

## How To Get Started: Protecting Your Community From Polluted Runoff

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### Key Finding

Protecting your community's water resources from polluted runoff will require the involvement of many local departments and commissions as well as other sectors of the community. A coordinated approach, combined with a clearly stated goal of protecting your community's waterways, is an excellent way to start.

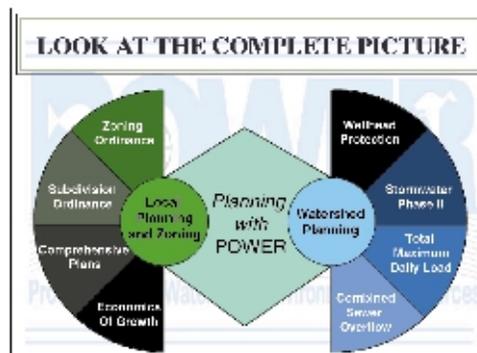
### The Problem

Nonpoint source pollution, or polluted runoff, is the cumulative result of a multitude of personal and municipal actions. As such, only an organized, collaborative approach to solving the problem will be successful. Local land use decisions will continue to be made on a case-by-case basis; however, an action plan incorporating certain key elements into the county decision-making processes will serve to strengthen and consolidate your community's effort to protect its waterways.

### A Coordinated Approach to Polluted Runoff: Key Considerations

**Communication:** Many municipal commissions and departments must be involved in managing polluted runoff. For instance, the plan commission makes land use decisions and determines the

general direction of future development. The public works department oversees design, construction, maintenance, and repair of roadways and catch basins. Each of these stakeholders must be informed about their role in protecting community water resources as well as the roles of others and how they all fit together.



Taken from *Planning with POWER* multimedia presentation

In some communities, coordination has resulted in forming new boards or groups made up of representatives of the key players. Those who might be involved include members of plan commissions, public works and sewer, economic development, and finance boards.

**Legal Requirements:** Depending on the location and size of your community, a number of recent federal and state laws on polluted runoff management may soon be coming your way (if they haven't already!).

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The Storm Water Phase II regulations recently issued by the EPA for communities across the country will require small communities with publicly owned and operated storm sewer systems to submit a plan for storm water management by March 2003. Contact your local Soil and Water Conservation District, Plan Commission, or other municipal and county officials for additional information regarding storm water regulations. You may also contact the IDEM Storm Water Coordinator at (800) 451-6027, extension 3-6725.

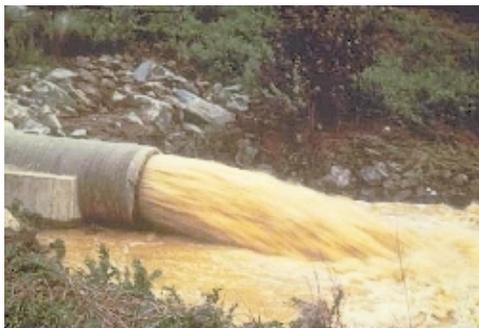


Photo courtesy of Shawnee County Conservation District, Kansas

For state and federal regulations affecting storm water, including the recent Storm Water Phase II regulations, you can contact the Indiana Department of Environmental Management (IDEM) at (800) 451-6027 (request the Storm Water Permits sections).

New TMDL (Total Maximum Daily Load) regulations affecting agricultural producers and other landowners are in the process of being developed in Indiana. A TMDL is a pollution budget for a specific river, lake, or stream. It is a quantitative estimate of what it takes to achieve state water quality goals in polluted waters. For more information, please call IDEM at (317) 308-3214.

All community public water suppliers serving a non-transient population must develop a wellhead protection plan by March 2002. Wellhead protection is a water quality management process that involves communities in ground water protection. Having the plan in place will

ensure a safe water supply for your community, now and in the future. For more information, please call 1-888-EXT-INFO (1-888-398-4636) or the Agricultural and Biological Engineering office - Purdue University at (765) 494-1176, or call IDEM at (317) 308-3319.

Local officials need to be aware of these laws and regulations, both from the standpoint of compliance and also with regard to the authority that is conferred to communities wishing to aggressively manage polluted runoff.

**Focus:** As part of a community-wide effort to control polluted runoff, there are basic things that can be done “across the board” for existing areas or planned developments, such as requiring storm water controls and minimizing the amount of impervious surfaces, whenever possible. However, these minimizing and mitigating strategies are reactive and are best when coupled with a proactive approach that focuses on identifying and protecting your community’s most important water and natural resources.

Decisions regarding what natural resource to protect in your community will likely be based on a combination of water resource information and the needs of the local populace. A primary objective might be improving the water quality of heavily used lakes or ponds, or it could be protecting a relatively pristine reservoir or critical groundwater recharge area. Contact *Planning with POWER* for help in finding appropriate technical resources in your area.



