

NAUGATUCK RIVER REGIONAL BASIN TOTAL MAXIMUM DAILY LOAD (TMDL) SUMMARY

A Total Maximum Daily Load (TMDL) analysis was completed for indicator bacteria in the Naugatuck River Regional Basin. Waterbodies included in the TMDL analysis are the Naugatuck River, Great Brook, Steele Brook, Mad River, Hop Brook, and Long Meadow Pond Brook. These waterbodies were included on the *CT Impaired Waters List* due to exceedences of the indicator bacteria criteria contained within the State *Water Quality Standards*.

TMDL Overview

$$\text{TMDL} = \text{Point Sources} + \text{Nonpoint Sources} + \text{Background} + \text{Margin of Safety}$$

- A requirement under section 303(d) of the Federal Clean Water Act
- A management tool used to restore impaired waters by establishing the maximum amount of a pollutant that a waterbody can receive without adverse impacts to fish, wildlife, recreation, or other public uses
- Developed for waterbodies listed on the CT Impaired Waters List
- Provides guidance for responsible parties to use as a framework for developing a TMDL implementation plan

The TMDLs were drafted using data collected by the CT DEP and the CT DEP *Cumulative Frequency Distribution Function Method*, which expresses the TMDL as an average percent reduction from the current condition required to achieve consistency with the State recreational water quality criteria. Potential sources of indicator bacteria include point and nonpoint sources, such as stormwater runoff, pet waste (dogs), natural sources (wildlife), and illicit discharges. A summary of TMDL percent reductions and land use map are provided below.

The percent reductions established in this TMDL can be achieved by implementing control actions where technically and economically feasible that are designed to reduce indicator bacteria loading from nonpoint sources and point sources. These actions may be taken by State and Local government, academia, volunteer citizens groups, and individuals to promote effective watershed management.

It is important to note that the TMDLs are effective for the entire watershed because they are a measurement of compounded impacts at a single point. As such, corrective actions must be undertaken at the source(s) whether it is a tributary or illicit discharge pipe, in order to achieve the required percent reductions. The approach to TMDL Implementation is anticipated to be on a watershed wide scale, which will require that all sources within the regional basin that are contributing to the in-stream impairment be addressed. The DEP supports an adaptive and iterative management approach where reasonable controls are implemented and water quality is monitored in order to evaluate for achievement of the TMDL goals and modification of controls as necessary. Local watershed groups are encouraged to continue their efforts by working with municipalities to formulate a TMDL implementation plan. An implementation plan formulated at the local level will most efficiently make use of local resources by assigning tasks to responsible parties and should serve as an agreed roadmap to reducing bacteria levels in the Basin.

A copy of the entire Naugatuck Regional Basin TMDL can be found on the CT DEP website at <http://www.ct.gov/dep/tmdl>.

A Summary of TMDL Percent Reductions

Waterbody	Waterbody Segment Description	Segment ID	Monitor -ing Site	Average Percent Reduction to Meet Water Quality Standards			
				TMDL	WLA	LA	MOS
Naugatuck River	From the confluence with Spruce Brook (Litchfield/Harwinton town border) downstream to the confluence with the Housatonic River (Derby).	CT6900-00_06	196	39	47	33	Implicit
		CT6900-00_05	198	12	15	10	Implicit
		CT6900-00_04	1029	45	52	41	Implicit
		CT6900-00_03	204	74	79	70	Implicit
		CT6900-00_02	192	61	67	56	Implicit
		CT6900-00_01-top	213	62	69	57	Implicit
		CT6900-00_01-mid	214	67	71	65	Implicit
Steele Brook	From the inlet to Heminway Pond downstream to the confluence with the Naugatuck River (Watertown).	CT6912-00_02	331	87	88	86	Implicit
		CT6912-00_01	514	88	89	87	Implicit
Great Brook	From Belleview Lake outlet dam (Great Brook Res) downstream to the confluence with the Naugatuck River (Waterbury).	CT6900-22_01	91	89	94	86	Implicit
Mad River	From the confluence with Lily Brook (Wolcott) downstream to the confluence with the Naugatuck River (Waterbury).	CT6914-00_03a	874	69	71	68	Implicit
		CT6914-00_02	*NS - Use159	84	85	83	Implicit
		CT6914-00_01	159	84	85	83	Implicit
Hop Brook	From Hop Brook Lake dam outlet downstream to the confluence with the Naugatuck River (Naugatuck).	CT6916-00_01	1479	21	29	14	Implicit
Long Meadow Pond Brook	From the Naugatuck Ice Company Pond dam outlet downstream to the confluence with the Naugatuck River (Naugatuck).	CT6917-00_01	1478	83	86	80	Implicit

*No sample for segment CT6914-00_02. Sample 159 from CT6914-00_01 was determined to be representative of segment CT6914-00_02 and used in the TMDL analysis.

