

The Housatonic River Basin

Basin Description

The Housatonic River Basin is located primarily in western Massachusetts and western Connecticut. However the western headwaters of the basin lie within a small portion of easternmost New York State. The Tenmile River, Green River and Williams River are the primary Housatonic tributaries that make up the New York portion of the basin. While the entire Housatonic Basin covers about 1,950 square miles before emptying into Long Island Sound, within New York state the Housatonic tributaries drain only about 219 square miles in the Taconic and southern Berkshire Mountains. The basin includes small portions of Dutchess and Columbia Counties.

Within New York State the Housatonic Basin is sparsely populated and largely rural, with considerable agricultural lands as well as tracts of forest and woodland. The total population of the basin is 21,137 (2000). As the total population suggests there are no major population centers. Scattered small rural hamlets are located among the main streams of the basin.

There are about 380 miles of rivers and streams the basin and a few dozen lakes and ponds. Many of the ponds are too small to be individually assessed, but 14 significant* lake, pond and reservoir waterbody segments (covering 670 acres) are included in the Housatonic River Basin Waterbody Inventory. The largest of the tributary watersheds is the Tenmile River which accounts for 312 (or 82% of) river/stream miles.

Water Quality Issues and Problems

Given the headwater nature of these waters, the remoteness of the basin and the sparse population of the drainage area, it is not surprising that water quality in the New York portion of the Housatonic Basin is generally quite good. The primary water quality impacts in the basin are from nonpoint sources. Where these impact do occur, they are generally minor impacts that stress or threaten rather than impair uses. Water quality activities in the Housatonic River Basin are aimed more at protection than restoration of waters.

Groundwater Resources

Although groundwater resources are not specifically tracked through the WI/PWL, they are considered *Priority Waters* nonetheless. Groundwater provides drinking water for about one-third of the population of New York State and is the source of base flow for most rivers and streams in the state. Management and protection of both the quantity and quality of this resource is critical for protecting public health and is also a key element of surface water quality and wetland management efforts. In the Housatonic River Basin, the more significant threats to groundwater resources include animal feeding operations, pesticide applications, on-site wastewater treatment systems and chemical spills.

* *Significant Lakes* are lakes of 6.4 acres (0.01 square miles) or larger and are included the New York State Lakes Gazetteer.

Housatonic River Basin Water Quality Assessment

The series of charts presented on the following pages provides an overall assessment of water quality conditions in the entire Housatonic River Basin. For each waterbody type (rivers/streams and lakes/reservoirs) the first chart shows the percentage of the miles/acres of waters in the basin that fall into the various water quality assessment categories. The **red** portion of the first pie indicates the percentage of waters characterized as *Not Supporting Uses*. The **purple** portion represents segments with *Minor Impacts/Threats*. Taken together, these categories of waters comprise the *Priority Waterbodies* for that waterbody type. The percentage of miles/acres for the other water quality assessment categories – waterbodies having *No Known Impacts*, *UnAssessed Waters*, and waterbodies with *Impacts Needing Verification* – are shown in **blue**, **light blue**, and **green** respectively.

The second pie chart shows the severity of the most significant use impact or restriction for waters in the two categories that comprise the Priority Waterbodies. The levels of severity are:

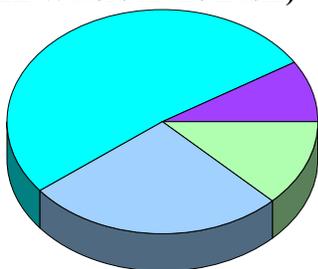
- Precluded:* waters do not support appropriate uses;
- Impaired:* waters frequently do not support appropriate uses;
- Stressed:* waters support appropriate uses, but other water quality impacts are apparent; and
- Threatened:* waters support uses and have no impacts, but activities threaten future use support.

More detailed descriptions of these levels of severity are outlined in *Appendix A - Assessment Methodology*.

The bar charts indicate the pollutant sources that are most frequently cited as major contributors to the water quality impacts for Priority Waterbodies in the Housatonic River Basin. The charts reflect the percentage of miles/acres of the total waterbody area on the Priority Waterbodies List where a particular source is listed as a major contributor to the water quality impact. For each source, the color shading of the bar indicates the severity level (*Precluded, Impaired, Stressed, Threatened*) of the most significant water use impact to the waterbody.

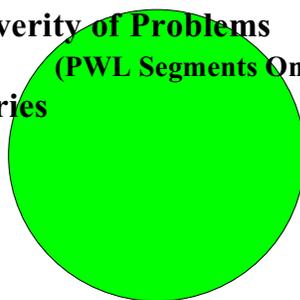
Rivers/Streams

Water Quality Assessment Categories
(for ALL Waters in the Basin)



- PWL - Not Supporting Uses
- PWL - Minor Impacts/Threats
- No Known Impacts
- UnAssessed Waters
- Impacts Needing Verification

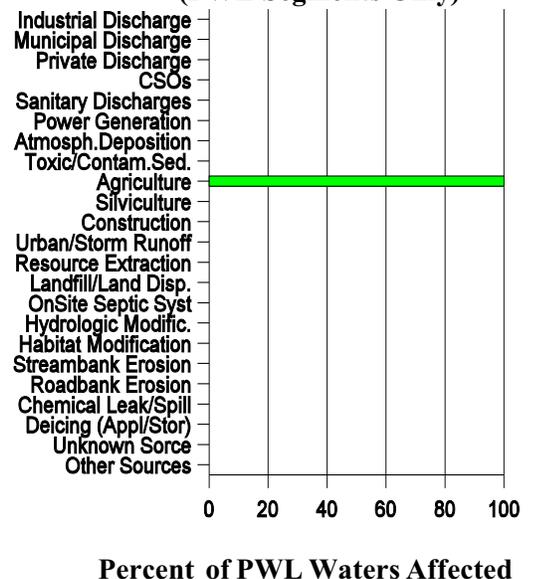
Severity of Problems
(PWL Segments Only)



