

Fact Sheet on New Jersey State's 2012 Impaired Waters List

September 24, 2014

EPA has approved New Jersey's 2012 List of Impaired Waters Requiring a Total Maximum Daily Load. New Jersey's 2012 list presents information on impaired waters, pollutants causing impairments and pollutant sources. The list is important because it focuses management attention on impaired waters. EPA will continue to build partnerships throughout the state to ensure that impaired waters receive proper attention.

How States Report on the Quality of their Waters

The Clean Water Act requires states to assess the quality of their water bodies and to report their findings every two years to EPA. States adopt specific water quality standards which 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 scientific 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 water bodies where water quality is impaired or threatened by pollutants. This requirement is found under Section 303(d) of the Clean Water Act and the list of impaired waters is often referred to as the "303(d) list."

- Impaired – A body of water that does not meet water quality standards even after pollution controls have been put in place.
- Threatened - A body of water that is expected to be impaired within two years.

Each impairment reflected on the 303(d) list requires a calculation of the maximum amount of the impairing pollutant that a water body can receive and still meet water quality standards. This calculation is called the total maximum daily load (TMDL). TMDLs include reductions for pollution sources impacting the water body which, when achieved, will result in the attainment of water quality standards in the impaired water body.

In certain cases, impaired or threatened waters may not appear on a state's 303(d) list. If a TMDL has already been devised for the water, another required control measure is expected to result in the attainment of water quality standards in a reasonable amount of time, or the impairment or threat is the result of *pollution* (not a specific pollutant that can be addressed via TMDL), 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 is 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 2012 Findings

New Jersey's 303(d) list contains 1770 instances where a pollutant is causing a designated use impairment.

- The most common indicators/causes of impairments include:
 - PCB in Fish Tissue (13.67% of impairments)
 - Arsenic (12.99% of impairment)
 - Phosphorus (Total) (9.27% of impairment)
 - Low Dissolved Oxygen (8.14% of impairment)
 - Cause Unknown (7.57% of impairment)

- New pollutants on the 2012 list were included for the:
 - Passaic River
 - Pequannock River
 - Saddle River
 - Hackensack River
 - and others

- Pollutant sources include:
 - Nonpoint sources
 - Stormwater discharges
 - Combined sewer overflows (CSOs)
 - Atmospheric deposition

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

The 303(d) list also reflects which water bodies no longer require listing. Removal of a water body from the 303(d) list, called delisting, may indicate that the water is restored or that the water is receiving management attention that is expected to result in the attainment of water quality standards.

- 412 waters were delisted, including:
 - 17 waters in which impairments are addressed by a previously approved TMDL
 - 300 waters where the applicable water quality standards were attained
 - 52 waters where the data or information is lacking to determine water quality status
 - 43 waters where the cause was removed but not delisted

Evaluation of Management Efforts

EPA's National Water Program has prioritized protecting and restoring America's watersheds, and the 303(d) list is a useful tool for measuring progress in this effort. By comparing recent 303(d) lists to those developed in past years, managers can gain a sense of whether, and how quickly, impaired waters are being restored. EPA uses states' 2002 303(d) lists as a baseline against which managers track impairment removal and water quality improvement. Examination of New Jersey's recent 303(d) lists reveals that over the last eight years, 300 formerly impaired waters now meet applicable water quality standards. In addition, many other waters, while not fully restored, are improving in quality. Water quality improvement in restored waters can often be traced to watershed management efforts undertaken by EPA and local stakeholders.

Success Story – Bear Brook

Stormwater runoff from urban and suburban housing areas led to the impairment of Bear Brook, a tributary of the Millstone River. It was added to New Jersey's Clean Water Act (CWA) Section 303(d) list of impaired waters in 2002. The "Bear Brook (above Trenton Road)" segment was listed as impaired for aquatic life (benthic macroinvertebrates). To address the problem, the Stonybrook Millstone Watershed Association, Delaware & Raritan Girl Scouts Council, Delaware River Keeper Network and other local volunteers utilized Section 319(h) funds to restore approximately 1500 linear feet of stream bank, 1000 square feet of lake shore plantings and the reforestation of 10.4 acres. As a result of these efforts, this segment was removed from the 2012 impaired waters list for its aquatic life impairments.

