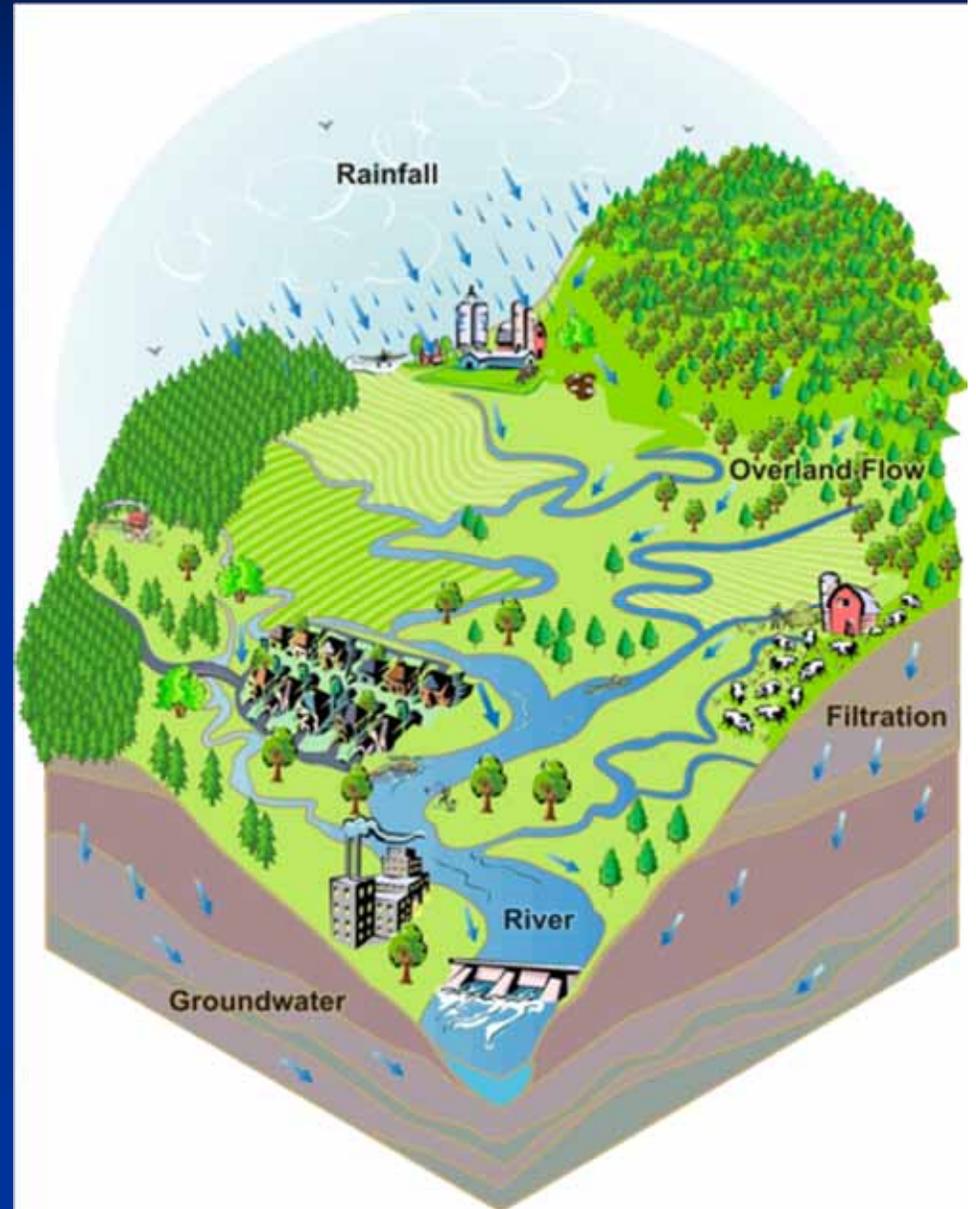


# **A Citizen's Guide to Watershed Planning in Wisconsin**

**Daniel Zerr  
University of Wisconsin-Extension  
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# What Is A Watershed?

