
An Integrated Curriculum For The Washington Post Newspaper In Education Program

D.C. River Comeback



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Local

The history of the Anacostia River

BY MEGAN BUERGER

• Originally Published May 2, 2012

The Anacostia River might be small — 8.5 miles — but don't be fooled by its size. Its watershed, which stretches 176 miles across portions of the District and Prince George's and Montgomery counties, is the most developed area within the Potomac's watershed, and arguably the most important. "The Anacostia watershed is extremely populated, developed and polluted," said Ed Merrifield, head of the Potomac Riverkeeper group, "and because of its size, those things are highly concentrated. If you step back and look at the region's water as a whole, the Anacostia is by far the most important chunk."

HISTORY

Long before the Anacostia River was nicknamed "the forgotten river," the Nacotchtank Indians called it "anaquash," which means "village trading center." Historians estimate that Native Americans lived on the river for 10,000 years.

In the early 1600s, English settlers began to clear forests in the watershed to grow tobacco and use the river as a shipping channel. Gradually, toxic silt began to build on the river's bottom. By the mid-1800s, ships had trouble making it to the port at



BY GENE THORP/THE WASHINGTON POST

Bladensburg. The river, no longer useful for business, was abandoned.

Over the next century, the District's population grew tenfold, reaching 800,000 in 1950, which covered 25 percent of the Anacostia watershed with impervious surfaces. Today, the Environmental Protection Agency estimates that less than 10 percent of the area's original forests and wetlands remain.

But Mike Bolinder, head of the Anacostia Riverkeeper group, said that some recent developments have been welcomed by environmentalists, who hope for the birth of a green community along the riverfront.

"Nationals stadium was probably the first time in history that

environmentalists and developers were on the same side," he said. "Environmentalists knew that development would bring money to clean up the area, and developers knew that in order to get permits, they had to go green."

During this year's Earth Day cleanups, the parking lot at RFK Stadium was decorated with banners bearing the new slogan, "Rediscover your Anacostia."

"It really all comes down to people," said Brent Bolin, the society's director of advocacy. "You can do a hundred tests and give a hundred tours, but where there's real estate, there's progress."

BIGGEST ISSUES

Litter: Garbage has plagued the river for decades. More than 20,000 tons of trash pollute the river each year.

Location: Bolinder said the Anacostia River is surrounded by lower-income communities that have not had an opportunity to advocate for themselves. "We want to inspire people who live in these communities to take action," he said.

Stormwater runoff: The Anacostia's issues with stormwater runoff are closely tied to the region's population growth. "More people means more pavement," Bolin said. "Pavement is a superhighway for runoff."

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❶ CLEANUP EFFORTS

Bag tax: Authorities say the Anacostia River Cleanup and Protection Act, also known as the “bag tax,” has reduced the river’s most common form of litter by about 75 percent since it was enacted two years ago. The fees also paid for trash traps on the river. One year after the fee was enacted, the District reported reductions in the use of paper and plastic bags from 22.5 million to 3.2 million. Montgomery County adopted the fee in January.

Talking trash: Trash Free Schools, a litter reduction initiative by the Alice Ferguson Foundation, teaches students about recycling programs and waste management. Of the eight schools participating in the District and Prince George’s County, six

are within walking distance of the Anacostia River.

Low-impact development: Julie Lawson, of the Anacostia Watershed Society, said Nationals park set the bar for low-impact development with green roofs and a runoff control system. “It manages rainfall in a very sophisticated way,” she said.

❷ WHAT YOU CAN DO

Install a rain barrel. Rain barrels keep stormwater from sweeping debris and chemicals into drains, and they provide clean water for tasks such as gardening. If used regularly, they can also reduce water bills.

Dig a rain garden. Rain gardens are designed to soak up runoff. RiverSmart Homes is a program run by the District Department of the

Environment & Energy. Details about subsidies are at <https://doee.dc.gov/service/riversmart-homes>.

Visit the Anacostia. The Earth Conservation Corps (202-479-4505, Ext. 101) and Bladensburg Waterfront Park (www.pgparcs.com) offer boat tours of the river, and the Anacostia Watershed Society holds cleanups, paddle boating clinics and native plant walks (www.anacostiaws.org).