For other examples of water bodies in New Jersey that have benefitted from improved watershed management, please visit <http://www.epa.gov/nps/success/> .

How the Water Quality Sampling Reporting Process Works

The New Jersey Department of Environmental Protection (NJDEP) has delineated its waters based on Hydrologic Unit Code-14 (HUC-14) subwatersheds. Excluding interstate waters under the jurisdiction of the Delaware River Basin Commission (DRBC), New Jersey consists of 952 HUC-14 assessment units. The HUC -14s range from 0.7 to 42 square miles with an average size of 8.7 square miles. The NJDEP monitoring activities include sampling strategies in order to eventually sample all of the waters of the state. NJDEP generates sampling data as outlined below.

For freshwater

The NJDEP and the USGS work cooperatively to implement a sampling program that consists of a quarterly 115-station ambient stream sampling network. In addition to the quarterly sampling program, a supplemental ambient network for conventional parameters provides 90 additional monitoring sites. In 1992, the NJDEP reactivated its Ambient Biomonitoring Network (AMNET), which established sampling stations in every sub-watershed. AMNET samples each of the states five major drainage basins, on a rotational basis, every 5 years, on the status of benthic macroinvertebrate communities using EPA's Rapid Bioassessment Protocol (RBP). In 2000, a second biological monitoring network (the Fish Index of

Biotic Integrity (FIBI)) was initiated and validated for the northern portion of the state. In 2004, the NJDEP initiated an ambient lake monitoring network that tests randomly selected lakes from the state's approximately 1100 named lakes.

For marine waters:

The NJDEP collects approximately 15,000 ambient water samples per year from a network of more than 2,500 monitoring stations throughout the State's coastal shell fishing waters. These stations are sampled between five and twelve times per year. The NJDEP also monitors the condition of the State's coastal water by measuring basic water quality at 260 locations on a quarterly basis.

For ground water:

New Jersey has developed and maintains a cooperative network (NJDEP & USGS) consisting of 150 wells that are sampled 30 times per year on a 5-year cycle.

In addition to the water monitoring networks described above, the NJDEP also conducts targeted physical, chemical and biological water monitoring for further evaluation of waters previously listed as impaired on NJ's Impaired Waterbodies List, TMDL development/implementation and in response to environmental spills.

The NJDEP notified the public of its intent to seek water quality data and information from external partners, using public notices published in the New Jersey Register, NJDEP-generated newsletters and in newspapers of general circulation throughout New Jersey.

Once received, the NJDEP assembles all existing and readily available data and evaluates it in accordance with New Jersey's water quality standards, using methods described in New Jersey's 2012 Integrated Water Quality and Monitoring and Assessment Methods, available at http://www.state.nj.us/dep/wms/bwqsa/2012_final_methods_doc_with_response_to_comments.pdf These assessments inform New Jersey's 303(d)/305(b) Integrated Report.

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 via the water quality data exchange system generally by July of odd number years. For example, the deadline for the 2012 303(d)/305(b) assessment cycle was July, 2011. When it is submitted as part of the 303(d) or 305(b) process, stakeholder information is considered as soon as it is received. Parties submitting information should send all water quality monitoring data to the water quality data exchange (WQDE) system. Additional information about WQDE and instructions for data submittal are available on the NJDEP's website at <http://www.state.nj.us/dep/wms/WQDE%20fact%20sheet.pdf> . If you have questions or would like to speak directly with a NJDEP representative. Please contact:

NJDEP-Water Monitoring and Standards

PO Box 420 (Mail Code 401-041)

401 East State Street

Trenton, New Jersey 08625

Telephone: 609-292-1623

Fax: 609-633-1276

The NJDEP provides the opportunity for formal public comment on draft 303(d) lists. This is typically announced in early November of even numbered years via the NJDEP register, in newspapers of general circulation throughout the state and on the NJDEP website. Comments are accepted for a 30-day period.

EPA Contacts for NJ's 303(d) List:

If you have questions or concerns, please feel free to contact the EPA's New Jersey water quality assessment and 303(d) list expert, Brent Gaylord (212-637-3868) or e-mail

WaterProgram.Region2@epa.gov

