Fact Sheet on the New Jersey 2018 Impaired Waters List
December 2021

Section 303(d) of the Clean Water Act requires states, territories and authorized tribes to develop lists of impaired waters. Impaired waters are waters that are too polluted or otherwise degraded to meet the state water quality standards. Federal law requires these jurisdictions to establish priority rankings for waters on the lists and to develop total maximum daily loads for impaired waters. A total maximum daily load, or TMDL, is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. The EPA has approved the New Jersey 2018 list of impaired waters requiring a TMDL. The New Jersey 2018 list of impaired waters presents information on impaired waters, pollutants causing the impairment and pollutant sources.

How States Report on the Quality of their Waters

The Clean Water Act requires states to assess the quality of their waterbodies and to report their findings every two years to the EPA. States adopt specific water quality standards that serve as the foundation for water quality management. Water quality standards identify the designated uses for each body of water (such as swimming, drinking, shellfish harvesting, etc.) and set criteria to protect those uses. During the assessment process, states compare the collected data to the established water quality standards.

In addition to reporting on the overall quality of all waters, the Clean Water Act directs states to identify and list specific waterbodies where water quality is impaired by pollutants. A waterbody is considered impaired if it does not meet water quality standards. The requirement to prepare the impaired waters list is found in section 303(d) of the Clean Water Act, and the list is often called the 303(d) list.

Each impairment reflected on the 303(d) list requires a calculation of the maximum amount of the impairing pollutant that a waterbody can receive and still meet water quality standards. TMDLs include reductions for pollutant sources impacting the waterbody that, when achieved, will result in the attainment of water quality standards in the waterbody.

In certain cases, an impaired water may not appear on a state's 303(d) list. If a TMDL has already been developed for the water, another required control measure is expected to result in the attainment of water quality standards within a reasonable amount of time, or the impairment is the result of pollution not caused by a pollutant (e.g., hydrologic or habitat alteration), then the water may not be included.

Water quality monitoring data and other information must be considered by states in assessment and reporting efforts. Monitoring may be carried out by national, state, local and tribal authorities, universities, dischargers, volunteers and others. It can include measurements of physical and chemical parameters (temperature, dissolved oxygen, suspended sediment, nutrients, metals, oils, and/or pesticides, for example), examinations of stream flow, water color, condition of stream banks and lake shores, observations of communities of aquatic wildlife, and sampling of fish tissue or sediment. Land use data, predictive models and land surveys may also be used.

Summary of 2018 Findings

The New Jersey 303(d) list includes 2422 instances where a pollutant is causing a designated use impairment. The indicators/causes of impairments are:

- arsenic (396)
- index of biological integrity (383)

- PCBs in fish tissue (245)
- pH (176)
- phosphorus, total (171)
- dissolved oxygen (165)
- escherichia coli (140)
- DDT in fish tissue (88)
- chlordane in fish tissue (85)
- temperature (80)
- mercury in fish tissue (79)
- dieldrin in fish tissue (48)
- total suspended solids (45)
- turbidity (44)
- dioxin in fish tissue (37)
- total dissolved solids (37)
- benzo[a]pyrene (29)
- lead (25)
- fecal coliform (24)
- heptachlor epoxide (23)
- copper (18)
- mercury in water column (17)
- heptachlor in fish tissue (13)
- hexachlorobenzene (10)
- chloride (8)
- tetrachloroethylene (8)
- enterococcus (7)
- nitrate (7)
- trichloroethylene (4)
- benzene (3)
- cadmium (2)
- chromium (2)
- ammonia, un-ionized (1)
- sulfate (1)
- vinyl chloride (1)

Pollutant sources include:

- agriculture
- atmospheric deposition
- contaminated sediments
- urban runoff/storm sewers
- and others

Note: a pollutant may come from more than one source.

New Jersey added 316 new waterbody/pollutant combinations to the 2018 303(d) list. The new combinations are summarized below:

- arsenic (63)
- dieldrin in fish tissue (16)
- index of biological integrity (47)
- escherichia coli (36)
- phosphorus (26)
- fecal coliform (1)
- pH (21)
- turbidity (16)
- heptachlor in fish tissue (13)
- mercury in fish tissue (11)
- dissolved oxygen (12)
- total dissolved solids (11)
- PCBs in fish tissue (10)
- chlordane in fish tissue (9)
- total suspended solids (7)
- chloride (4)
- DDT in fish tissue (3)
- lead (3)
- dioxin in fish tissue (2)
- enterococcus (2)
- temperature (2)
- ammonia, un-ionized (1)

The 2018 303(d) list also reflects waterbody/pollutant combinations that no longer require listing. Removal of a waterbody/pollutant combination from the 303(d) list, called delisting, may indicate that the water is restored, a TMDL was developed, the water is receiving management attention that is expected to result in the attainment of water quality standards, or other factors (including errors). New Jersey delisted 108 waterbody/pollutant combinations for the 2018 cycle, including:

- 80 waterbody/pollutant combinations where water quality standards are now met, based on new water quality data, including:

    - 8 waterbody/pollutant combinations for chlordane in fish tissue,
    - 17 waterbody/pollutant combinations for DDT in fish tissue,
    - 8 waterbody/pollutant combinations for dissolved oxygen,
    - 3 waterbody/pollutant combinations for escherichia coli,
    - 19 waterbody/pollutant combinations for index of biological integrity,
    - 10 waterbody/pollutant combinations for mercury in fish tissue,
    - 2 waterbody/pollutant combinations for pH,
    - 2 waterbody/pollutant combinations for total phosphorus,
    - 6 waterbody/pollutant combination for temperature,
    - 1 waterbody/pollutant combination for total suspended solids, and
    - 4 waterbody/pollutant combinations for turbidity.