❸ WEIRD THINGS FOUND IN THE ANACOSTIA.

- Car parts such as tires, motors and a transmission.
- Toilets, mattresses, tents, strollers and refrigerators.
- Lawn mower motors, grills and three deer carcasses.

ANACOSTIA UPDATE

Suggestions were made to clean up the Anacostia River and surveys are taken annually to assess current conditions. Conduct research to update the 2012 article and then write a news story to inform your readers of the current shape of the

river’s waters — how successful have clean-up efforts been and what new players are involved in bringing new life to the Anacostia.

Begin your research with these pieces:

• **Anacostia Rising: What’s Next for Washington’s ‘Forgotten’ River**

<https://wamu.atavist.com/anacostia-rising#chapter-3592427>

• **“South Capitol Street project promises a new bridge — and new life — for Anacostia**

https://www.washingtonpost.com/local/trafficandcommuting/south-capitol-street-project-promises-a-new-bridge--and-new-life--for-anacostia/2018/03/03/51aec4b4-1cad-11e8-ae5a-16e60e4605f3_story.html?utm_term=.b33665fb36d4



DISTRICT DEPARTMENT OF TRANSPORTATION

A rendering on the new Frederick Douglass Memorial bridge. The Frederick Douglass Memorial Bridge Project calls for replacing the 68-year-old bridge and reconstruction of the Suitland Parkway/Interstate 295 interchange.

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Local

Potomac is healthier than in decades

River gets first B grade in annual survey for lower pollution, species' return

BY STEVE HENDRIX

• Originally Published March 27, 2018

The Potomac River is healthier than it's been in decades, according to an annual state-of-the-river report that notes steady improvements across a range of environmental indicators, from water quality to wildlife growth to recreational uses.

The river report card, issued Tuesday by the Potomac Conservancy, awarded the waterway its first B, a grade based on declining pollution levels, the return of bald eagles and other native species, and the expansion of protected forests up and down a watershed stretching across more than 14,000 square miles.

It was the advocacy group's highest rating in its 10 years of monitoring river conditions, up from a B-minus last year and a D in 2011. One biologist working with the group declared a new "golden age" of eagles, osprey and other waterfowl thriving within the tidal reach of the Chesapeake Bay, which includes the Potomac up to Washington.

"The comeback from where the river was just 10 years ago has been tremendous," Potomac Conservancy

President Hedrick Belin said in an interview. He cited decades of recovery initiatives — including waste-treatment upgrades and agricultural-pollution controls — that may be nearing an ecological tipping point.

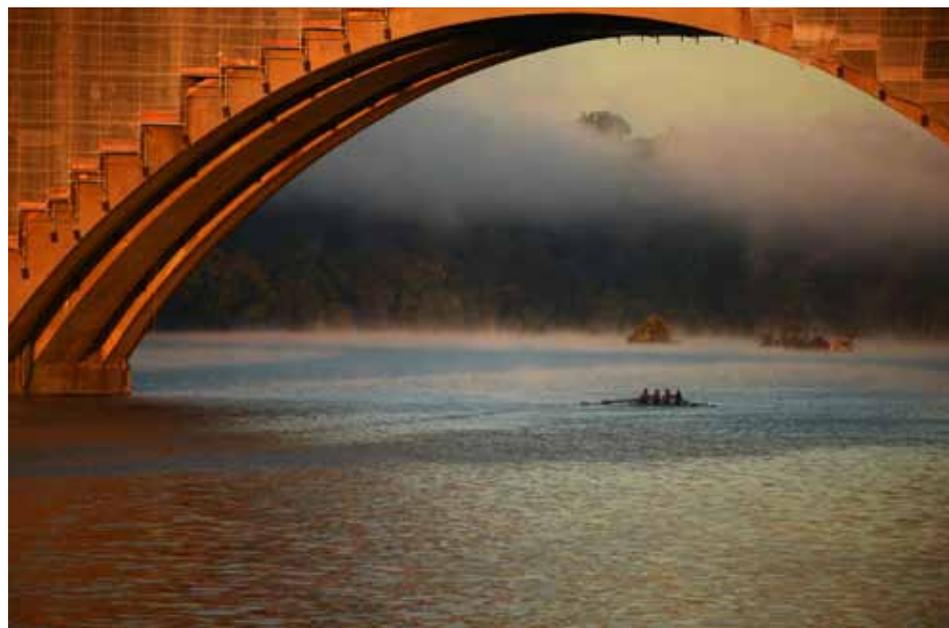
"The speed at which Mother Nature, once given the space, has rebounded is remarkable," Belin said. "It's happening a little faster than we expected, but we can't take it for granted."

