

CHAPTER 5

IMPLEMENTATION

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5.1 Implementation Activity Options for Sources in the Sub-Basins

This chapter of the Northwest Indiana Watershed Management Framework focuses on implementation activities that have the potential to achieve the load reductions presented in Sections 2.4.3, 3.4.3, and 4.4.3 of each respective sub-basin chapter. The focus of this section is to identify and select the most appropriate structural and non-structural best management practices (BMPs) and control technologies to reduce E. coli, phosphorus, nitrogen and sediment loads from sources throughout these sub-basins, particularly in watershed priority areas identified in Sections 2.5.2, 3.5.2, and 4.5.2 of each respective sub-basin chapter. This section also addresses the programs that are available to facilitate implementation of structural and non-structural BMPs to achieve the reductions, as well as current ongoing activities in the Little Calumet-Galien, Kankakee, and Chicago sub-basins at the local level that will play a key role in successful watershed management implementation.

To select appropriate BMPs and control technologies, it is important to review the significant sources included in Sections 2.4.1, 3.4.1, and 4.4.1 of each respective sub-basin chapter.

Point Sources

- WWTPs
- Industrial facilities
- CSOs
- Regulated storm water sources
- Illicitly connected straight pipe systems

Nonpoint Sources

- Cropland
- Pastures and livestock operations
- CFOs
- Streambank erosion
- Onsite wastewater treatment systems
- Wildlife/domestic pets
- Urban nonpoint source runoff

| Implementation Activities | Pollutant | | | Point Sources | | | | | Nonpoint Sources | | | | | |
|--|-----------|-----------|----------|---------------------------------|------|------------------------------|-------|---|------------------|-----------------------------------|---------------|--------------------|-------------------------------------|------------------------|
| | Bacteria | Nutrients | Sediment | WWTPs and Industrial Facilities | CSOs | Regulated Stormwater Sources | CAFOs | Illicitly Connected "Straight Pipe" Systems | Cropland | Pastures and Livestock Operations | CFOs and AFOs | Streambank Erosion | Onsite Wastewater Treatment Systems | Wildlife/Domestic Pets |
| Disinfection of primary effluent - chlorination | X | | | X | | | | | | | | | | |
| Disinfection of primary effluent - ozonation | X | | | X | | | | | | | | | | |
| Disinfection of primary effluent – UV disinfection | X | | | X | | | | | | | | | | |
| Biological nutrient removal | | X | | X | | | | | | | | | | |
| Inspection and maintenance | X | X | X | X | X | X | X | | | | | | X | |
| Outreach and education and training | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| System replacement | X | X | | | X | | | X | | | | | X | |
| Conservation tillage/residue management | | X | X | | | | | | X | | | | | |
| Cover crops | | X | X | | | | | | X | | | X | | |
| Filter strips | X | X | X | | | X | X | | X | X | X | X | | |
| Grassed waterways | X | | X | | | | X | | X | | X | X | | |
| Riparian buffers | X | X | X | | | | X | | X | X | X | X | | X |
| Manure handling, storage, treatment, and disposal | X | | | | | | X | | | | X | | | |
| Composting | X | X | | | | | X | | | | X | | | |
| Terrace | | | X | | | | | | X | | | | | |
| Stream fencing (animal exclusion) | X | X | X | | | | | | | X | | X | | |
| Grazing land management | X | X | X | | | | | | | X | | X | | |
| Critical Area Planting | | | X | | | | | | | X | | X | | |
| Drainage Water Management | | X | | | | | | | X | | | | | |
| Heavy Use Area Pad | | | X | | | | | | | X | | | | |
| Nutrient Management Plan | | X | | | | | | | X | | | | | |
| Street rain garden | | X | X | | | X | | | | | | | | |
| Block bioretention | | X | X | | | X | | | | | | | | |
| Regional bioretention | | X | X | | X | X | | | | | | | | |
| Porous pavement | | X | X | | X | X | | | | | | | | |
| Green roof | | X | X | | X | X | | | | | | | | |
| Dam modification or removal | | X | X | | | | | | | | | | | |
| Levee or dike modification or removal | | X | X | | | | | | | | | | | |

