



# We Need Clean Waters

## Streams and Rivers Are Life Links

by Avery Mack

Creeks, streams and rivers flow into ponds, lakes and oceans, carrying pollution. Keeping large bodies of water clean starts with local waterways.

As awareness of this need rises, some rivers in Africa, India, New Zealand and elsewhere are being protected and recognized as living entities, with rights, values and the legal status of people. While court cases brought by commercial interests are challenging such decisions, progress continues on many fronts.

### Cleanup Success Stories

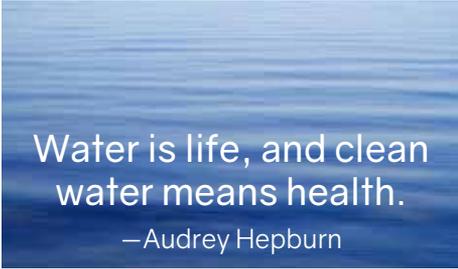
“The Fox River’s been our treasure since Native Americans paddled there,” says Barbara Smits, part-owner of Old Northwest Frontier Tours, provider of self-guided auto, bicycle and walking tours via eBook, in De Pere, Wisconsin. “To see people sail, boat, ice fish or sightsee here again is a joy.” The Fox River Cleanup Project, a multi-year effort covering 13 miles that began in 2009, reduces the health and environmental risks from polychlorinated biphenyls (PCB) in the sediment.

Lake Winnebago, source of the lower Fox River, is currently stewarded under the 2000 Lake Sturgeon Management Plan. Recent meetings have sought citizen input for updates in managing sturgeon stock.

In Athens County, Ohio, Michelle Shively, in Trimble, is Sunday Creek’s watershed coordinator. “Every minute, 850 to 1,000 gallons of polluted water from an underground mine pool flows into the creek, turning the water orange from iron waste. Once the iron is removed, you need to do something with it,” she says.

Guy Riefler, Ph.D., an associate professor of civil engineering, and John Sabraw, professor of art and chair of a painting and drawing program, both with Ohio University, in Athens, found a way to wash, dry and pulverize recovered iron. It will be sold to Gamblin Artists Colors to make oil paints for artists in mustardy ochre, rusty red and violet tones. Not yet widely available, 500 sample tubes of Reclaimed Earth Violet were featured at an initial fundraiser. “Cleaning water is expensive, but now we’ve turned the problem into a method to fund more work,” says Shively.

Throughout history, river dams have



Water is life, and clean  
water means health.

—Audrey Hepburn

been built to provide power or irrigation, prevent flooding and provide municipal water needs. Of approximately 80,000 three-foot-tall or higher U.S. dams, only about 2,500 produce hydropower. Removal of old dams no longer serving their original function can restore entire watershed ecosystems, provide habitat for fish and wildlife, add jobs, improve water quality, reinstate natural sediment and nutrient flow, and save taxpayer dollars.

Built in 1929 and abandoned after World War II, demolition of an Eklutna River dam, in Alaska, began in 2016. Curtis McQueen, an Eklutna tribal leader and CEO of Eklutna Inc., which now owns the dam, reported that 300,000 cubic yards of sediment had amassed there, along with junked cars, TVs and other trash. The tribe is the first in the nation to be involved in such a massive project, intended to restore its historic salmon population.

In 2017, dams were removed in Alaska, California, Connecticut, Indiana, Iowa, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New Jersey, North Carolina, Ohio, Oregon, Pennsylvania, Tennessee, Vermont, Washington and Wisconsin.

A map at [Tinyurl.com/DamRemovals](http://Tinyurl.com/DamRemovals) shows dams taken down since 1916.

“The good news is that in meetings like the St. Louis River Summit, in Superior, Wisconsin, in March, clean water wasn’t viewed only in a strictly scientific sense, but added the human factor to produce more diverse solutions,” says Wallace J. Nichols, Ph.D., the Monterey Bay, California, author of *Blue Mind: The Surprising Science That Shows How Being Near, In, On, or Under Water Can Make You Happier, Healthier, More Connected, and Better at What You Do*. “The bad news is that most projects are funded, directly or indirectly, by the federal government. Cuts add challenges and stress to looking for solutions.”

Cities like Pittsburgh, Superior and Duluth are among many that are protecting, restoring and rejuvenating riverfronts with increased public access, thus rekindling residents’ love for and recognition of the mental and physical benefits provided by their waterways.

“We’re in a period of big ideas,” says Nichols. Two can be easily implemented. First, he explains, don’t build right on the water; instead, sit in the “second row”. Second, gain perspective by experiencing changes in waterways.

“One way to do this is to spend an hour a day, or even an hour a week, in, on or near the water. Take someone new with you each time,” suggests Nichols. “You’ll see how best to value, promote and defend our right to clean water.” Then teach the kids.

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