

## *Helpful Links*

There are many resources in Kansas to help you learn more and get involved in your watershed. Visit these websites for more information:

**Kansas Department of Health and Environment**

[www.kdheks.gov/nps/index.html](http://www.kdheks.gov/nps/index.html)

**Extension Offices**

[www.oznet.k-state.edu/desktopdefault.aspx](http://www.oznet.k-state.edu/desktopdefault.aspx)

**Natural Resource Conservation Service and Conservation Districts**

[www.nrcs.usda.gov](http://www.nrcs.usda.gov)

**Kansas Water Office**

[www.kwo.org](http://www.kwo.org)

**Kansas Department of Wildlife and Parks**

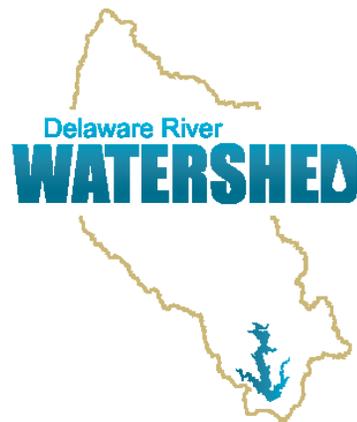
[www.kdwp.state.ks.us](http://www.kdwp.state.ks.us)

**The State Conservation Commission**

[www.scc.ks.gov](http://www.scc.ks.gov)

**Kansas Alliance for Wetlands and Streams**

[www.kaws.org](http://www.kaws.org)

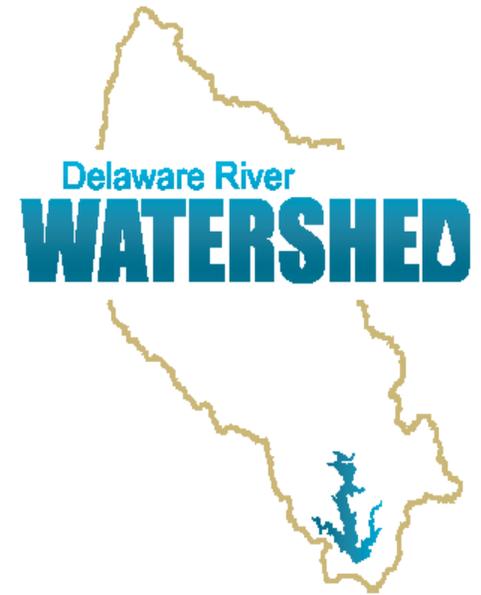


*Funded by KDHE from US EPA  
Clean Water Act. Section 319 Grant.*

## *What is the Delaware River WRAPS Project?*

WRAPS stands for “Watershed Restoration and Protection Strategy”. It is a tool for planning and implementing actions to improve water quality in the Delaware River Watershed. WRAPS engages local people in a process to identify needs, set up protection and restoration goals, create a plan to meet those goals, and then implement that plan.

Watershed resources are vital to the region's economy, public health and ecosystems. Because local people are the ones who are directly impacted by water quality and have the power to impact it, WRAPS seeks to involve local individuals in water quality planning and solutions.



## *For More Information*

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Coordinator of Delaware River WRAPS

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Sabetha, KS 66534

(785) 284-0080

[www.delawareriverwatershed.org](http://www.delawareriverwatershed.org)

### **Delaware WRAPS Leadership Team**

David Zeit, Co-chairperson

William Hill, Co-chairperson

### **Members:**

John Bond

Rita Mathews

Jennifer Delisle

Marilyn Snider

Mary Fund

Luke Terry

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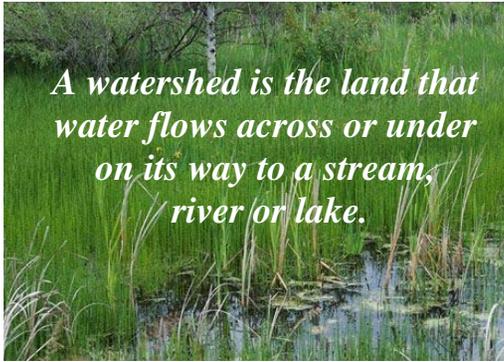
Gary Keehn



