

2020 River of the Year

DELAWARE RIVER

STATES: Delaware, Maryland, New Jersey, New York, Pennsylvania

A RIVER RENEWED

Seventy-five years ago, the Delaware River was choked with sewage and industrial pollution. People were sickened by the smell. Parts of the river were dead zones, unable to support fish and other aquatic life. The river was slated to be carved up by dams for flood control and water supply, and the natural character of the Delaware was in danger of being lost forever.

Today, the Delaware River is on the mend and thriving. Through federal safeguards, state action and local initiative, the quality of waters in the Delaware have dramatically improved, fish and wildlife have returned in tremendous numbers, and the mainstem of the Delaware remains the longest free-flowing river in the eastern United States, with the most extensive National Wild and Scenic River protection of any watershed in the country. Today, communities along the Delaware River are setting a national example of river stewardship.

PHOTO: SACHIN DALUJA

A TOUR OF THE DELAWARE RIVER

The Delaware River flows nearly 400 miles from the Catskill Mountains to Delaware Bay, with its mainstem forming the longest free-flowing river east of the Mississippi. It drains more than 14,000 square miles of land that includes portions of New York, New Jersey, Pennsylvania, Delaware and Maryland. From cool springs, forests and wetlands in its headwaters, the Delaware River flows through farmland and towns, including Port Jervis and New Hope. The tidal portion of the river begins at Trenton and the river winds through the urban centers of Philadelphia, Camden, Wilmington and Dover before meeting the Atlantic in Delaware Bay.

The Delaware River watershed provides drinking water to two of the five largest cities in the United States — New York and Philadelphia — and is home to one of the largest freshwater ports in the world. The watershed contributes \$22.5 billion per year to the economy from recreation, hunting and fishing, water quality and supply, ecotourism, agriculture, open space and its busy port.

With diverse and high-quality habitats, the watershed supports native fish species, including American shad, river herring, American eel, striped bass and brook trout. It is also home to numerous protected species, such as the federally endangered dwarf wedge mussel and bog turtle, as well as beaver, muskrat, otter, black bear, bald eagle and osprey.

The Lenape people have called the river home for thousands of years. Before it was called Delaware, the river was *Lenape Wihittuck*, which means “river of the Lenape.” The Delaware also figures prominently in American history. On Christmas night in 1776, during the American Revolution, George Washington and more than 2,000 soldiers crossed the river from Pennsylvania to New Jersey, surprising British troops at Trenton. The river’s abundant shad runs helped feed Washington’s Continental Army.



PHOTO: M. KENNEDY FOR GPTMC

A CLEAN WATER SUCCESS STORY

By the mid-20th century, timber and mining in the headwaters, commercial and industrial activity downstream, and the burdens of a growing population had taken a heavy toll on the river. According to the Delaware River Basin Commission, “The river’s water was so foul that it would turn the paint of ships brown as they traveled through or were docked for any period of time.”

But focused investment in wastewater treatment in Philadelphia, Camden, Trenton and Wilmington led the commission to declare the Delaware estuary cleanup “one of the premier water quality success stories in the United States.” Today, thanks to a combination of federal and state regulations and local innovation, the Delaware is a river reborn — and a model for other river restoration efforts across the country.

FOUR FACTORS HAVE BEEN KEY TO SUCCESS ON THE DELAWARE RIVER:

→ ENFORCING CLEAN WATER SAFEGUARDS

The Delaware River would not be the success story it is today without strong state and federal clean water safeguards. In 1961, the Delaware River Basin Commission became the first multistate collaborative regulatory effort focused on the restoration of a watershed. Together with the force of the Clean Water Act in 1972, regulatory tools helped stem pollution and improve river management. Key indicators of river health improved: Dissolved oxygen rates went from almost none to

over 5mg/l in some areas. Phosphorus dropped from dangerously high to nearly nonexistent, decreasing fourfold in 30 years. Atlantic sturgeon, striped rock bass, white perch and American shad have all made significant recoveries — some from the brink of extinction — to commercially healthy stocks. The highest shad run in 92 years occurred in 2017. Regulatory safeguards are at work today to maintain dissolved oxygen rates, curb excess nitrogen through local, state and regional planning and practice so the Clean Water Act can realize its fundamental goal of “fishable, swimmable” waters for the entire Delaware River.

