

Why Rivers No Longer Burn

The Clean Water Act is one of the greatest successes in environmental law

By [James Salzman](#) Dec 10, 2012



The Cuyahoga River, “the river that caught fire” (Photo by Ken Lund/Flickr)

A river catches fire, so polluted that its waters have “no visible life, not even low forms such as leeches and sludge worms.” This could describe the mythological River Styx from Hades. Residents of Cleveland, though, may recognize the government’s assessment of their own Cuyahoga River in 1969. While hard to imagine today, discharging raw sewage and pollution into our harbors and rivers has been common practice for most of the nation’s history, with devastating results. By the late 1960s, Lake Erie had become so polluted that *Time* magazine described it as dead. Bacteria levels in the Hudson River were 170 times above the safe limit.

I can attest to the state of the Charles River in Boston. While sailing in the 1970s, I capsized and had to be treated by a dermatologist for rashes caused by contact with the germ-laden waters. You can see the poor state of our waters for yourself in the iconic 1971 “[Crying Indian](#)” commercial.

In 1972, a landmark law reversed the course of this filthy tide. Today, four decades later, the Clean Water Act stands as one of the great success stories of environmental law. Supported by Republicans and Democrats alike, the act took a completely new approach to environmental protection. The law flatly stated there would be no discharge of

pollutants from a point source (a pipe or ditch) into navigable waters without a permit. No more open sewers dumping crud into the local stream or bay. Permits would be issued by environmental officials and require the installation of the best available pollution-control technologies.

The waste flushed down drains and toilets needed a different approach, so the Clean Water Act provided for billions of dollars in grants to construct and upgrade publicly owned sewage-treatment works around the nation. To protect the lands that filter and purify water as it flows by, permits were also required for draining and filling wetlands.

Protecting our nation's waters may seem like common sense today, but the idea of nationally uniform, tough standards against polluters was both original and radical. Thinking big, the Clean Water Act's preamble declared that the nation's waters would be swimmable and fishable within a decade, with no discharges of pollutants within a dozen years. These weren't idle boasts.

Remember a similarly bold claim in 1960 that the nation would land a man on the moon and return him safely within a decade? This was an age of technological optimism. Water pollution posed a national threat, and a national mission was necessary to turn back and clean the tide.

By many measures, the Clean Water Act has fulfilled the ambition of its drafters. The sewage discharges that were commonplace in the 1960s are rare. The number of waters meeting quality goals has roughly doubled. Once a convenient dumping ground for all manner of filth, rivers now represent an urban gem. Hartford, Conn.; Kansas City, Kan.; Cleveland; and other cities have based much of their redevelopment around their now clean and inviting waters, with waterfront parks and the lure of fishing and trails along the water's edge.

Sailing on the Charles River is no longer a hazardous pursuit, and thanks to a new treatment plant, the rejuvenated Boston Harbor is once more home to herring, porpoises, and seals. More people have access to safe drinking water from their taps than ever before.

But the glass is only half full, for major challenges remain. The [EPA estimates](#) that about half of our rivers and streams, one-third of lakes and ponds, and two-thirds of bays and estuaries are "impaired waters," in many cases not clean enough for fishing and swimming. These are big numbers. Given the successes described above, how has the Clean Water Act done so poorly despite doing so well?

Much of the answer lies in the law's narrow focus. We have made great progress in controlling industrial pipes that discharge waste, but other major sources remain largely unregulated. To gain sufficient congressional support from farm states in 1972, the Clean Water Act largely exempted runoff from agricultural fields and irrigation ditches. As a result, pesticides, manure, and other pollutants have flowed into streams, rivers, and eventually lakes and bays. To take the most frightening consequence, the Mississippi

River basin, draining one-third of the country, empties nutrient-laden waters into the Gulf of Mexico. There, the aptly named “[Dead Zone](#)” regularly grows to 6,000 square miles or more, suffocating sea life that cannot swim away from its oxygen-starved waters. Storm-water runoff with oil and trash also threatens water quality around urban areas.

These “nonpoint” sources can be addressed, but they require enhanced authority to regulate farm practices and major funds to overhaul storm-water infrastructure. Neither seems an easy option in an era of a divided Congress and tight budgets.

And then there are threats that have emerged only in recent years. The bounty of natural gas made possible by hydraulic fracturing (fracking) may provide energy security, but it raises concerns about contamination of groundwater by methane and fracking fluids that may rise to the surface. The growth of the country’s population and increased use of personal care products and medications pose their own challenges. Recent studies have identified more than 50 pharmaceuticals or their by-products in the drinking water of major metropolitan areas. Some of the contaminants included antibiotics, anti-anxiety drugs, and hormonal medications such as birth-control pills. The U.S. Geological Survey found 82 contaminants, most of them personal-care products and drugs, in 80 percent of the streams sampled in 30 states. These emerging contaminants are present in very low concentrations, parts per million or lower, and assessing their effects on human and ecosystem health challenges the outer bounds of toxicology.

When the Cuyahoga burst into flame in 1969, it was not a huge deal to locals. After all, the river had burned almost every decade over the previous century. Today, though, such an event seems inconceivable. As Bill Ruckelshaus, the administrator of the EPA at the time of the law’s passage, later wryly observed, our waters may not yet be fishable or swimmable, but at least they’re not flammable. There remains much unfinished business, but it is important to recognize the undeniable achievements of the Clean Water Act, particularly when the very role of government in environmental protection has been under challenge as never before.

The Clean Water Act was not inevitable. It took vision and bipartisan commitment to create an entirely new way of thinking about environmental protection. Many forget that President Richard Nixon vetoed the Clean Water Act, concerned about the cost of funding treatment plants. The very next day, members of Congress *on both sides of the aisle* wasted no time coming together to override his veto. At a time of high-stakes partisan wrangling and gridlock, when no major environmental legislation has been passed for more than 20 years, the Clean Water Act’s anniversary gives us cause both to celebrate and to consider whether some shared environmental benefits—clean air, clean water, open space—can once again transcend partisan differences.