

Lake and Watershed Management Plans: Past and Present

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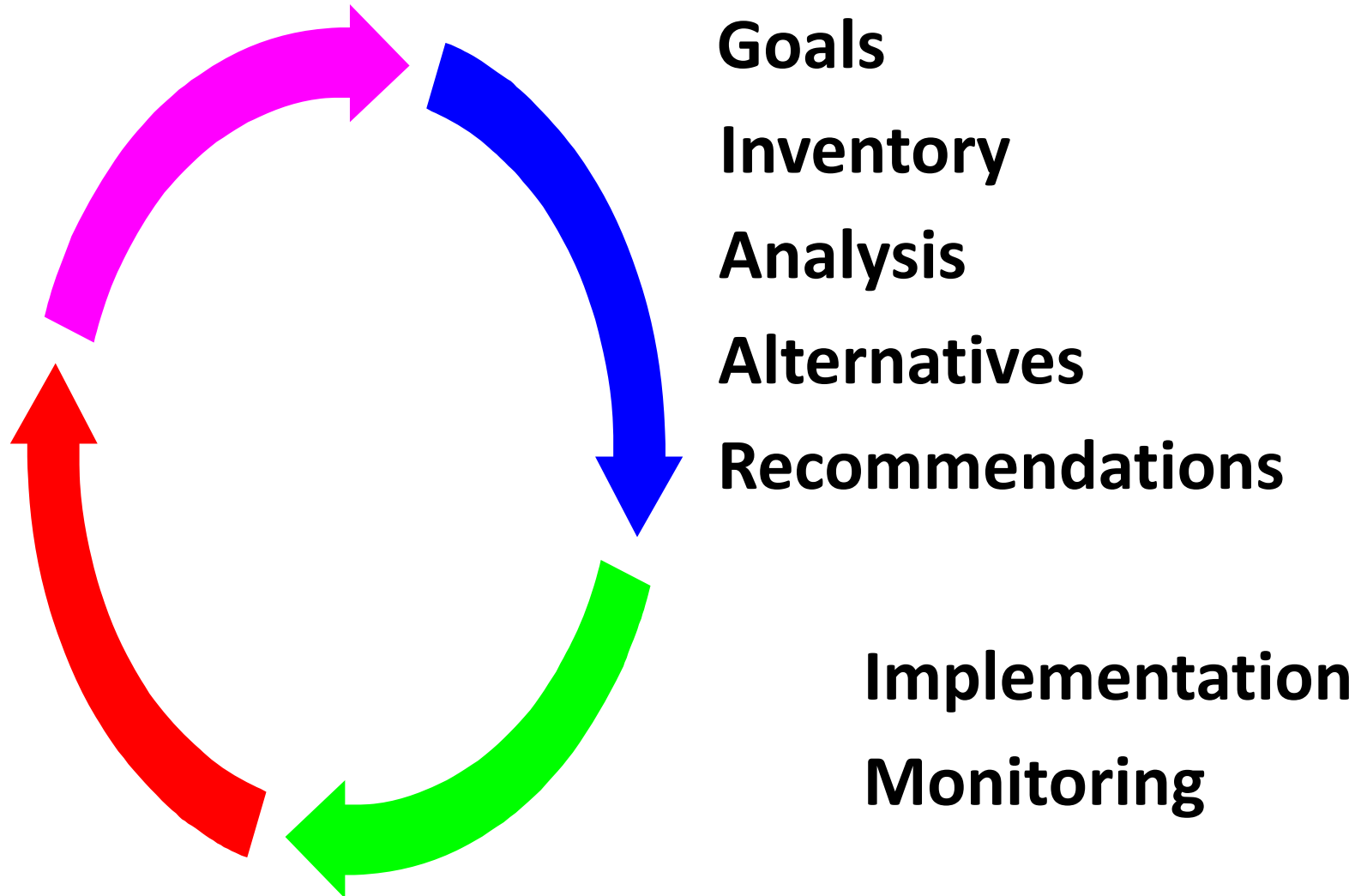
WI Dept. of Natural Resources



