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How clean is the Fox River?

It's safe for swimming, boating and fishing, but river has its issues

The Fox River is safe enough to swim in, and the fish caught there are generally OK to eat.

But don't let its ability to support recreational activities and a variety of wildlife – such as dragonflies, crayfish, freshwater mussels, minnows, catfish, smallmouth bass, muskies, ducks, geese, great blue herons, great white egrets, beavers, muskrats and mink – lead you into believing its waters are clean.

This diverse ecosystem also includes mercury, phosphorus, polychlorinated biphenyls (PCBs), sediment and fecal bacteria – pollutants that can threaten aquatic life and impair the river's other uses.

For example, mercury and PCBs affect fish consumption, and fecal bacteria makes swimming conditions fair for most of the stretch between Elgin and Aurora.

"The whole question of how clean is the Fox River can be kind of complicated," said Cindy Skrukud, chairwoman of the Fox River Study Group, an organization that assesses water quality in the river's watershed.

FOX RIVER IN PERSPECTIVE

The Fox River isn't alone in its pollution.

"These are problems that many rivers in Illinois and throughout the country have," Skrukud said.

The Illinois Environmental Protection Agency publishes a biennial list identifying potential pollutants impairing the lakes', rivers' and streams' designated uses, including fish consumption, swimming and public water supply. The list does not, however, indicate the concentration of such pollutants.

At 62 pages, the 2010 list includes the Des Plaines, Illinois, Kankakee, Kishwaukee and Fox rivers. Though they share many of the same pollutants, including fecal bacteria and mercury, each faces a unique set of problems, often within different segments of the same river.

Aquatic life in the Fox River from Elgin to Aurora, for example, is threatened in one section by sedimentation and siltation, suspended solids and hexachlorobenzene, a once widely used pesticide. Farther south, pollutants include phosphorus and another chemical, methoxychlor.

Other pollutants affect other uses of the river. Mercury and PCBs affect fish consumption, and fecal bacteria affects swimming conditions.

Officials, however, said the water is safe for recreational water activities and fishing, though the state cautions sensitive populations – pregnant or nursing women and children younger than 15 – from eating predator fish because of their mercury levels.

Elgin and Aurora use the river as a drinkable water source, but only after the water is treated accordingly, said Ken Anderson, Kane County Environmental Management subdivision/project manager.

"Nobody is drinking surface water without some sort of treatment in Illinois," he said.

REDUCING POLLUTION

Time is the only way to rid the Fox River of PCBs, chemicals caused by past bad practices that take a very long time to break down, Skrukud said.

Mercury, a widespread pollutant released as coal burns in power plants, can be reduced by adopting cleaner energy sources or by modernizing power plants to capture mercury before it is released in the air, she said.

But perhaps most importantly, officials stressed, everyone – regardless of whether they have riverfront property – can do their part to make a difference to whatever body of water their watershed drains to.

“What I always want people to think about is it is really what we do on the land that feeds the Fox River. That’s what determines the quality of the Fox River,” Skrukud said, “and every little bit helps.”

Anderson said it can be as simple as starting with the rain.

“One of the best things we can do is manage the raindrops,” he said.

Getting that water molecule back into the soil is best, Anderson said, because water that hits impervious surfaces can pick up urban pollution – such as gas, oil, fertilizer and dog feces – and wash the elements into creeks or rivers.

Fertilizers containing phosphorus can spur aquatic growth that can threaten oxygen levels for fish and other wildlife, officials said. They encourage property owners to limit their fertilizer use, apply it when rain is not expected and use brands that don’t contain phosphorus – something state law already asks of lawn care companies, Skrukud said.

“If we can reduce the amount of phosphorus going into the Fox River, that will help eliminate excessive growth of aquatic plants and algae,” she said.

Too much of a natural substance can even become a problem. According to the county, sediment can smother fish habitats and clog drinking water intakes.

“That’s a problem that we’re really trying to get a handle on,” Skrukud said, noting construction sites stripped of vegetation are big sources of this pollution.

Preventative measures include street sweeping, not tilling farmland after the harvest and the installation of equipment that keeps soil on site, such as filter fences, she said.

EXPECTATIONS

Gregg Good’s job at the IEPA is all about water. As the manager of the surface water section in the Bureau of Water, he and his staff are responsible for monitoring the state’s lakes and streams. He knows Illinois’ waters are polluted when, in theory, they should be meeting the federal Clean Water Act.

Adopted in 1972, it suggests the country’s water should be fishable and swimmable, he said.

“That really means that there should be a balanced aquatic community that would live there if there weren’t any pollution whatsoever,” Good said.

That said, he continued, in some respects it is unrealistic to expect water surrounded by lots of people, fertilized yards, eroding soils and naturally occurring algae to be free of pollution.

Skrukud said the important part is improving the current water quality. Expect to see improvements over time as society does a better job managing erosion from construction sites, reduces the amount of fertilizer runoff from their property and as sewage treatment plants remove phosphorus from effluent, she said.

“It’s not something that can happen overnight,” she said, “but I think that we now recognize much better what is causing problems in the Fox River.”

Tips to keep Kane County's waters clean

- Grow native plants. Their deep roots hold soil in place and act as a filter, reducing the speed of water across yards and allowing sediments and pollutants to settle before polluting streams and rivers.
- Take care of septic tanks. Inspect and clean them every two to three years.
- Properly dispose of hazardous wastes. They will end up in streams and rivers if dumped in yards, down drains or in gutters.
- Install rain barrels, grow rain gardens or redirect downspouts into lawns or gardens. Unchecked runoff can carry pollutants to streams and rivers and can contribute to local flooding.

- Prevent erosion. Sediment can smother fish habitats, clog drinking water intakes and make river recreation less enjoyable.
- Avoid fertilizers and pesticides. Try native plant gardens or alternative grass species that grow well without chemicals.
- Plant trees. They absorb and slow the runoff of stormwater.

Source: Kane County Department of Environmental and Building Management.

Fox River pollutants in detail

The Illinois Environmental Protection Agency's 303(d) list determines whether a river's designated uses are impaired and list possible pollutants. Here is how the portions of the Fox River that run through the Tri-Cities fared in 2010.

- From the confluence with Mill Creek to the confluence with Ferson Creek:

Aquatic life use – Impaired, fair. No pollutants identified.

Fish consumption use – Impaired, fair. Mercury and PCBs are potential pollutants.

- From the confluence with Ferson Creek to the confluence with Indian Creek:

Aquatic life use – Impaired, fair. Total phosphorus, methoxychlor, pH, sedimentation/siltation are potential pollutants.

Fish consumption use – Impaired, fair. Mercury and PCBs are potential pollutants.

Primary contact (swimming) use – Impaired, fair. Fecal coliform is a potential pollutant.

In comparison, aquatic life use was not impaired for Otter and Blackberry Creek. However, swimming use was impaired, or fair, for the lower reach of Blackberry Creek, possibly because of fecal coliform.

Source: Illinois Environmental Protection Agency

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