Water Quality Report

Town of Stillwater
Portion of the
Saratoga Lake Watershed

Town of Stillwater
Saratoga County
New York

Prepared for: Town of Stillwater
881 Hudson Avenue
Stillwater, NY 12170

LaBella Project No.: CZ32000.12 & CZ32000.13

Date: December 7, 2022

This report was prepared with funding provided by the New York State Department of State under Title 11 of the Environmental Protection Fund.

LaBella Associates, P.C. | 20 Elm St, Suite 110 | Glens Falls, NY 12801

www.labellapc.com

TABLE OF CONTENTS

LIST OF APPENDICES

1 Executive Summary

LaBella has prepared this report to:

- summarize the findings associated with a water quality study performed for the Town of Stillwater (Town) portion of the Saratoga Lake watershed; and
- present recommendations for the construction of green infrastructure practices that the Town could implement to improve the quality of water entering the lake.

The Town portion of the watershed consists of 9.4 square miles. Though this is a small portion of the total lake watershed, it's relative proximity to the lake shore means that it has an outsized impact on water quality within the lake.

For the purposes of this report this Town portion of the watershed was subdivided into 11 subcatchments. For each of the subcatchments the land uses, soil data, and topography have been evaluated, and peak runoff flow rates have been calculated.

A program to evaluate the existing water quality of the runoff entering the lake was implemented as part of this project, consisting of two main components:

- Invertebrate population counts, performed once at two sites.
- Water sampling and laboratory testing, performed three times (fall, spring, and summer) at five sites.

This evaluation did not reveal any acute water quality concerns.

A hydrologic and hydraulic model of the watershed was created using the EPA-SWMM software package. The model was calibrated to approximate the predicted flow rates and observed pollutant concentrations. Once calibrated, the model was used to estimate the annual loading of key pollutants (total phosphorus, total nitrogen, and total suspended solids) being discharged into the lake from the Town of Stillwater portion of the watershed.

A total of ten candidate locations were evaluated for suitability for the construction of green infrastructure practices. These candidate locations were selected in collaboration with the Town and other stakeholders.

Five of the locations were eliminated from consideration based on geographic or legal/ownership considerations. Infiltration testing was performed at the remaining five locations to confirm their suitability.

Ultimately, concept level plans and construction cost estimates were prepared for nine practices at five locations. The nine proposed practices consist of eight rain gardens and one installation of permeable pavers.

The average construction costs of the rain gardens is expected to be approximately $13,000 each.

The construction cost of the permeable paver area is expected to be approximately $470,000.

The final report recommendations are to:

- Develop a program of regular water quality sampling and testing;
- Develop a program of building and maintaining green infrastructure practices; and
- Encourage private property owners to build raingardens.

2 Introduction

The purpose of this report is to evaluate the impact of the Town of Stillwater (Town) portion of the watershed on the water quality of Saratoga Lake watershed. Saratoga Lake is an important waterbody to the area and the Town has taken a proactive approach to dealing with water quality issues. In 2019, the Town finalized the Saratoga Lake / Route 9P Waterfront Revitalization Plan, allowing the Town to move forward with projects to address water quality issues.

Saratoga Lake is a Class A waterbody as defined by the NYSDEC. The best usage for Class A waters are as a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing (DEC 701.6).