| Implementation Activities | Pollutant | | | Point Sources | | | | | Nonpoint Sources | | | | | |
|---|-----------|-----------|----------|---------------------------------|------|------------------------------|-------|---|------------------|-----------------------------------|---------------|--------------------|-------------------------------------|------------------------|
| | Bacteria | Nutrients | Sediment | WWTPs and Industrial Facilities | CSOs | Regulated Stormwater Sources | CAFOs | Illicitly Connected "Straight Pipe" Systems | Cropland | Pastures and Livestock Operations | CFOs and AFOs | Streambank Erosion | Onsite Wastewater Treatment Systems | Wildlife/Domestic Pets |
| Stormwater planning and management | X | X | X | X | X | X | | | | | | X | X | X |
| Comprehensive Nutrient Management Plan | X | X | | | | | X | | X | | X | | | |
| Constructed Wetland | | X | X | X | | | | X | X | | | | X | X |

Table 1. List of Potentially Suitable BMPs (Source- IDEM: Draft TMDL Template)

Watershed stakeholders can use Table 1 to select activities that are most feasible within their watershed and to identify implementation activities for critical areas that they select through the watershed management planning process. Additional measures can be found in Appendix A of the Indiana Nonpoint Source Management Plan¹. The IDEM provides a summary and links to a series of USEPA guidance documents to control nonpoint sources from the following categories:

- Urban areas
- Agriculture
- Forestry
- Marinas and recreational boating
- Hydromodification
- Wetlands and riparian areas

¹ <http://www.in.gov/idem/5984.htm>

5.2 Summary of Programs

There are a number of federal and state programs that either require or can assist with the implementation activities recommended in Table 1. A description of these programs is provided in this section. The following section discusses how some of these programs relate to the various sources in the Little Calumet-Galien, Kankakee, and Chicago sub-basins.

5.2.1 Federal Programs

Clean Water Act Section 319(h) Grants

Section 319 of the federal Clean Water Act contains provisions for the control of nonpoint source pollution. The Section 319 program provides for various voluntary projects throughout the state to prevent water pollution and also provides for assessment and management plans related to waterbodies in Indiana impacted by NPS pollution. The Watershed Planning and Restoration Section within the Watershed Assessment and Planning Branch of the Office of Water Quality provides for the administration of the Section 319 funding source for the NPS-related projects.

USEPA offers Clean Water Act Section 319(h) grant moneys to the state on an annual basis. These grants must be used to fund projects that address nonpoint source pollution issues. Some projects which the Office of Water Quality has funded with this money in the past include BMP demonstrations, watershed water quality improvements, data management, educational programs, modeling, stream restoration, and riparian buffer establishment. Projects are usually two to three years in length. Section 319(h) grants are intended to be used for project start-up, not as a continuous funding source. Units of government, nonprofit groups, and universities in the state that have expertise in nonpoint source pollution problems are invited to submit Section 319(h) proposals to the Office of Water Quality.

Clean Water Action Section 205(j) Grants

Section 205(j) provides for planning activities relating to the improvement of water quality from nonpoint and point sources by making funding available via pass through grants at the state's discretion, to municipal and county governments, regional planning commissions, and other public organizations. For-profit entities, non-profit organizations, private associations, and individuals are not eligible for funding through Section 205(j). The act states that the grants are to be used for water quality management and planning, including, but not limited to:

- Identifying most cost effective and locally acceptable facility and non-point source measures to meet and maintain water quality standards;
- Developing an implementation plan to obtain state and local financial and regulatory commitments to implement measures developed;
- Determining the nature, extent, and cause of water quality problems in various areas of the state.

The Section 205(j) program provides for projects that gather and map information on nonpoint and point source water pollution, develop recommendations for increasing the involvement of environmental and civic organizations in watershed planning and implementation activities, and develop and implement watershed management plans.

