

State of the Fox River Report

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State of the Fox River Report 2003

An introduction to the State of the Fox River Report

The Fox River watershed is a treasured natural resource providing over 200,000 Illinois residents with drinking water, and a wide range of recreational opportunities including power boating, paddling, fishing, hunting, hiking, bicycling, and wildlife watching. The Fox River - Chain O' Lakes region is one of the United States' busiest inland recreational waterways with over 27,000 boat stickers issued yearly. The river is also a valuable ecological resource as home to hundreds of species of plants and animals including over 140 Illinois threatened and endangered species, and several federally threatened species. With the rapid human population growth in the watershed, however, the Fox River and its tributaries are at a critical crossroad, for as more and more people live, work, and play in the Fox River watershed, more and more pollution enters its waters. For example, in 1999, just three stretches of the Fox River totaling less than 20 miles were on the Illinois Environmental Protection Agency's (IEPA) impaired waters list. By 2002, the IEPA categorized the entire 115-mile stretch of the Fox River in Illinois as impaired. Without action, conditions in the watershed will continue to decline. In the following State of the Fox River Report, we discuss the current state of the Fox River watershed including an overview of the Fox River and descriptions of the strengths, weaknesses, opportunities, and threats that the Fox River and its tributaries face right now. We have also invited sub-watershed groups from throughout the river to describe the current status of some of the Fox River's major tributaries.

An overview of the Fox River watershed

The Fox River originates in southwest Wisconsin, near Menomonee Falls, travels 70 miles through Wisconsin and an additional 115 miles in Illinois, before joining the Illinois River in Ottawa. In Illinois, the Fox River drains 1,720 square miles and includes the counties of McHenry, Lake, DeKalb, Kane, Cook, DuPage, LaSalle, Lee, Kendall, Will, and Grundy. The majority of the Fox River watershed is used for agriculture, and there is a rapid expansion of urban/built-up land. Overall, land cover is 50% cropland, 17.3% urban/built-up, 17% grassland, 10.3% upland and bottomland forest, and 5.4% non-forested wetlands and other water. Relative to other watersheds in the state, the Fox has lesser amounts of agricultural and forested land, and more wetland.



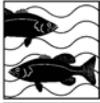
The Fox River provides drinking water, wildlife habitat, and recreational opportunities.

Photo Credit: Friends of the Fox River

In fact, the Fox River is the only river in Illinois that includes a large glacial lake system. The Fox River has three major segments in Illinois. The upper portion of the river is the most pristine part of the watershed. It contains the most diverse land cover including the most lakes and wetlands. The middle portion of the watershed contains the most urban/built up land, and includes six Kane County cities with human populations ranging from 15,000 to 100,000. The lower portion of the Fox contains the most row crops and grasslands.

Strengths of the Fox River and its tributaries

1) The Fox River watershed contains high quality habitat with a rich flora and fauna - The Fox River contains a rich diversity of plants and animals. In a recent study by the Nature Conservancy and NatureServe, the Fox River was named a critical area to biodiversity in the Upper Mississippi River Basin. For example, Illinois' rarest wetland communities including fens and bogs are found in the watershed. These include Volo Bog, Kettle Moraine at Moraine Hills State Park, and Lake-In-The-Hills Fen. In the watershed there are 14 glacial lakes totaling 2,204 acres and 4 tributaries totaling 63 miles categorized as "biologically significant" because of high fish and mussel diversity and/or the areas contain threatened and endangered species. Biologically significant glacial lakes include: Bangs, Cedar, Cross, Crystal, Deep, East Loon, Grays, Lily, McCullom, Round, Sullivan, Turner, West Loon, and Wooster. Biologically significant tributaries include Buck Creek, Morgan Creek, North Branch Nippersink Creek, and Yorkville tributary. Moreover, Nippersink Creek, Boone Creek, Tyler Creek, Ferson Creek, and Big Rock Creek have



Strengths of the Fox River and its tributaries (continued)

been identified as high quality tributaries. The northern region of the Fox River watershed containing Chain O' Lakes and comprising 285,844 acres is considered a "Resource Rich Area." Ninety-six species of fish have been found in the Fox River watershed, including one state threatened species (river redhorse), and two state endangered species (weed shiner and greater redhorse). Thirty-two species of freshwater mussels are also present including five state threatened or endangered species: rainbow, sheepsnose, slippershell, spike, and wavy-rayed lampmussel.