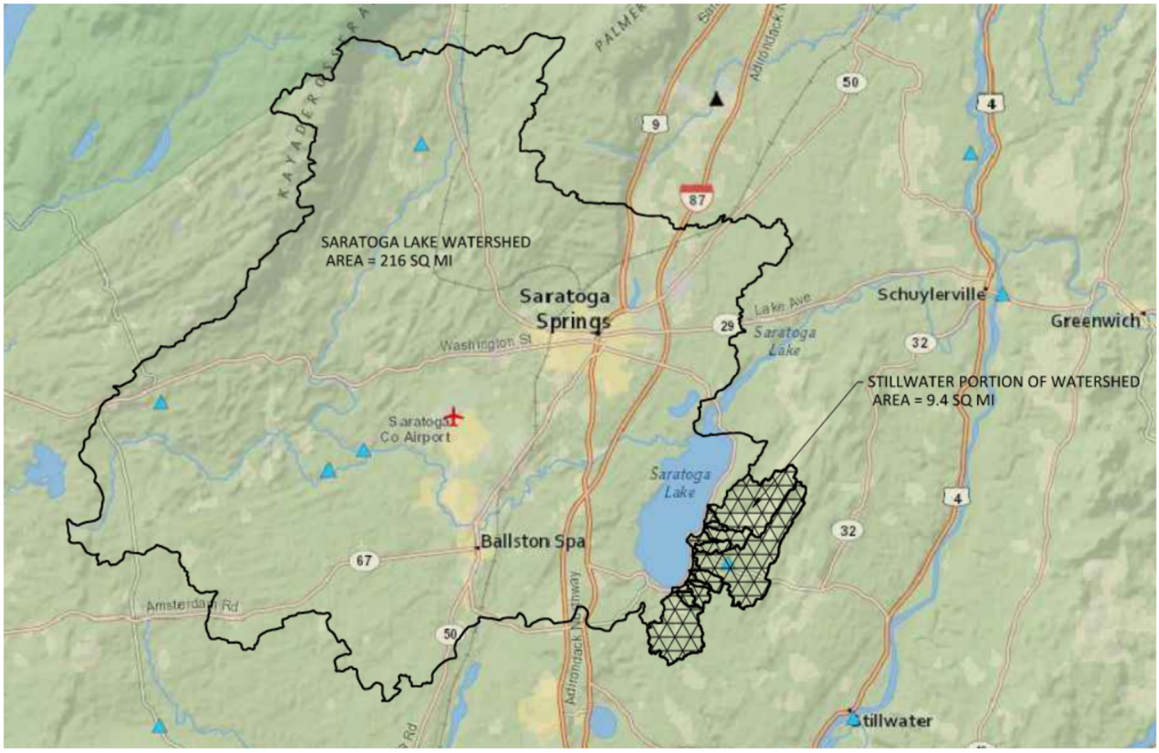
This report identifies ways in which the Saratoga Lake waters and watershed can be protected. Included in this report is information on the overall watershed characteristics, the results of water quality sampling and testing, modeling and analysis of the watershed and potential pollutant reduction opportunities using green infrastructure. Information regarding site visits and field work performed at candidate sites is also included within the report. This report intends to act as a catalyst for mitigating water quality issues and can be used in the future for WQIP grant applications.

