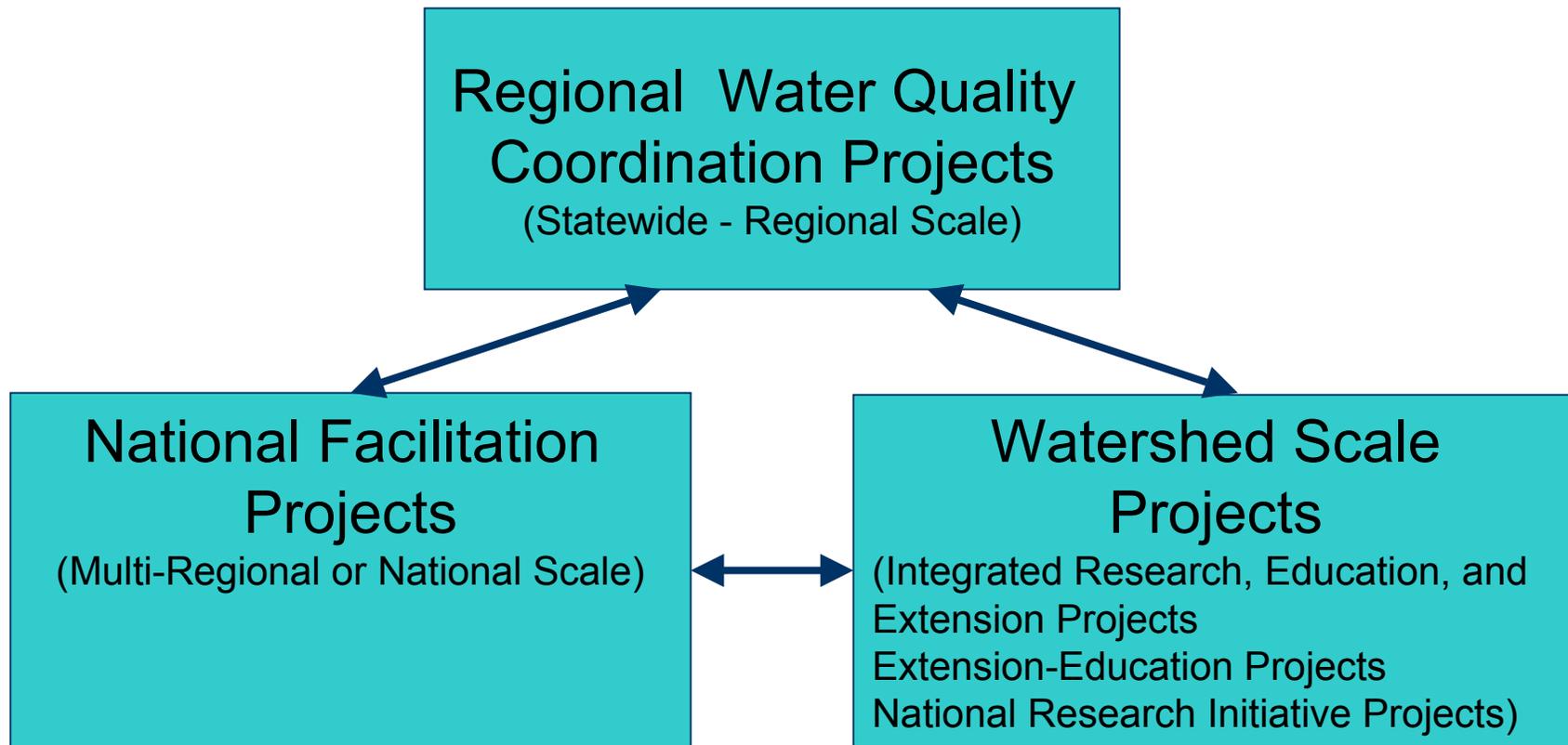
Program Awards: 2000-2006

- National Facilitation – 13
- Regional Coordination Projects – 9
- Extension Education (Watershed) – 35
- Integrated (Watershed) – 75
- NRI Water & Watershed - 105*

* Since 2001; includes equipment, seed grants, career enhancement, and strengthening awards



CSREES National Water Program



Regions: The “Backbone”