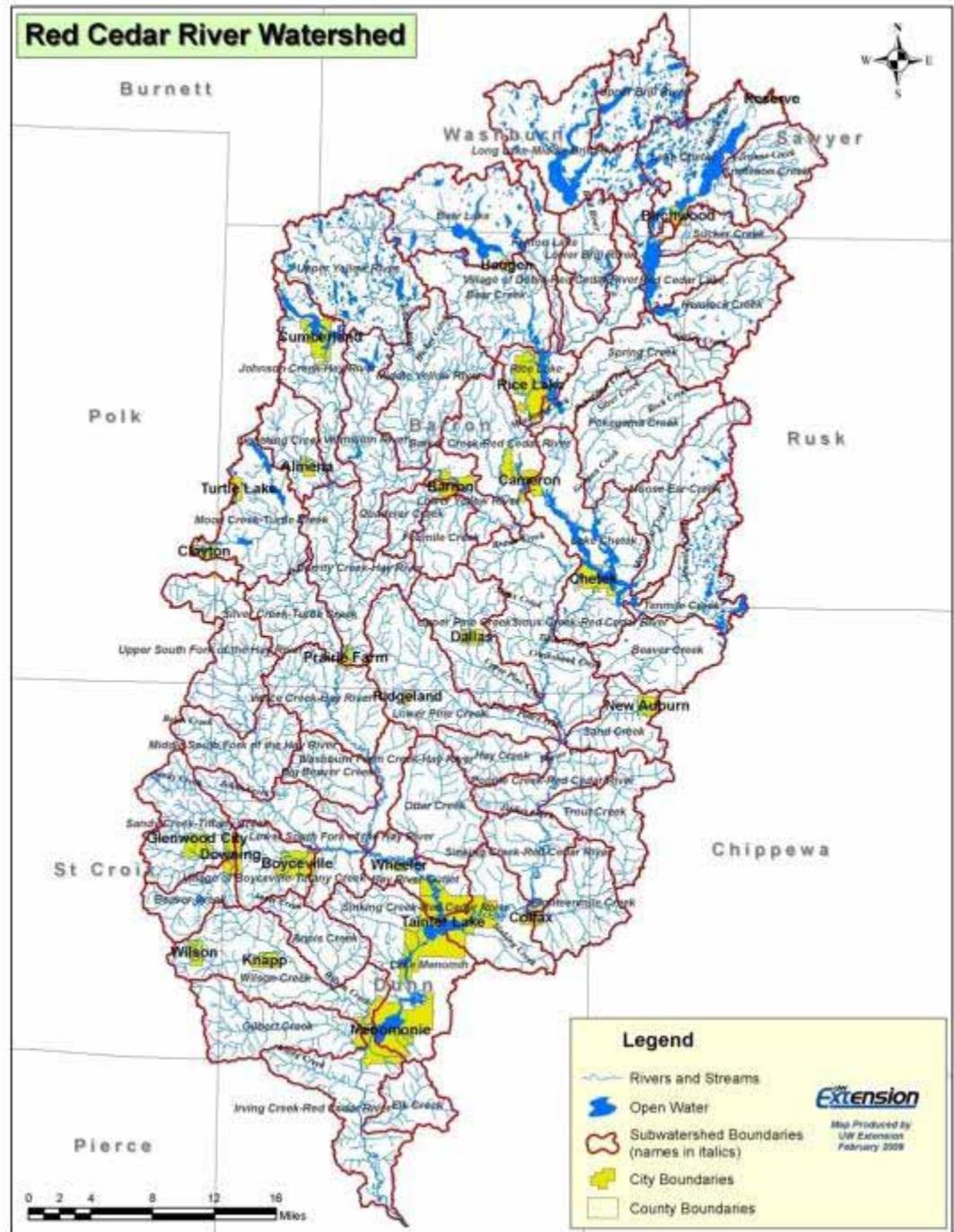
- An area that all drains to a particular stream, river, lake, or ocean.
- Includes all surface land area, smaller streams within that watershed, and groundwater flow.
- And, the watershed includes *people too!*
- Watersheds are “nested” within each other. Small watersheds are usually part of larger watersheds.