2) The Fox River and its tributaries have a large number of citizen groups that promote the watershed's protection and restoration - Groups such as Friends of the Fox River, Fox River Ecosystem Partnership (FREP), and Sierra Club (Illinois Chapter and Valley of the Fox Group) address issues at the watershed level. At a local level, the Fox River has numerous organizations concerned with the protection and restoration of sub-watersheds including Big Rock Creek, Blackberry Creek, Boone Creek, Fish Creek Drain, Flint Creek, Nippersink Creek, Poplar Creek, Sequoit Creek, Squaw Creek, Tyler Creek, and Waubonsie Creek. One of the activities supported by these organizations is the monitoring of water quality. Friends of the Fox River sponsors the Fox River Watershed Monitoring Network. Since January 2000, the Monitoring Network has trained over 300 adult citizens or teachers to monitor water quality. Monitoring Network sponsored programs outreach to over 7,500 youth and adults annually, with over 2,000 students, teachers, and adults at stream sites monitoring water quality. Citizen monitoring can help fill data gaps left by the limited monitoring which the IEPA can itself undertake. The Illinois RiverWatch program, coordinated by the Illinois Department of Natural Resources (IDNR), uses citizen scientists to conduct biological monitoring and surveys of habitat in Illinois streams. The IEPA has worked with Illinois RiverWatch to develop a quality assurance project plan for their monitoring efforts. Other activities promoted by watershed organizations include river cleanups, community celebrations of the river, educational events and programs, guest speakers on river topics, and newsletters.

3) The Fox River Study Group (FRSG) is a diverse coalition of stakeholders working together to assess water quality in the Fox River watershed - Participants include Friends of the Fox River, Sierra Club, Fox River Water Reclamation District (Elgin), Fox Metro Water Reclamation District (Aurora), FREP, IEPA, Northeastern Illinois Planning Commission (NIPC), as well as representatives from Algonquin, Aurora, Batavia, Crystal Lake, Elgin, Geneva, Island Lake, Kane County, Lake in the Hills, St. Charles, and Yorkville. This group has agreed to investigate the problems of the Fox River and to determine a plan of action to preserve and enhance the water quality of the Fox River by fostering sustainable growth. With a grant from the



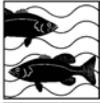
Mother/daughter team monitor water quality for Friends of the Fox River.

Photo Credit: Friends of the Fox River

IEPA, FRSG has secured the services of the Illinois State Water Survey to develop a computer model of the Fox River watershed in order to guide future development and restoration projects that preserve the quality of the Fox River and its tributaries. In addition, FRSG has been monitoring seven sites on the Fox River from Johnsburg to Yorkville on a biweekly basis, gathering vital information about the current health of the Fox. Recently, monitoring of tributaries has also begun. Ultimately, the watershed model will be used to ensure efficient use of taxpayer and private moneys on watershed projects, assess the effect of various development options throughout the watershed, educate stakeholders, evaluate management priorities, identify sensitive regions within the watershed, and develop continuous monitoring programs.

About Friends of the Fox River

Friends of the Fox River is a non-profit organization dedicated to building a watershed of caretakers in the Fox River Valley. We are concerned citizens taking action to protect and maintain the quality of the Fox River and its tributaries. We attend and testify at public hearings on water quality issues, and review and comment on permits for municipal and commercial discharges in the Fox and its tributaries. Friends of the Fox River sponsors the Fox River Watershed Monitoring Network. The Monitoring Network encourages environmental action through education by providing monitor training, lending equipment, compiling water quality data collected by our volunteers, and sponsoring member networking events. Our organization is also involved in the semi-annual Fox River Rescue, a watershed-wide cleanup, we host special events such as Monitor with your Mother, we offer educational outreach programs, and distribute a quarterly newsletter.



