

## **Fact Sheet on New Jersey State's 2014 Impaired Waters List June 2017**

The U.S. Environmental Protection Agency approved New Jersey's 2014 list of impaired waters requiring a total maximum daily load. New Jersey's 2014 list presents information on impaired waters, pollutants causing impairments and pollutant sources. The list is important because it focuses management attention on impaired waters. The EPA continues 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 waterbodies and to report their findings every two years to the 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 waterbodies 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 waterbody can receive and still meet water quality standards. This calculation is called the TMDL. TMDLs include reductions for pollution sources impacting the waterbody that, when achieved, will result in the attainment of water quality standards in the impaired waterbody.

In certain cases, impaired or threatened waters may not appear on a state's 303(d) list. If a TMDL has already been approved 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 by a 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 2014 Findings

New Jersey's 303(d) list contains 1958 instances where a pollutant is causing a designated use impairment.

- The most common indicators/causes of impairments include:
  - Arsenic (15% of impairments)
  - Polychlorinated biphenyl (PCB) in Fish Tissue (12% of impairments)
  - Total Phosphorus (9% of impairments)
  - Low Dissolved Oxygen (9% of impairments)
  - Cause Unknown (7% of impairments)
  
- New pollutants on the 2014 list were included for the:
  - Delaware River
  - Manasquan River
  - Metedeconk River
  - Millstone River
  - Passaic River
  - Raritan River
  - Saddle River
  - And others
  
- Pollutant sources include:
  - Agriculture
  - Atmospheric deposition
  - Contaminated sediments
  - Urban runoff/storm sewers
  - And others

A pollutant may come from more than one source.

States also identify which waterbodies no longer require listing. Removal of a waterbody from the 303(d) list, called delisting, may indicate that the water is restored, the water is receiving management attention that is expected to result in the attainment of water quality standards or that the original listing was incorrect.

- 126 waters were delisted, including:
  - 11 waters in which impairments are addressed by a previously approved TMDL
  - 32 waters where the applicable water quality standards are attained
  - 48 waters where the data or information was lacking to determine water quality status at the time of the listing
  - 35 waters where the original basis for listing was incorrect

## Evaluation of Management Efforts

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. The EPA uses states' 2002 303(d) lists as a baseline against which managers track impairment removal and water quality improvement. Water quality improvement in restored waters can often be traced to watershed management efforts undertaken

by the EPA and local stakeholders. For examples of waterbodies 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 generally delineates its waters based on Hydrologic Unit Code-14 subwatersheds. Excluding interstate waters under the jurisdiction of the Delaware River Basin Commission, New Jersey consists of 950 HUC-14 assessment units. The HUC-14s range from 0.2 to 45 square miles with an average size of nine square miles. For 2014, assessment units for the waters of Barnegat Bay are modified and renamed. In open waters such as Barnegat Bay, HUC-14 delineations are straight line extensions of land-based HUC boundaries. The nine new Barnegat Bay assessment units were developed after evaluating the hydrological, chemical and biological features of the Bay as they related to expressed water quality. The NJDEP monitoring activities include sampling strategies in order to eventually sample all of the waters of the state. New Jersey samples each of the states five major drainage basins, on a rotational basis, every five years. The NJDEP generates sampling data as outlined below.

### For freshwater:

Components of the current monitoring program include:

- The Ambient Surface Water Quality Monitoring Network: a cooperative NJDEP/U.S. Geological Survey program that monitors 112 stations quarterly.
- The Regional Targeted Water Quality Network and Probabilistic Water Quality and Biological Network: NJDEP programs monitor an additional 63 stations (12 regional targeted and 51 probabilistic and biological), providing enhanced regional coverage and statistically representative statewide coverage.
- New Jersey uses biological indicators (benthic macroinvertebrates and fin fish) to assess the aquatic life use support.

### For marine waters:

The NJDEP measures the health of New Jersey's coastal waters with a variety of techniques. Each is designed to provide a different perspective on the condition of New Jersey's bay and ocean waters.

- Basic Water Quality: Water samples are collected by boat or helicopter along New Jersey's coast.
- Phytoplankton: Under normal conditions, phytoplankton are beneficial and are the base of the food chain. The NJDEP has been working in cooperation with the New Jersey Forest Fire Service, Rutgers University and EPA Region 2 to implement aircraft remote sensing for estimating chlorophyll levels in New Jersey's coastal waters.

### For ground water:

New Jersey maintains a cooperative network (NJDEP & U.S. Geological Survey) consisting of 150 wells that are sampled 30 times per year on a 5-year cycle. The NJDEP also conducts targeted physical, chemical and biological water monitoring for further evaluation of ground waters flowing into waters previously listed as impaired on New Jersey's impaired waterbodies list, as part of TMDL development and 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, posting on the NJDEP's website, and sending an electronic announcement to subscribers of the NJDEP's Listserv. Once received, the NJDEP assembles all existing and readily available data and evaluates the data in accordance with New Jersey's water quality standards, using methods described in New Jersey's 2014 Integrated Water Quality and Monitoring and Assessment Methods, available at [http://www.state.nj.us/dep/wms/bears/docs/2014\\_final\\_methods\\_document\\_and\\_response\\_to\\_comments.pdf](http://www.state.nj.us/dep/wms/bears/docs/2014_final_methods_document_and_response_to_comments.pdf). These assessments inform New Jersey's Integrated Water Quality Assessment 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 through the water quality data exchange system generally by July of odd-numbered years. For example, the deadline for the 2014 water quality assessment cycle was July 2013. 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. Additional information about the water quality data exchange system 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 the *New Jersey Register* and on the NJDEP's website. Comments are accepted for a 30-day period.

## **The EPA Contacts for New Jersey'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, Jacqueline Ríos (212-637-3859).