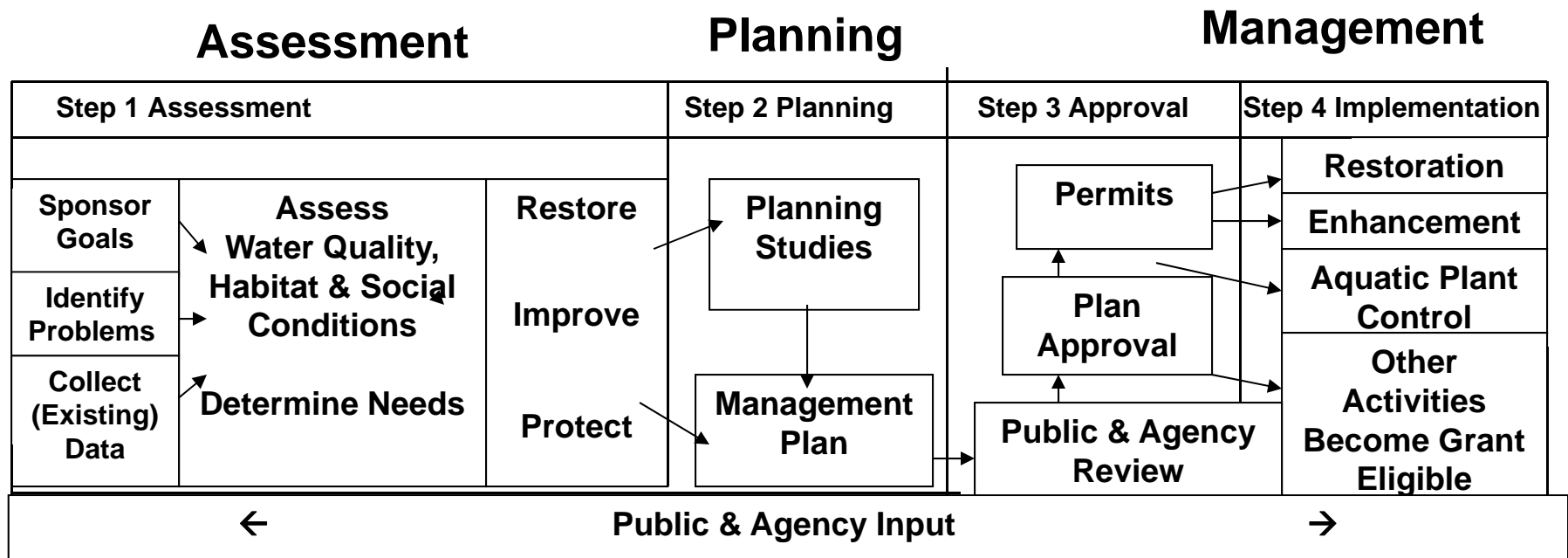
Why Plan?



Basic Planning Process Elements



What Are We Trying to Accomplish?



Protection Grant Activities NOT requiring an approved *lake plan*

- Land Acquisition
- Wetland/Shoreland Restoration
- Ordinance Development
- Healthy Lakes
- PLS Biocontrol

Management Goals: Protect, Improve, Restore?

Water Quality



Shoreland Habitat



Fisheries &
Wildlife



Recreation



Aquatic Plants



Lake Management Plan

(EPA Phase I Diagnostic/Feasibility Study)

1. Introduction

2. Goals and Objectives

3. Water Quality Assessment

- *Historical water quality*
- *One year of current base line data*
- *Identification of the water quality problems or threats*

Lake Management Plan

4. Watershed Assessment

- *Estimate of the amount of nonpoint pollution loading*
- *Ranking of the most significant contribution areas*
- *Account for point source pollution*
- *Describe the institutions affecting management*

Lake Management Plan

5. Fisheries & Aquatic Habitat Assessment

- *Extent of the lake area covered by aquatic plants*
- *Characterization of the shoreline habitat*
- *Management needs of fish and wildlife habitat, endangered resources, aesthetics or other natural resources*
- *Habitat conditions in the lake's watershed and ecological relationships.*

Lake Management Plan

6. Recreational Use Assessment

- *Historical uses of the lake and how they changed because of water quality or habitat degradation*
- *Other problems identified by the public*

Lake Management Plan

7. Analysis

- *Management actions taken or are in progress*
- *Objectives to maintain or improve water quality, fisheries, aquatic habitat and recreational and other uses*
- ***Target levels of control or protection needed to meet the objectives***

Lake Management Plan

8. Management Alternatives

- *Pollution control, lake restoration or other management including expected results*

9. Management Plan

- *List of management actions that achieve the target level of controls*
- *A strategy for tracking, evaluating and revising the plan including water quality monitoring.*

What If I Just Want to Manage Aquatic (Invasive) Plants?