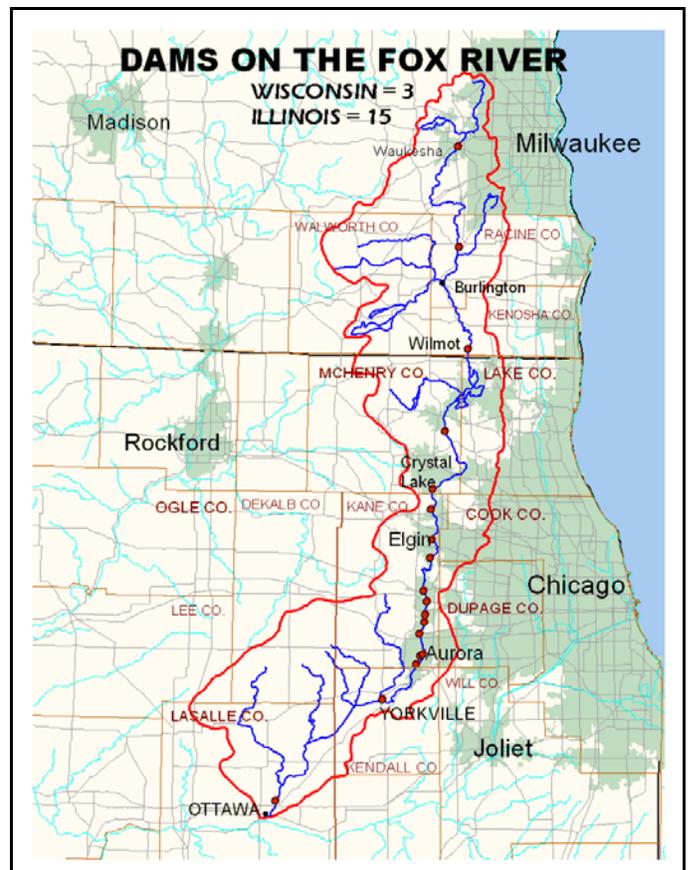
Weaknesses of the Fox River and its tributaries

1) The Fox River is classified as impaired - The 2002 Illinois Water Quality Report produced by the IEPA is the best source of information on the water quality issues facing the Fox River, and most other rivers, streams and lakes in Illinois. In 2002, the IEPA categorized the entire Fox River from the Wisconsin state line to the river's mouth in Ottawa as impaired. For the report, the Fox River is divided into 17 segments. The presence of PCBs in fish tissue is the most ubiquitous problem in the Fox River segments. Other frequent causes for impairment of different segments of the Fox River include flow alteration (caused by dams), habitat alteration, siltation, organic enrichment, low dissolved oxygen, suspended solids, and nutrients (nitrogen and phosphorous). For a listing of the specific impairments for each segment go to the Friends of the Fox River's website at www.friendsofthefoxriver.org/wqi.htm.

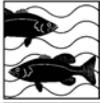
2) Dams - In Illinois, the Fox River has 15 dams, and between the Chain O' Lakes and Dayton, Fox River dams have impounded nearly 47% of the river's length, and 55% of its surface area. The impoundments (i.e., pools) behind dams have a less rich animal community relative to free-flowing portions of the river. For example, free-flowing portions of the river have more species and individuals of fish, and greater numbers of harvestable-sized sport fish. There are higher quality macroinvertebrate communities (i.e., aquatic insect larvae and freshwater mussels) in free-flowing portions of the river compared to impounded areas. Dams also alter the distribution of Fox River fishes preventing fish movement upstream. Thirty fish species are only found in the lower Fox River or are absent from stretches of the middle Fox River. Better habitat and water quality is present in free-flowing portions of the river compared to pools upstream of dams. Free-flowing areas have a variety of water depths, current velocities, and substrate types. They also have thinner silt deposits and coarser bed materials. In contrast, impounded areas are more lake-like, being more uniform and deep, with a low current velocity and fine silt deposits. Daily dissolved oxygen levels fluctuate more widely in impounded areas, and dissolved oxygen levels are more likely to be below IEPA standards at impounded sites. Finally, impounded areas, combined with high nutrient levels, promote algae blooms. Algae blooms can result in the loss of aquatic animal and plant life, fluctuating oxygen levels, and increased turbidity.

3) Lack of a holistic approach to the river - Currently, decisions that affect the entire watershed appear to be made at a local level with little consideration for the watershed as a whole, and there is a lack of coordination between government officials and agencies to solve the well-documented environmental problems that the Fox River faces. For example, at the Glen D. Palmer Dam in Yorkville, the IDNR has recently recommended that a four-stepped spillway dam modification be constructed so as to reduce the

safety risk to the dam (since the dam's construction in 1961, over a dozen people have drowned at the site). Unfortunately, the IDNR currently has no published plans to mitigate the negative effects caused by the dam in Yorkville including low dissolved oxygen level and flow alteration. Low dissolved oxygen level and flow alteration are two factors that have contributed to the Fox River being placed on the impaired waters list by the IEPA. Thus, the IDNR decision to modify rather than remove the dam in Yorkville ensures that the Fox River remains on the impaired waters list established by the IEPA assuming that other environmental factors do not change. The Batavia City Council recently passed a motion to request that state funds be used to repair or replace a dam in Batavia, and an elected state official was quoted as saying "I would like to compliment the DNR for being responsive to what the desires of the people of Yorkville were, I hope they will do the same for Batavia." Neither the Batavia City Council nor the state elected official, however, has made public a plan for how to restore the Fox River with a dam in place so that the Fox River can be removed from the impaired waters list established by the IEPA. In fact, in both Yorkville and Batavia, public officials and agencies are in effect requesting that taxpayers spend money to perpetuate the continued impairment of the Fox River while offering no solutions to this regional problem.

