



**Watershed Planning  
in  
Ferson-Otter Creeks**

*We Save Land. We Save Rivers.*

## Chicago Metropolitan Agency for Planning (CMAP)

- The official regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will.
- The delegated authority for the region's areawide water quality management plan.
- Provides technical assistance to local governments and non-profits working to develop and implement watershed-based plans.
- Published the *Guide for Developing Watershed Action Plans in Illinois* , a resource for locally-led watershed planning initiatives.



Chicago Metropolitan  
Agency for Planning



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# Illinois Environmental Protection Agency

604(b) of the Clean Water Act by way of a grant from the Illinois Environmental Protection Agency (IEPA), Bureau of Water, to the Chicago Metropolitan Agency for Planning (CMAP).



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# The Conservation Foundation

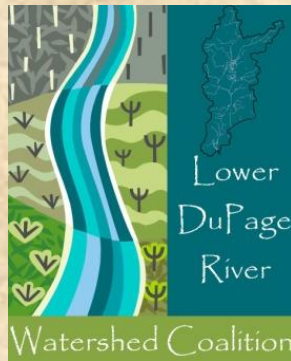
- Not-for-profit land and watershed protection organization.
- Active in northeastern Illinois since 1972.
- TCF's Mission: To preserve natural areas and open space;  
To protect rivers and watersheds;  
To promote sustainable development and design;  
And to promote stewardship of our environment



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# TCF and Watershed Planning

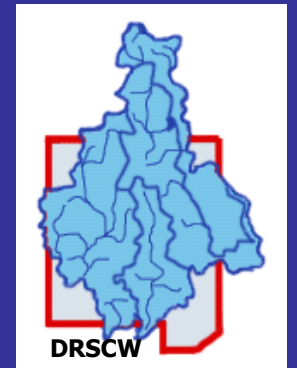
Blackberry Creek  
Aux Sable Creek  
Big Rock Creek  
Tyler Creek  
DuPage River  
Salt Creek



*Blackberry Creek Watershed  
Alternative Futures Analysis*



BIG ROCK CREEK  
WATERSHED



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# Fox River Ecosystem Partnership

- A not-for-profit, created in 1996, “FREP” is comprised of Fox River Watershed stakeholders.
- One of 41 partnerships of the Illinois Department of Natural Resources’ Partners for Conservation Program
- Vision is to help balance the uses and demands on natural resources while preserving and enhancing a healthy environment.



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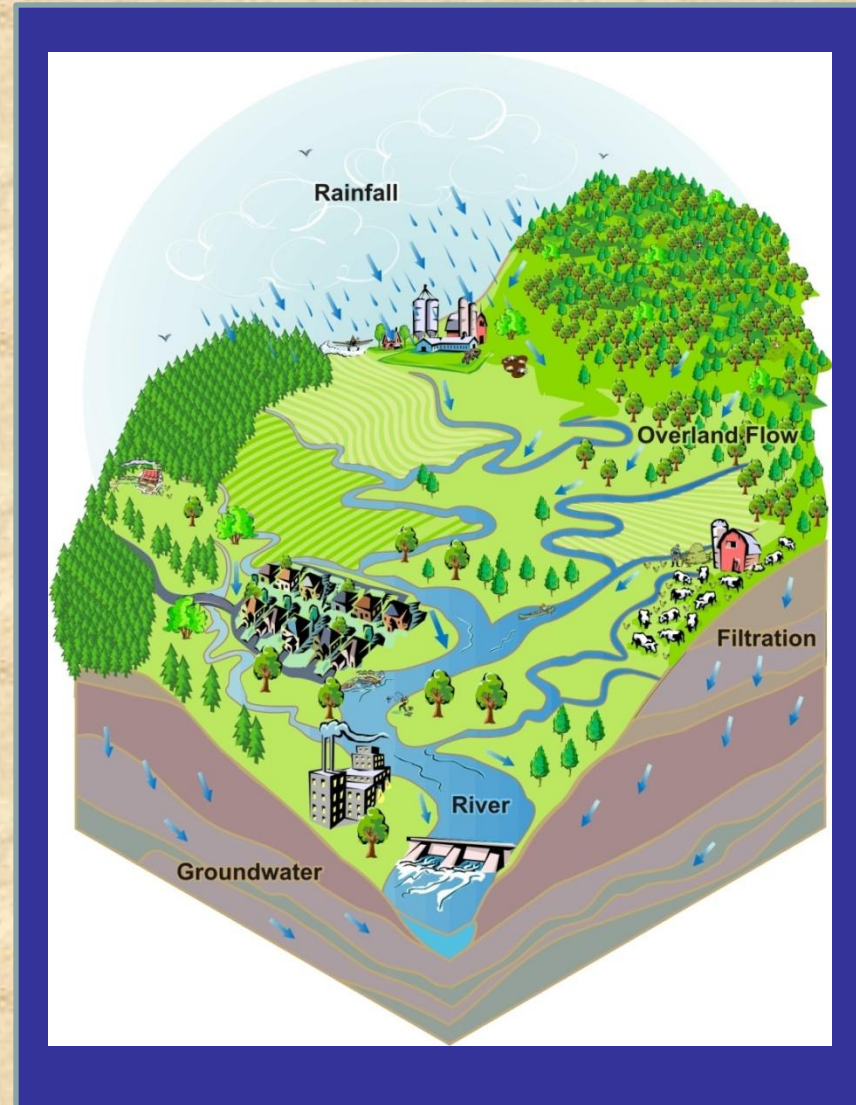