USDA Conservation of Private Grazing Land Initiative (CPGL)

The Conservation of Private Grazing Land initiative will ensure that technical, educational, and related assistance is provided to those who own private grazing lands. It is not a cost-share program. This technical assistance will offer opportunities for: better grazing land management; protecting soil from erosive wind and water; using more energy efficient ways to produce food and fiber; conserving water; providing habitat for wildlife; sustaining forage and grazing plants; using plants to sequester greenhouse gases and increase soil organic matter; and using grazing lands as a source of biomass energy and raw materials for industrial products.

USDA Conservation Reserve Program (CRP)

NRCS provides technical assistance to landowners interested in participating in the Conservation Reserve Program administered by the USDA Farm Service Agency. The Conservation Reserve Program reduces soil erosion, protects the Nation's ability to produce food and fiber, reduces sedimentation in streams and lakes, improves water quality, establishes wildlife habitat, and enhances forest and wetland resources. It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filter strips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost-share funding is provided to establish the vegetative cover practices.

USDA Conservation Technical Assistance (CTA)

The purpose of the CTA program is to assist land users, communities, units of state and local government, and other Federal agencies in planning and implementing conservation systems. The purpose of the conservation systems is to reduce erosion, improve soil and water quality, improve and conserve wetlands, enhance fish and wildlife habitat, improve air quality, improve pasture and range condition, reduce upstream flooding, and improve woodlands.

One objective of the program is to assist individual land users, communities, conservation districts, and other units of State and local government and Federal agencies to meet their goals for resource stewardship and assist individuals in complying with State and local requirements. NRCS assistance to individuals is provided through conservation districts in accordance with the Memorandum of Understanding signed by the Secretary of Agriculture, the Governor of the State, and the conservation district. Assistance is provided to land users voluntarily applying conservation practices and to those who must comply with local or State laws and regulations.

Another objective is to provide assistance to agricultural producers to comply with the highly erodible land (HEL) and wetland (Swampbuster) provisions of the 1985 Food Security Act as amended by the Food, Agriculture, Conservation and Trade Act of 1990 (16 U.S.C. 3801 et. seq.), the Federal Agriculture Improvement and Reform Act of 1996, and wetlands requirements of Section 404 of the Clean Water Act. NRCS makes HEL and wetland determinations and

helps land users develop and implement conservation plans to comply with the law. The program also provides technical assistance to participants in USDA cost-share and conservation incentive programs.

NRCS collects, analyzes, interprets, displays, and disseminates information about the condition and trends of the Nation's soil and other natural resources so that people can make good decisions about resource use and about public policies for resource conservation. They also develop effective science-based technologies for natural resource assessment, management, and conservation.

USDA Environmental Quality Incentives Program (EQIP)

The Environmental Quality Incentives Program provides technical, educational, and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program provides assistance to farmers and ranchers in complying with Federal, State, and tribal environmental laws, and encourages environmental enhancement. The program is funded through the Commodity Credit Corporation. The purposes of the program are achieved through the implementation of a conservation plan, which includes structural, vegetative, and land management practices on eligible land. Five to ten year contracts are made with eligible producers. Cost-share payments may be made to implement one or more eligible structural or vegetative practices, such as animal waste management facilities, terraces, filter strips, tree planting, and permanent wildlife habitat. Incentive payments can be made to implement one or more land management practices, such as nutrient management, pest management, and grazing land management.

Fifty percent of the funding available for the program is targeted at natural resource concerns relating to livestock production. The program is carried out primarily in priority areas that may be watersheds, regions, or multi-state areas, and for significant statewide natural resource concerns that are outside of geographic priority areas.

USDA Small Watershed Program and Flood Prevention Program (WF 08 or FP 03)

The Small Watershed Program works through local government sponsors and helps participants solve natural resource and related economic problems on a watershed basis. Projects include watershed protection, flood prevention, erosion and sediment control, water supply, water quality, fish and wildlife habitat enhancement, wetlands creation and restoration, and public recreation in watersheds of 250,000 or fewer acres. Both technical and financial assistance are available.

USDA Watershed Surveys and Planning

The Watershed and Flood Prevention Act, P.L. 83-566, August 4, 1954, (16 U.S.C. 1001-1008) authorized this program. Prior to fiscal year 1996, small watershed planning activities and the cooperative river basin surveys and investigations authorized by Section 6 of the Act were operated as separate programs. The 1996 appropriations act combined the activities into a single program entitled the Watershed Surveys and Planning program. Activities under both programs are continuing under this authority.