**Delaware River Watershed  
Restoration and Protection Strategy**  
[www.delawareriverwatershed.org](http://www.delawareriverwatershed.org)

**Sponsored by  
Glacial Hills Resource Conservation &  
Development Region Inc.**

## What is a watershed?



### How do watersheds work?

The landscape is made up of many interconnected basins or watersheds. As water from rain or snowmelt runs to its lowest point, it collects in rills and gullies, forming streams, rivers and lakes. Small watersheds join together to form larger watersheds.

On its way, water moves over the land surface, across fields, forests, lawns and city streets. Some water seeps into the soil and travels slowly as ground water. Water comes into contact with many materials as it travels across the landscape. Many of these materials wind up in our streams, rivers and lakes.

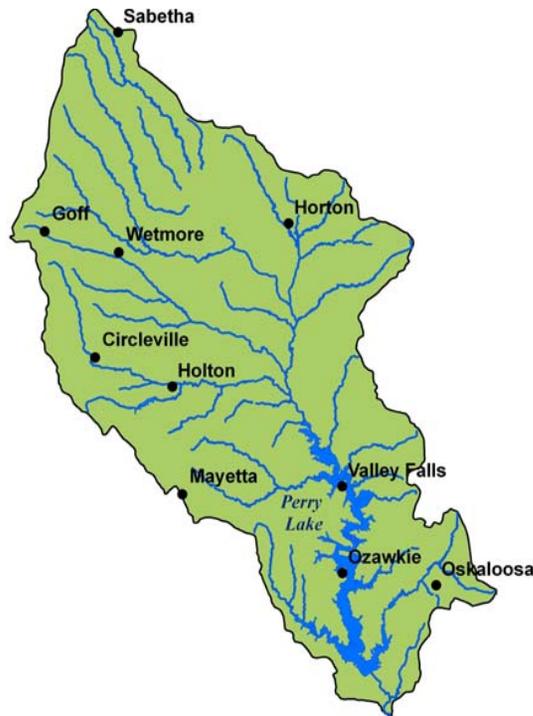


## The Delaware River Watershed

### Where is the Delaware River Watershed?

The Delaware River Watershed encompasses an area of over 1,150 square miles in northeast Kansas, stretching from Sabetha in the north to Perry Lake in the south. It includes all land drained by the Delaware River and its tributaries. Perry Lake Reservoir, the fourth largest lake in Kansas, is located at the southern end of the watershed. Portions of Atchison, Brown, Jackson, Jefferson and Nemaha counties are located within the watershed.

Predominant land uses in the watershed are pasture/hayland (51%), cropland (35%) and forest/woodland (10%). Urban and residential use, open water, roads and other uses make up the remaining 4-5%.



### What are some of the problems in the Watershed?

Nonpoint Source (NPS) Pollution is the most common water quality problem in the Delaware Watershed. NPS comes from many diffuse sources as rainfall or snowmelt comes in contact with pollutants, carrying them into rivers and streams. Examples of NPS pollution include:

- Sediments eroded from fields, pastures, construction sites, roads and stream banks
- Excess fertilizers and pesticides from agricultural land, lawns and gardens
- Bacteria, nitrogen and phosphorus from livestock and pet wastes, or from faulty and poorly maintained septic systems
- Toxic chemicals and other pollutants from improper disposal of wastes and urban runoff



### What can I do to protect my watershed?

- Plant grass and trees to stabilize soils.
- Use fertilizers and pesticides wisely – use the least amount needed and time applications so runoff won't be a problem.
- Don't be a free flusher or dumper! Keep solvents, pesticides and other hazardous materials out of septic systems and storm drains.
- Dispose of household hazardous wastes (HHW) properly. Every county in the watershed has an HHW disposal facility. Find yours and use it!
- Get Pumped! Maintain your septic system by pumping it out every 3-5 yrs.
- Manage livestock so that their wastes do not contaminate streams.
- Get involved in your local WRAPS project.