

## Overview

The 187-square mile Aux Sable Creek Watershed is located in Kendall, Grundy and Will Counties, Illinois. The Aux Sable connects to the Illinois River, between Channahon and Morris. A majority of the watershed (78%) falls in southeastern Kendall County. Twenty-two percent falls in northeastern Grundy County. Less than one percent is on the western edge of Will County.

The Aux Sable Creek Watershed is home to 14,500 residents based on 2000 Census data. This is more than double the 1990 estimates of 5,600 people. The population in the Aux Sable Creek Watershed, which includes Kendall, Grundy, and Will counties, is expanding, through development in Channahon, Joliet, Minooka, Morris, Oswego, Plainfield, Shorewood, and Yorkville as well as some unincorporated areas.

2006 marked the first time any stream in the Aux Sable Creek watershed was listed on the Illinois Environmental Protection Agency's 303(d) List of Impaired Waters. The 2006 Illinois Water Quality Report (305b) indicated primary contact uses (e.g., swimming) are not supported in a 20.48 stretch of the Aux Sable Creek (IL\_DW-01). The potential cause: fecal coliform bacteria. The potential source: unknown.



*Photo courtesy of Paul Burd.*

The Illinois Environmental Protection Agency (EPA) reports that nonpoint source pollution is the state's number one threat to water quality. Runoff from rain and snowmelt carries pollutants such as oils, salt, pesticides, and sediment into waterways. This is called nonpoint source pollution. Numerous studies have shown that stream ecosystems and water quality degrade as a watershed is developed with streets, parking lots, rooftops, and other impervious surfaces. But with careful planning, we can implement practices that support the quality of our water – even as development continues. Watershed-scale plans strive to create an environmentally and economically healthy watershed for the benefit of everyone.

Changes in the watershed along with new criteria for watershed plans, prompted the Aux Sable Creek Watershed Coalition and The Conservation Foundation to collaborate and request Section 319 funding to work with a group of local stakeholders updating the original watershed plan. Being a high quality stream, the hope is to utilize Illinois EPA funding to help stakeholders maintain water quality even as development continues. The project and long-term goal is to work cooperatively with units of local government, other

### Healthy watersheds offer many benefits:

- reduced flooding
- safe drinking water
- a healthy river with good water quality
- sustainable economic development
- opportunities for recreation & outdoor education
- wildlife habitat

organizations and stakeholders toward the mutual goal of protecting water quality in the Aux Sable Creek Watershed through the control of nonpoint source pollution. The premise: planning will result in efficient long-term use of taxpayer's money by preventing future impairments thus avoiding costly remediation efforts that would be required if water quality is continued to be ignored. The Section 319 grant covered the following scope of work: updating the Aux Sable Creek Watershed Management Plan to meet Illinois and US EPA criteria for watershed-based plans as well as education and outreach about the watershed and practices that can protect and enhance water quality.

Implementation of the plan will vary. Chapter 6 provides a number of recommendations. Efforts will range from individual to local government (community-wide). Regardless of the person or entity taking up a recommendation and working to implement it, all efforts are voluntary. That is, the Illinois EPA will not require recommendations to be completed, nor will The Conservation Foundation or Kendall or Grundy County Soil and Water Conservation Districts. The Illinois EPA, the Kendall and Grundy County Soil and Water Conservation Districts and The Conservation Foundation are available as resources and wish to support efforts to protect the water quality of the creeks comprising Aux Sable Creek Watershed. Examples of voluntary individual actions that follow some of the recommendations include:



- **Keep it where it falls** - Nearly 60% of rainwater that falls on your lawn washes off. Native plants slow run off, allowing rainfall to soak into the soil. Rain barrels collect water for use later.
- **Let it grow** - Instead of mowing to the water's edge, allow native plants to form a buffer along the banks of lakes, ponds, and streams to prevent erosion (and loss of property), stop pollutants from washing in and protect fish habitat.
- **Greener is better** - Runoff from impervious surfaces like driveways and patios contributes to flooding. Minimize its impacts by using porous materials.
- **Know your lawn's needs** - Excessive fertilizer washes off lawns and into waterways causing algae blooms and decreasing the stream health. Follow the application rate recommended by soil test results or on the fertilizer packaging. Consider environmentally friendly lawn care products.
- **Keep storm water clean** - Keep used motor oil, pesticides, and other toxic substances out of storm drains. Storm drains don't go to a treatment plant, but discharge to detention ponds and streams. Contact a local auto shop, Kendall County Environmental Health Services, Kendall or Grundy County Soil & Water Conservation District, or [www.earth911.com](http://www.earth911.com) to inquire about recycling used motor oil.