The purpose of the program is to assist Federal, State, and local agencies and tribal governments to protect watersheds from damage caused by erosion, floodwater, and sediment and to conserve and develop water and land resources. Resource concerns addressed by the program include water quality, opportunities for water conservation, wetland and water storage capacity, agricultural drought problems, rural development, municipal and industrial water needs, upstream flood damages, and water needs for fish, wildlife, and forest-based industries.

Types of surveys and plans include watershed plans, river basin surveys and studies, flood hazard analyses, and floodplain management assistance. The focus of these plans is to identify solutions that use land treatment and non-structural measures to solve resource problems.

USDA Wetlands Reserve Program (WRP)

The Wetlands Reserve Program is a voluntary program to restore wetlands. Participating landowners can establish conservation easements of either permanent or 30 year duration, or can enter into restoration cost-share agreements where no easement is involved. In exchange for establishing a permanent easement, the landowner receives payment up to the agricultural value of the land and 100 percent of the restoration costs for restoring the wetlands. The 30 year easement payment is 75 percent of what would be provided for a permanent easement on the same site and 75 percent of the restoration cost. The voluntary agreements are for a minimum of 10 years in duration and provide for 75 percent of the cost of restoring the involved wetlands. Easements and restoration cost-share agreements establish wetland protection and restoration as the primary land use for the duration of the easement or agreement. In all instances, landowners continue to control access to their land.

USDA Wildlife Habitat Incentives Program (WHIP)

The Wildlife Habitat Incentives Program provides financial incentives to develop habitat for fish and wildlife on private lands. Participants agree to implement a wildlife habitat development plan and USDA agrees to provide cost-share assistance for the initial implementation of wildlife habitat development practices. USDA and program participants enter into a cost-share agreement for wildlife habitat development. This agreement generally lasts a minimum of 10 years from the date that the contract is signed.

USEPA Great Lakes Restoration Initiative (GLRI)

The Great Lakes Restoration Initiative is the largest investment in the Great Lakes in two decades. A task force of 11 federal agencies developed a plan to put the president's historic initiative into action. This action plan covers fiscal years 2010 through 2014 and addresses five urgent focus areas:

1. Cleaning up toxics and areas of concern;
2. Combating invasive species;
3. Promoting nearshore health by protecting watersheds from polluted run-off;
4. Restoring wetlands and other habitats; and
5. Working with partners on outreach.

USEPA's Great Lakes National Program Office (GLNPO) provides funding pursuant to (i) §104 of the Clean Water Act and (ii) §118 of the Clean Water Act calling for the achievement of the goals in the Great Lakes Water Quality Agreement, the principal goal of that Agreement being the restoration and maintenance of the chemical, physical, and biological integrity of the Great Lakes basin. Projects are expected to advance protection and restoration of the Great Lakes ecosystem in support of (i) Goal 4 (Healthy Communities and Ecosystems), Objective 3 (Ecosystems), Subobjective 3 (Improve the Health of Great Lakes Ecosystems) of [USEPA's Strategic Plan](#) and (ii) the [Great Lakes Regional Collaboration Strategy to Protect and Restore the Great Lakes](#).

USEPA Clean Water State Revolving Fund

Clean Water State Revolving Fund (CWSRF) programs provided more than \$5 billion annually in recent years to fund water quality protection projects for wastewater treatment, nonpoint source pollution control, and watershed and estuary management. The programs offer:

- Low interest rates, flexible terms
- Significant funding for nonpoint source pollution control and estuary protection
- Assistance to a variety of borrowers
- Partnerships with other funding sources

5.2.2 State Programs

State Point Source Control Program

The purpose of the NPDES permit is to control the point source discharge of pollutants into the waters of the State such that the quality of the water of the State is maintained in accordance with applicable water quality standards. NPDES permit requirements ensure that the minimum amount of control is imposed upon any new or existing point source through the application of technology-based treatment requirements. Control of discharges from WWTPs, MS4s, industrial facilities and CSOs consistent with WLAs is implemented through the NPDES program.