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# What is a watershed?

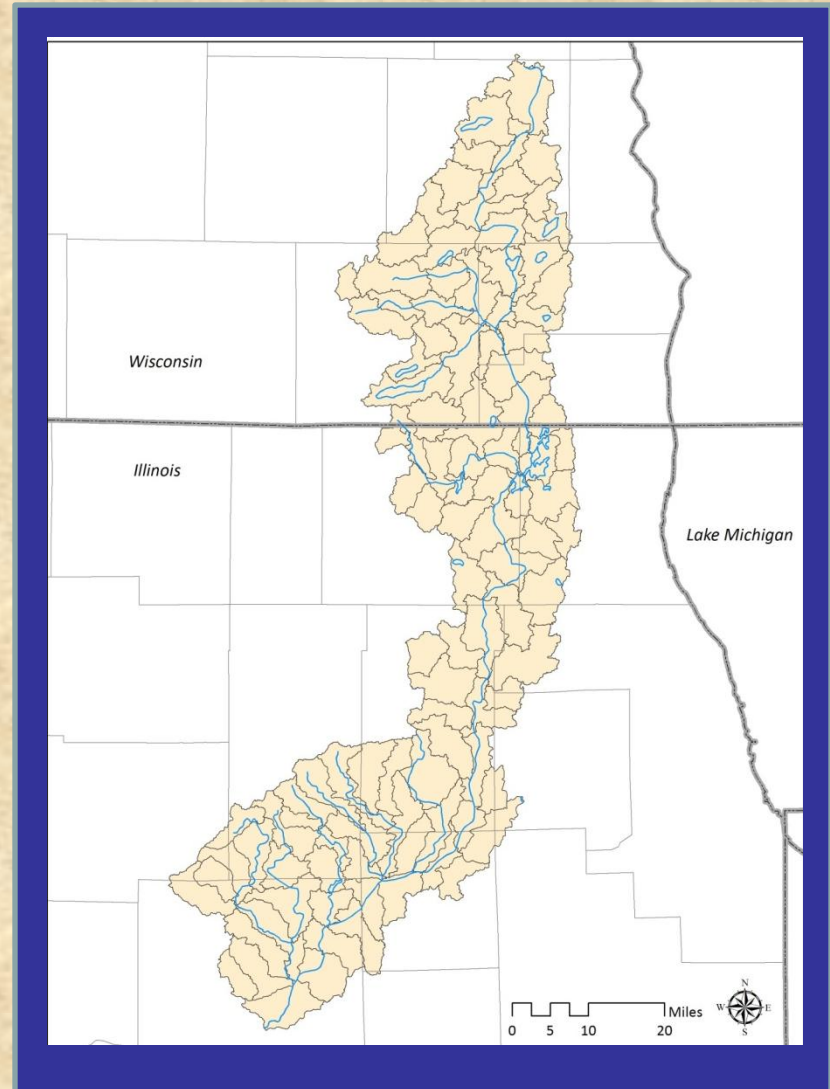
- The area of land that catches rain and snow and drains into a stream, river, lake or groundwater.
- How land is used in a watershed effects water quality.
- The watershed has become the planning and management unit of choice for many water resource issues.





# What is a watershed?

It's a matter  
of scale...