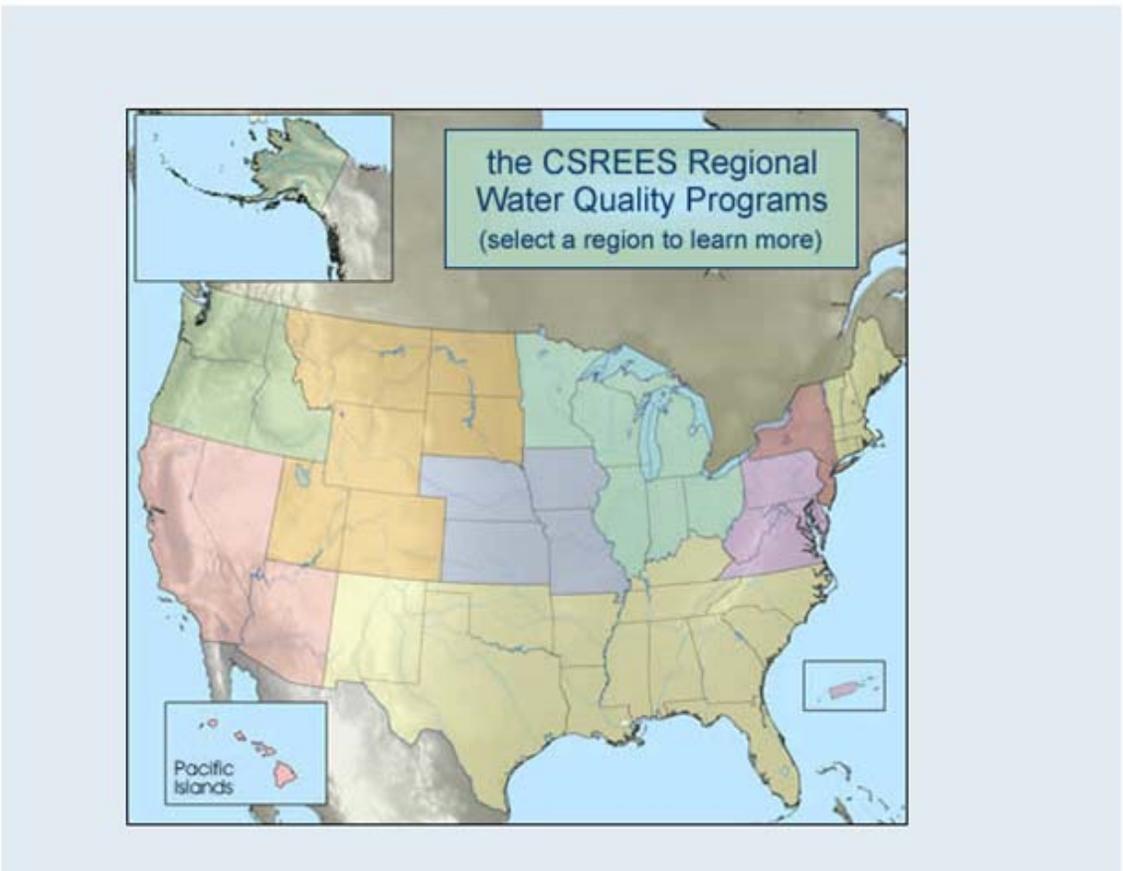
– *Research, Education & Extension* –

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News & Highlights [\(more...\)](#)

FY 2007 REQUESTS FOR APPLICATIONS, National Integrated Water Quality Program →: deadline April 4.

National and UConn NEMO recently led [EPA Watershed Academy Webcast](#) →

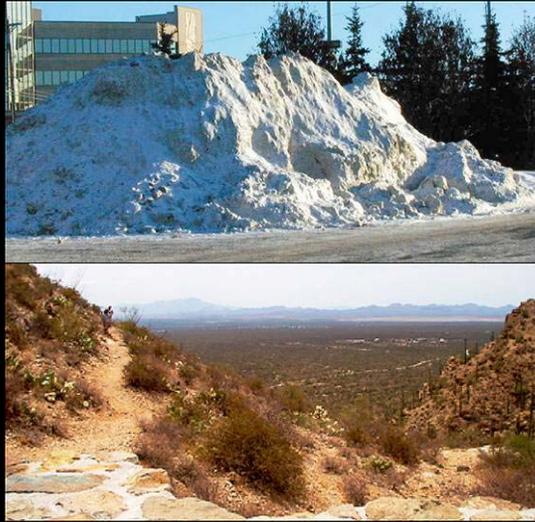
View [transcript remarks](#) → by Agriculture Secretary Johanns to the American Water Resources Association

Upcoming Events [\(more...\)](#)

CSREES NATIONAL WATER CONFERENCE: Jan 28 - Feb 1; Savannah, GA
[Conference Website](#) →

