

Fox (Illinois) River Summit is a start

PARTNERS DEFINE PROBLEMS, DETERMINE OPPORTUNITIES AND FIND SOLUTIONS.



The Wisconsin portion of the basin supports water supplies and economic opportunities for about 400,000 people in the state.

DNR FILE

Tom Slawski

“For many amphibians no wetland is too small,” Bruce Kingsbury emphatically told those who attended the second annual Fox River Summit held last March.

Kingsbury went on to describe habitat management for amphibians and reptiles. Working from the basic science of amphibian and reptile life cycles, as well as highlighting key aquatic and terrestrial connections, he was able to provide guidance on how we can work together to protect these unique creatures and the habitats they need to thrive under the stresses of agriculture and urban landscapes.

Kingsbury is a herpetologist from Indiana and was one of several expert and keynote speakers who presented at the summit. These speakers and the variety of topics were brought together with the simple goal of addressing shared challenges of protecting and improving the Fox River and celebrating the successes of projects and programs that work.

For information related to the partnership, projects, and past and future Fox River Summit speakers and talks, visit fyi.uwex.edu/southeastfox/.

History

The Southeast Fox River Partnership was formed in 1998 as part of a Department of Natural Resources statewide initiative. The partnership's boundaries are coincident with Wisconsin's portion of the Fox (Illinois) River located in the southeast corner of the state.

Members were selected to represent a variety of interests: federal, state, county, and local agencies, nonprofit organizations and private business. The partnership was designed as a forum where citizens, environmentalists, conservation groups, businesses and local govern-

ments could share resources, provide input to the Department of Natural Resources and work toward common goals.

In other words, the partnership was formed with a diverse membership to improve dialogue and help the department define problems, determine opportunities and find solutions to improve the Fox River.

The partnership quickly developed the following mission statement in collaboration with the Department of Natural Resources and University of Wisconsin-Extension: “To protect, restore, and enhance the natural resources of the Fox River Basin through a cooperative team effort by partners representing federal, state, municipal and private entities. Team efforts are focused on actions that address this vision.”

The partnership subsequently identified the following priority issues of concern and began working to address:

- Public education about local natural resource issues
- Land use planning and zoning with inclusion of open space
- Protection of groundwater quality and quantity
- Loss of wetlands
- Loss of wildlife habitat

One of the major products developed by the partnership is the “Options for Open Space” manual. This handbook continues to be a valuable resource for people who manage undeveloped land, including farmlands, prairies, woodlands, wetlands, large lawns and shoreland areas, to help improve land management.

A second major product focused on creating and printing a map that identifies outdoor recreational opportunities throughout the Fox River Basin. This is a great tool that can be downloaded to help people enjoy recreation in the basin.

The issues listed above continue to be a priority for the partnership. The partnership tries to raise awareness of the interdependency of water quality and quantity interactions and ways that we can best manage these resources to ensure the preservation of the quality of life among all the communities within the watershed.

Quality of life includes water quality and recreation (such as fishable and swimmable) as well as adequate water for human consumption and residential use, agriculture, businesses and industries which are all necessary for healthy economic growth.

Watershed size

The total basin (watershed area) is shared by Wisconsin and Illinois, and comprises nearly 2,700 square miles.

In terms of size, the Fox River is a 200-mile-long tributary that generally flows in a north to south direction to the Illinois River, which originates in Sussex, Wis. and ends in Ottawa, Ill. This river system is part of the larger Mississippi River Basin that discharges to the Gulf of Mexico. The upper 35 percent of the basin is entirely contained within Wisconsin (about 934 square miles).

In fact, it is the largest single major watershed that is fully contained among the seven counties of southeastern Wisconsin: Washington, Ozaukee, Milwaukee, Waukesha, Walworth, Racine and Kenosha.

The remaining 65 percent of the basin is located within Illinois.

The majority of Waukesha County is within the Fox River Basin and can be considered the headwaters (top of the watershed) for this entire river system. Additionally, significant portions of Walworth, Racine and Kenosha counties are also included within the watershed. Some of the cities included are Brookfield, Pewaukee, Waukesha, Mukwonago, East Troy and Burlington. The Wisconsin portion of this basin includes whole or portions of 10 cities, 33 towns and 23 villages, thereby supporting water supply and economic opportunities for about 400,000 people in Wisconsin.

Similarly, the Illinois portion of the watershed encompasses the entirety or portions of nearly 135 additional municipalities and local units of government, Fox Lake being the largest city in the area. The area surrounding the Fox River, known as the Fox Valley, provides water supply and economic opportunities to more than 1 million people in Illinois.

Overall, the Fox River in its entirety supports the economy, water supply, recreation and wildlife of more than 200 municipalities and about 1.7 million people. There are highly urbanized areas within this watershed, but agricultural lands also dominate the landscape in many areas. Despite this development there are significant amounts of natural areas, environmental corridors and preserves which help to protect the integrity of the river system and its

associated water quality and wildlife habitat.

Resource quality

Recreational opportunities, such as hiking, fishing, kayaking, boating, biking and cross-country skiing are abundant in the watershed. Some locations to note include the Southern Unit of the Kettle Moraine State Forest, Richard Bong State Recreation Area, Vernon Wildlife Area, Hackmatack National Wildlife Refuge and numerous other state parks and county forest preserves.

