

Water Quality CIG Plan of Work for 2005 reporting period

Program Title: Purdue Extension Water Quality Program

Situation/Significance (Need):

Hoosiers depend on a safe and abundant water supply for drinking, recreation, and a healthy economy. Hundreds of rivers and streams in Indiana are not meeting water quality standards for swimmable and fishable waters and a sizable minority of drinking water wells with potential contaminant issues. Nutrient enrichment of ground and surface waters, and pesticide runoff contamination are among the unintended environmental consequences of Indiana's agriculture. Urban development can increase runoff and negatively impact water resources.

Addressing non-point sources of water pollution and loss of riparian habitat will require land owners and managers to participate in collaborative watershed planning and adopt sustainable land use practices. Continued effort is necessary in order to encourage Indiana communities and residents to become more aware of water quality issues and to integrate them into their decision making. Because water quality problems are often multi-state, regional approaches can best address many issues. A regional water quality project is developing partnerships to address six nationally-identified water quality themes: watershed management, nutrient and pesticide management, animal waste management, drinking water and human health, environmental restoration, and water policy and economics.

Educational Strategy (program description including educational resources):

The Water Quality CIG and its members will provide a high quality extension education program that:

- Solicits input on Hoosiers' needs for water quality education
- Provides answers and solutions to water quality concerns of Indiana communities and residents.
- Encourages collaboration among state and local agencies and organizations to address water quality issues.
- Establishes a forum for exchange and linkage of ideas and projects between campus and county extension personnel

Team members will use a mix of methods such as workshops, development of extension publications, public service announcements, research, a web site, email, phone, home and farm site visits, and county and state fair displays.

Intended Outcomes (purpose):

Watershed Management

1. Watershed stakeholders will collaborate effectively to develop and implement plans to protect and restore water resources.
2. Impacts on water resources will be incorporated into land use planning decisions; individually and in communities

3. Geospatial information and decision-making tools to make more informed choices about water resources will be more accessible.
4. People will be more aware of the value of ponds in their landscape and better methods for installation and management.
5. Residents, including youth, will understand and appreciate watersheds through monitoring and other activities.

Drinking Water, Recreation, and Human Health

6. People will have access to information and assistance they need to make decisions about their well and drinking water.
7. Residents and officials will be aware of on-site wastewater treatment (e.g., septic system) siting and maintenance needs, and use good information to make decisions.
8. Customers of public drinking water systems will become more informed about water quality, water quality testing interpretations and how to protect source water. Public drinking water system managers will collaborate to protect source water and provide better information to their customers.
9. Residents will be more aware of water quality concerns related to recreation (e.g., fishing, swimming, boating) and act to protect water resources.

Nutrient and Pesticide Management

10. Farm and non-farm residents will conduct environmental self-assessments (Farmstead Assessment, Home*A*Syst, Field Assessment, etc.), which will lead to improved practices.
11. Farmers, drainage contractors, and other agencies will become more aware of potential benefits of drainage management.
12. Farm and non-farm residents will become more aware of benefits of proper application of fertilizer, manure, and waste products to soil, and the potential environmental consequences of misapplication.

Primary Target Audience:

- Agricultural producers
- Rural and urban residents
- Elected officials and other decision-makers

Evaluation Strategy:

Programs that target the following outcomes will be evaluated formally:

1. Watershed stakeholders will collaborate effectively to develop and implement plans to protect and restore water resources.

Potential Indicators:

- Number of participants in the Indiana Watershed Leadership program, and their feedback on impacts of the program
- Number of participants in the Watershed Coordinator Mentor program

- Impact of Extension efforts on collaborative processes of watershed stakeholders and watershed plans

4. People will be more aware of the value of ponds in their landscape and better methods for installation and management.

Potential Indicators:

- Number of pond clinics offered and number of attendees
- Number of people downloading WQ-41-W, *Management of Ponds, Wetlands, and Other Water Reservoirs to Minimize Mosquitoes*.
- Number of people accessing our Ponds web site, <<http://www.ecn.purdue.edu/SafeWater/Ponds/>>
- Number of people helped with pond questions
- Number of radio stations airing PSA's

6. People will have access to information and assistance they need to make decisions about their well and drinking water.

Potential Indicators:

- Number of people accessing our Safe Water for the Future web site, <<http://www.ecn.purdue.edu/SafeWater/>>, for drinking water and well protection information.
- Number of people helped with drinking water questions
- Number of publications on drinking water issues ordered and downloaded from the web

11. Farmers, drainage contractors, and other agencies will become more aware of potential benefits of drainage management.

Potential Indicators:

- Number of attendees at drainage management field day(s)
- Number of people who request the practice for USDA cost share

Scale of Effort: (how much time would someone expect to spend on this effort?)

Major (> 50 days/year)

Staff Development Plan:

Educators will be encouraged to attend water quality workshops that are offered through specific programs, including

- Indiana Watershed Leadership
- Storm water workshop

The team will develop other opportunities over the course of the year.

Is this a multi-state program? Yes

Is it an integrated research/extension program? Yes