- More emphasis on plant, fish and wildlife habitat
- Target or control objectives on plants not pollution
- Water quality still needs to be considered

Excessive Plant Growth is a Consequence of Water Quality



Water quality is the foundation of a lake plan

Lake water quality is determined by its watershed

All lake plans need a watershed plan

Water Quality Assessment

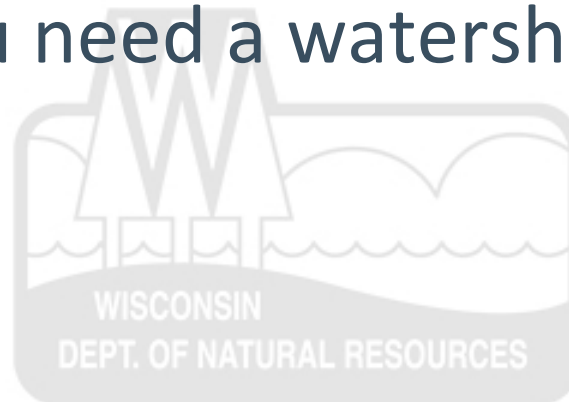
Is your lake above or below the State phosphorus standard?

If below = protection

If above = restoration

If in the neighborhood = improvements

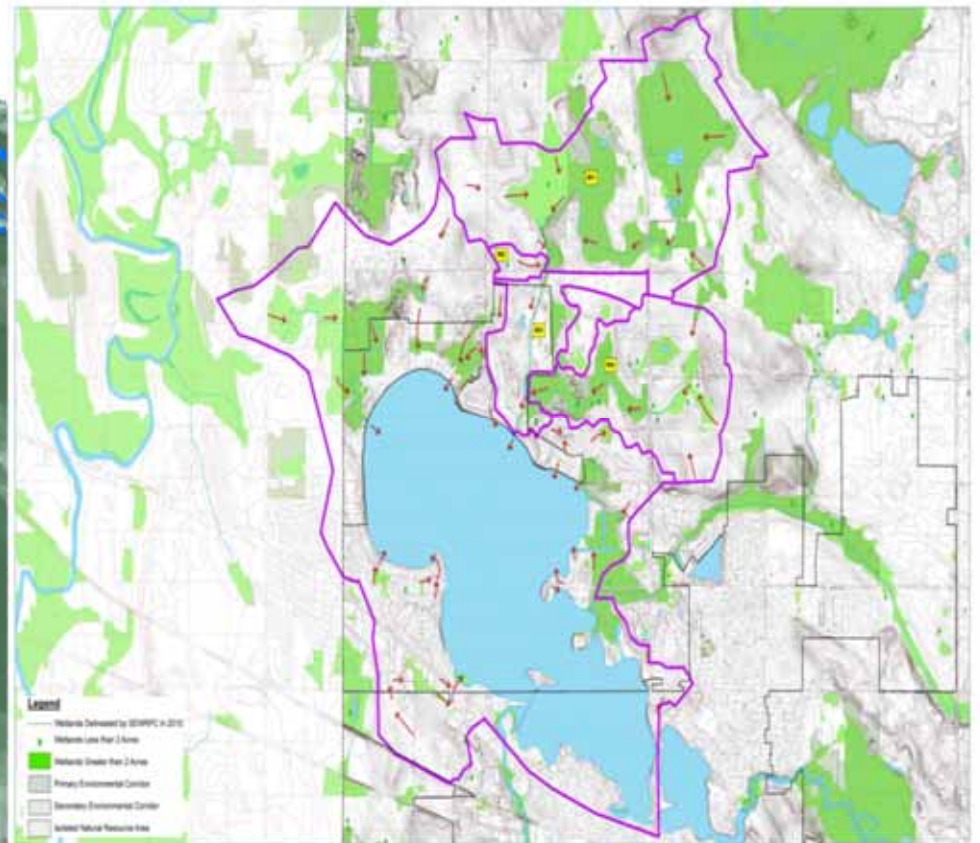
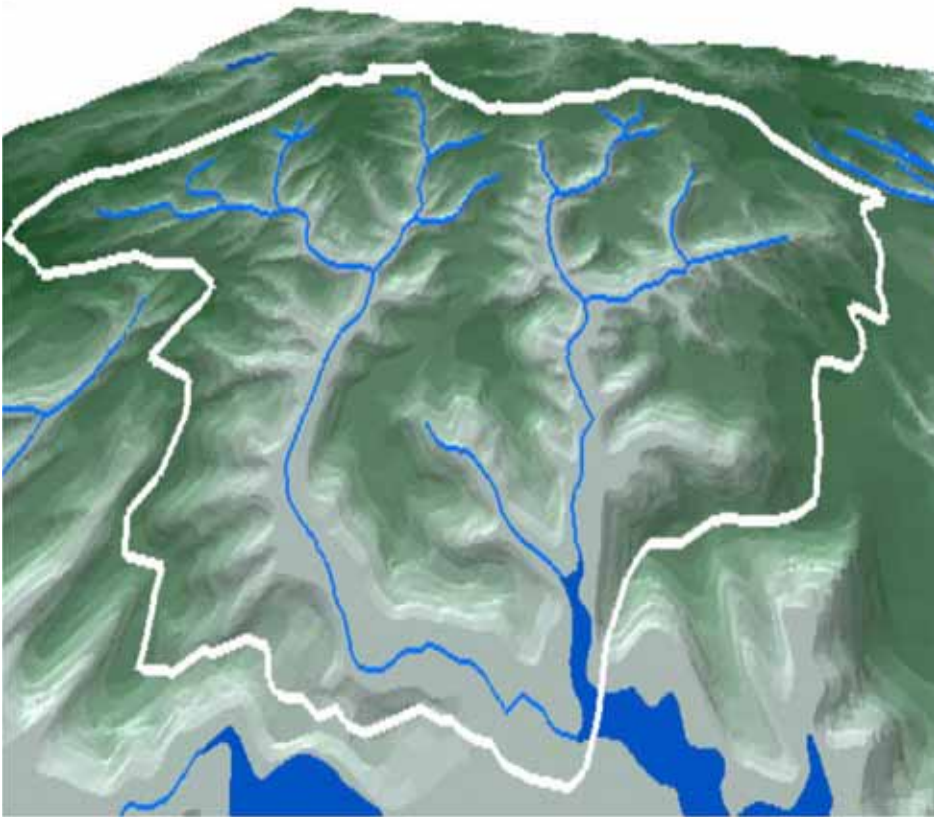
Either way you need a watershed assessment