Photo courtesy of NEMO, University of Connecticut

## Planning with POWER Project Partners

Purdue Cooperative  
Extension Service

Illinois-Indiana Sea Grant  
College Program

Indiana Department of  
Environmental Management  
(IDEM)

Indiana Land Resources  
Council (ILRC)

Indiana Department of  
Natural Resources (IDNR)

Natural Resources  
Conservation Service (NRCS)

Soil and Water Conservation  
Districts (SWCD)

The *Planning with POWER* technique of doing a zoning build-out analysis is one way to help assess potential threats to your waterways. Local expertise found in state agencies, federal agencies, universities, consulting firms, and our Project Partners (IDEM, ILRC, IDNR NRCS, SWCD) can be called upon as you develop your build-out analyses.

**Financing:** Local funding will have to account for most of the expense involved in polluted runoff programs. General funds, capital funds, special tax districts (like storm water utility fees), and local bond issues are all options. Costs associated with new development can and should be negotiated with developers. Prevention of pollution is by far the most cost-effective way to protect your resources. Many nonstructural best management practices involving reduced impervious surface and use of vegetation



Photo courtesy of Renee Gunn, Purdue University

in site designs can actually save you money when compared to conventional development practices (see photo above). Federal and state technical and funding sources are listed in the “Finding Outside Funding” section at the end of this publication.

IDEM is in the process of developing mechanisms to make the State Revolving Loan Fund for Wastewater Treatment available for nonpoint source pollution protection. Communities desiring to make improvements in their storm water infrastructure, specifically to reduce water pollution and improve water quality, may be eligible for these loans.

Interested parties should contact IDEM at (800) 451-6027 and speak with the Office of Water Management, State Revolving Loan (SRF) Section.

## What Communities Can Do: Suggestions for an Action Plan

The technical aspects of polluted runoff can be complicated. However, just because your community doesn't have a water quality expert or 20 years of monitoring data doesn't mean that you can't protect your water resources. There are a number of places to get help (see Additional Resources section), and remember, communication is the most important aspect of any action plan.

You are the final judge as to what will work in your community, but here are some suggestions:

1. To start, form an appropriate *ad hoc* committee comprised of members from appropriate local commissions and departments. Remember to get the approval of the community's leading elected officials, usually the mayor and the city council or county commissioners.
2. Educate yourself and your key local groups on the basics of polluted runoff and its management through programs and materials like those available through *Planning with POWER* (see Additional Resources section).



Photo courtesy of Renee Gunn, Purdue University

3. Ask the following questions when you seek local, state, or private help in assessing your community's water and other natural resources:

*Just because your town doesn't have a water quality expert or 20 years of monitoring data doesn't mean that you can't protect your water resources.*

- Which natural resources are the most valuable to your community (economically, historically, socially)?
- Which resources are the most impaired or endangered by polluted runoff?
- Are there any water resources deemed especially important by state or federal agencies?

Weigh these factors and try to develop a consensus priority list.

4. Assess what, if anything, your community is currently doing about polluted runoff. Factors to be considered include erosion control requirements, subdivision design and density regulations, septic system regulations, city and county maintenance policies of roads and storm drains, open space plans, and any setback or buffer zone requirements.
5. Write and issue a polluted runoff policy statement, laying out the importance of polluted runoff management and the commitment of the community to address this problem.
6. Go ahead and dig in! Write a brief action plan that describes the role of each of the key commissions and or departments represented on the *ad hoc* committee.



Photo courtesy of Natalie Carroll, Purdue University

7. Hold an educational meeting for all appropriate local commissions, departments, and the public to brief them on your work and the action plan. Be sure to ask for comments.

You can also use the media to raise awareness of the problem in your community through newspaper articles on the action plan and television or radio interviews with key leaders in the community.

8. Incorporate your action plan into the appropriate community policies, plans, procedures, and regulations.

### Can We Really Do This?



Photo courtesy of Robert McCormick, Purdue University

Absolutely. Remember, the most important step in the process—a *clearly stated desire on the part of a community to protect its water and other natural resources from polluted runoff*—takes no technical or legal expertise. Establishing that priority, articulating it in community policy, and setting up a framework for internal cooperation and communication will provide a solid foundation for all that follows.

