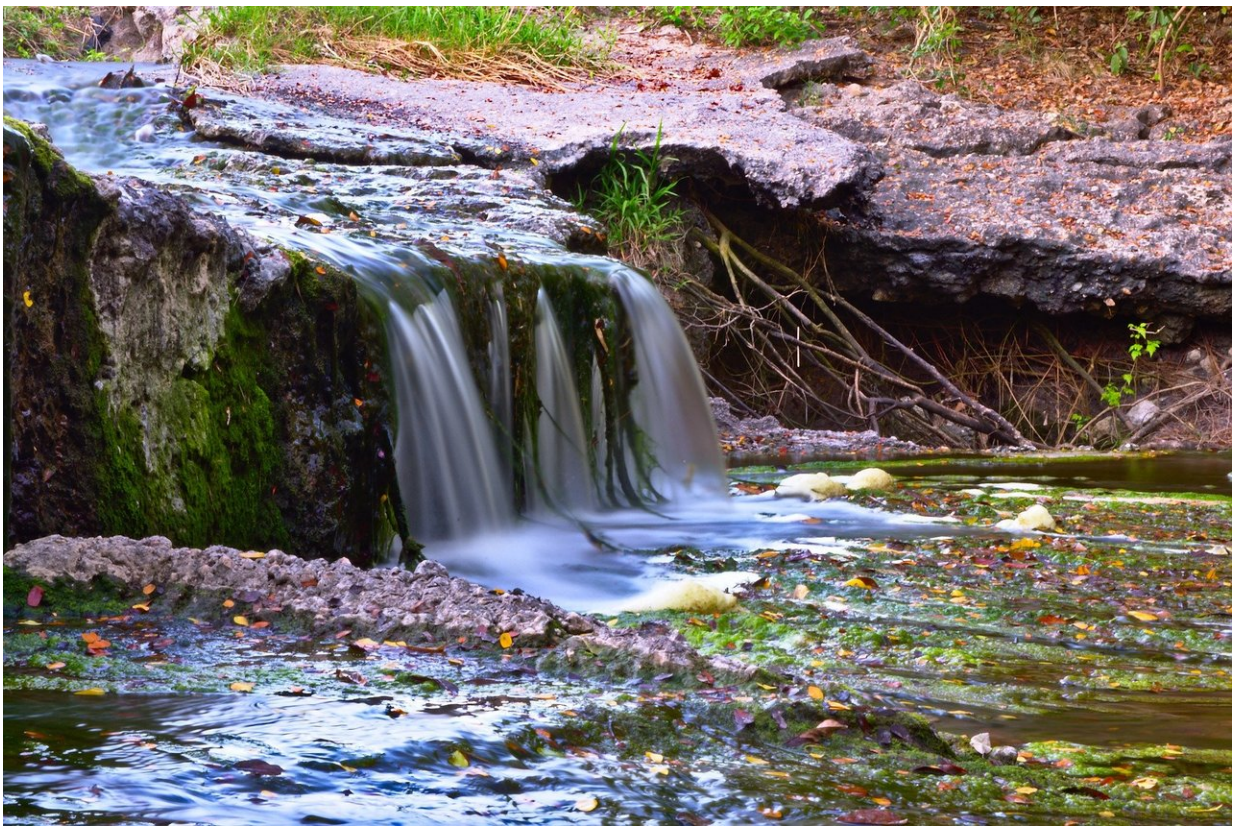
Nearly 28,000 miles of Pennsylvania's streams are impaired by pollution, report finds

January 20 2022, by Frank Kummer



Credit: CC0 Public Domain

One-third of all Pennsylvania waterways are now considered polluted enough to harm wildlife, recreation or drinking water, according to a

report released this week by the state's Department of Environmental Protection.

The DEP listed 27,886 miles of streams it found impaired in one or more ways, which is about 9% worse than its 2020 estimate.

That's 2,398 more miles of streams that Pennsylvania has designated as impaired over the last two years.

Philadelphia and its suburban counties have among the most polluted waterways, according to the report, which is issued every other year.

The Integrated Water Quality Report is mandated under the Federal Clean Water Act, which is celebrating its 50th birthday this year.

Pennsylvania assesses streams for their impact on aquatic life, recreation, water supply, and whether fish can be eaten. That's no small task: The state has 85,000 miles of rivers and streams.

Water samples are analyzed for ammonia, nitrates, nitrites, nitrogen, phosphates, calcium, magnesium, chloride, sulfates and dissolved solids. The DEP sets maximum loads for the pollutants, examines bacteriological samples to assess waterways for recreational use during summers, and tests fish tissue samples.

Deborah Klenotic, a DEP spokesperson, said that at least some of the increase in impaired streams is simply because staff assessed more miles than in 2020.

