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A new push to clean up the Great Lakes

By Amanda Paulson Staff writer of The Christian Science Monitor

It sounds like something out of a bad science-fiction movie: fish that grow up to 100 pounds and six feet long, scour the bottom of lakes and rivers, eating voraciously, and have a tendency to leap onto passing motorboats and jet-skis.

They are Asian carp and they are just one of the many threats facing the Great Lakes these days working their way up the Mississippi River, popping up just 25 miles from Lake Michigan in the Chicago Sanitary and Ship Canal. Zebra mussels are another threat, littering beaches with their shells and perhaps permanently altering the region's food chain. And the constant infusion of toxins like mercury and PCBs have led to fish-consumption advisories and contaminated sediments.

The Great Lakes, it's safe to say, are in trouble. Residents of Illinois or Michigan or New York don't have to worry about disappearing fish or shorelines anytime soon, but in ecological terms, the lakes have been deteriorating rapidly: invasive species, toxic waste, development, sewage, pollution from agriculture and industry have all been taking a toll.

In response, officials launched a collaborative restoration effort this month that is unprecedented in its scale and bureaucratic complexity. The coalition includes elected officials from eight states and two countries, environmental groups, mayors, and some 30 Indian tribes.

The first meeting may have been largely ceremonial, but many of those trying to protect the region are hopeful that the collaboration will give prominence to an ecosystem that falls under so many different governmental jurisdictions.

"We need a planning process that's fast, that gets everyone on same page and pulling in the right direction, so that we can go back to Congress with one voice and say this is the money we need," says Andy Buchsbaum, director of the National Wildlife Federation's Great Lakes Natural Resource Center.

The scope of the problem is daunting. The Great Lakes are the second-largest surface freshwater system in the world, and they have statistics to match: a $ 5 billion fishing industry, 20 percent of the world's fresh water, a source of drinking water for 33 million people, and 11,000 miles of shoreline.

"They're not just nationally significant, they're globally significant," says Gary Gulezian, director of the EPA's Great Lakes National Program Office. He's hopeful the collaboration will spur clean-up efforts. "The ecological complexity of the Great Lakes is only rivaled by its institutional complexity," he says. "This effort is designed to bring everyone together."
One of the most concrete successes of the federal government's new focus on the region involves two species of Asian carp. The fish, say experts, completely destroy habitat for native species, and have the potential to turn the Great Lakes into giant carp ponds. When the carp neared the lakes this fall, Congress allocated money for an emergency electronic barrier across the Illinois River, and work is now under way on a permanent barrier.

Ecologists are eager to do everything possible to keep the carp out, since dealing with invasive species once they enter the system can be much trickier. "Prevention is your first line of defense," says David Reid, a research scientist with NOAA's Great Lakes Environmental Research Laboratory in Ann Arbor, Mich. There are currently around 180 non-native species living in the lakes, says Mr. Reid, although perhaps only a dozen of those might be considered truly invasive.

The poster child for such "bad actors," as Reid calls them, is the zebra mussel. Since they first appeared in Lake St. Clair in 1988, from ballast water discharged from oceangoing ships, the mussels have spread rapidly. More disturbing than the proliferating shells on some beaches is the rapid disappearance of tiny Diporeia shrimp, which historically constituted up to 80 percent of the food available at the bottom of the Great Lakes. Now, some places in Lake Michigan that used to have 10,000 of the shrimp per square meter have none.

What's needed, most scientists agree, is both more resources to combat the existing invasive species problems as well as policy changes - particularly to the regulations governing ballast water - to keep more from being introduced. And some are hopeful that the new collaboration will help with speedier responses. When the Eurasian Ruffe showed up near Duluth in the 1980s, Reid remembers, it was discovered quickly. But by the time local officials had gone through all the necessary bureaucratic channels to get a consensus on the response, six years had passed and the fish was no longer contained.

Invasive species, meanwhile, are just one of eight issues the Great Lakes Regional Collaboration identified. Habitat destruction and sewage overflows are a problem, as well as the infusion of toxins like mercury. Some of what's needed may be policy changes - the regulations governing coal-fired power plant emissions, which deposit mercury into the lakes, are particularly controversial, and an issue the EPA has largely declined to address - but money, in the end, is pivotal.

EPA Administrator Mike Leavitt hasn't guaranteed that the collaboration will lead to any new funding. This has many people worried. Others hope that the planning, with reports expected in a year, will give new weight to bills already pending in both houses asking for several billion dollars for the region.

"This is going to require $ 4 billion to $ 5 billion of federal money to clean it up," says Rahm Emanuel, an Illinois congressman who wrote one of the bills. "The good news is we don't have to guess what the problems are. My big worry here is that they're hoping everybody gets blinded by the neon lights. At the end of the day - show me the money."