

## 2.2 Surface Water Quality

### The Importance

Healthy water resources are essential to human health and for maintaining thriving fish, animal, and plant populations. Waterbodies are also an important recreational resource for the community as well as an attraction to visitors. Poor water quality can prevent important recreational activities such as fishing, swimming, and boating. Poor water quality can also have a negative impact on the property values near a waterbody. The quality of a region's surface waters has direct economic, health, and quality of life impacts on the community.

### About this Indicator

The New York State Department of Environmental Conservation (DEC) Priority Waterbodies List details waterbody conditions throughout New York State including affected uses, pollutants, and sources of pollution. The DEC list of Impaired Waters Requiring a Total Maximum Daily Load (TMDL) is a list of impaired and or threatened waters that have not achieved state water quality standards using technology-based effluent limitations (point-source pollution limits). The state imposes a limit on the flow of specific pollutants into TMDL waters and creates plans to impose those limits. The New York State Department of Health (NYSDOH) annually publishes fish consumption advisories, another indicator of water quality.

### Sources for this Indicator

- New York State Department of Environmental Conservation
- New York State Department of Health

### Water Quality in the Capital District

NYSDOH has issued fish consumption advisories for four waterbodies in the four-county Capital District. All of the Capital District advisories are due to PCB contamination. The Hudson River, from Hudson Falls to the Troy Dam, has an advisory recommending that no fish be eaten. South of the Troy Dam, the advisory states that only one serving of specific species can be eaten safely per month and that Shad are limited to once per week. There are advisories prohibiting the consumption of all species from Nassau Lake and its tributary, Valatie Kill. Finally, there is a once-a-month advisory for Brown Trout larger than 14 inches from the Hoosic River.

In 1995, DEC lifted a 19-year ban on recreational fishing on the Hudson River between Troy and Hudson Falls. Only catch and release fishing is permitted.

There are nine waterbody segments in the Capital District that require a TMDL (as part of the 303(d) list). All of the 303(d) waterbodies are impaired due to fish consumption advisories. In six of the segments the advisories are due to PCB contaminated sediment. These are the same waterbodies covered by the NYSDOH advisories. One segment on the Hudson River is due to mercury from atmospheric deposits and two segments on the Hudson are due to both PCB sedimentation and mercury deposits.

## 2.2 ENVIRONMENT

The 303(d) list is gaining in importance because any construction project that disturbs more than one acre of land will be required to submit a stormwater plan to DEC and receive a permit before starting construction. The permit process will normally take five days. However, if the project's stormwater will flow into a 303(d) waterbody, the permitting process can take up to 60 days.

The Capital District's 2002 303(d) list of Impaired Waters Requiring TMDL is below.

<u>Waterbody/Segment (WI/PWL ID)</u>	<u>County</u>	<u>Pollutant</u>	<u>Source</u>
Hoosic River (1102-0002)	Rensselaer	PCBs	Contam. Sed.
Hudson River (1101-0002)	Saratoga	PCBs	Contam. Sed.
Hudson River (1101-0040)	Saratoga	PCBs, Mercury	Contam. Sed., Atm. Dep.
Hudson River (1101-0041)	Saratoga	PCBs, Mercury	Contam. Sed., Atm. Dep.
Hudson River (1104-0005)	Saratoga	Mercury	Atm. Dep.
Johnsonville Res. (1102-0003)	Rensselaer	PCBs	Contam. Sed.
Hudson River (1310-0002)	Albany	PCBs	Contam. Sed.
Valatie Kill (1310-0003)	Rensselaer	PCBs	Contam. Sed.
Nassau Lake (1310-001)	Rensselaer	PCBs	Contam. Sed.

The 2002 list was updated from the 1998 303(d) list and no segments were added or removed from the list.

There are 48 waterbody segments on the DEC Priority Waterbodies List (PWL), which are segments where the water quality is impacted or threatened. The source of the pollutant or cause of the problem is known for 31 of the segments. DEC identified a suspected primary source of pollution for the rest of the segments. There are an additional 27 segments with reported impairments that need verification before being added to the PWL.

The following are the known and suspected causes of water quality problems in the Capital District's PWL waterbodies.

Agriculture	Atmospheric Deposition
Combined Sewer Overflow	Construction
Contaminated Sediment	Failed On-Site Septic
Land Fill	Stream Bank Erosion
Storm Sewers	Urban Runoff
Habitat Modification (example: beaver dams impeding lake outflow)	