- 12 waterbody/pollutant combinations covered under a mercury TMDL that was developed prior to the approval of the 2018 303(d) list.

- 12 waterbody/pollutant combinations where the original basis for listing was incorrect.

- 4 waterbody/pollutant combinations for aluminum where the water quality standard is no longer applicable.

In addition to the delistings, 57 waterbody/pollutant combinations were renamed to more accurately reflect the pollutant causing the impairment of the designated use:

  - 2 waterbody/pollutant combinations were changed from mercury in water column to mercury in fish tissue to reflect the fish consumption designated use,
  - 32 waterbody/pollutant combinations were changed from dieldrin to dieldrin in fish tissue to reflect the fish consumption designated use, and
  - 23 waterbody/pollutant combinations were changed from total coliform to fecal coliform to reflect the shellfishing pollutant basis.

How the Water Quality Sampling and Reporting Process Works

The waters in and around New Jersey are divided into 958 assessment units. The NJDEP evaluates and assesses data gathered through its surface and groundwater monitoring programs. Water quality monitoring supports the NJDEP's efforts in developing and refining water quality standards, reporting on water quality conditions, listing impaired waters, issuing and enforcing discharge permits, managing nonpoint sources of pollution, protecting high quality waters, setting priorities for water quality restoration, tracking changes in water quality over time, and evaluating the effectiveness of restoration and protection actions necessary to achieve the federal Clean Water Act goal to "restore and maintain the chemical, physical and biological integrity of the Nation's waters".

The NJDEP operates the primary water quality monitoring networks for New Jersey, which are described in the NJDEP's Long-Term Monitoring Strategy and on the NJDEP Division of Water Monitoring and Standards website. The NJDEP's current ambient surface water quality monitoring program is based on the ambient surface water quality monitoring network that was established in the mid-1970s in accordance with the federal Clean Water Act and subsequently expanded to address additional state and national water quality assessment needs. While some original monitoring stations have remained within the network (providing long-term water quality information), the program is continually updated and refined to reflect the changing water quality monitoring needs of the state. Components of the current monitoring program include the Ambient Surface Water Quality Monitoring Network, a cooperative NJDEP/U.S. Geological Survey program; the Regional Targeted Water Quality Network; and the NJDEP's Probabilistic Water Quality and Biological Network that monitor additional stations.

These networks employ multiple techniques, including collection of physical/chemical data from all waters of the State; biological monitoring, such as benthic macroinvertebrates and fish assemblage surveys and habitat assessment; pollutant source tracking in the coastal and freshwater environment (e.g., illicit discharges, stormwater, marinas); and probabilistic monitoring used to generate statistical estimates of water quality conditions statewide to support the EPA's national aquatic resource surveys.

Various monitoring organizations and other partners also collect data. These include federal and county government agencies, regional commissions (e.g., Pinelands Commission) watershed associations and other voluntary citizen monitoring, and discharger associations. The Integrated Report is generated using data from all the NJDEP's surface water quality monitoring networks along with relevant data from

monitoring partners that meets all data requirements and quality controls set forth in the corresponding Integrated Water Quality Assessment Methods.

How to Get Involved

Recognizing that stakeholders throughout New Jersey collect valuable water quality data, the NJDEP has established a process that allows groups and individuals to submit information for the state to use in its assessment. Submissions (data, photographs, etc.) must be sent to the NJDEP through the water quality data exchange system generally by August of even-numbered years. When it is submitted as part of the water quality assessment process, stakeholder information is considered in the assessment process. Parties submitting information should send all water quality monitoring data to the water quality data exchange system.

Community water monitoring data may be used for environmental education and outreach, environmental stewardship, community-based watershed assessment, or regulatory response, depending on the type, quality, and format of the data collected. High quality data collected by citizen scientists and volunteer monitors can help supplement data collected by environmental professionals and can assist scientists, policy makers, and resource managers make more informed decisions that protect New Jersey waterways. Data that has met specific quality requirements in accordance with a Quality Assurance Project Plan and is submitted electronically through the EPA's Water Quality Exchange web portal can be used by the NJDEP to assess water quality for the New Jersey Integrated Water Quality Assessment Report.

For more information, please contact Kimberly Cenno, Bureau Chief, Bureau of Environmental Analysis, Restoration and Standards at (609) 633-1441 or by email at Kimberly.Cenno@dep.nj.gov.

The NJDEP provides the opportunity for formal public comment on draft 303(d) lists. This is typically announced in the *New Jersey Register* and on the NJDEP's website. Comments are accepted for a 30-day period.

The EPA Contact for the New Jersey 303(d) List

If you have questions or concerns, contact Jacqueline Ríos by phone at (212) 637-3859 or by email at rios.jacqueline@epa.gov.