### How Your Community Can Start Planning with POWER

*Planning with POWER* is a statewide educational program linking local land use decision-making to natural resource-based or watershed planning in the local community. The *Planning with POWER* project brings together two successful statewide education and technical assistance projects: the Purdue Extension Land Use Team (Extension educators who assist local communities in land use planning) and the Conservation Partnership (composed of the Indiana Department of Natural Resources (IDNR), the Natural Resource

*“Never doubt that a small group of thoughtful, committed citizens can change the world, indeed, it’s the only thing that ever has.”*

*-Margaret Mead*

*Remember, the most important step in the process—a clearly stated desire on the part of the community to protect its water resources from polluted runoff—takes no technical or legal expertise.*

**Planning with POWER  
is funded by:**

Purdue Cooperative Extension  
Service

Illinois-Indiana Sea Grant  
College Program

Indiana Department of  
Environmental Management  
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NOAA Coastal Services  
Center

Conservation Service (NRCS), Purdue Extension Service, and the Soil and Water Conservation Districts (SWCD)).

The *Planning with POWER* project can help you to:

1. *Evaluate where your community is in the planning process.* Communities in Indiana are in different stages of the planning process. Some communities may not have a recently updated, comprehensive plan. Other communities may need to incorporate protection of natural resources into their current plan. Regardless of where you are in the planning process, *Planning with POWER* can help you assess where you are and assist you in identifying the next steps most appropriate for your community.



Photo courtesy of NEMO, University of Connecticut

2. *Identify the steps needed to incorporate natural resource protection into your community's long-term comprehensive plan.* There are a number of important steps in developing a successful comprehensive natural resource-based plan. Each step requires careful consideration, time, and public input. The steps in this process are to:

- a. Develop the inventory of your natural resource areas; determine what resources are at risk under your current regulations and policies;
- b. Prioritize the areas and resources requiring protection;
- c. Incorporate open space planning and policy measures needed to

meet natural resource protection goals;

- d. Target development to the most appropriate areas;
- e. Develop a plan of action to achieve your natural resource protection goals;
- f. Revise your zoning and subdivision ordinances to protect your community's natural resources.

*Planning with POWER* can link you to technical and educational resources needed to assist your community with the natural resource-based comprehensive planning process.

3. *Connect your community with the appropriate technical and educational resources needed to identify natural resources at risk in your community; evaluate management and policy options that can protect those resources; and select practices needed to balance natural resource objectives with economic objectives.* The *Planning with POWER* project brings a wealth of expertise from Purdue University and a network of conservation agencies and professionals to help you plan and protect natural resources in your community. The Purdue Extension Land Use Team can provide education and assist with planning questions and with the overall planning process.



Photo courtesy of Shawnee County Conservation District, Kansas

Our Conservation Partnership can provide technical assistance and expertise in watershed planning, erosion control, best management practices, and other natural resource protection tools.

Research scientists on campus provide expertise, research results, and decision-making tools that can assist you in identifying natural resources that are at risk and provide guidance on measures that may reduce risks while still allowing development and growth to occur in your community.

4. *Evaluate your community's progress toward natural resource-based planning and protection and assist in identifying additional steps that can be taken.* Communities will be able to adopt and incorporate natural resource protection and planning at different rates and timeframes. Re-evaluation of progress may be needed periodically. *Planning with POWER* will be available to help communities consider past progress and identify additional measures that could strengthen natural resource-based planning and protection.

### Additional Resources to Help You Begin

Listed below are a few key places to find additional information on the technical aspects of managing polluted runoff and the financial resources available.



**Technical Information: Places to Start**  
*The Illinois-Indiana Sea Grant College Program* <[www.iisgcp.org](http://www.iisgcp.org)> and *Purdue Extension* <[www.ces.purdue.edu](http://www.ces.purdue.edu)> have a number of educational materials related to polluted runoff, including the complete set of *Planning with POWER* project

materials and technical references. Call (765) 494-3627 or (888)-EXT-INFO for more information.

*The Indiana Department of Environmental Management* is the primary regulatory agency having jurisdiction over air, water, and land resources in Indiana. Please contact the state office for additional information at (317) 232-8603 or (800) 451-6027, toll free from within Indiana, or visit the IDEM Internet site at <[www.IN.gov/idem/](http://www.IN.gov/idem/)>.

*Your Regional Planning Agency* may have valuable land use and natural resource information for your locality. Listings for RPAs are sometimes hard to find; try the white pages, or call the coordinating state office for RPAs (317) 226-7475.

*Your Local Soil and Water Conservation District* <[www.iaswcd.org](http://www.iaswcd.org)> has information and programs relating to soil and erosion control, wetland protection and other aspects of polluted runoff as well. The SWCD offices are organized by county, and are easiest to locate by contacting the state office at (317) 692-7325.