3 Watershed Characteristics

3.1 Overall Watershed

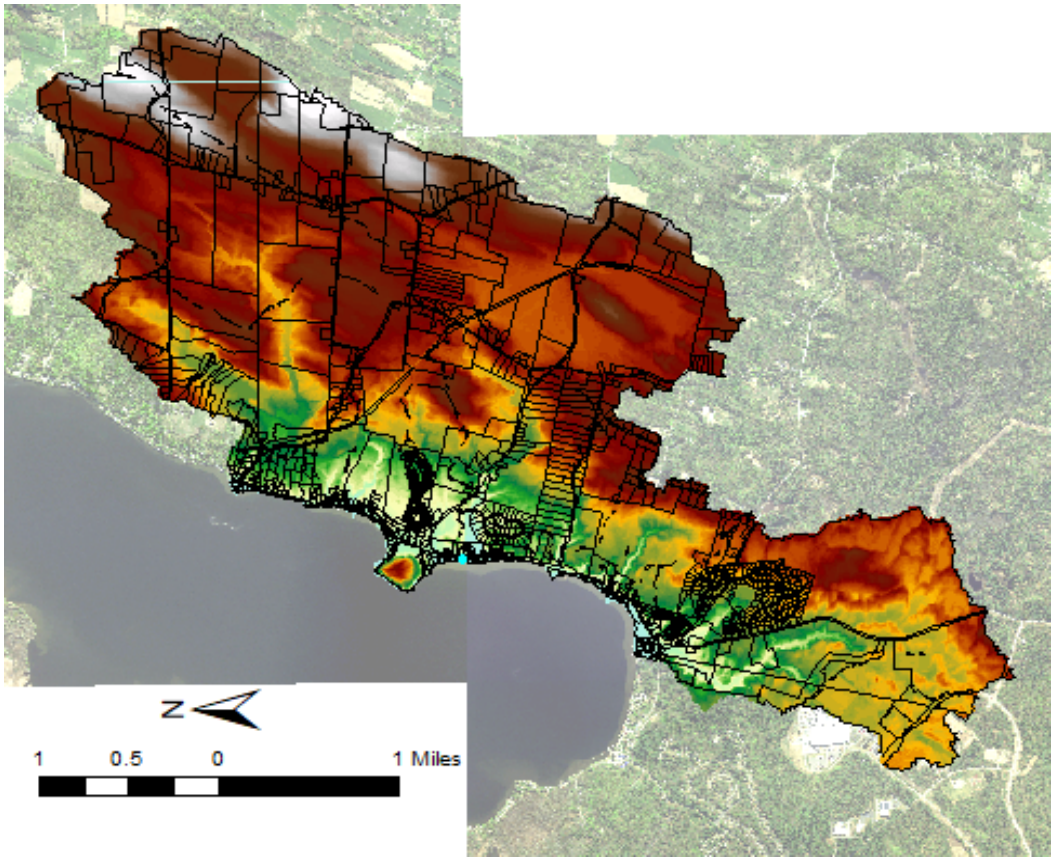
The Saratoga Lake watershed has a total area of approximately 216 square miles and is depicted in the figure below. The majority of the lake's watershed lies to the west of the lake and includes portions of the Towns of Saratoga and Ballston, including the City of Saratoga Springs and the Village of Ballston Spa. The portion of the watershed that lies within the Town of Stillwater (shown as hatched below) is 9.4 square miles, or 4.4 percent of the total.

Overall Watershed Map



The topography of the Stillwater portion of the watershed was mapped based on publicly available topographic data. In the Stillwater Watershed Topographic Heat Map below, the red areas are areas with higher elevations within the watershed. Stormwater runoff from these areas becomes channeled and forms streams that run into the lake via the green and yellow valleys.

Stillwater Watershed Topographic Heat Map



3.2 Subcatchment Delineation

The watershed within the Town can be broken down into 10 subcatchments, each centered around a well-defined stream channel. These stream channels all flow generally east to west or south to north, and cross under NYS Route 9P via culvert immediately prior to discharging into Saratoga Lake.

In addition to the 10 stream subcatchments, the area immediately adjacent to the lakeshore (between NYS Route 9P and the lake) plays an outsized role in water quality because of its proximity to the lake. Any pollutants picked up by runoff from this area have less chance of being absorbed or mitigated by natural processes before reaching the lake. For the purposes of this report, the lakeshore area has been identified as an 11th subcatchment.

The following is a brief description of the physical characteristics of each subcatchment:

- S01 - The subcatchment is 1,131 acres, consisting of mostly woods (63%) and industrial development (25%). A portion of the Global Foundries facility is located in this subcatchment. (Note that this subcatchment has been subdivided into S01A and S01B, with S01B consisting solely of a portion of the Global Foundries campus. It has been separated in this way because the Global Foundries campus has its own extensive stormwater management practices, including infiltration basins designed to infiltrate the 100-yr storm event.)
- S02 - The subcatchment is 89 acres, consisting mostly of woods (48%) and residential areas (42%). A small portion of the Saratoga Lake Golf Course is within this subcatchment as well.
- S03 - The subcatchment is 159 acres, consisting of mostly woods (59%) and recreational areas (28%). The majority of the Saratoga Lake Golf Course is located in this subcatchment.
- S04 - This is the smallest subcatchment, with an area of 44 acres. It consists of mostly woods (58%) and recreational areas (34%). A small portion of the Saratoga Lake Golf Course is within this subcatchment as well.
- S05 - The subcatchment is 178 acres, consisting almost entirely of woods (88%), with some residential properties scattered throughout (12%).
- S06 - This is the largest subcatchment at 2,141 acres. It consists mostly of woods (66%) with various agricultural (17%) and residential (14%) properties. Some areas of open water and wetlands are also present (72 acres total, or 3.4%).
- S07 - This subcatchment is 155 acres, consisting mostly of woods (74%) with interspersed residential property (10%).
- S08 - This subcatchment is 268 acres, consisting mostly of woods (65%) and farmland (26%).
- S09 - This subcatchment is 58 acres, consisting mostly of woods (82%), with interspersed residential properties (9%) and one large agricultural plot (9%).
- S10 - This is the second largest subcatchment at 1,527 acres. Most of the farmland in the watershed is located in this subcatchment (622 acres, or 41%). Most of the remaining land is covered by woods (49%).
- S11 - This subcatchment consists of the areas that drain directly to the Lake from the near-shore area (between NYS Route 9P and the lake), rather than into a tributary

