



Applying knowledge to improve water quality

# Heartland Regional Water Coordination Initiative

A Partnership of USDA CSREES  
& Land Grant Colleges and Universities

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## Strengthening multistate and interagency partnerships makes resources accessible

The Heartland Regional Water Coordination Initiative creates and strengthens multi-state, multi-institutional partnerships and collaboration to make research-based information, education and extension resources of the land-grant universities more accessible to federal, state and local efforts on regional priority water issues. The overall goal of the Initiative is to increase the capacity of citizens, landowners, agencies and community leaders to better address their water quality concerns.

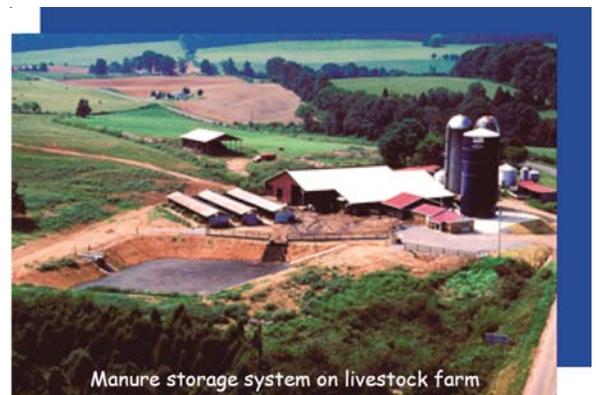
The Initiative was developed by leaders of extension water quality programs of Iowa State University, Kansas State University, the University of Missouri, the University of Nebraska and their agency and institutional partners. Working groups consisting of university researchers and extension specialists, representatives of U.S. EPA Region 7, state agriculture and natural resource agencies, and other key stakeholders guide implementation of activities on priority water quality issues.

### REGIONAL PRIORITIES

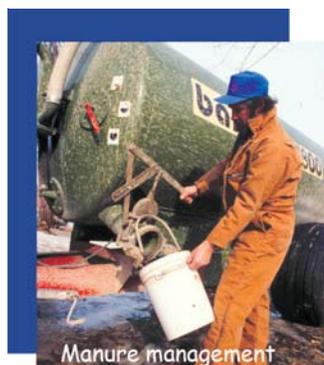
The Heartland Initiative establishes a collaborative structure to address targeted regional objectives and audiences on the priority water quality issues of animal manure management, nutrient and pesticide management, and community involvement in watershed management.

#### Animal Manure Management

The Heartland states contain some of the nations' most intensive livestock production, making improved manure management a high priority for controlling excess nutrients and microbial pollutants in soil and water. The Heartland Animal Manure Management issue team targets a regional need created by recent changes in federal regulation of large livestock and poultry facilities (concentrated animal feeding operations, CAFOs) and nutrient management requirements of USDA conservation programs. In response to federal mandates, states are defining rules and regulations for acceptable manure management plans and conservation practices.



Manure storage system on livestock farm



Manure management

#### Objectives

- Assist state regulatory agencies and federal partners within EPA Region 7 with integration of new federal CAFO regulations.
- Provide guidance in the development and implementation of comprehensive nutrient management plans (CNMPs).
- Expand the understanding of public and private sector livestock industry advisors concerning federal and state CAFO regulations and the tools to implement those regulations.
- Increase awareness and acceptance of innovative technologies for open lot management to improve water quality.



# Heartland Regional Leadership Team

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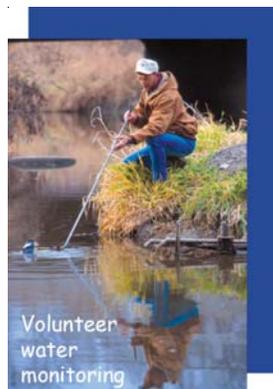
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The Heartland Web site provides links to water quality information, state, regional, and national resources.

## Nutrient and Pesticide Management

Non-point pollution from agriculture is the principal source of water quality impairment in the region. Improper management of crop nutrients and pesticides may have adverse effects on surface and ground waters, - including potential contamination of drinking water supplies and recreation waters, - that impose health risks on humans, wildlife, and aquatic ecosystems. Significant numbers of lakes and streams in the Heartland currently require the establishment of nutrient total maximum daily loads (TMDLs). The Heartland states are also under scrutiny for nutrients contributing to the hypoxia condition in the Gulf of Mexico.



## Objectives

- Improve the availability of technical and educational resources on phosphorus, nitrogen and pesticide management to meet the needs of watershed planners, agency personnel, technical service providers and producers to address quantitative nutrient and pesticide reduction goals, including goals related to TMDL implementation and nutrient criteria.
- Improve tools available for developing Nutrient Management Plans.

## Community Involvement in Watershed Management

The Heartland Initiative has established building local capacity for community-based watershed management as a regional priority. It is recognized that effective planning and long term change must involve the human dimension, the participation of watershed residents-farmers, non-farmers, and town residents- who are most affected by these decisions.

## Objectives

- Facilitate a regional network of extension educators, community development specialists and researchers working on agriculture/environment management issues.
- Improve the availability of resources for working with watershed communities.
- Link research to education/extension through the development of a practitioners guide.
- Facilitate and increase productive partnerships at the watershed level among communities, university extension, technical and regulatory agencies.