- Precluded
- Impaired
- Stressed
- Threatened

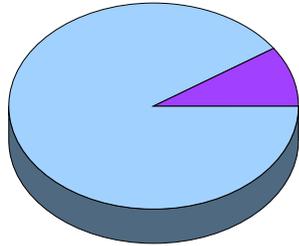
Housatonic River Basin
Total River Miles: 379
Total PWL Miles: 34

Major Sources of Impact
(PWL Segments Only)



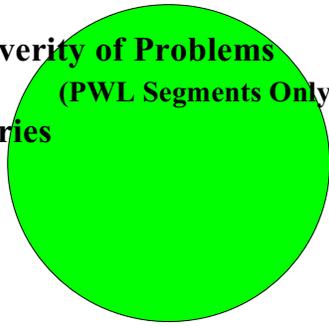
Lakes/Reservoirs

Water Quality Assessment Categories (for ALL Waters in the Basin)



- PWL - Not Supporting Uses
- PWL - Minor Impacts/Threats
- No Known Impacts
- UnAssessed Waters
- Impacts Needing Verification

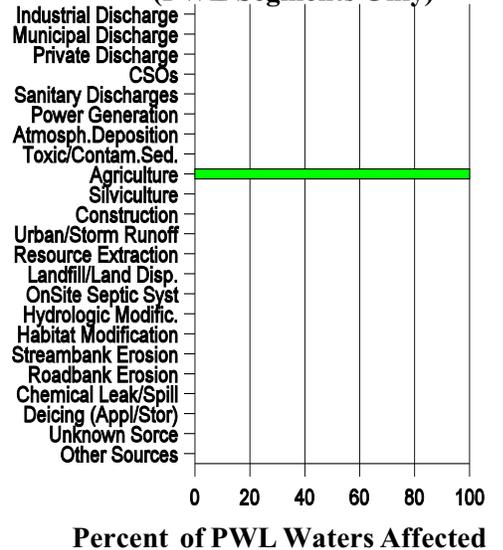
Severity of Problems (PWL Segments Only)



- Precluded
- Impaired
- Stressed
- Threatened

Housatonic River Basin	
Total Lake Acres:	669
Total PWL Acres:	64

Major Sources of Impact (PWL Segments Only)



Basin Water Quality Summary

Less than one-tenth (9%) of the 379 river miles in the Housatonic River Basin are included on the Priority Waterbodies List. All of these Priority Waterbody Listed river miles are considered *Stressed* waters that fully support appropriate uses, but that have minor impacts/threats to uses. There are no basin river miles that are considered to be *Impaired* and do not fully support appropriate uses.

Only one of the 14 separate lake segments in the basin has been assessed; this waterbody is included on the PWL as having either impaired uses or minor impacts/threats to uses. In this case (Rudd Pond) impacts were determined to be minor and fish consumption, recreational uses and/or aquatic life support are fully supported. This waterbody represents just over 10% of the lake acres in the basin.

The most frequently cited source affecting water quality in this rural basin is agricultural activity. Impacts from agricultural sources are the only sources cited for the handful of waterbodies included in the PWL as having minor impacts to uses.

Insert Figure 2 - Water Quality Assessment Map

The Housatonic River Basin

Waterbody Inventory/Priority Waterbodies List

This compilation of water quality information includes individual waterbody *Data Sheets* describing the water quality conditions in the Housatonic River Basin of New York State. Causes (pollutants) and sources of water quality problems for those waterbodies with known or suspected impacts are also outlined.

The data sheets are presented in hydrologic order, beginning with the most downstream waters and continuing upstream through the basin. Waterbody data sheets are grouped by US Geological Survey Hydrologic Unit Code (HUC) basin and presented as separate sections of this report (see Figure 3). A Waterbody Inventory of the specific waterbody segments in each watershed is included at the beginning of each watershed section.

Data sheets are included for each waterbody that has been assessed; i.e., waterbodies listed as *Impaired Waters* (Not Supporting Uses), Waters with *Minor Impacts*, *Threatened Waters*, waters with water quality impacts ***Need Verification***, or waterbodies with *No Known Impact*. *UnAssessed* waterbodies are included in the Waterbody Inventory for each watershed, but because they have not been assessed data sheets for these waters have not been included.

The information outlined on the data sheets includes *Waterbody Location Information*, *Water Quality Problem/Issue Information*, *Resolution/Management Information* and *Further Details*. See *Appendix B – Waterbody Inventory Data Sheet Background Information* for more details about the data sheets.

Note that the assessments in this report reflect the best available water quality information at the time of publication. Water quality information may be added or modified subsequent to the preparation of this edition of the Waterbody Inventory and Priority Waterbodies List. When information is updated, the data sheet for the corresponding waterbody segment is issued with the date of revision. More recently revised data sheets supercede the corresponding waterbody information in this listing.

Following the individual waterbody data sheets in the watershed sections, a *Summary Listing of Priority Waters* provides a brief overview of all *Priority Waterbodies*, i.e., waterbodies listed as *Impaired Waters* (Not Supporting Uses), Waters with *Minor Impacts* and *Threatened Waters*.

Indices of waterbody data sheets by both county and alphabetically by segment name are included as Appendix C and D, respectively.

Insert Figure 3 - Watershed Map