Examples of voluntary individual actions in the agricultural areas of the watershed, that follow some of the recommendations, include:

- **Continue good stewardship** - Grassed waterways, terraces, nutrient management, and comprehensive livestock management and other agricultural best management practices have supported water quality for generations.
- **Buffer the creek** - Planting riparian buffers/filter strips can reduce erosion by acting as sponges during times of high water, protecting cropland from flooding. The watershed plan identifies areas where this type of green infrastructure may be appropriate.

Examples of voluntary local government actions that follow some of the recommendations include:

- **Engage everyone** - Encourage everyone to treat water as a resource. Involve community members in activities such as stream clean-ups and storm drain stenciling to discourage dumping in sewers. Local conservation groups may have resources to assist.
- **Use conservation design** - This development approach requires working closely with a site's natural functions, avoiding floodplains, protecting high quality



natural features, and utilizing stormwater Best Management Practices. The watershed plan identifies areas where green infrastructure may be appropriate.

- **Keep soil in its place** - Erosion from construction sites contributes to stream sedimentation problems. Communities can organize contractor education and community awareness programs to minimize these impacts, as well as implement regulatory programs.

The 2008 Aux Sable Creek Watershed Management Plan is available a number of ways. Officially, it is available at the Kendall County Soil & Water Conservation District (KCSWCD). They are an independent, local unit of government created by state law for the purpose of promoting the protection and conservation of the county's soil, water and related natural resources. The KCSWCD, formed in 1947, provides technical assistance, educational opportunities and resource information regarding soil, water and related natural resources. The watershed plan is available on-line at [www.auxsablecreekwatershed.org](http://www.auxsablecreekwatershed.org). A copy of the Management Plan has also been provided to the Oswego, Yorkville, Minooka, Channahon and Morris libraries. Local governments also have a copy including Grundy County, Kendall County, villages of Channahon, Minooka, Oswego, Plainfield and Shorewood, as well as the cities of Joliet, Morris and Yorkville. The Grundy and Kendall Farm Bureaus, Grundy and Kendall County Soil & Water Conservation Districts and The Conservation Foundation also have a copy of the 2008 Aux Sable Creek Watershed Management Plan.

If you are interested in getting involved in watershed efforts you may contact the Kendall or Grundy County Soil & Water Conservation District, the Aux Sable Creek Watershed Coalition or The Conservation Foundation. Any of these groups can tell you more about current efforts and ways to get involved. The Kendall County Soil & Water Conservation District was identified by the advisory committee as the agency that should officially hold the plan and be responsible to partner with organizations to hold an annual watershed review meeting. These annual meetings do not bind the Kendall County Soil & Water Conservation District or any other participating organization/individual to implement the plan. They are merely intended to be a forum to discuss Aux Sable Creek Watershed related activities, issues and opportunities.

If you have a concern, please use the matrix provided at the end of this Overview to identify the best agency to contact. Please note that availability of the plan at a local office does not imply that agency can address your concern.

Following is a summary of the Aux Sable Creek Watershed Management Plan completed in June 2009. It is provided to give interested persons an understanding of the key information included in the Plan. For complete information, interested persons should read the full Plan. The end of this Executive Summary discusses how the plan may be voluntarily implemented. It also includes some information about who to call with various types of concerns.

## Chapter 1 – Introduction

The first chapter provides the context for the rest of the plan. In addition to explaining the location and size of the Aux Sable Creek Watershed, it details the history of watershed planning in the Watershed which dates back to right after major flooding in 1996, the reason for a watershed plan update and some of the first steps of the Advisory Committee.