State Nonpoint Source Control Program

The state's Nonpoint Source Program, administered by the IDEM Office of Water Quality's Watershed Management Section, focuses on the assessment and prevention of nonpoint source water pollution. The program also provides for education and outreach to improve the way land is managed. Through the use of federal funding for the installation of BMPs, the development of watershed management plans, and the implementation of watershed restoration pollution prevention activities, the program reaches out to citizens so that land is managed in such a way that less pollution is generated.

Nonpoint source projects funded through the Office of Water Quality are a combination of local, regional, and statewide efforts sponsored by various public and not-for-profit organizations. The emphasis of these projects has been on the local, voluntary implementation of nonpoint source water pollution controls. The Watershed Management Section administers the Section 319 funding for nonpoint source-related projects, as well as Section 205(j) grants.

To award 319 grants, Office of Water Quality staff review proposals for minimum 319(h) eligibility criteria and rank each proposal. In their review, members consider such factors as: technical soundness; likelihood of achieving water quality results; degree of balance lent to the statewide NPS Program in terms of project type; and competence/reliability of contracting agency. They then convene to discuss individual project merits and pool all rankings to arrive at final rankings for the projects. Comments are also sought from outside experts in other governmental agencies, nonprofit groups, and universities. The Office of Water Quality seeks a balance between geographic regions of the state and types of projects. All proposals that rank above the funding target are included in the annual grant application to USEPA, with USEPA reserving the right to make final changes to the list. Actual funding depends on approval from USEPA and yearly congressional appropriations.

Both Section 319 205(j) projects are administered through grant agreements that define the tasks, schedule, and budget for the project. The IDEM project managers work closely with the project sponsors to help ensure that the project runs smoothly and the tasks of the grant agreement are fulfilled. Site visits are conducted at least quarterly to touch base on the project, provide guidance and technical assistance as needed, and to work with the grantee on any issues that arise to ensure a successful project closeout.

Indiana State Department of Agriculture Division of Soil Conservation

The Division of Soil Conservation's mission is to ensure the protection, wise use, and enhancement of Indiana's soil and water resources. The Division's employees are part of Indiana's Conservation Partnership, which also includes the 92 soil and water conservation districts (SWCDs), the USDA Natural Resources Conservation Service, the Purdue University Cooperative Extension Service, the Indiana Department of Natural Resources, IDEM, and USDA Farm Service Agency. Working together, the partnership provides technical, educational, and financial assistance to citizens to solve erosion and sediment-related problems occurring on the land or impacting public waters.

The Division administers the Clean Water Indiana soil conservation and water quality protection program under guidelines established by the State Soil Conservation Board, primarily through the local SWCDs in direct service to land users. The Division staff includes field-based resource specialists who work closely with land users, assisting in the selection, design, and installation of practices to reduce soil erosion on agricultural land. The Storm water and Sediment Control Program works primarily with developers, contractors, realtors, property holders and others to address erosion and sediment concerns on non-agricultural lands, especially those undergoing development.

Indiana Department of Natural Resources, Division of Fish and Wildlife

The Lake and River Enhancement (LARE) program utilizes a watershed approach to reduce nonpoint source sediment and nutrient pollution of Indiana's and adjacent states' surface waters to a level that meets or surpasses state water quality standards. To accomplish this goal, LARE provides technical and financial assistance to local entities for qualifying projects that improve and maintain water quality in public access lakes, rivers, and streams.

Hoosier Riverwatch is a water quality monitoring initiative which aims to increase public awareness of water quality issues and concerns through hands-on training of volunteers in-stream monitoring and cleanup activities. Hoosier Riverwatch collaborates with agencies and volunteers to educate local

communities about the relationship between land use and water quality and to provide water quality information to citizens and governmental agencies working to protect Indiana's rivers and streams.