The Potomac is now on the verge of being one of the nation's great river

recovery stories, Belin said, putting it in the ranks of Boston's Charles River and Portland's Willamette as formerly no-go rivers that now invite residents into the water.

"In the next 10 years, the Potomac is poised to be the next urban river where you can go swimming," Belin said. Conditions are already okay for a dip on many days, but not when rains flush more pollution off the banks.

To arrive at an overall grade of river health, the conservancy each year reviews more than 20 indicators



ASTRID RIECKEN/FOR THE WASHINGTON POST

Rowers practice on the Potomac River near the Key Bridge in Georgetown in 2017.

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in five categories: pollution, fish, habitat, land and people. While not every indicator edged up over last year's report, the overall improvement was enough to declare the river better off.

Fish surveys in the past year record booming populations of American shad — some of the fastest growing on the East Coast — along with striped bass and white perch. Higher up the food chain, reports of bottlenose dolphin have increased in recent years. The river was once home to a robust population of the marine mammal, with sightings common as far upriver as Georgetown.

Birds are back in many parts of the river basin. The report notes that the number of breeding pairs of bald eagles jumped by 50 percent in the past year. The 214 pairs included the

first known to nest in the District since the end of World War II.

No marker may be more important than the reduction of runoff pollution from streets and sewers throughout the basin. Agricultural runoff and industrial discharge are falling, and even though development continues to add more runoff in the region, pollution levels have dropped thanks to better water treatment.

The completion of huge sewage tunnels now under construction beneath the District will provide another boost to water quality, planners say. The network will contain the untreated waste and storm water that now cascades into the Potomac and Anacostia rivers during downpours.

Not all the news in the report is good. Pollution runoff rates

continue to grow. Invasive species, such as flathead and blue catfish, are growing in number and preying on native fish. Forest and farmland, while more often protected in the watershed, are increasingly at risk in the critical narrow stretch along the river itself. Most worrying, the report said, are threats to the federal funding that have driven many of the improvements.

"We've made great progress," Belin said, "but it's certainly frightening how the progress could be undone."

Steve Hendrix came to The Washington Post almost 20 years ago from the world of magazine freelancing and has written for just about every section of the paper: Travel, Style, the Magazine, Book World, Foreign, National and, most recently, the Metro section's Enterprise team.

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The Washington Post

AN INDEPENDENT NEWSPAPER

EDITORIALS

Our river on the rise

The Potomac's progress is promising but still fragile

THE POTOMAC RIVER has been a national embarrassment for decades. Even in recent years, after stronger cleanup efforts, the Nation's Triathlon has had to cancel its swimming event several times because of high bacteria levels. But the picture is changing, and a bit faster than those watching the cleanup had expected. The Potomac Conservancy, a regional environmental group, this week upgraded the river's health to a B. With evidence that a federally backed regional cleanup is working, this is not the time to decelerate or defund the effort.

The river is on track to meet its goal in reducing nitrogen and to surpass its goal in reducing phosphorous. Bald eagles are nesting near the river in the District for the first time since 1946, and dolphin sightings are becoming more common. The populations of American shad and white perch are well over target; installation of a fish ladder in 2000 and other measures are paying off. More help will come when the District completes a tunnel system that will divert raw sewage and overflow from the river to a treatment plant during storms.