stream. This subcatchment is 290 acres and consists of equal parts residential properties (48%) and woods (48%).

A delineation map of the subcatchments within the Stillwater portion of the Saratoga Lake watershed is included in Appendix A.

3.3 Soils and Land Use

Land use data within the watershed was compiled from publicly available GIS data, and breaks down as follows:

Land Use Breakdown by Subcatchment

LAND USE BREAKDOWN BY SUBCATCHMENT								
Subcatchment	**Res.**	**Ind.**	**Open/ Rec.**	**Ag.**	**Woods**	**Highway**	**Water/ Wetlands**	**TOTAL**
S01A	0.0 ac	204.1 ac	0.0 ac	0.0 ac	0.0 ac	0.0 ac	0.0 ac	204.1 ac
	(0.0%)	(100.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(100.0%)
S01B	97.0 ac	0.0 ac	7.3 ac	0.0 ac	841.3 ac	0.0 ac	10.2 ac	955.8 ac
	(10.1%)	(0.0%)	(0.8%)	(0.0%)	(88.0%)	(0.0%)	(1.1%)	(100.0%)
S02	37.0 ac	0.4 ac	7.7 ac	0.0 ac	42.8 ac	0.0 ac	0.8 ac	88.7 ac
	(41.7%)	(0.5%)	(8.7%)	(0.0%)	(48.3%)	(0.0%)	(0.9%)	(100.0%)
S03	17.1 ac	4.4 ac	44.0 ac	0.0 ac	93.2 ac	0.0 ac	0.0 ac	158.7 ac
	(10.8%)	(2.8%)	(27.7%)	(0.0%)	(58.7%)	(0.0%)	(0.0%)	(100.0%)
S04	3.6 ac	0.0 ac	14.9 ac	0.0 ac	25.4 ac	0.0 ac	0.0 ac	43.9 ac
	(8.2%)	(0.0%)	(33.9%)	(0.0%)	(57.9%)	(0.0%)	(0.0%)	(100.0%)
S05	20.2 ac	0.0 ac	0.0 ac	0.0 ac	157.4 ac	0.0 ac	0.3 ac	177.9 ac
	(11.4%)	(0.0%)	(0.0%)	(0.0%)	(88.5%)	(0.0%)	(0.2%)	(100.0%)
S06A	140.5 ac	0.0 ac	0.0 ac	11.5 ac	343.6 ac	0.0 ac	3.6 ac	499.2 ac
	(28.1%)	(0.0%)	(0.0%)	(2.3%)	(68.8%)	(0.0%)	(0.7%)	(100.0%)
S06B	150.2 ac	0.0 ac	0.0 ac	343.7 ac	1099.2 ac	0.0 ac	50.0 ac	1643.1 ac
	(9.1%)	(0.0%)	(0.0%)	(20.9%)	(66.9%)	(0.0%)	(3.0%)	(100.0%)
S07	15.2 ac	0.0 ac	13.7 ac	10.7 ac	114.0 ac	0.0 ac	0.6 ac	154.2 ac
	(9.9%)	(0.0%)	(8.9%)	(6.9%)	(73.9%)	(0.0%)	(0.4%)	(100.0%)
S08	17.7 ac	0.0 ac	4.4 ac	70.1 ac	175.1 ac	0.0 ac	0.0 ac	267.3 ac
	(6.6%)	(0.0%)	(1.6%)	(26.2%)	(65.5%)	(0.0%)	(0.0%)	(100.0%)
S09	5.3 ac	0.0 ac	0.0 ac	5.1 ac	47.3 ac	0.0 ac	0.0 ac	57.7 ac
	(9.2%)	(0.0%)	(0.0%)	(8.8%)	(82.0%)	(0.0%)	(0.0%)	(100.0%)
S10A	68.2 ac	0.0 ac	0.0 ac	157.5 ac	418.2 ac	0.0 ac	21.9 ac	665.8 ac
	(10.2%)	(0.0%)	(0.0%)	(23.7%)	(62.8%)	(0.0%)	(3.3%)	(100.0%)
S10B	63.2 ac	0.0 ac	0.0 ac	464.2 ac	325.1 ac	0.0 ac	7.2 ac	859.7 ac
	(7.4%)	(0.0%)	(0.0%)	(54.0%)	(37.8%)	(0.0%)	(0.8%)	(100.0%)
S11	132.2 ac	8.3 ac	3.8 ac	0.0 ac	139.1 ac	10.7 ac	0.8 ac	294.9 ac
	(44.8%)	(2.8%)	(1.3%)	(0.0%)	(47.2%)	(3.6%)	(0.3%)	(100.0%)
TOTAL	767.4 ac	217.2 ac	95.8 ac	1062.8 ac	3821.7 ac	10.7 ac	95.4 ac	6071.0 ac
	(12.6%)	(3.6%)	(1.6%)	(17.5%)	(63.0%)	(0.2%)	(1.6%)	(100.0%)

