toolkit overview



The Water Resource Protection and Conservation Toolkit

This is an overview to a series of 12 fact sheets developed by the Northwestern Indiana Regional Plannina Commission with funding from the Joyce Foundation for the Water Resources Protection and Conservation Toolkit. The toolkit provides background on, and methods to protect and conserve local water resources. These tools are intended to help citizens and local officials to manage and protect water resources for future generations.

ph: 219.763.6060 www.nirpc.org

Source: USEPA



An Overview of the Toolkit

omeowners, local officials, and developers all share a responsibility in protecting a community's water resources, now and for future generations. As areas develop, people need to know that there is enough water for the long-term. This means developing in ways that protect and conserve local water sources.

This toolkit identifies tools to be used by local officials, developers, and the general public to protect and conserve water sources so that:

- Sources of water are protected from pollution.
- Rainfall and snowmelt are managed to reduce pollution and replenish local public water supplies.
- Land use, zoning, and site planning practices protect sourcewater and manage stormwater.
- Water is conserved by businesses, industry, and the public.
- Water resources are protected and conserved through watershed planning.



Evapotranspiration Pumping Well Surface Runoff Recharge Plant Uptake Aquifer Interaction

Water Resources and The Natural Water (or Hydrologic) Cycle

Water resources can be significantly affected by development activities. Water resources move through the water cycle, sometimes called the hydrologic cycle. The water cycle is the continuous movement of water from ocean, lakes, rivers, and other water bodies to air and land then back to these water bodies through rain and snow in a cyclic pattern as water is used and re-used. Some water infiltrates (or seeps into) the ground or evaporates back into the atmosphere.



For more information, please contact:
Northwestern Indiana Regional Planning Commission
ph: 219.763.6060 • www.nirpc.org

Why is the Toolkit Needed?

There is a lot of development going on in previously undeveloped land in the Great Lakes basin and in the areas near the Great Lakes basin. However, with proper planning it is possible to restore and maintain healthy waterways for the public and natural resources that depend on water. Ideal areas for such planning include:

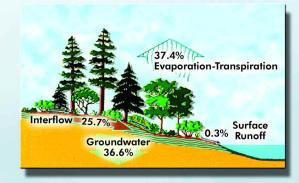
- Areas where past activities have caused damage to water resources through pollution and stream flow changes.
- Developing areas where groundwater or sourcewater cannot support new houses and businesses in the long term.

Addressing these problems requires addressing them comprehensively. This means:

- Protecting water resources from pollution and making sure that water sources are not pumped dry.
- · Conserving water resources.
- Restoring and improving water resources so that quality, quantity, flow, and timing align more closely with the natural water cycle.

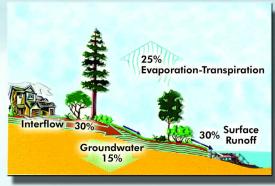
Typical Annual Water Budget

Forested Land Cover



The flow of the natural water cycle affected by traditional development.

Urbanized Land Cover



The flow of water on undeveloped forested land.

Source: USEPA

What is in the Toolkit?

The toolkit consists of a series of fact sheets that provide overviews of the specific water resource protection and conservation issues. It also identifies a series of resources saved on a CD that assists people, local governments, and developers in making choices that better protect, conserve, and sustain local water resources.

Overview Issues

- What is Happening to Water Resources in Northwest Indiana?
 - A New Set of Agreements to Protect, Conserve, and Improve Great Lakes Waters

Fact Sheets for Local Officials

- What Tools Do Local Officials Have to Protect Local Waters From Stormwater Pollution?
- What Sourcewater Protection Tools Can Local Officials Use to Protect Water Sources?

Fact Sheets for Local Officials (continued)

- How Can Local Governments Protect Water Resources Through Conservation?
- How Land Use Planning and Zoning Can Protect and Conserve Water Resources: A Guide for Local Governments
- How Can Contamination of Water Resources by Septic Tanks be Avoided?
- How Can Local Watershed Planning Benefit Communities?
- Low Impact Development Practices and Benefits

Fact Sheets for Developers, Water Utilities, and the Public

- How Can Homeowners Protect and Conserve Water Resources?
- How Better Site Planning Can Protect and Conserve Water Resources: A Guide for Developers
- How Can Water Suppliers Protect and Conserve Water Resources?
- Low Impact Development Practices and Benefits