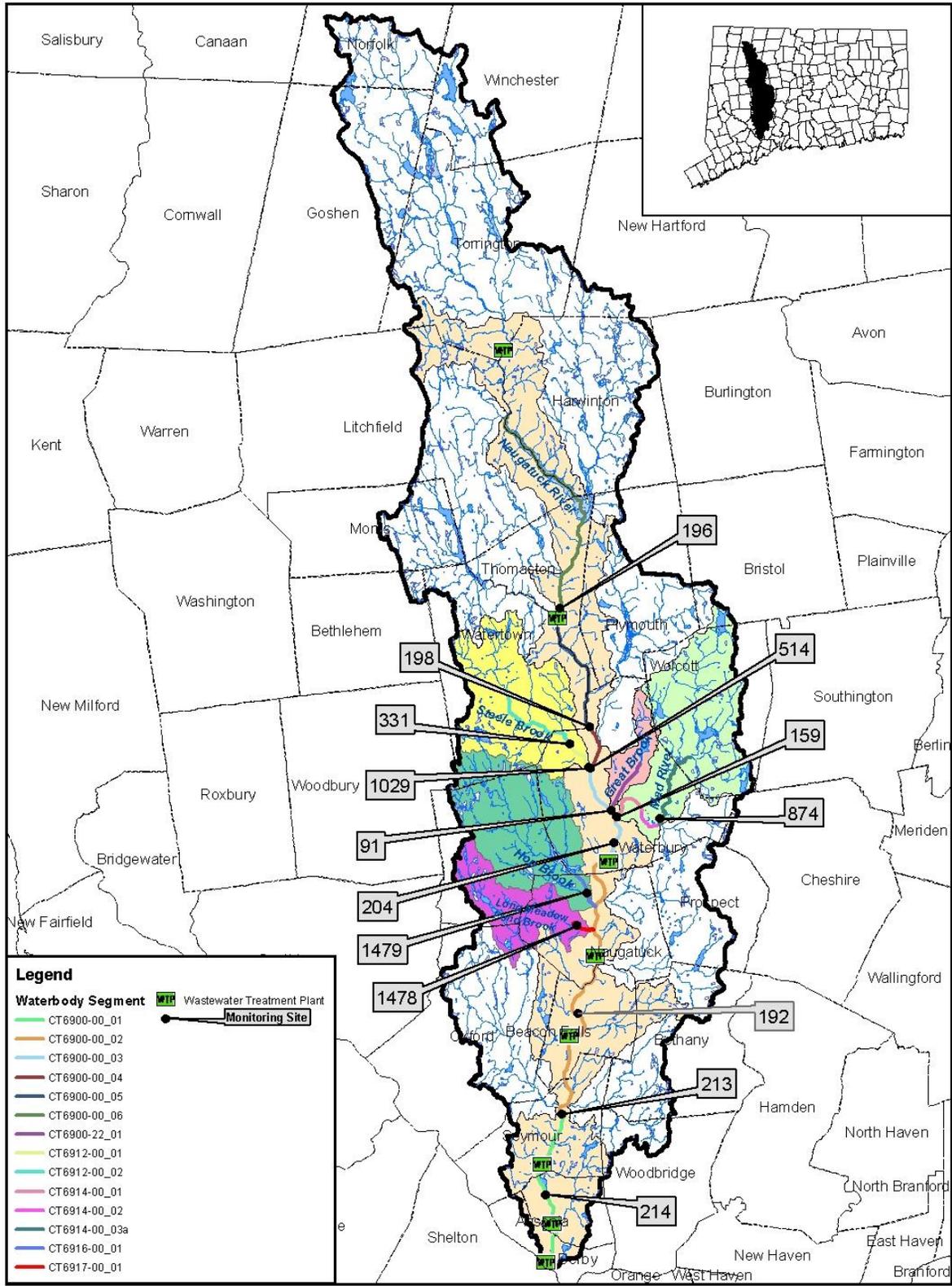


Figure 1: Basin Location Map

Map Data: CTDEP

Map Created: December 2007