Even so, there is work left to do. Runoff still brings too much pollution into the water, with wastewater and septic systems increasingly the sources. Billions of dollars in investment in wastewater treatment plants have been key to cutting pollution, but more regulation and better filtering may still be needed. There may still be unsettlingly high amounts of dangerous bacteria in the Potomac because of farm and urban runoff.

Fish continue to face threats from nutrient pollution, but also from warming water and the seepage of chemicals that alter the animals' hormones. Striped bass, the official state fish of Maryland, has made progress but is not doing as well as some other species; the smallmouth bass has a ways to go. Invasive species, particularly catfish and snakeheads, pose a continuing threat.

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Citizen Scientist #Make a Difference

The National Oceanic and Atmospheric Administration defines citizen science as a form of open collaboration where members of the public participate in the scientific process to address real-world problems in ways that include identifying research questions, collecting and analyzing data, interpreting results, making new discoveries, developing technologies and applications, and solving complex problems.

Whether through grassroots action or technology-mediated crowdsourcing, there has been a rapid increase in public participation in scientific research. Government officials and scientists have discovered that citizen scientists (the general public) can be a valuable addition to environmental monitoring programs. With the right protocols and training, citizens have been trained across all disciplines and have proven to be able to collect reliable data and make significant contributions to the diffusion of knowledge in the scientific community.

How does the scientific community benefit?

Scientists are able to bring their science to the general public. Citizen scientists can help research scientists maximize the amount of data collected. Sometimes projects are seasonal or in remote locations, or are long-term projects that require being in the field at times or at a cost that is prohibitive for the scientist. Citizens can serve as the eyes and ears of the scientists on a daily basis. They can sample more frequently. The more data collected, the broader the impact of the research.

In addition, citizen scientists contribute local knowledge and anecdotal information which may provide an understanding or different perspective to interpreting the data. Volunteers can be watchdogs and can respond quickly to events such as storms, flooding, and other episodic events. Their varied experience can also be instrumental in developing new technologies needed.

How do citizens benefit?

By working with the scientists, volunteers have the opportunity to participate and immerse themselves in a project of interest, often working together with a local community. The education, training, and support provide increased public understanding and appreciation of environmental issues and result in action and commitment having a positive impact. The impact can provide a basis for analysis and decision making. Projects with shared databases allow participants to collaborate with a regional, national, and sometimes even a global audience.

Working with this data can provide you with a way of supporting your data from smaller scale science projects. Not only can it add relevance to your work, but you learn how to think and work as a scientist in the field.

These opportunities build scientific literacy, motivation, and appreciation of the environment. At the same time, communities learn the skills to solve their own problems and build interest in conservation policy and management of sites.

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How do you find a citizen science project to contribute to and learn from?

Several links are provided below for you to explore. As you visit each to get a sense of the depth and breadth of opportunities, consider the following questions:

Who are the data users? Is it for county planning and zoning boards, state regulatory agencies, lake and river associations?

What is the purpose of the data? The data will:

- Document chronic or sporadic problems
- Track trends or changes
- Provide original baseline information
- Extend monitoring coverage to supplement other programs

Here is your opportunity to make a difference

- The Water Challenge builds public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local waterbodies.
- Earth Echo Water Challenge: <http://www.worldwatermonitoringday.org/post/kicking-off-the-2018-earthecho-water-challenge>
- The SciStarter website is the place to find, join, and contribute to science through recreational activities and citizen science research projects: <https://scistarter.com>
- Share and compare monitoring data and to discover monitoring data from federal, state, academic, and citizen sources: <https://wikiwatershed.org/monitor/>
- In the classroom or out in the field, FieldScope creates opportunities for citizen scientists to make discoveries and document the world around them: <http://www.fieldscope.org/>
- Using the topics of stormwater science and engineering solutions to engage and build confidence of female and URM students in STEM fields: <https://umaine.edu/smartincludes/>
- A citizen science catalog for you to search for projects: <https://ccsinventory.wilsoncenter.org/>
- Nature's Notebook: https://www.usanpn.org/natures_notebook
- National Parks Projects including the Potomac River: <https://www.nps.gov/subjects/biodiversity/national-parks-bioblitz.htm>