Soil data was collected from the USGS Web Soil Survey, and organized by hydrologic soil group as follows:

Soil Breakdown by Subcatchment

Soil Characteristics by Subcatchment									
Subcatchment	A	B	C	D	A/D	B/D	C/D	Water	TOTAL
S01A	935.9 ac	0.0 ac	0.0 ac	0.0 ac	3.2 ac	8.3 ac	4.6 ac	3.9 ac	955.9 ac
	(97.9%)	(0.0%)	(0.0%)	(0.0%)	(0.3%)	(0.9%)	(0.5%)	(0.4%)	(100.0%)
S01B	183.3 ac	0.0 ac	0.0 ac	0.0 ac	0.0 ac	0.0 ac	0.0 ac	0.0 ac	183.3 ac
	(100.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(100.0%)
S02	86.1 ac	0.0 ac	0.0 ac	0.0 ac	1.7 ac	0.0 ac	1.3 ac	0.0 ac	89.1 ac
	(96.6%)	(0.0%)	(0.0%)	(0.0%)	(1.9%)	(0.0%)	(1.5%)	(0.0%)	(100.0%)
S03	142.7 ac	0.0 ac	5.0 ac	0.0 ac	3.2 ac	0.0 ac	7.4 ac	1.0 ac	159.3 ac
	(89.6%)	(0.0%)	(3.1%)	(0.0%)	(2.0%)	(0.0%)	(4.6%)	(0.6%)	(100.0%)
S04	43.8 ac	0.0 ac	0.2 ac	0.0 ac	0.0 ac	0.0 ac	0.0 ac	0.0 ac	44.0 ac
	(99.5%)	(0.0%)	(0.5%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(100.0%)
S05	158.0 ac	0.0 ac	1.2 ac	0.0 ac	18.8 ac	0.2 ac	0.1 ac	0.0 ac	178.3 ac
	(88.6%)	(0.0%)	(0.7%)	(0.0%)	(10.5%)	(0.1%)	(0.1%)	(0.0%)	(100.0%)
S06A	471.1 ac	0.0 ac	59.4 ac	24.5 ac	216.1 ac	110.5 ac	760.5 ac	0.0 ac	1642.1 ac
	(28.7%)	(0.0%)	(3.6%)	(1.5%)	(13.2%)	(6.7%)	(46.3%)	(0.0%)	(100.0%)
S06B	329.1 ac	20.2 ac	0.6 ac	14.6 ac	73.8 ac	45.1 ac	15.8 ac	0.0 ac	499.2 ac
	(65.9%)	(4.0%)	(0.1%)	(2.9%)	(14.8%)	(9.0%)	(3.2%)	(0.0%)	(100.0%)
S07	133.1 ac	22.1 ac	0.4 ac	0.0 ac	7.7 ac	0.0 ac	0.0 ac	0.0 ac	163.3 ac
	(81.5%)	(13.5%)	(0.2%)	(0.0%)	(4.7%)	(0.0%)	(0.0%)	(0.0%)	(100.0%)
S08	209.9 ac	0.0 ac	4.0 ac	4.7 ac	9.3 ac	18.4 ac	25.3 ac	0.4 ac	272.0 ac
	(77.2%)	(0.0%)	(1.5%)	(1.7%)	(3.4%)	(6.8%)	(9.3%)	(0.1%)	(100.0%)
S09	40.0 ac	0.0 ac	0.0 ac	4.3 ac	0.0 ac	1.0 ac	12.6 ac	0.0 ac	57.9 ac
	(69.1%)	(0.0%)	(0.0%)	(7.4%)	(0.0%)	(1.7%)	(21.8%)	(0.0%)	(100.0%)
S10A	215.3 ac	0.0 ac	91.6 ac	16.3 ac	3.7 ac	21.5 ac	511.2 ac	0.0 ac	859.6 ac
	(25.0%)	(0.0%)	(10.7%)	(1.9%)	(0.4%)	(2.5%)	(59.5%)	(0.0%)	(100.0%)
S10B	332.3 ac	0.0 ac	57.5 ac	47.8 ac	7.7 ac	14.2 ac	187.3 ac	16.3 ac	663.1 ac