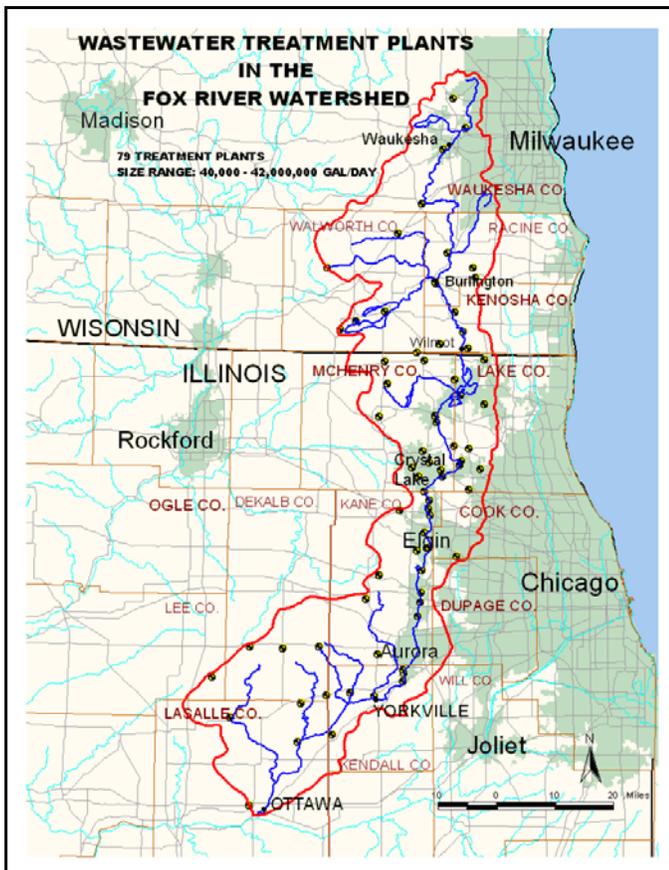


Graphic Credit: Rob Linke, Watershed Resource Consultants, Inc.



Opportunities of the Fox River and its tributaries

1) Regulation of nitrates and phosphates - Low dissolved oxygen levels in the Fox River appear to be due to excessive algae which are fed by nutrients. Currently, Illinois has no water quality standards for nutrients and does not require dischargers to streams to remove nitrates or phosphorous. The IEPA-led Illinois Nutrient Standards Science Working Group is working toward state standards that could be in place within the next few years. In the meantime, some wastewater dischargers are now taking the initiative to remove nutrients from their effluent now. The Terra Cotta Realty treatment plant, if expanded to a 1 million gallons per day (MGD) treatment plant will be designed to remove phosphorous and nitrates. It discharges to Thunderbird Lake on Sleepy Hollow Creek, and the IEPA requires phosphorous removal. The city of Plano will build its new plant designed to remove phosphorous to a level of 1 mg/l. This will help protect the high quality Big Rock Creek. In addition, during the summer months, wastewater will be used to irrigate a local golf course, reducing the amount of effluent entering the creek during critical times. This permit was based on negotiations with Big Rock Creek Planning Committee, Prairie Rivers Network, Sierra Club, IDNR, and Friends of the Fox River.



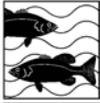
Graphic Credit: Rob Linke, Watershed Resource Consultants, Inc.

2) Dam removal - Currently, the fates of Fox River dams in Batavia, Dayton, and Yorkville are being determined. Dam removal may be an important river restoration tool. Dam removal should result in enhanced habitat and water quality conditions for the Fox River. For example, dissolved oxygen levels should fluctuate less and increase, and the former pools upstream of the dam should once again vary in depth, velocity, and substrate type. Dam removal should result in improvements to both fish and macroinvertebrate communities. Sport fishing opportunities should improve due to enhanced habitat and water quality, and repopulation of freshwater mussels may also occur. Currently, a dam removal project is taking place on Brewster Creek, a tributary of the Fox River. If the fate of a dam is being decided, and the local municipality decides to keep the dam, discussions should be held as to whether the financial burden (i.e., maintenance and repair costs, liability insurance, etc.) of these dams should be placed upon the local municipalities that chose to keep them.