The first steps of the watershed plan update included inviting a large range of Watershed stakeholders to the table. A complete list of those invited to be part of the Advisory Committee is included in the plan. Over 50 representatives were invited to participate on the committee, of which one-third are landowners in the watershed. Many of these representatives have been active in watershed activities in the past. Other agencies

represented include local government representatives (municipalities in or growing into the watershed and the counties), the Kendall & Grundy County Farm Bureaus and the Kendall and Grundy Soil & Water Conservation Districts – each of these are organizations of area residents as well. The Conservation Foundation facilitated the process, with a technical consultant gathering data and writing the plan (Christopher B. Burke Engineering West, Ltd.). This collaborative effort focused on accomplishing the purpose of Illinois EPA’s 319 program: to work cooperatively with units of local government and other organizations toward the mutual goal of protecting water quality in Illinois through the control of non-point source pollution. The Advisory Committee drafted and approved its own Vision Statement:

**Vision Statement**

*We intend to maintain the Class A rating of the Aux Sable Creek and enhance the natural and economic health of the watershed using sound management practices, education and voluntary cooperation while respecting property owner rights.*

The committee’s goals focused on stream maintenance/quality, flooding, natural areas, wildlife biodiversity, development, education, property rights, water supply and farmland protection. If you would like to know who to call with questions about these types of issues, information is listed at the end of this document.

## Chapter 2 – Existing Conditions

It is important to be aware of the Watershed’s resources, to both gain a better understanding of the current state of the Watershed but also to know what aspects are important to consider when working to protect water quality. This chapter covers aspects such as climate and hydrologic conditions, natural conditions (geology, topography, soils, water bodies, biological assessments), cultural resources including population reports and current land uses. Also covered in this chapter are existing water quality protection programs such as National Pollutant Discharge Elimination System (NPDES) permits as well as local, state, and federal regulations.

Key sections a reader may want to focus on would include:

- **Hydrologic conditions** since this identifies drainage patterns and areas that may be more susceptible to erosion.
- **Soils**, particularly hydric soils, since these are ones formed under conditions of saturation, flooding or ponding. These types of soils can be challenging because conditions can quickly become too wet for crops and are prone to flooding when developed.
- **Existing regulations** that are a starting point to understanding permitted and prohibited activities as well as where efforts could complement or enhance programs to protect the Watershed’s water quality.

## Chapter 3 – Watershed Impairments

The condition of watersheds has real consequences. Healthy watersheds can offer many benefits including:

- a healthy river through improved water quality
- enhanced opportunities for recreation, environmental education, and environmentally sustainable economic revitalization
- enhanced wildlife habitat
- reduced flooding problems

*IEPA reports that non-point source pollution is the nation’s and the state’s number one threat to water quality.*

- and ensured safe drinking water supply.

The Illinois Environmental Protection Agency (IEPA) periodically assesses the quality of streams in Illinois. In 1990 monitoring showed no use impairments. However, in 2006 a stretch of the Aux Sable Creek was found to have an impairment, fecal coliform bacteria was identified as the source of this impairment.

Page 47 of the Plan includes a table of stream impairments identified by the Advisory Committee.

Non-point source pollution is another threat to water quality. It occurs when runoff from rain and snowmelt carries pollutants into waterways and even groundwater. The name “non-point source pollution” is derived from the concept that there is no single point from which the pollution comes; it comes from everyone and everywhere. Examples of sources of non-point source pollution in Illinois include runoff from construction sites, lawns and gardens, city streets and parking lots, farm fields, livestock facilities, surface coal mines, and forestry. The Center for Watershed Protection found that as impervious area (roof tops, driveways, roadways, parking lots, etc.) increases, water quality decreases. The connection is that rain water or sprinkler water running off our lawns, streets and parking lots flows into pipes through storm drains. This water then goes **directly** into our local lakes and streams; it is not “treated” like water from our bathrooms so it contains soil particles, oil from our cars, fertilizer from our yards, and other pollutants found in our communities. The potential for non point source pollution in the Watershed is high, given the urbanization occurring and expected in the Watershed, as noted on page 48 and earlier on page 33 (Figure 14 showing boundary agreements for communities in the Watershed).