	(50.1%)	(0.0%)	(8.7%)	(7.2%)	(1.2%)	(2.1%)	(28.2%)	(2.5%)	(100.0%)
S11	132.2 ac	8.3 ac	3.8 ac	0.0 ac	139.1 ac	10.7 ac	0.8 ac	0.0 ac	294.9 ac
	(44.8%)	(2.8%)	(1.3%)	(0.0%)	(47.2%)	(3.6%)	(0.3%)	(0.0%)	(100.0%)
TOTAL	3412.8 ac	50.6 ac	223.7 ac	112.2 ac	484.3 ac	229.9 ac	1526.9 ac	21.6 ac	6062.0 ac
	(56.3%)	(0.8%)	(3.7%)	(1.9%)	(8.0%)	(3.8%)	(25.2%)	(0.4%)	(100.0%)

The complete web soil survey reports are included in Appendix B.

3.4 Peak Flow Estimates

The peak stream flow from each of the subcatchments S01 through S10 was estimated by performing a regression analysis based on the USGS publication “Magnitude and Frequency of Floods in New York”. The analysis was performed using the USGS StreamStats web site.

The following table summarizes the 2-year, 10-year, and 100-year peak flow rates from each subcatchment.

Peak Runoff Flow Rates by Subcatchment

Subcatchment	2-yr (cfs)	10-yr (cfs)	100-yr (cfs)
S01	57.8	113.0	194.0
S02	5.1	10.3	18.3
S03	8.19	16.4	28.6
S04	2.4	4.8	8.39
S05	9.3	18.6	32.6
S06	89.6	172.0	288.0
S07	10.1	20.4	36.2
S08	16.4	32.8	57.8
S09	3.39	6.82	12.1
S10	111.0	218.0	383.0

Complete StreamStats printouts for each subcatchment are included in Appendix C.

4 Water Quality Sampling and Testing

Two separate methods of evaluating water quality were employed:

- Invertebrate population counts; and
- Water sampling and laboratory testing.

Both methods are described in further detail in the following sections.

4.1 Invertebrate Population Counts

The presence or absence of certain invertebrate species can be used as an “indicator” for the presence of certain pollutants in a stream channel. Samples were collected at two locations within the watershed:

- Mill Branch, immediately upstream of the discharge into Saratoga Lake; and

- an unnamed stream near NYS Route 423, immediately downstream of Walden Circle.

Both of the above locations are shown on the map of sampling locations included in Appendix D.