3) Develop a master plan for the protection, restoration and management of the Fox River watershed - As a first step, a plan should be created and implemented by state agencies, municipalities, and watershed organizations to remove the Fox River from the IEPA impaired waters list by the end of 2010. The plan will require the development of a shared mission among stakeholders, and determine how groups can together toward accomplishing this mission by protecting natural areas including wetlands and streams, adopting best management practices, and using the models developed by the FRSG. Such a plan would eliminate conflicts that are occurring in Batavia and Yorkville where state funds may be used to maintain rather than reduce environmental problems. Moreover, if such a plan was achieved, the Fox River watershed could serve as a national model for how citizens, industry, and government can work together to develop an environmentally sound and economically sustainable community.

Threats to the Fox River and its tributaries

1) Rapid population growth and urban development is the major threat the Fox River faces - In 1999, American Rivers, a nonprofit conservation organization dedicated to protecting and restoring rivers nationwide, listed for a single year the Fox River as the 7th most endangered river in the United States. The listing was made not so much for the current water quality in the Fox River as it was for the threat the Fox faced from rapid development. The Fox River watershed is one of the most populous areas in Illinois with 11% of the state's population living within the six main counties through which the Fox River flows: Lake, McHenry, Kane, Kendall, DeKalb, and LaSalle. Since the 1980s, the population has grown 30%, and since the 1990s, urbanized acreage has expanded 25% in the Chicago Metropolitan Area.



Threats to the Fox River and its tributaries (continued)

Such growth is expected to continue. According to NIPC forecasts, the population of Kane County is predicted to grow from 404,119 in 2000 to 692,346 in 2030, an increase of 71%. Several small municipalities are expected to experience extremely high rates of growth. For example, Pingree Grove is estimated to grow from a population of 124 in 2000 to 16,908 in 2030, and Sugar Grove is expected to grow from 3,909 to 62,742. Larger municipalities are also predicted to experience rapid growth. Elgin is projected to grow from 94,487 to 162,416 and Aurora (excluding the Kendall County portion) is estimated to grow from 142,150 to 190,167.

With the rapid rate of human population growth and urban development has come several subsequent threats to the Fox River watershed that degrade aquatic habitat and reduce water quality. First, increasing the amount of impermeable surfaces such as roads, parking lots, and rooftops of buildings delivers more floodwaters to the Fox and its tributaries. The increased volume and velocity of water tears up stream banks, and covers the stream bottoms with sediment as a result of stream bank destabilization and increased erosion. Since the 1980s, 1,100 miles of new roads have been built in the Chicago Metropolitan Area. Second, increased polluted runoff comes from impermeable surfaces, as well as lawns and animal wastes, and enters the Fox River and its tributaries. For example, increased traffic volume leads to an increase in oil, gas, and salt runoff, and since the 1980s, vehicle miles traveled have grown 75% in the Chicago metropolitan area. Third, increasing the amount of industrial discharges and sewage wastewater being released into the Fox River watershed results in nutrient enrichment. Nutrient enrichment occurs when nutrients that were previously present in low amounts are added to surface waters. The nutrients come from point sources of pollution such as sewage effluent and industrial discharges, and non-point sources of pollution such as lawn fertilizers, agricultural runoff, manure, and rain- and wind-borne deposits associated with fossil fuel burning.

In 2003, there have been at least seven sewage treatment plants that have been proposed or requested expansion in the Fox River watershed. Johnsburg's new 0.5 MGD sewage treatment plant on Dutch Creek is nearing construction completion. Terra Cotta Realty received a permit to expand their sewage treatment plant which discharges to Sleepy Hollow Creek and Thunderbird Lake. The sewage treatment plant in Plano will expand their discharge to Big Rock Creek by 1.5 MGD. Lakemoor has received approval from the NIPC to build a new 1.5 MGD plant that will discharge to the Fox River, and McHenry is requesting a 0.5 MGD expansion of their discharge to the Fox River. Wauconda has proposed a 1 MGD expansion of discharge to Fiddle Creek, while Oakcreek Townhomes in Johnsburg has proposed a small sewage treatment plant on an unnamed tributary to the Fox. Accompanying requests for new or expanded sewage treatment plants are requests for

facility planning area increases. For example, nearly 2,600 acres were added to the area in which the city of Plano plans to extend its sewers. Recently, a 1000 acre FPA expansion was presented by the Village of Algonquin within the Kishwaukee River watershed but with wastewater discharge proposed for the Fox River.