→ PRIORITIZING INNOVATION AND EQUITY

Today, the Delaware River is a hub for natural water infrastructure solutions. Communities along the river, with support from both the public and private sectors, have embraced these solutions, such as rain gardens and green roofs, to manage stormwater runoff that contributes to water treatment system overflows, pollution, flood damage and erosion. Philadelphia’s Green City, Clean Waters program was one of the first and best municipal level restoration projects to help curb urban runoff. The program, which started as a response to regulatory oversight, has inspired cities across the nation to integrate nature-based solutions into their water infrastructure management programs.

The city of Camden, New Jersey has been championing natural infrastructure to make clean water the forefront of urban revitalization, prioritize equity and ensure clean water is affordable and accessible for all. In 2019, the city released a roadmap titled, “An Equitable Water Future.”

This approach is demonstrating how cities can involve impacted neighborhoods in visioning and planning — and how natural infrastructure solutions can deliver multiple social, economic and environmental benefits to these communities.



PHOTO: NICHOLAS A. TONELLI

→ ENSURING ADEQUATE WATER SUPPLIES

In 1954, the U.S. Supreme Court issued a decree directing management of the Delaware River's flow to provide for the needs of the watershed's states. In response to growing demands on the river's water, the decree parties — the four states and New York City — have agreed to a series of flexible flow management programs since 2007. The most recent of these guides the states to balance water supply needs in the headwaters, downstream to Philadelphia, Trenton and Camden, and to greater New York City. In 2017, New York, New Jersey, Pennsylvania, Delaware and the city of New York began a 10-year flexible flow management program to ensure the headwater reservoirs of the Delaware River can meet water supply demands, protect fisheries, enhance flood mitigation and repel saltwater from intruding upstream.

→ PROTECTING A FREE-FLOWING RIVER

American Rivers and local partners successfully fought the construction of the Tock's Island Dam in the 1970s, which would have been the largest dam east of the Mississippi. Proposed as a flood control project, the dam would have created a 37-mile-long lake and was met with outcry from citizens concerned about private land condemnation, cost and environmental impacts.

Today, Delaware Water Gap — the area that would have been flooded by the dam — is protected as part of the National Wild and Scenic Rivers System. The Delaware River basin has the most extensive protection of any watershed in the system, with more than 430 miles of mainstem and tributaries designated as Wild and Scenic, including New Jersey's Maurice and Musconetcong rivers and Pennsylvania and Delaware's White Clay Creek.

Communities in the watershed, including Wilmington, are also restoring river health, revitalizing fisheries and improving water quality by removing outdated, unsafe dams. At least 136 dams have been removed across the Delaware River watershed.

THE RIVER'S FUTURE

While communities along the Delaware should take great pride in the river's progress, important work remains to be done. Continued action is critical to address ongoing challenges, such as aging water infrastructure, urban development and climate change. Severe storms, which occur with increasing frequency due to climate change, threaten drinking water intakes with saltwater intrusion and can cause sewage overflows at ill-prepared water treatment plants.

Critical funding and additional restoration and protection projects are necessary to support the health of the river and its communities:

- Congress must defend against rollbacks to the Clean Water Act to protect the Delaware and its tributaries, wetlands and small streams. In the basin, the Clean Water Act must be implemented to support "fishable, swimmable" uses.
- The Delaware River Basin Commission, partner states and federal agencies must implement the Flexible Flow Management Plan to protect the headwaters while serving communities and water needs downstream.
- Congress must continue to provide federal funding for regional and state programs, including:
 - NOAA's Community-Based Restoration Program and the U.S. Fish and Wildlife Service's Fish Passage Program, which have been integral in restoring migratory fish populations and keeping rivers in the watershed free-flowing.
 - The Delaware River Conservation Fund and the Delaware River Restoration Fund, administered by the U.S. Fish and Wildlife's National Fish and Wildlife Foundation, and the result of Congress's commitment to the Delaware River Basin Conservation Act, which support projects to benefit habitat and water quality.
 - The Clean Water Act's State Revolving Funds, which allow states to support municipal and local projects to improve water quality and water infrastructure. These funds must continue to include a Green Project Reserve for natural infrastructure priorities. Innovative investment strategies must require planning for climate resiliency and ensure resources are allocated equitably and effectively.

With these actions, we will ensure the Delaware River continues to shine as a national example for clean water and river health, as well as an economic and recreational asset to the millions of people who call this remarkable river home.