- Large watersheds include many smaller subwatersheds

- The Red Cedar River watershed includes much of Dunn and Barron Counties

- The Red Cedar River flows into the Chippewa River south of Menomonie



# Red Cedar River Watershed Is Part of Other, Larger Watersheds



Part



# **Why Does Your Watershed Need a “Plan”?**

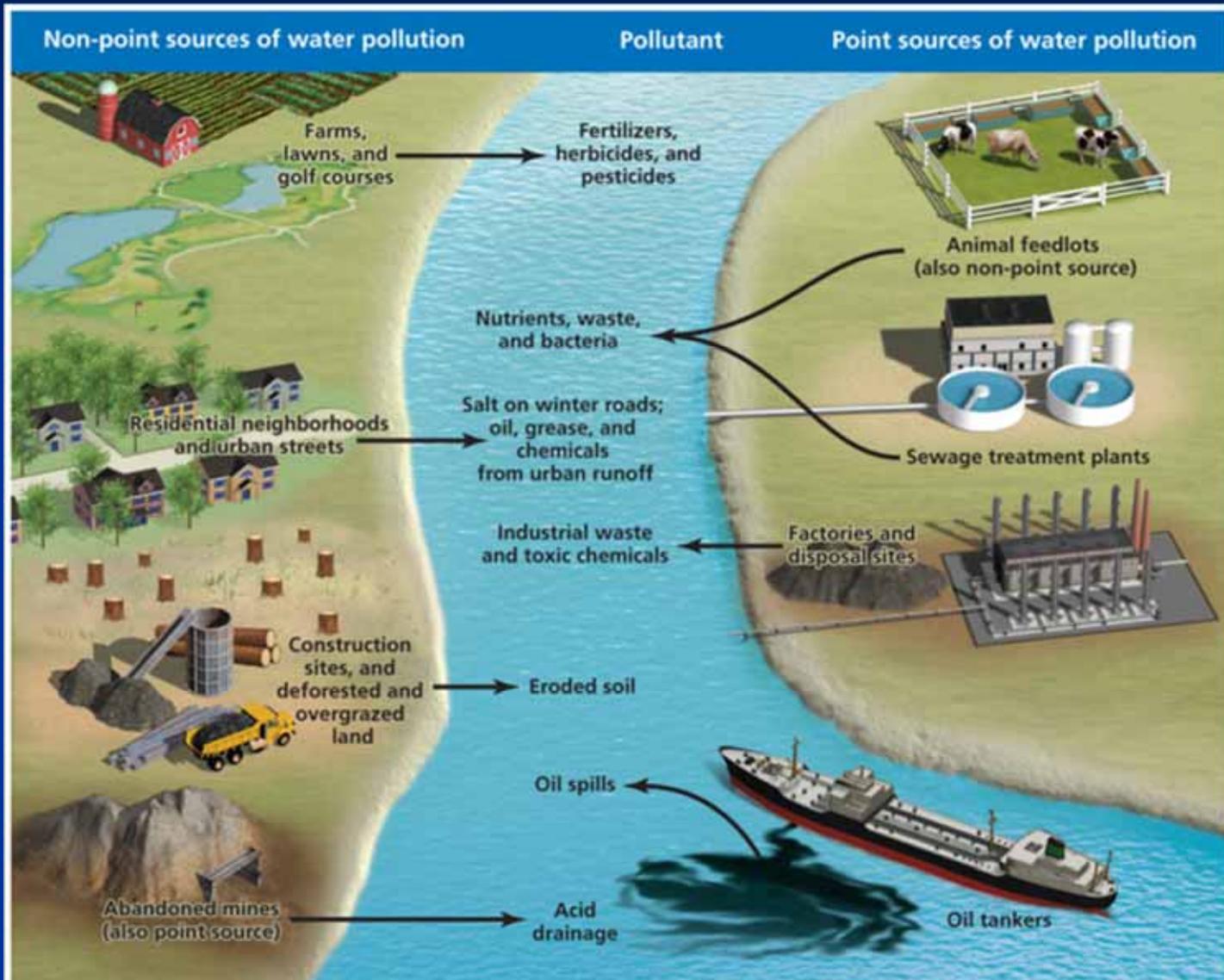
- **The water quality of your local river, stream or lake is declining**
- **You see threats to the health of your local river, stream or lake**
- **Government officials have declared your local, river, stream or lake as officially “impaired”**

# Water in Wisconsin

- **Over 15,000 lakes**
- **More than 84,000 miles of river**
- **About 5 million acres of wetlands**
- **Trillions of gallons of groundwater**
- **Citizens need to take ownership of water quality**