How Big is Your Watershed?

Watershed Assessment 10:1

Lake : Watershed Ratio



Restoration

- More detailed watershed planning to identify problems areas and determine feasibility of management actions
- Wide scale BMPs implementation needed

Large Watershed

- Participate in TMDLs, Farmer Led Coalitions, etc.

Protection

- Focus on maintaining or modest improvement of existing conditions
- Watershed planning, identify critical sites
- Enforcement and implementation of existing regulations
- Education strategies to promote stewardship
- Baseline monitoring to detect changes

Top Four Things You Can Do to Protect Your Watershed

Limit impervious
surfaces & land
disturbance on your
lot

Limit use of
pesticides, fertilizers
& other pollutants

Plant native vegetation
including rain gardens
**i.e participate in
Healthy Lakes !**

Properly maintain your
septic system

Where Are We at Today?

- About 700 Lakes conducted a lake planning project
- Over 200 and counting completed a DNR – approved plan
- Most planning studies, reports and plans are on the DNR Website under individual Lakes Pages
- 97% of Lakes w/ public access over 100 acres have a full Water Quality assessment



Where Are We Going?

- Rule Revision
- Focus on completion, updates and implementation of phosphorus standards
- Streamlining developing electronic templates to track plans on the web

Where Are We Going?

Clean Water Act and Changes at the Federal Level

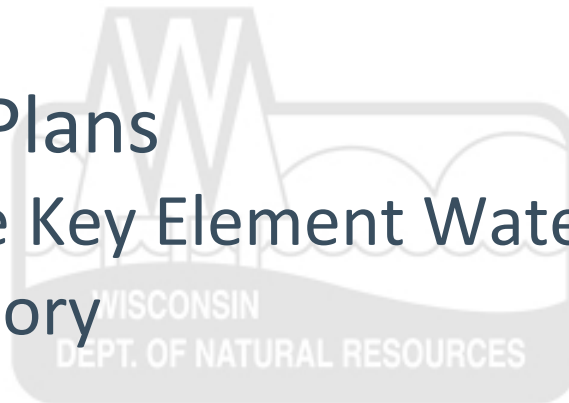
Large TMDL Implementation Plans for Impaired Waters