During low flow periods (July-October), the Fox River has been found to carry a high nutrient load. For example, total phosphorous levels were close to the Phosphorous Zone 4 Midwestern streams recommended guidelines at Stratton Dam, but increased and remained at approximately the 90th percentile after reaching the South Elgin dam. High levels of nutrients make the Fox River more susceptible to algae blooms that are responsible for highly fluctuating and low dissolved oxygen levels.

Concluding Remark

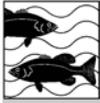
The Fox River watershed, including the plants and animals that it contains and the characteristics of the river itself such as water quality, can be considered a spider web, for all of the components of the watershed are interdependent on one another. Like any spider web, a break at any one point may not affect the function of the web; just like high nutrients in the Fox, in and of itself, may not damage the ecosystem. However, as more and more breaks to a web occur, its function becomes diminished. Similarly, as the Fox River faces increased threats from flooding, polluted runoff, nutrient enrichment, and dams the water quality of the Fox and the species that can thrive there diminishes. Humans are an integral part of this web, and in the next few years, the citizens living in the Fox River watershed have a choice to make. We can choose to strengthen the web by being good stewards of the river and its tributaries, or continue to break holes in the web by maintaining practices detrimental to the watershed. It is a decision, of course, that forever affects our quality of life. At Friends of the Fox River, we hope that the citizens along the river and its streams will choose to strengthen the web by becoming caretakers and adopting practices that will preserve and restore the treasured natural resource we call the Fox River watershed.

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Contributors to the State of the Fox River Report

This report is a publication of Friends of the Fox River. The report was compiled by Board Members and Coordinators of Friends of the Fox River including Dr. David J. Horn, Assistant Professor of Biology at Aurora University (630-844-5296, djhorn@aurora.edu), Mr. Rob Linke, P.E., water resources engineer and President of Watershed Resource Consultants, Inc., Dr. Cindy Skrukud, Clean Water Advocate, Sierra Club, Illinois Chapter, and Sue Bennett, Coordinator of the Fox River Watershed Monitoring Network.



STATE OF ILLINOIS' RIVERS

Submitted by Marc Miller, Watershed Organizer
Prairie Rivers Network

Illinois has a rich heritage that is intrinsically linked to the 87,000 miles of streams that border and cross our prairie landscape. Culturally and historically, we are bound to "thy waters gently flowing." We also have an outstanding biologically diverse heritage – a great number of species of fish, mussels, insects, amphibians, and reptiles that are dependent on these ribbons of life. Rivers and streams define a quality of life in Illinois, and can define our growth and economic future.

A recent survey found that protecting water quality was the highest ranking issue among Illinois residents out of a list of 10 community issues. Survey respondents also agreed overwhelmingly that "economic prosperity depends on a healthy environment," that "stronger protection is needed" for water quality, and more protection is needed for wildlife habitat along streams.¹ Residents are aware of their drinking water source and the threats to water quality, and a large majority of the population – 7.7 million residents – rely on surface water. Important too, is that wildlife-related recreation in Illinois generates significant economic inputs – \$4.3 billion dollars in 2001 alone.²

Many state and watershed-based organizations have been working together to protect and restore rivers – Prairie Rivers Network, Sierra Club, Environmental Law and Policy Center, Illinois Environmental Council, Audubon, Illinois Small-mouth Alliance, Illinois Paddling Council, and of course, Friends of the Fox River, and other watershed-based groups. And river conservationists know that we are at a critical point in our history – our efforts to save the remaining rivers and their streamside lands will determine whether future generations of residents, visitors, and schoolchildren will personally experience our rich natural heritage.

There is a great deal to focus our attention and energy upon to protect our rivers. The largest threat overall comes from how we use our land, as these land use activities impact water quality, habitat, wildlife, and stream flows. Unsound urban development, associated sewage discharges, household septic systems, wetlands destruction, and urban stormwater runoff have great and growing potential to impact streams.

Additionally, agricultural stormwater runoff, carrying nutrients and chemicals, confined animal feedlot operations, channelization, clearcutting and other river alterations can significantly alter stream quality and habitat. Many of these additional sources are unregulated, or are just coming under the scrutiny of the public.



Illinois' rivers and streams have supported 79 different mussel species, showing the rich biological diversity of our state.