Watershed planning seeks to protect water quality, in this case by identifying opportunities to prevent further impairment of the Aux Sable Creek.

## **Chapter 4 – Agricultural Management Practices & Programs**

The current high quality condition of much of the Aux Sable Creek system is due, in large part, to quality agricultural practices and good stewardship. This chapter notes that while the change from agricultural to suburban land uses can result in negative impacts on a creek, areas that remain in agricultural use can implement a variety of voluntary practices that can protect water quality. Many of these practices are already occurring throughout the Watershed. However, additional opportunities exist for programs like the Conservation Reserve Program, Conservation Reserve Enhancement Program, Wetlands Reserve Program, Environmental Quality Incentives Program, Wildlife Habitat Incentives Program and Partners for Conservation. Other activities include livestock management programs, nutrient management planning, and conservation tillage, to name a few.

## **Chapter 5 – Urban Management Practices & Programs**

As noted earlier in this Overview, non-point source pollution is a large threat to water quality. Suburban and urban land uses (residential, commercial, industrial) are big contributors to non-point source pollution. Therefore, they become an area of opportunity to improve practices and minimize pollutant contributions to our waterways. This chapter discusses opportunities to protect and improve water quality, within the framework of the six minimum control measures of NPDES Phase II\*\* (a regulation all communities in the watershed are required to comply with):

- public education and outreach on stormwater impacts

*With urbanization, there is an increase in potential pollution from construction sites. The primary means to prevent construction site runoff is through the use of soil erosion and sediment controls. A Certified Professional in Erosion and Sediment Control (CPESC) is a recognized specialist in soil erosion and sediment control.*

- public involvement and participation
- illicit discharge, detection, and elimination
- construction site runoff control
- post construction runoff controls
- pollution prevention/good housekeeping for municipal operations

\*\* For more information on NPDES Phase II visit [www.epa.gov/npdes/pubs/fact2-0.pdf](http://www.epa.gov/npdes/pubs/fact2-0.pdf) or the U.S. EPA Office of Wastewater Management at [www.epa.gov/npdes/stormwater](http://www.epa.gov/npdes/stormwater)

## Chapter 6 – Recommendations & Action Plan

The recommendations are split into areas that apply to agricultural practices and then each of the areas pertaining to NPDES Phase II minimum control measures (outlined above). Best management practices (BMPs) for future developments or redevelopment within the Watershed are a key component of this chapter. The BMPs are separated by those that promote infiltration, manage stormwater or stabilize streambanks. Below is a listing of the BMPs identified in this section along with the cost of installation.

Best Management Practice (BMP)	Cost of installation (\$=low <\$100,000, \$\$\$=high >\$750,000)
Upland buffers	\$
Elimination of curbs and gutters	\$
Bioswales	\$\$
Rain gardens	\$
Infiltration galleries/basins	\$\$
Permeable pavements	\$\$
Stormwater wetlands	\$\$\$
Outlet detention wetlands	\$
Open water detention basin	\$\$
Dry bottom detention basin	\$\$
Conservation design	\$
Stormwater retention requirement	\$\$
Level spreader outlets	\$
Stormwater separators	\$
Deicing and anti-icing strategies	\$
Stormwater ordinance development or amendments	\$\$\$
Stream bank stabilization	\$\$-\$\$\$
Revegetation	\$
Erosion control blanket/turf reinforcement mat	\$
Coir logs	\$
A-jacks	\$\$
Stone toe	\$
Stream barbs	\$
Rip-rap/Stone armoring	\$\$
Soil bioengineering	\$\$

Pages 82-86 are a table listing recommended action in order of priority, as determined by the Advisory Committee. Below is a summary of these recommended actions, in said order, including capital and operational cost notes and the recommended timeframe for completion of each action.