# Human Impacts in a Watershed



# What is the Purpose of a Watershed Plan?

- Provides a framework for planning how to address issues related to your lake, river or stream that are rooted in its watershed
- Outlines goals, objectives, and action items needed to address these issues
- Provides a timeline for when action items will be executed
- Becomes the guiding document when on-the-ground activities begin
- Is the reference document used when applying for grants needed to fund implementation activities

# How Does This Process Work?

*Basic steps to a citizen-driven watershed planning process:*



# Step 1) Gathering Stakeholders

- Who is going to be involved in this process?
- Local government officials
- State and Federal government representatives
- Non-governmental agencies/non-profit groups
- Business representatives
- Landowners and other interested citizens



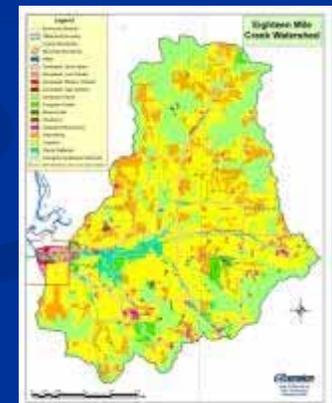
Photo: Matt Zoschke

# Step 1) Gathering Stakeholders

- **First Meeting**
  - **There may already be a “core” group of people discussing watershed issues**
  - **Make some contacts by phone or in person before an “official” meeting**
  - **Advertise a first meeting broadly, so that any interested stakeholders have many opportunities to hear about it and attend**
  - **Build your Planning Team from those that show genuine interest in helping (often many of those who attend the first meeting)**

# Step 2) Assess Your Watershed

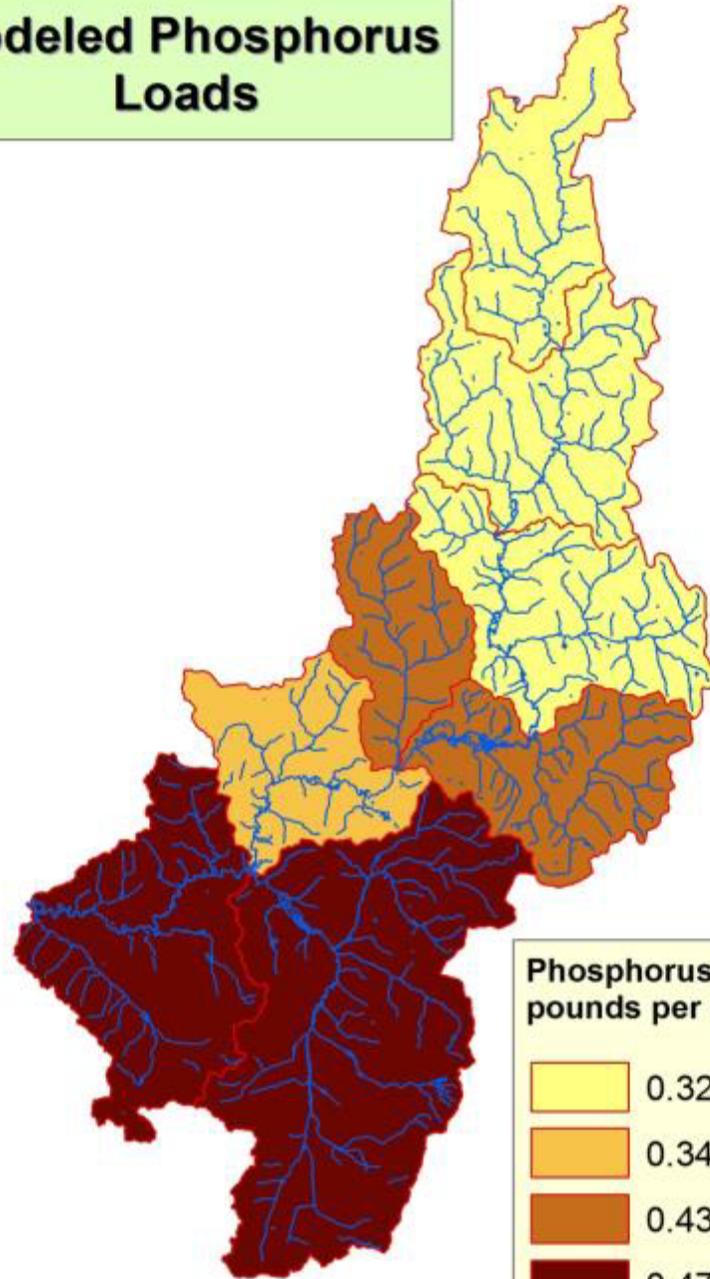
- **Build a Watershed Profile**
  - **Maps of the watershed (boundaries, streams, land use, soil types, special sites, etc.)**
  - **The Total Maximum Daily Load (TMDL) if your watershed has one**
  - **Water quality data**
  - **Fish and wildlife surveys and studies**
  - **Aquatic plant studies**
  - **Social data (population, demographics, economics, surveys of residents, etc.)**