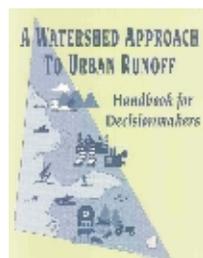
*The Indiana Department of Natural Resources* has an excellent guidance manual for many of their permit-required activities that influence waterways, lakes, and floodways. *Indiana Drainage Handbook* is available from the Maps and Publications Office (317) 232-4004. Also, the Maps and Publications Office has a wealth of other information on natural resources.

*The Purdue Extension Land Use Team* is made up of Extension educators from across the state that assist local communities in land use planning. Also, campus-based Extension specialists who support the Extension educators by providing expertise and supporting materials in land use areas. Call (765) 494-3627 for more information.

*The Natural Resource Conservation Service* provides technical support in watershed planning, constructing buffers and filter strips, and many other conservation practices in order to protect natural resources.

*The Indiana Land Resources Council* was established in 1999. The nine member council, appointed by the Governor, addresses land use issues important to Indiana. The Council represents a diverse set of interests in the land use arena across the state. Contact (317) 234-5262 for additional information.

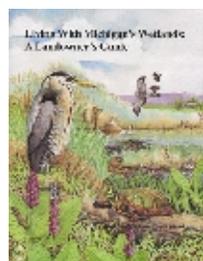
### Guidance Documents To Help You Along The Way



“A Watershed Approach to Urban Runoff – Handbook for Decision Makers” produced by the Terrene Institute for Region 5, U.S. EPA., 1996. Copies are

available from the Terrene Institute at 4 Herbert Street, Alexandria, VA 22305. Phone: (703) 548-5473.

Web: <[www.terrene.org](http://www.terrene.org)>.

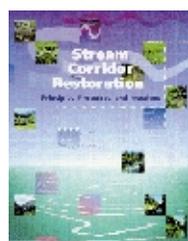


“Living with Michigan’s Wetlands: A Landowner’s Guide” from the Tip of the Mitt Watershed Council, Conway, MI 1996. Tip of the Mitt Watershed Council,

P.O. Box 300, Conway, MI 49722.

Phone: (616) 347-1181.

Web: <[www.watershedcouncil.org/](http://www.watershedcouncil.org/)>.

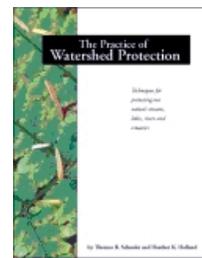


“Stream Corridor Restoration – Principles, Processes, and Practices” by the Federal Interagency Stream Corridor Restoration Working

Group. This document may be accessed, downloaded, or ordered from the following Web site:

<[www.usda.gov/stream\\_restoration/](http://www.usda.gov/stream_restoration/)>.

Phone: (703) 605-6000.



“The Practice of Watershed Protection” 2000, by Schueler and Holland. Published by the Center for Watershed

Protection, 8391

Main Street, Ellicott City, MD 21043.

Phone: (410) 461-8323, Fax: (410)

461-8324. Web: <[www.cwp.org](http://www.cwp.org)>.



“Watershed Action Guide for Indiana” sponsored by the W.A.T.E.R. Committee. For additional copies contact IDEM’s Watershed

Management Section at (800) 451-6027,

press 0 and ask for extension 2-0019, or

call (317) 232-0019. Copies also are

available on the Internet at

<[www.state.in.us/idem/owm/planbr/wsm/](http://www.state.in.us/idem/owm/planbr/wsm/)>

or by writing to: Indiana Department of

Environmental Management, Watershed

Management, P.O. Box 6015

Indianapolis, IN 46206-6015.

“Protecting Coastal and Wetlands

Resources – A Guide for Local

Governments” 1992. U.S. EPA.

Government Document Number EPA

842-R-92-002. Available online at

<[www.epa.gov/clariton/clhtml/pubtitle.html](http://www.epa.gov/clariton/clhtml/pubtitle.html)>.

The publications on this site are

listed in alphanumeric order, or you can

contact a Federal Government Document

Repository such as the libraries at

Indiana University, Purdue University,

or other major libraries.

## Finding Outside Funding

Most available funding is in the form of cost sharing programs associated with the state implementation of the Clean Water Act, which means that the IDEM Office of Water Management (317) 232-8670 is the place to go for information.

Additional programs to contact for more information are the Clean Water Act Section 604(b) (317) 233-8282 for water quality management planning and Section 319 (317) 233-0019 for nonpoint source management implementation. Any projects funded through these sources would likely involve close cooperation with both federal and state authorities.

## Additional Information

To learn more about how to start protecting your community from polluted runoff, contact *Planning with POWER*.

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**Knowledge to Go**  
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Some material in this publication was extracted from a NEMO publication originally written by Chester Arnold of the Connecticut Sea Grant Program and Roy Jeffrey of the Cooperative Extension Service for the University of Connecticut.

**New 9/01**

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