<b>Recommended Action</b>	<b>Capital Cost (installation)</b>	<b>Operational Cost (operation &amp; maintenance)</b>	<b>Timeframe</b>
Improve water quality	\$-\$\$\$	\$	Continual
Riparian buffers/filter strips	\$\$	\$	Continual
Post-construction runoff controls (BMPs in development)	\$-\$\$\$	\$-\$\$	1-6 years
Improve aquatic habitat	\$-\$\$\$	\$-\$\$	Continual
Enforcement of construction site runoff controls	\$\$	\$	Continual
Development of illicit discharge, detection, and elimination program	\$\$\$	\$	2-5 years
Create Aux Sable Creek Watershed overlay district	\$\$\$	\$	3-6 years
Restoration of natural areas	\$-\$\$	\$	1-5 years
Post-construction runoff controls (Retrofit BMPs)	\$-\$\$\$	\$-\$\$	2-4 years
Education/outreach (Coalition meetings)	\$	\$	Continual
Programmatic natural resource preservation	\$-\$\$\$	\$-\$\$\$	Continual
Stakeholder input survey	\$	\$	1-3 years
Aux Sable Creek Watershed website	\$\$	\$	Continual
Community involvement programs	\$	\$	Continual
Water conservation program	\$-\$\$	\$	Continual

## Chapter 7 – Potential Funding Sources

This chapter identifies a variety of potential state and federal funding sources that could provide financial assistance to implement the recommendations of this plan. No one source may fit each project, but identifying all the potential sources provides a starting point from which to determine which grant is appropriate for a particular project as well as the possibility of leveraging these grants with each other or with local funding. The grants identified are through the following agencies: Illinois Department of Natural Resources, Illinois Environmental Protection Agency, United States Department of Agriculture – 2008 Farm Bill (through the United States Department of Agriculture), United States Environmental Protection Agency, Illinois Department of Agriculture and United States Fish and Wildlife Service.

Private grants may also be available through organizations such as the Environmental Grant Program through American Water, Field Foundation of Illinois, Gaylord and Dorothy Donnelley Foundation, Grand Victoria Foundation, Grundy County Community Foundation, Illinois Clean Energy Community Foundation and Waste Management Charitable Giving Program.

## Chapter 8 – Monitoring Plan Successes

Evaluation is an important part of watershed planning. It can tell you whether or not your efforts are successful and provide a feedback loop for improving project implementation.

This Plan has a unique challenge when it comes to monitoring because the majority of the recommendations are for potential changes within the Watershed due to future development. Therefore the success of the watershed Plan would ultimately be determined by reevaluating the class rating of the stream as this would follow the Vision Statement. By maintaining the Class A rating, the Plan is successful.

Short-term (1-3 years) and long-term (3-10 years) milestones are identified that can assist to incrementally implement the Plan’s recommendations. The milestone accomplishments are outlined for each Recommended Action identified in the table above.

The Plan further recommends an annual evaluation on the status of the milestones, which will serve to determine implementation over time as well as keep the Plan and its recommendations top of mind for all watershed stakeholders.

When it comes to implementation, there is no single agency “on the hook” to make sure the plan is followed. Implementation will occur over time, as individuals and/or agencies are interested. Anyone can help keep the Aux Sable Creek clean. Beyond those mentioned at the beginning of this Overview, here are some ideas to get anyone started and being active in water quality aspects:

- **Get on a committee** working to support the watershed, such as the Aux Sable Creek Watershed Coalition. Contact Joan Soltwisch at (815) 467-2059 about the Coalition.
- **Install a rain garden** to soak in water where it falls.
- **Use a rain barrel** to collect and reuse rainwater.

### Who Can Help You

This is not a chapter in the 2008 Aux Sable Creek Watershed Management Plan. However, the advisory committee recognized that water quality can be a tough issue to know how to start addressing. A variety of local governments have jurisdiction in the watershed, depending on where you’re located. There are also other agencies that might be able to assist with common questions and concerns. The following is a brief outline of agencies and what aspects they might be able to assist with, as it relates to the focus of this plan: water quality. This list is not an exhaustive, but is intended to give individuals an idea of the appropriate contact for various issues so that no single agency is targeted.