Photo Credit: Prairie Rivers Network

Illinois EPA is presently monitoring only 15,000 of the 87,000 miles of streams in Illinois. Of these 15,000 stream miles, approximately 5,500 miles of streams are not fully supporting aquatic life and suffering from impairment. Under the Clean Water Act, each river should receive a water quality restoration plan (or TMDL). Illinois is slow to develop and adequately implement these plans.

The river conservation movement's greatest strength is its people. There are many opportunities for people to engage in the democratic expression of our deeply-held values of conservation, stewardship, and preservation, and many ways we can protect rivers and streams. In the year ahead, river conservationists should advocate for policies that express these values, educate and connect people to our rivers, and create new river advocates.

Learning about the enforcement of the Clean Water Act, and other tools, can be a first step. Citizen monitoring efforts can bring better understanding of conditions and this involvement can improve the enforcement of water pollution control permits and other Clean Water Act programs. Citizens can work on new programs, like municipal and construction stormwater permits, and discover oft-neglected programs, like the wetlands and waterways dredge and fill permit program. We can also work on new initiatives to create better tools to protect water quality and streamside lands.

And in the best way to educate others about the richness of Illinois' rivers and streams, we can personally show new individuals how beautiful our rivers and streams, and their wildlife truly are.

¹Dr. Craig A. Miller. "Public Perceptions of Water Quality in Illinois." Illinois Natural History Survey. 8/03

²USFWS. "2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: Illinois"



LAKE COUNTY SUB-WATERSHED REPORT

Submitted by Jason M. Obergfell, P.E., Watershed Engineer
Lake County Stormwater Management Commission

The **Lake County Stormwater Management Commission** (SMC) began operation in 1991 and was created to coordinate flood damage reduction and water quality improvements throughout Lake County. SMC's main areas of focus include: regulation of development activities, watershed planning, engineering services, and public information.

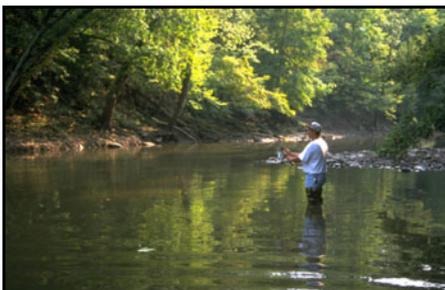
The agency is principally funded through a 0.009% property tax levy, which results in an annual budget of approximately \$1.8 million per year at an average cost of approximately \$8 per household per year. In addition, the agency pursues, and typically secures, grant funding in an amount equal to or exceeding the property tax-funded annual budget.

Regulation of Development Activities

The Lake County SMC is the enforcement authority for the Lake County Watershed Development Ordinance (WDO). The WDO establishes minimum countywide requirements for the stormwater management aspects of development in Lake County. The purpose of the WDO includes "conserving the natural hydrologic, hydraulic, water quality, and other beneficial functions of flood-prone areas, regulatory floodplains, and wetlands." **Water resources in rapidly developing parts of Lake County, like the Lake County portion of the Fox River watershed, receive a consistent level of protection with the WDO in place.**

Watershed Planning

Lake County has delineated 26 subwatersheds in Lake County, and the Lake County SMC conducts watershed planning activities on a subwatershed basis throughout the County. Nine of Lake County's 26 subwatersheds are part of the Fox River watershed. Currently, SMC is nearing completion of watershed plans for the Fish Lake Drain, Sequoit Creek, and Squaw Creek subwatersheds of the Fox River watershed. **Watershed plans prepared by SMC can be used to guide future activities in the watershed.**



Over 1.2 million anglers fish in Illinois waters each year.

Photo Credit:
Jason Lindsey,
www.perceptivevisions.com

Engineering Services

SMC provides engineering services such as: preparing floodplain and flood mitigation studies, acting as a lead or partner in construction projects, and providing technical assistance to residents of Lake County. **SMC currently funds an in-county grant program to foster grassroots watershed-beneficial projects.**

Public Information

SMC provides public information through a variety of publications, workshops, technical assistance opportunities, and our website. **SMC's outreach helps educate and involve watershed stakeholders.**

Strengths, Weaknesses, Opportunities, and Threats to Lake County Subwatersheds

Strengths

As described above, the strengths of the Fox River subwatersheds in Lake County are the regulatory standards establishing minimum levels of protection for the subwatersheds and the watershed plans developed to provide guidance for future activities.