## Step 2) A

- Familiarize yourself with the following concepts, and plan to discuss them with your class:
  - Water Quality Standards
  - Designated Uses
  - Water Quality Criteria
  - Impaired Waters
  - Types of pollution
  - Sources of pollution

### Modeled Phosphorus Loads



Phosphorus loads in pounds per acre per year

Light Yellow	0.3243 - 0.3456
Orange	0.3457 - 0.4343
Brown	0.4344 - 0.4788
Dark Red	0.4789 - 0.5666

# Step 2) Assess Your Watershed

- There are many great local sources of knowledge about your watershed
  - County Land Conservation Departments
  - Local and regional state and federal government agency representatives
  - UW-Extension educators
  - The people who live in the watershed and near the water



# Step 3) Create Your Watershed Plan

- Separate and sort priority issues in your watershed
- Develop a vision for your watershed, and goals, objectives and action items necessary to work toward that vision
- Create a timeline including benchmarks to measure success along the way



# Step 3) Create Your Watershed Plan

- Determine who (individuals, agencies, subcommittee, etc.) will be in charge of what action items
- Estimate costs and sources of revenue to pay for necessary actions
- Determine how you will measure success, and how to modify the plan if something changes along the way



# Step 3) Create Your Watershed Plan

- If applying for certain grants for TMDL watersheds, your plan must meet certain guidelines
- EPA's "Nine Elements of a Watershed Plan"
- A critical "tenth" element, is *Civic Engagement*: How are you going to engage the people who are critical in helping you reach your goals?

## US EPA's Nine Elements of a Watershed Plan

1. Identification of causes of impairment and pollutant sources that need to be controlled to achieve needed pollutant load reductions and any other goals identified in the watershed plan.
2. An estimate of the load reductions expected from any recommended management measures.
3. A description of the nonpoint source management measures that will need to be implemented to achieve load reductions, and a description of the critical geographical areas in which those measures will be needed.
4. Estimate of the amounts of technical and financial assistance needed, costs, and/or the sources and authorities that will be relied upon to implement the plan.
5. An information and public education component used to enhance public understanding of the project and encourage participation.
6. A timely schedule for implementing the nonpoint source management measures identified in the plan.
7. A description of the interim measurable milestones for determining whether nonpoint source management measures or other control actions are being implemented.
8. A set of criteria that can be used to determine whether pollutant load reductions are being achieved over time, and how the plan will be reevaluated.
9. A monitoring component to evaluate the effectiveness of the implementation efforts over time.

# Step 4) Implement Your Watershed Plan

- Who oversees the implementation?
- Usually a version of the planning team
- Others who are critical to certain action items may be needed at this point
- Keep up the momentum and enthusiasm
- Press releases; field trips/tours; recognition of partners and cooperators; presentations at local, regional, statewide events



# Step 5) Monitor Results

- As things proceed, milestones/benchmarks should be reached.
- “Success” comes in many forms
- Improved water quality is certainly one type of success
- Healthier plant and animal communities
- Number of land owners participating in any sort of management changes focused on your goals



# Step 6) Modify Plan as Necessary

- Progress may or may not occur as planned
- It may be necessary to rewrite or modify a timeline to meet challenges or surprise results
- Don't panic...these things happen
- Changes in land management don't always lead to predicted results
- Modify the plan, and alter implementation strategies appropriately



# Coming Soon from UW-Extension!

- **“A Citizen’s Guide to Watershed Planning in Wisconsin” – The document edition**
- **A watershed planning resource website**

<http://fyi.uwex.edu/watershedplanning>

- **Possible web tutorials and/or webinars**

# Questions

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