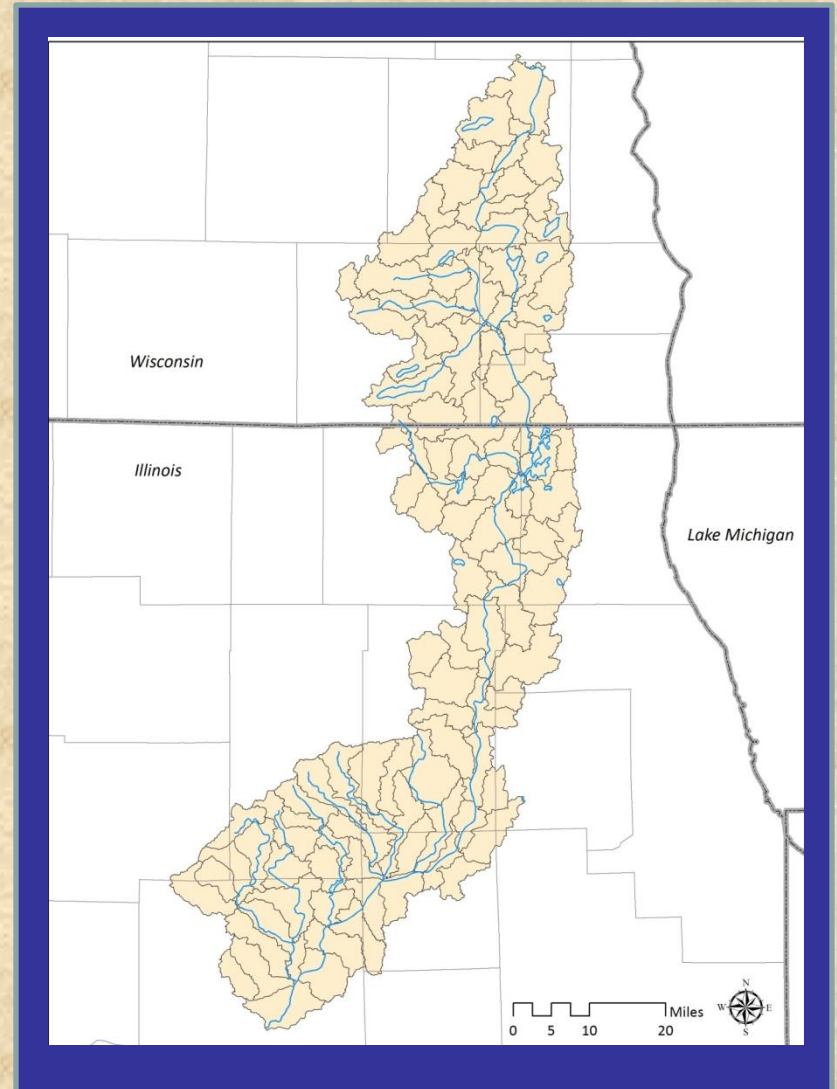
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## The Fox River Basin *Facts*

- Third-largest tributary to the Illinois River
- 185 miles from Waukesha, WI – Ottawa, IL
- 2,658 sq. miles (1,720 in IL)
- 2,300 river & tributary streams (IL)
- Parts of 11 IL counties; 11% of Illinois' population.



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# The Fox River Basin *Inventory*

- Abundant recreational opportunities and high quality natural resources attracts population growth.
- Four segments and 14 glacial lakes, “biologically significant.”
- 150 state-threatened and endangered species found within watershed.





# The Fox River Basin *Impairments*

- Impact from urban development and agriculture.
- Nonnative vegetation has led to streambank erosion.
- 14 of the 17 segments in nonsupport for aquatic life.
- All segments in nonsupport for fish consumption.
- Seven of ten assessed segments in nonsupport for primary contact.
- One of two segments used for public water supply is in nonsupport.