St. Croix, Red Cedar approved

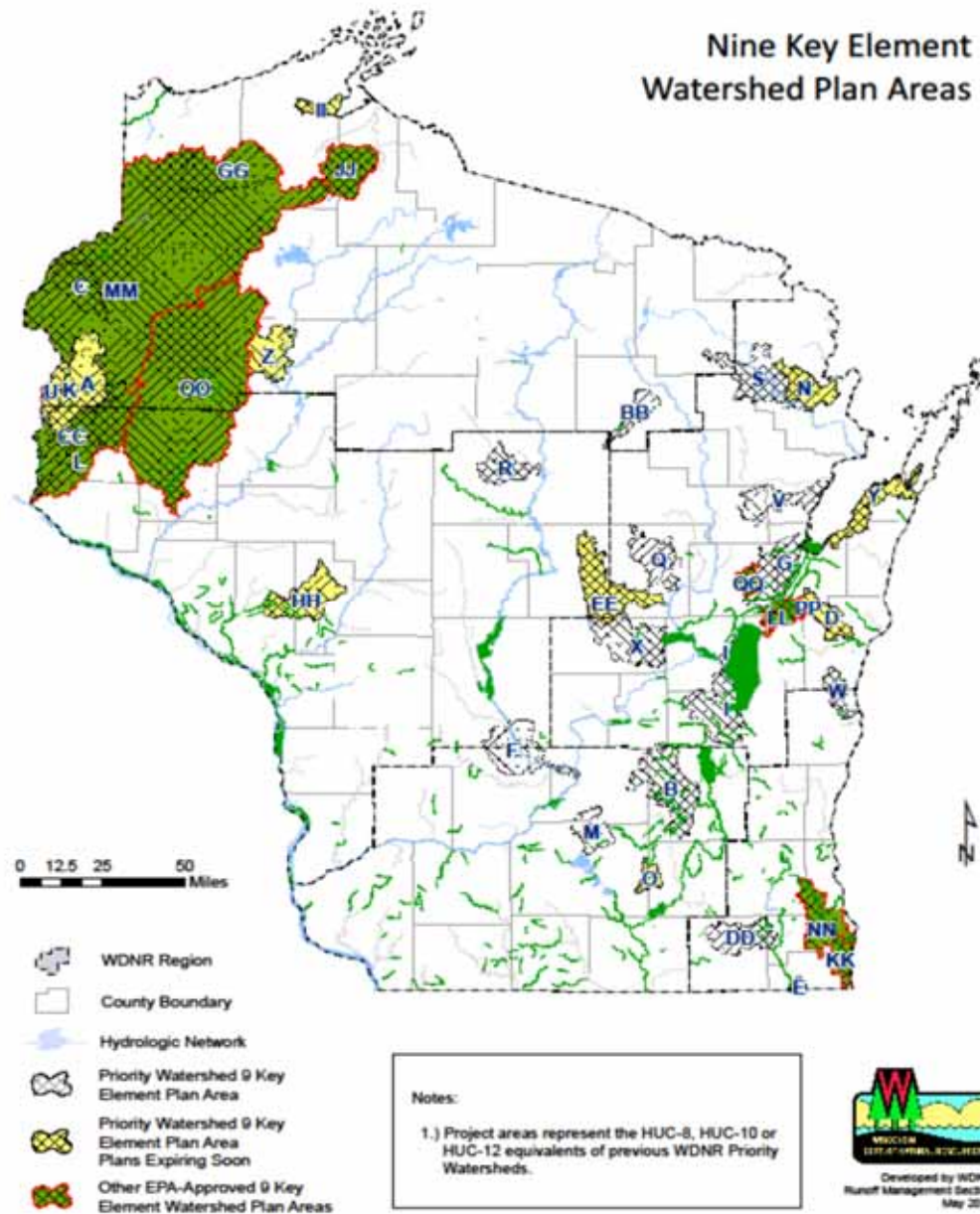
Rock, Fox Wolf, Wisconsin coming soon

9 Key Element Plans

- Only 20 Nine Key Element Watershed Plans found in the inventory



Nine Key Element Watershed Plan Areas



9 Key Elements of a Watershed Plan

- Identify the causes and sources
- Estimate pollutant loading and the expected load reductions
- Describe management measures that will achieve load reductions and targeted critical areas
- Estimate the technical and financial assistance and authorities needed to implement the plan
- Develop an information/education component
- Develop a project schedule
- Develop the interim, measurable milestones
- Identify indicators to measure progress and make adjustments
- Develop a monitoring component

Social Capacity: Can Your Community Pull This Off?

Organization Need Planning too!

Assessment

Community Readiness

Planning

Community Priorities

Management

Community Action

Each phase....

- ***Engage*** – recruit resources & participation
- ***Align*** – build relationships & consensus
- ***Communicate*** – to collaborate & retain interest
- ***Strengthen*** – expand networks to get results

Feed Back/Discussion?