Weaknesses

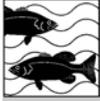
One weakness is that complete watershed plans have only been developed for three of Lake County's nine Fox River subwatersheds. In addition, watershed issues must compete with issues like transportation and economic growth for time and financial resources. Although considered important, watershed issues often fall to the bottom of the list when weighed against more tangible issues.

Opportunities

The watershed plans provide opportunities for future improvement in Lake County's Fox River subwatersheds by establishing a coalition of stakeholders and acting as a reference document that facilitates a cooperative and coordinated approach to dealing with watershed issues proactively.

Threats

One of the primary threats to the subwatersheds is rapid urbanization. Rapid urbanization often places a high demand on limited time and budget resources, which are weaknesses described above.



WAUBONSIE CREEK SUB-WATERSHED REPORT

Submitted by Peter G. Wallers, Chairman
Waubonsie Creek Technical Advisory Committee

The **Waubonsie Creek Watershed Resource Planning & Technical Advisory Committees** were formed November 7, 1996 in response to the flooding and damages caused by the July 18, 1996 storm. The rainfall recorded in Aurora for the July storm was 16.91 inches in 24 hours.

The Waubonsie Creek watershed is a 29.6 square mile watershed in northeastern Illinois. Waubonsie Creek is 10.8 miles long. It originates in the southwest corner of DuPage County and flows southwest to its confluence with the Fox River in the Village of Oswego, Illinois. The Watershed drains portions of Kane, Kendall, DuPage and Will Counties.

The Planning Committee is composed of watershed residents and stakeholders, staff and representatives from the affected communities, counties, townships and park districts. Specialists from local consulting engineering firms and from various State and Federal agencies formed the Technical Advisory Committee. The Watershed Plan was completed in December of 1999.

Mission Statement

To increase awareness of the Waubonsie Creek Watershed, to reduce flooding along the creek and its tributaries by promoting government and community involvement and cooperation.

Current Activities

Currently the Waubonsie Creek Committee is working with the U.S. Army Corps of Engineers, Illinois Department of Natural Resources, Village of Montgomery, Fox Valley Park District and the Oswegoland Park District on the implementation of the Waubonsie Creek Restoration project.

Ecosystem restoration of Waubonsie Creek is proposed under the authority provided by Illinois River Basin Restoration, Section 519 of the Water Resources Development Act of 2000.

The primary goals identified were restoration of aquatic and riparian habitat. The objectives included: (1) providing fish passage at the lower dams to restore stream connectivity, (2) increasing in-stream habitat, and (3) restoring or creating riparian wetlands. Restoration features included dam removal, installing fish passage structures, meandering channelized stream sections, installing riffles, creating off-channel refuge, installing streambank structures, and creating floodplain wetlands.

Restoration alternatives were proposed for four main areas: (1) the lower dams—Lower and Upper Stonegate Dams, Lower and Upper Pfund Dams and the Fox Bend Golf Course Dam, (2) the Oswegoland Greenway, (3) the Parkview Estates Reservoir, and (4) the Fox Valley Greenway.

Current Activities (continued)

Construction is dependent on receipt of final funding and is generally slated to start in May 2005 with completion August 2006.

Strengths

Due to the degree of development already in place within the watershed, there is a clear vision of existing and future conditions. Therefore, we are able to focus on realistic, well-define goals.

The strong presence of the Fox Valley Park District and Oswegoland Park District as stakeholders provides an excellent platform for developing projects. Much of the existing Waubonsie Creek Greenway is owned, controlled or maintained by either of these park districts.

We have terrific support from the Kendall County Soil and Water Conservation District, NRCS and IDNR.

Weaknesses

There is a lack of support from some of the key municipalities and government entities within the watershed that fail to see urgency for adopting the watershed plan. Therefore, continuity of support and motivation are lacking.

There is currently a shortage of volunteers willing to give their time and energy to the implementation of watershed goals and projects. Without the involvement of a few Park District staff and the Committee chairperson, the implementation committee of the Waubonsie Creek Watershed would not exist.

Opportunities

If funding can be put into place for the Waubonsie Creek Restoration project and if construction is successfully completed, those agencies and individuals who have stood on the sidelines may be energized to become more active in watershed issues and projects.

Completion of successful projects will also offer opportunities to heighten awareness of watershed issues within the community and especially among stakeholders.

Threats

The greatest threat to watershed success is the “do nothing” scenario. If funding does not become available for effective projects in the near future, interest in watershed will die. People will soon forget the flood of July 1996. The level of vigilance and the desire to improve and protect the watershed will wane. The few active stakeholders will lose heart and become silent until the watershed suffers another natural disaster.