February 7 & 8: →
New England Regional Ag. In-service and CCA training conference; Newcastle, NH

February 16: →
LPE Learning Center Webcast: Nitrogen Availability from Organic Sources



RP188

Nutrient Management Plan: Records Checklist and Samples for Animal Feeding Operations

HEARTLAND
Regional Water
Coordination
Initiative

EPA Region VII
Rick Kadish, Livestock Environmental Engineer,
University of Nebraska-Lincoln
Janet Benning, Extension Water Quality Specialist,
Heartland Regional Water Quality Project

IOWA STATE UNIVERSITY KSTATE University of Missouri Columbia Nebraska EPA Region 7



National Facilitation Projects



Volunteer Water Quality Monitoring National Facilitation Project
A Network of Sites, 2004-2007
A National Science Foundation Grant

This Volunteer Water Quality Monitoring National Facilitation Project is designed to build a comprehensive support system for Extension volunteer water quality monitoring efforts across the country. The goal is to expand and strengthen the capacity of existing Extension volunteer monitoring programs and support development of new groups.

Volunteer Monitoring National Facilitation Project
Project Description
Outreach Materials and Activities
Nationwide Inquiry
Online Databases
Extension Volunteer Monitoring Programs
Related Research and Educational Efforts

Guides for Growing Programs
Getting Started
Why Monitoring
Water Sampling
Designing Your Monitoring Strategy
Monitoring Methods
Effective Training
Monitoring Equipment
Program Management
Building Credibility
Sharing Information Through Formal Exchanges
Volunteer Management
Outreach Tools
Leading Support and Funding

Cooperative Extension National Extension Water Outreach Education
Facilitating Access to Resources and Best Education Practices

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WATER EDUCATION TOPICS

- Best Education Practices, BEPs
- Use BEPs
- Educational Resources
- Professional Development
- Other Resources

WATER MANAGEMENT TOPICS & ISSUES

- Animal Waste Management
- Drinking Water and Human Health
- Environmental Restoration
- Nutrient and Pesticide Management
- Pollution Assessment and Prevention

Home > Best Education Practices

Target Audience Research

A review of thousands of papers - through an extensive search of multiple education, environmental, resource, and resource management journals and journal databases - identified studies of adult outreach and education that could claim to identify best education practices for specific audiences.

We undertook this study because while many environmental education research papers recommend education practices, few of these papers focus on adult audiences, and few identify education practices that are best for specific audience groups. Few resource management papers test specific education practices, relying instead on the admonition that good resource management needs to be accompanied by outreach to the public or to a target audience.

What is a target audience?

- Use target audience information in planning your outreach initiative:
 - Gather your own information about the target audience.
 - Use study-specific research summaries for one or more of the 15 target audiences.

Read a description of our search methods:

[Literature Search for Audience-Specific Best Education Practices](#)

Review our research methods, analysis and conclusions:

[Outreach that Makes a Difference: Target Audiences for Water Education — A Research Meta-Analysis](#)

View references and abstracts for target audience research:

[Target Audience Research References and Abstracts](#) 51pp., 231 KB

Microsoft Internet Explorer

Google

Address: Mtlz/environreport.org/

THE ENVIRONMENT REPORT
A GLRC PRODUCTION

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PHASED-OUT PESTICIDE NEEDED FOR ORCHARDS?

Apple and cherry farmers are concerned phasing out an effective pesticide will affect production and leave more pesticide residue. (Photo by Lester Graham)

More Stories

- CHURCH BOYCOTTS BOTTLED WATER
- PHASED-OUT PESTICIDE NEEDED FOR ORCHARDS?
- STATE BANS INVADERS WHERE FEES FALL
- ETHANOL PRODUCTION DRIVES UP FOOD PRICES
- SHOCKING SHIPS KEEPS PESTS AT BAY
- NEIGHBORING INVADERS KEEP COOLING
- GOVERNERS BATS FOR GRANO
- TREE PEST SPREADS FROM EAST TO NORTHWOODS

STATE BANS INVADERS WHERE FEES

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The NEMO Program
Linking Land Use to Water Quality.

News Workshops Publications

About NEMO
Commissioner Training
Successes
Tools & Resources

NEMO (Nonpoint Education for Municipal Officials) is a University of Connecticut program for local law use officials addressing the relationship of land use to natural resource protection.