ILLINOIS INTEGRATED WATER QUALITY REPORT  
AND SECTION 303(d) LIST - 2010

Clean Water Act Sections 303(d), 305(b) and 314

Water Resource Assessment Information  
and Listing of Impaired Waters

Volume I: Surface Water

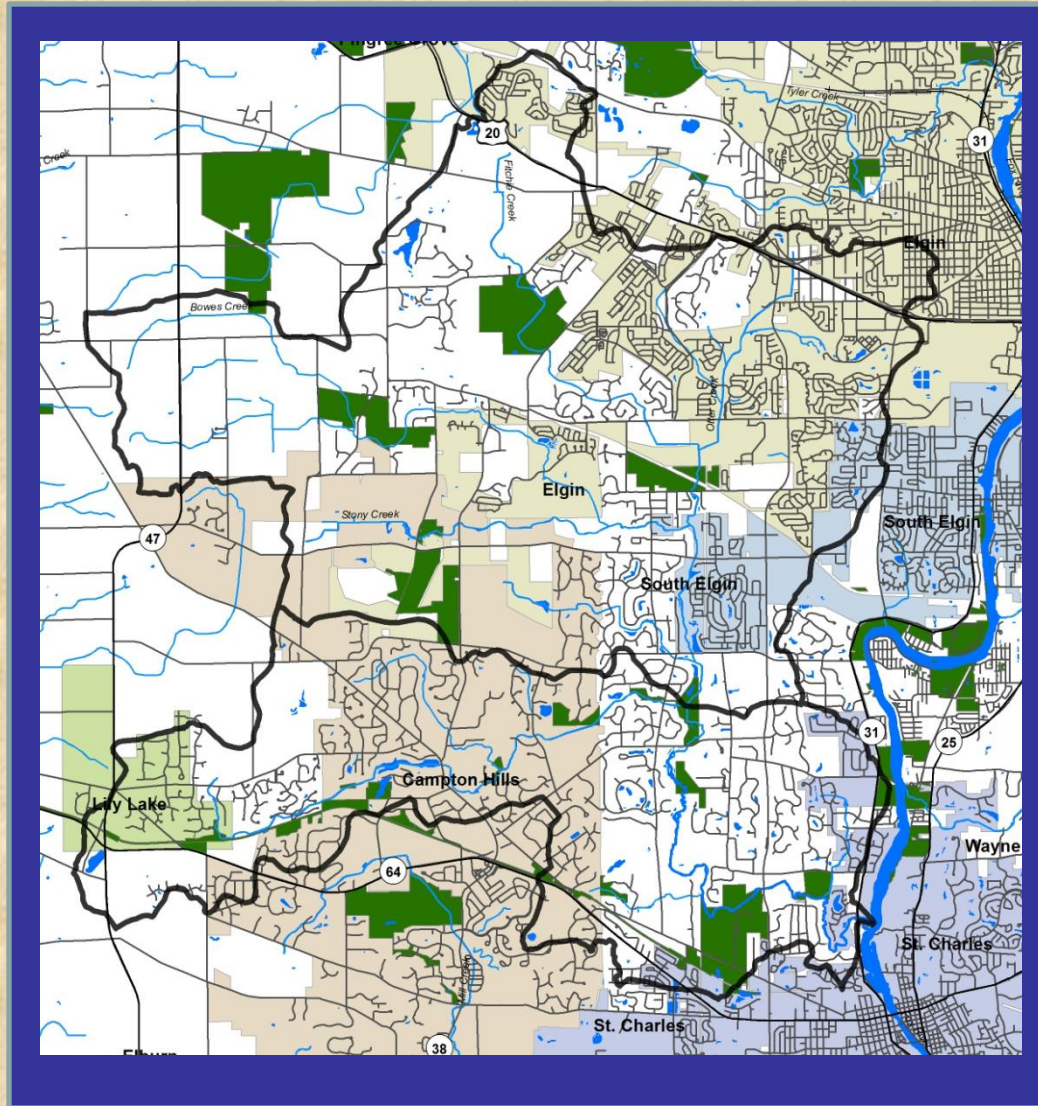
April 2010

**Draft**

Illinois Environmental Protection Agency  
Bureau of Water



# The Ferson-Otter Creek Watershed

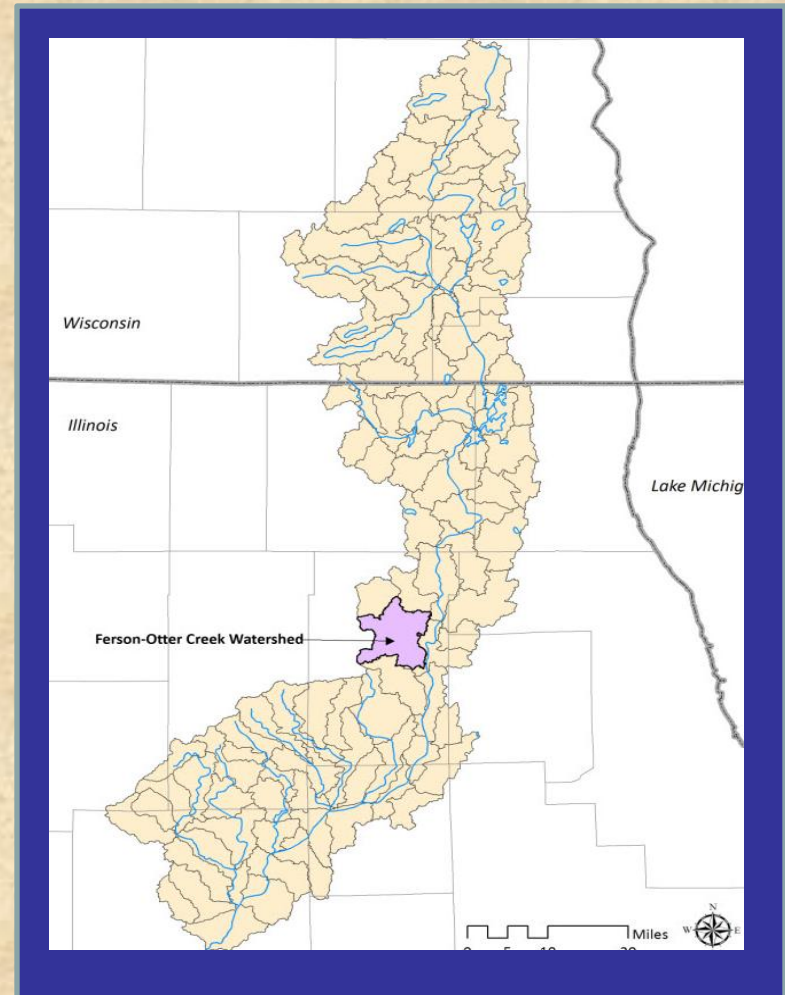


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# Ferson-Otter Creek Watershed *Facts*

- Drainage area of 54 sq. miles
- 29% developed
- Kane County, 5<sup>th</sup>
- Elgin, St. Charles, Campton Hills, South Elgin, and Lily Lake
- Population: approx. 32,515



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# Ferson-Otter Creek Watershed *Conditions*

- Both Ferson Creek and Otter Creek assessed and in support for aquatic life.
- Ferson Creek in nonsupport for primary contact – fecal coliform. (Otter Creek not assessed)



- Neither creek assessed for secondary contact, fish consumption, or aesthetic quality.
- Quality of Lower Fox River Basin gives context for Ferson-Otter Watershed.



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# Why do watershed planning?

- To protect and improve the health of the watershed.
- To address problems that go beyond political and geographical boundaries – problems that are often too costly and complex for just one.
- To facilitate partnerships to solve problems.
- To outline management activities to improve water quality.



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# Issues of concern





## Issues of concern



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# Issues of concern



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# Issues of concern



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CMAP



# Issues of concern



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CMAP



# Issues of concern





# How do we do watershed planning?

- Stakeholder Involvement
  - Local buy-in increases the probability of long-term success through trust, commitment and personal investment.
- Identify the issues
  - Problems: poor water quality
  - Pollutants: nutrients, metals, chlorides
  - Stressors: dissolved oxygen, lack of habitat