**Clean Water Act Section 319 Incremental Funding: Required Component**

In order to be eligible for Section 319 funding, a watershed plan must include a monitoring component to evaluate the effectiveness of your implementation efforts over time, measured against evaluation criteria established by your watershed planning group. Any combination of monitoring strategies identified above can satisfy this requirement, although you should take care to tailor your monitoring strategy to the needs and goals of your watershed.

*An excerpt from Guidance for Developing Watershed Action Plans in Illinois by the Chicago Metropolitan Agency for Planning and IEPA.*

Refer to	When the Questions Relate to	Additional Description
Kendall or Grundy County planning offices	<ul style="list-style-type: none"> <li>• Construction site soil erosion and sediment control problems in (or caused by) unincorporated areas</li> <li>• Individual, neighborhood, watershed scale problems</li> <li>• Violation of local regulations</li> </ul>	Have responsibility to inspect and respond to water quality complaints in unincorporated areas; can require remedial activity if in violation of applicable ordinances; can assist in determining approximate location of floodplain on properties.

	<ul style="list-style-type: none"> <li>• Access to and navigation of federal floodplain maps</li> <li>• <b>Drainage complaints</b></li> </ul>	
<p>Local municipalities (in the watershed that includes):</p> <ul style="list-style-type: none"> <li>• Channahon</li> <li>• Joliet</li> <li>• Lisbon</li> <li>• Minooka</li> <li>• Morris</li> <li>• Oswego</li> <li>• Plainfield</li> <li>• Plattville</li> <li>• Shorewood</li> <li>• Yorkville</li> </ul>	<ul style="list-style-type: none"> <li>• Lot/neighborhood level drainage concerns</li> <li>• Emergency response, sandbag distribution</li> <li>• Construction site soil erosion and sediment control problems in applicable incorporated area</li> <li>• Use of stormwater Best Management Practices in new or redevelopment activities</li> <li>• Violation of local regulations</li> <li>• Access to and navigation of federal floodplain maps.</li> <li>• <b>Drainage complaints</b></li> </ul>	<p>Usually have staff or budget through planning or public works to handle common problems in addition to construction site problems; can assist in determining approximate location of floodplain on properties.</p>
<p>Kendall or Grundy County Soil &amp; Water Conservation District</p>	<ul style="list-style-type: none"> <li>• Technical assistance on soil erosion issues.</li> <li>• Information related to soils and common issues with their performance.</li> <li>• Educational assistance in the form of workshops, presentations, brochures, pamphlets, handouts, etc.</li> <li>• Access to and navigation of federal floodplain maps.</li> <li>• Kendall only; inspect construction site for stormwater Best Management Practice construction/installation.</li> </ul>	<p>Agricultural, urban, and water body-related guidance; provides technical assistance, education and information on cost-share programs, field staff may make site visits to evaluate complex problems.</p>
<p>Township Highway Departments</p>	<ul style="list-style-type: none"> <li>• Drainage concerns are within the right-of-way of a township road.</li> </ul>	<p>Sometimes staff is able to reduce local flooding problems by improvements along right-of-way, but is not common; policies vary from township to township; not able to assist in areas outside its own right-of-way</p>
<p>Kendall or Grundy Department of Transportation</p>	<ul style="list-style-type: none"> <li>• Bridges, culverts and ditches located within the right-of-way of county roads</li> </ul>	<p>Maintains all bridges, culverts and ditches with the right-of-way of county highways.</p>
<p>Kendall or Grundy Health Department</p>	<ul style="list-style-type: none"> <li>• Well and septic related problems</li> </ul>	<p>Primary concern for individual wells and septic, will assist if flooding problem results in failure of septic or contamination of well.</p>

US Geological Survey – Urbana, IL	<ul style="list-style-type: none"><li>• Provides real-time, unofficial river/stream stage information, rain totals</li></ul>	Data available at <a href="http://il.water.usgs.gov">http://il.water.usgs.gov</a>
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If you are interested in getting involved in the Aux Sable Creek watershed contact Joan Soltwisch at (815) 467-2059 about the Aux Sable Creek Watershed Coalition. The Conservation Foundation, a not-for-profit land and watershed protection organization serving northeastern Illinois, has also been involved in watershed activities and may be available to assist interested persons on water quality initiatives.

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