5.3 Implementation Programs by Source

The section above identified a number of federal and state programs that can support implementation of the management or restoration activities. Table 2 and the following sections identify which programs are relevant to the various sources in the sub-basins.

| Source | State NPDES program | State Clean Water Revolving Fund Program | Local agencies/programs | Section 319 program | Section 205(j) program | ISDA Division of Soil Conservation | IDNR Division of Fish and Wildlife | USDA's Conservation of Private Grazing Land Initiative | USDA's Conservation Reserve Program | USDA's Conservation Technical Assistance | USDA's Environmental Quality Incentives Program | USDA's Small Watershed Program and Flood Prevention Program | USDA's Watershed Surveys and Planning | USDA's Wetlands Reserve Program | USDA's Wildlife Habitat Incentives Program |
|---|---------------------|--|-------------------------|---------------------|------------------------|------------------------------------|------------------------------------|--|-------------------------------------|--|---|---|---------------------------------------|---------------------------------|--|
| WWTPs and Industrial Facilities | X | X | | | X | | | | | | | | | | |
| CSOs | X | X | | | X | | | | | | | | | | |
| Regulated Stormwater Sources | X | | | | X | | | | | | | | | | |
| CAFOs | X | | | | X | | | | | | | | | | |
| Illicitly Connected "Straight Pipe" Systems | X | | X | | X | | | | | | | | | | |
| Cropland | | | X | X | X | X | X | | X | X | X | X | X | X | |
| Pastures and Livestock Operations | | | X | X | X | X | X | X | X | X | X | X | X | | |
| CFOs | X | | | | X | | X | | | | | | | | |
| Streambank Erosion | | | X | X | X | X | X | X | | X | X | X | X | | |
| Onsite Wastewater Treatment Systems | | | X | | X | | | | | | | | | | |
| Wildlife/Domestic Pets | X | | X | X | | | | | | | | | | | |
| In-stream Habitat | X | | X | X | | | | | | | | | | | X |

Table 2. Summary of Programs Relevant to Sources

5.3.1 Point Source Programs

WWTPs

Discharges from WWTPs are regulated under the NPDES program, with permits that authorize the discharge of substances at levels that meet the more stringent of technology- or water quality-based effluent limits. The NPDES program provides IDEM the authority to ensure that recommended effluent limits are applied to the appropriate permit holders within the watershed. The State Revolving Fund (SRF) Loan programs provide low-interest loans to Indiana communities for projects that improve wastewater and drinking water infrastructure. The SRF also funds nonpoint source projects that are tied to a wastewater loan.

Industrial facilities

As with discharges from WWTPs, industrial discharges are regulated under the NPDES program, with permits that authorize the discharge of substances at levels that meet the more stringent of technology- or water quality-based effluent limits. The NPDES program provides IDEM the authority to ensure that recommended effluent limits are applied to the appropriate permit holders within the watershed.

CSOs

IDEM regulates CSOs in Indiana through the state's NPDES program. As discussed in Section 3.0, all CSOs in the state have in place LTCPs. Enforcement mechanisms for LTCPs and their implementation schedules include associated NPDES permits and state consent decrees.

Regulated storm water sources

Regulated MS4s are required to obtain permit covered under IDEM's MS4 general permit that requires a storm water management program (SWMP) to address six minimum control measures. The SWMPs for each MS4s describes best management practices implemented to fulfill the six minimum control measure requirements.

CAFOs

CAFOs are point sources regulated through the NPDES Program. Indiana regulations for CAFOs can be found in 327 IAC 15-15 and federal regulations for all CAFOs can be found in 40 CFR Parts 9, 122, and 412. The Effluent Limitations Guidelines and New Source Performance Standards for CAFOs require, in general, zero discharge from these areas and require proper design, construction, operation, and maintenance of the structures to contain all manure, litter, and process wastewater including the runoff and direct precipitation from a 25-year, 24-hour rainfall event. The NPDES general permit also requires that water quality standards shall not be exceeded in the event of an overflow from production areas.

Examples of requirements for CAFO operators include:

- weekly inspections of their waste storage facilities
- develop a Soil Conservation Practice Plan for all manure application sites controlled by the CAFO
- develop a Storm Water Pollution Prevention Plan for the area immediately around the production barns
- submit an annual report to IDEM

- adjust land application rates based on nitrogen and phosphorus

Illegal straight pipes

Local health departments are responsible for locating and eliminating illicit discharges and illegal connections to the sewer system.