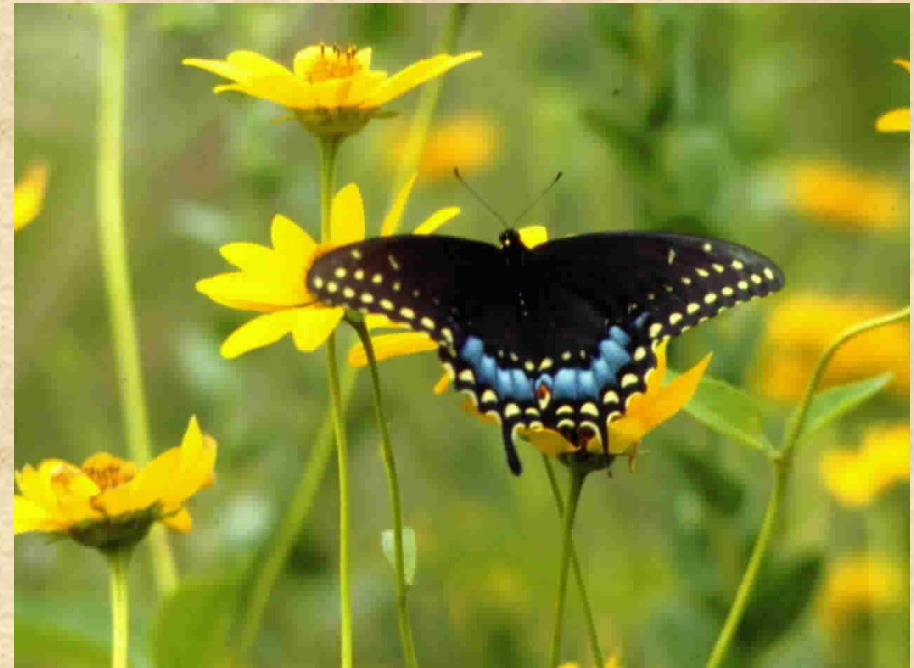
# Develop Goals and Objectives

- Driven by problems.
- Need to be measurable or quantifiable.
- Explain how each goal will be accomplished, identify who is responsible, and provide a timeline.
- Goals and objectives are prioritized.



# What does a watershed plan include?

- Written document, website
  - Overview of current conditions
  - Potential sources of impairment or problems
  - Goals and strategies on how to solve the problems
  - Timeline for completion, estimation of costs
- Dynamic – changes over time



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## A watershed plan is **NOT**...

- a zoning map
- a land-use map
- a comprehensive plan
- a means to designate land uses
- a legally binding document
- a required part of local comprehensive plans



# A watershed plan DOES...

- Focus on a waterway and its tributaries.
- Involve stakeholders in a cooperative partnership.
- Establish missions, goals, and objectives.
- Analyze watershed problems.
- Provide recommendations to help with point and nonpoint source pollution issues.



- Recommend voluntary methods to protect and enhance water quality
- Develop an action plan for restorative and preventative efforts.



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# Nine Elements of Watershed Plans

- Identify and quantify causes and sources of impairments.
- Estimate expected load reductions following implementation.
- Identify BMP's needed to achieve load reductions and critical areas.
- Estimate needed financial and technical resources.
- Provide a public information/education component that is designed to change social behavior.
- Include a schedule for implementing BMPs
- Identify and describe interim measurable milestones.
- Establish criteria to determine if load reductions are being achieved.
- Provide a monitoring component to evaluate the effectiveness of the implementation over time for criteria in number 8.



## Regional Criteria

1. Develop a vision for watershed land use by evaluating the collection of local comprehensive plans and estimating the cumulative impact on future water quality.
2. Set target pollutant-load reductions for impaired waters taking into account both point- and nonpoint sources.
3. Consider groundwater protection from both water quality and water quantity perspectives.
4. Compare municipal codes and ordinances against the US EPA developed Water Quality Scorecard.





# Watershed Planning Philosophy

- A bottom up approach
- Create a useful plan with specific problems and solutions (so stakeholders can apply for grant money to implement projects).



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# FOC Watershed Plan Timeline

Date	Meeting Agenda
September 2010	Introductions/ Project purpose
October 2010	Watershed Plan Goals and Objectives
November 2010	Watershed Vision
December 2010	Groundwater Protection
January 2011	Ordinance Review Exercise
February 2011	Open Space/ Green Infrastructure Framework
March 2011	Review of Plan Chapter 1/ Impairments/Ordinance Analyses
April 2011	Review of Watershed Inventory Chapter/ FORTRAN (HSPF) pollutant-load model/Load-reduction targets





# FOC Watershed Plan Timeline

Date	Meeting Agenda
May 2011	Plan recommendations/ Project selection
June 2011	Plan recommendations/ Project selection
July 2011	Plan recommendations/Tech and financial assistance needs
August 2011	Public education components
September 2011	Monitoring and Assessment chapter
October 2011	Implementation schedule/ Measurable milestone and successes
November 2011	IEPA feedback/ Finalization of remaining issues
December 2011	Final draft plan approval/ Next steps



## How can I be involved?

- Participate in the planning process by attending monthly stakeholder meetings.
- Provide input and information
  - Comprehensive Plans
  - Ordinances
  - Maps



To receive monthly meeting announcements, or for any questions, please contact Tara Neff: 630-428-4500 x 23; [tneff@theconservationfoundation.org](mailto:tneff@theconservationfoundation.org).



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