The Wisconsin portion of the basin also includes 78 named lakes and impoundments. Additionally, once the Fox River enters Illinois, it widens into a massive area of interconnected lakes known as the Chain O'Lakes recreation area. In the summer these lakes support an average of 26,000 boaters per day.

Hundreds of endangered, threatened and special concern plant and animal species have been documented within all areas of the watershed, as well as designated outstanding or exceptional resource waters by Wisconsin and Illinois DNR staff. This basin also contains numerous rare aquatic and terrestrial communities such as calcareous fen and

bog wetland habitats, along with numerous large and small wetland-upland complexes.

The 200-mile-long main stem of the Fox River is sustained by thousands of miles of tributary streams that support abundant and diverse cold, cool and warmwater fishery communities.

For example, the Mukwonago River is a significant tributary to the Fox River within the upper part of the basin, and contains some of the most diverse fish and mussel species per linear foot of any river within the state of Wisconsin. Visitors will find longear sunfish, tadpole madtom, starhead topminnow, mottled sculpin and brook trout to name just a few.

As the main stem of the Fox River gets naturally deeper and wider within the downstream reaches of Illinois, it also contains unique larger river fish species such as the flathead catfish, quillback carpsucker and American brook lamprey.

Dam removal projects on tributaries to the Fox River such as on Brewster Creek, Ill., have demonstrated that improving fish passage connectivity leads to a more abundant and diverse fishery in this watershed.



Shared challenges

The U.S. Environmental Protection Agency (EPA) and Illinois EPA have designated many miles of the Fox River and its tributaries in both Wisconsin and Illinois as impaired waters, commonly called the 303(d) list.

These impairments are due in many cases to a combination of both point source and nonpoint source pollution from agricultural and urban land uses. Impairments include elevated water temperature, sediment/total suspended solids, total phosphorus and contaminated sediments. These issues can cause a variety of water quality, habitat, recreational and fish consumption impairments.

Hence, there is much work to do in this watershed on both sides of the state line.

Additionally, continued population growth throughout the watershed, combined with the unpredictable changes in precipitation and temperature, has

put notable stresses on water supply to the system, particularly in McHenry and Kane counties in Illinois and Waukesha County in Wisconsin.

The City of Waukesha, for example, is evaluating alternative sources of water, such as increased withdrawals from shallow wells and a possible diversion from Lake Michigan, to meet the growing demand for potable water. Other communities in the Fox River Basin are likely to face similar problems associated with water supply in the future. Increased reliance on shallow pumping could imply decreased base flow to the Fox River and its tributaries as well as put increased stresses on humans, lakes and wetlands downstream.

Shared concerns in the Fox River Watershed include:

- water quality
- fisheries and wildlife habitat
- invasive species management
- sediment deposition
- contaminated sediment
- stormwater and agricultural pollutant runoff
- water supply (both quality and quantity)
- groundwater recharge
- sustainable environmental flows
- sustainable recreational flows and safe recreation
- streambank erosion
- flooding

A river system cannot be managed through regulations alone and it cannot be done by a single person or community. The quality of the Fox River Watershed will ultimately depend on the entire collective of communities and folks living within them and the actions they take. People are both the problem and the solution.

For example, a recent U.S. Geological Survey report concluded that it is possible to maintain and restore healthy stream ecosystems, despite significant human disturbances that have negatively impacted the biological, chemical and physical nature of these systems.

Increasing demand for the limited water resources in the Fox River Basin will put pressure on water resource agencies to balance the competing needs of ecosystem health among municipal, agricultural and recreational uses in both Wisconsin and Illinois.

In other words, adequate water flows are an essential part of a healthy stream and healthy economy, because water qual-



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Shared concerns in the Fox River Watershed include fisheries habitat.

ity is not independent of water quantity issues. Therefore, it is the hope that the annual summit will become an event to continue the commitment and vision of the founding members of the partnership by providing a forum to keep dialogue open among all the communities, so that we can collectively work together to balance these competing needs.

We are not alone


It is easy to think that no one cares or is concerned about the Fox River outside of their community or state, particularly if they do not know what is happening beyond their own farm, backyard or municipal boundary. However, one of the best outcomes of the inaugural summit was getting to know the dedication and commitment at the federal, state and local levels as well as learning about examples of numerous projects that have been implemented to improve water quality, wildlife and recreation throughout the watershed.

That first summit culminated with a unanimous adoption of the "Declaration of Partnership" that was designed to highlight common interests, concerns and commitments to advance an integrated approach to managing resources to meet human needs and maintain aquatic ecosystems for present and fu-

ture generations within the Fox River Basin. In a word, it was very "inspiring" by the end of the day and there was much interest on both sides of the state boundary to keep the summit going.

The state line is an important jurisdictional, economic and logistical boundary affecting federal, state and local government programs and funding. However, the partnership has opened up a dialogue and has begun to develop trust among governmental and non-governmental organizations and public citizens across this line.

Knowing the people from communities who live upstream and downstream from them will likely make a difference in the decisions a person makes to protect water quality. Knowing that the people from communities who live upstream and downstream are working just as hard to protect and improve water quality builds the trust and confidence necessary to collaboratively manage the Fox River Basin, so as to maintain ecosystem integrity and meet human needs.

A great program is established for the upcoming third annual Fox River Summit on March 20 in Burlington, Wis. Consider joining in the discussions. 

Tom Slawski is president of the Southeast Fox River Partnership and chief biologist for the Southeastern Wisconsin Regional Planning Commission.