NEMO is a program of the Center for Land Use Education and Research (CLEAR), Land, Sea and Space Grant collaborating. © University of Connecticut | [Disclaimer and Copyright Statements](#)

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EPI-NET Library

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Environmental Pathogens Information Network

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Introduction

The challenges associated with managing microbial contamination of water resources and the roles that science plays in addressing those challenges are at the forefront of water policy discussions across the country. In a recent review of the literature Smith and Perdek, (2004) concluded "a significant body of research is needed to understand the uncertainties in pathogenic [microorganism] processes at the watershed scale...". This recent study illustrates the knowledge gaps and evolving nature of our understanding of microbial contamination of surface water.

Pathogens

This image is a 3D rendering of the bacteria *Clostridium perfringens*.

Image © 2006, EPI-NET, All rights reserved.

What is EPI-NET?

The Environmental Pathogens Information Network (EPI-NET) is a keystone organization that provides a stable, centralized resource of water related environmental microbiological contamination information, encourages information sharing, connects a network of stakeholders, regulatory officials, and technical experts, provides a reliable point of reference (methods and data interpretation) and increases our ability to develop a coherent national research agenda and good public policy.

EPI-NET Perspective
Volume 1
ISSUE 1
ISSUE 2

[E.coli in the News](#)

New National Facilitation Emphasis Area: Water Reuse in Agriculture

- Knowledge gaps and barriers to expanded implementation and related strategies
- Science-based communication of benefits and risks



New National Facilitation Emphasis Area: Bioenergy and Water

- Identifying sources of water for crops and in the energy production process
- Changes in water quantity and quality that result from converting CRP lands or management practices
- Impacts of biobased feedstock management during and after processing



USDA Biobased Products and Bioenergy Coordination Council



[USDA ANNOUNCES \\$38 MILLION IN LOANS AND GRANTS TO SPARK DEVELOPMENT OF RENEWABLE ENERGY PROJECTS AND GROWTH OF VALUE-ADDED AG VENTURES AND BUSINESS DEVELOPMENT \(FY 2006\)](#)

[Federal Biobased Products Preferred Procurement Program](#)

The Biobased Products and Bioenergy Coordination Council (BBCC) was established by the Secretary of Agriculture to provide a forum through which USDA agencies will coordinate, facilitate and promote research, development, transfer of technology, commercialization, and marketing of biobased products and Bioenergy using renewable domestic agricultural and forestry materials. This includes promoting information sharing, strategic planning and providing policy advice to the Secretary.

[Authority for BBCC](#)

[BBCC Vision Statement](#)

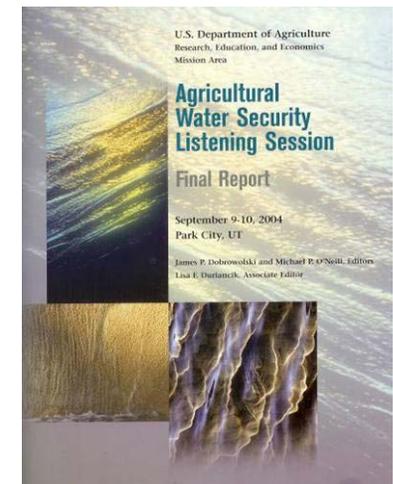


Bioenergy and Agricultural Water Security



- Water availability and water quality impacts of bioenergy production must be considered

- Land grant regional water programs: critical link between bioenergy and sustainability



Extension Education: Adoption Outreach

- Creating opportunities, knowledge, incentives, and motivation for behavioral change
 - Meeting needs of minority or limited resource farmers and ranchers
 - “Articulating” agriculture in the urban/urbanizing environment
 - Promoting drought preparedness



Priority Areas: Integrated Watershed Projects

| Program | FY 04 | FY 05 | FY 06 | FY 07 |
|------------------------------|------------------------|----------------------------------|----------------------------------|---------------------------------------------|
| NRI (research watersheds) | | Pathogens; Ag water availability | Pathogens; Ag water availability | Pathogens; Water conservation |
| NIWQP | Restoration | Restoration; Behavior Change | | Restoration; Behavior Change; Heterogeneity |
| CEAP | ← Watershed Projects → | | | CEAP Synthesis |



New Integrated Watershed Priority: Heterogeneity

- Where are the greatest water quality risks in a watershed?
- How can we improve the effectiveness of conservation practices and programs?



New Priority: Conservation Effects Assessment Project

- Synthesis study
 - Lessons learned from 13 CSREES-NRCS jointly funded watershed projects
 - Opportunity to inform USDA conservation policy and programs



Continuing Our Success

- Establishing new partnerships
- Adapting to changing conditions
- Meeting new challenges in research, education, and extension