However, Shannon Gority, executive director for the Chesapeake Bay Foundation in Pennsylvania, said the report shows not enough is being done to protect the state's waterways and called it "a sad reminder that Pennsylvania must accelerate its rate of installing practices that reduce

pollution to local waters."

The Chesapeake Bay Foundation has been prodding Pennsylvania for years to clean up the Susquehanna watershed, a key contributor to pollution of the Chesapeake Bay.

The Philly region

Overall, Southeastern Pennsylvania, including Philadelphia and the counties that ring it, shows among the highest percentage of impaired streams in the state, according to a Philadelphia Inquirer analysis of the data. In fact, nearly 97% of streams in heavily urbanized Philadelphia are impaired, the highest rate of all counties in Pennsylvania. That's followed by Delaware County at 94% impaired.

At least some segments of well-known local streams or rivers, as well as lesser-known or unnamed tributaries, are all listed as impaired: the Schuylkill and Delaware River and the Wissahickon, Pennypack, Tacony, Byberry, and Poquessing Creeks.

Not all listed streams are impaired for all reasons. For example, most of the Delaware River as it runs through Philadelphia is listed as impaired for fish consumption because of PCBs.

Lancaster County is third highest with percentage of impaired waterways, at nearly 90% but also represents the county with the highest number of overall impaired miles (1,286) in the state, likely because of agricultural runoff.

The top three known causes of impairment are agricultural, storm-water runoff, and acid-mine drainage, which occurs when water flows over sulfur-bearing materials.

Legacy of coal

Though coal mining has shrunk compared with past decades, Pennsylvania still has 147 bituminous and 99 anthracite mines open. Active mines are not allowed to discharge untreated waste into waterways.

But because of the state's legacy, it also has 5,000 or more abandoned underground mines throughout the state, a major issue for many environmental groups who want them cleaned up. Anthracite, or hard coal, which is the highest quality because of its carbon content, was mined in the eastern part of the state as early as 1775. Meanwhile, bituminous, or soft coal, was mined in the western part around 1760.

Many of those old mines discharged waste directly into waterways, or the waste seeped into the water.

The U.S. Department of Interior has been collecting fees from coal-mining companies for each ton of coal produced to be used to address pollution coming from abandoned or unclaimed sites. Congress recently reauthorized the fees, and the Interior Department also recently announced it would extend that program, which expired in 2021, through 2034 after the bipartisan infrastructure law signed by President Joe Biden added $11.3 billion toward cleaning up land once used for mining.

Pennsylvania has already reclaimed thousands of abandoned coal-mine sites, totaling 91,400 acres, for treatment or abatement.

"Abandoned mine drainage has consistently been one of the top three sources of pollution in Pennsylvania streams for decades," said Jennifer Orr-Greene, Trout Unlimited's Eastern policy director. "More than $1.5 billion has been spent cleaning up abandoned mine lands in Pennsylvania

since 1980, but this report shows the enormous scope of the problems still ahead of us.

"It will take billions of dollars to reclaim known problems and restore degraded streams and rivers. That's why it was so important last year to continue financing the Abandoned Mine Reclamation Fund, which has been critical in the restoration of hundreds of miles of waterways statewide."

Trout Unlimited says the impact of cleaning up mine waste is clear. Fish populations are rebounding on portions of the West Branch Susquehanna River. Since 2009, 26 miles of the branch's main stem have been designated as wild trout waters, along with 215 miles of tributaries, many of which had previously been impaired.

The DEP also collected data on streams that run through the state's biggest river watersheds.

Though the main stem of the Delaware River runs 330 miles through four states, from New York to the Delaware Bay, where it meets the Atlantic Ocean, the bulk of it borders Pennsylvania. It is fed by 2,000 tributaries, with the Schuylkill and the Lehigh River in Pennsylvania being the largest.

So the DEP looked at 10,491 miles of the Delaware River watershed within the state. The data show that 4,748 miles, or about 44% of the streams, were impaired.

But that was better than several other of the state's major watersheds, including the Genesee River, which starts in New York and runs into Pennsylvania.

Scientists also examined water quality for the state's lakes. Philadelphia

joined Cameron, Clinton, Dauphin, Forest, and Venango Counties as having 100% of publicly accessible lake acreage listed as impaired. However, that included only 25 acres in Philadelphia. The DEP data did not name the lake or lakes.

Mercury, nutrients, pH and dissolved oxygen were the top causes of pollution in lakes across the state.

John Jackson, a scientist with the Stroud Water Research Center, said some of the findings are positive. He said that the increase in the number of stream miles designated as impaired is simply because the DEP has more information from new data and that there were not likely a batch of streams going from good to poor. However, he recognizes pollution as a major problem.

"The many thousands of miles of impaired streams, and high proportions in Southeastern Pennsylvania counties described in this report, tells us that polluted streams are still common in our neighborhoods, and we have a lot of work to reduce the pollution reaching those streams and eventually the Delaware River and its estuary," Jackson said.