5.3.2 Nonpoint Sources Programs

Cropland

Nonpoint source pollution from cropland areas is typically reduced through the voluntary implementation of BMPs by private landowners. Programs available to support implementation of cropland BMPs, whether through cost-share or technical assistance and education, include:

- Clean Water Act Section 319 program
- Indiana Department of Natural Resources Division of Fish and Wildlife (LARE)
- Indiana State Department of Agriculture Division of Soil Conservation/SWCDs
- USDA's Conservation Reserve Program (CRP)
- USDA's Conservation Technical Assistance (CTA)
- USDA's Environmental Quality Incentives Program (EQIP)
- USDA's Small Watershed Program and Flood Prevention Program (WF 08 or FP 03)
- USDA's Watershed Surveys and Planning
- USDA's Wetlands Reserve Program (WRP)
- USDA's Wildlife Habitat Incentives Program (WHIP)

Pastures and livestock operations

Nonpoint source pollution from pasture and livestock areas is typically reduced through the voluntary implementation of BMPs by private landowners. Programs available to support implementation of pasture and grazing BMPs, whether through cost-share or technical assistance and education, include:

- Clean Water Act Section 319 program
- Indiana Department of Natural Resources Division of Fish and Wildlife (LARE)
- Indiana State Department of Agriculture Division of Soil Conservation/SWCDs
- USDA's Conservation of Private Grazing Land Initiative (CPGL)
- USDA's Conservation Reserve Program (CRP)
- USDA's Conservation Technical Assistance (CTA)
- USDA's Environmental Quality Incentives Program (EQIP)
- USDA's Small Watershed Program and Flood Prevention Program (WF 08 or FP 03)
- USDA's Watershed Surveys and Planning
- USDA's Wildlife Habitat Incentives Program (WHIP)

CFOs

While CAFOs are regulated by federal law, CFOs are not. However, Indiana has CFO regulations 327 IAC 16, 327 IAC 15 that require that operations to manage manure, litter, and process wastewater in a manner that “does not cause or contribute to an impairment of surface waters of the state.” IDEM regulates CFOs under IC 13-18-10, the Confined Feeding Control Law. The rules at 327 IAC 16, which implement the statute regulating CFOs, were effective on March 10, 2002. IDEM's Office of Land Quality administers the regulatory program, which includes permitting, compliance monitoring and enforcement activities.

Streambank erosion

Streambank erosion can be the result of changes in the physical structure of the immediate bank from activities such as removal of riparian vegetation or frequent use by livestock, or it can be the result of increased flow volumes and velocities resulting from increased surface runoff throughout the upstream watershed. Therefore, streambank erosion might be addressed through BMPs and restoration targeted to the specific stream reach, and further degradation could be addressed through the use of BMPs implemented to address storm water issues throughout the watershed. Programs available to support implementation of BMPs to address streambank erosion, whether through cost-share or technical assistance and education, include:

- Clean Water Act Section 319 program
- Indiana Department of Natural Resources Division of Soil Conservation
- USDA's Conservation Technical Assistance (CTA)
- USDA's Environmental Quality Incentives Program (EQIP)
- USDA's Small Watershed Program and Flood Prevention Program (WF 08 or FP 03)
- USDA's Watershed Surveys and Planning
- USDA's Wildlife Habitat Incentives Program (WHIP)

Onsite wastewater treatment systems

Indiana State Department of Health (ISDH) Rule 410 IAC 6-8.1 outlines regulations for septic systems, including a series of regulatory constraints on the location and design of current septic systems in an effort to prevent system failures. The ISDH generally gives administrative authority of onsite residential systems to local health departments. The rule prohibits failing systems, requiring that:

- No system will contaminate ground water.
- No system will discharge untreated effluent to the surface.

Wildlife/domestic pets

Addressing pollutant contributions from wildlife and domestic pets is typically done at the local level through education and outreach efforts. For wildlife, educational programs focus on proper maintenance of riparian areas and discouraging the public from feeding wildlife. For domestic pets, education programs focus on responsible pet waste maintenance (e.g., scoop the poop campaigns) coupled with local ordinances.