The samples collected were part of the WAVE program. WAVE is a NYSDEC volunteer program used to assess water quality based upon the invertebrate population counts. The Invertebrate population counts have certain species that are designated as "most wanted" and "least wanted." When a water body contains 6 or more of the "most wanted" invertebrates it is classified as having no know impact to water quality. When a water body contains 4 or more of the "least wanted" invertebrates, it is classified as being possibly impaired. If neither of the previously mentioned criteria are met, the water body is classified as having no conclusion. Further, WAVE also assesses the user perception of a water body including the water clarity, suspended phytoplankton, periphyton cover, macrophyte cover, odor, trash and discharge pipes.

The Izaak Walton League Score is used to evaluate the health of streams and water bodies throughout the United States. The score is based on the presence of invertebrate species and these species are categorized as either "sensitive", "less sensitive" or "tolerant". The presence of sensitive species weighs heavier in the total score than that of a tolerant species. Water bodies that receive a total of more than 22 points are considered excellent. A good rating corresponds to a score of 17-22. A fair rating is 11-16 points. A poor rating is less than 11 points.

Mill Branch Site

The WAVE water quality assessment from September 27, 2021 at the Mill Branch Site shows that no known impact currently exists. These results received an Izaak Walton League Score (IWL) of 28 which is correlated to an excellent result. Improvements can still be made as macrophytes received a perception score that relates to severe high cover reducing ability for recreation. The habitat assessment shows optimal or marginal conditions. Detailed results are presented below.

<u>Organisms in Count:</u>

(Coleoptera) Psephenidae, (Mollusca: Gastropoda) Ancylidae, (Trichoptera) Philopotamidae, (Trichoptera) Hydropsychidae, (Coleoptera) Elmidae, (Diptera) Tipulidae, (Diptera) Athericidae, (Crustacea: Amphipoda) Gammaridea, (Plecoptera) Perlidae, (Ephemeroptera) Heptageniidae, (Ephemeroptera) Baetidae, (Trichoptera) Glossosomatidae

Most Wanted	Least Wanted	WAVE Assessment	IWL Assessment	IWL Score
6	0	No Known Impact	Excellent	28

WAVE Recreation Use Perception:

Scores below are based on 0-10 scale, from 0 = “minimal or more natural and pristine” to 10 = “negative and more altered”.

Water Clarity	Suspended Phytoplankton	Periphyton Cover	Macrophyte Cover	Odor	Trash	Discharge Pipes
0	0	5	10	0	0	5

WAVE Habitat Assessment:

In-stream, scores are based on an A-C scale, a = optimal, b= marginal, c = poor.

Epifaunal Substrate / available cover	Embeddedness / Pooling	Velocity / Depth Combinations	Sediment deposition	Channel Flow Status	Channel Alterations	Frequency of Rifles
b	b	b	b	a	b	a

Stream bank, scores are based on an A-C scale, a = optimal, b= marginal, c = poor.

	Bank stability	Bank Vegetative Protection	Riparian Vegetation Zone Width
Left Bank	a	b	b
Right Bank	a	a	a

Walden Circle Site

The Walden Circle testing site had a lower IWL score of 21 corresponding to a rating of good. There was a hit on a least wanted item for the WAVE water quality assessment. The habitat assessment rating was either optimal or marginal for all categories. Stream bank scores for both left and right stream were rated as marginal in every category. The user perception showed severe macrophyte cover relating reducing ability for recreation. Overall, Walden

Circle received a rating of “no conclusion” for water quality resulting in a slight impairment or incorrect testing (NYSDEC).

Organisms in Count:

(Coleoptera) Elmidae, (Diptera) Simuliidae, (Wormlike) Oligochaeta, (Diptera) Tipulidae, (Coleoptera) Psephenidae, (Trichoptera) Philopotamidae, (Ephemeroptera) Heptageniidae, (Trichoptera) Hydropsychidae, (Ephemeroptera) Baetidae

Most Wanted	Least Wanted	WAVE Assessment	IWL Assessment	IWL Score
3	-1	No Conclusion	Good	21

WAVE Recreation Use Perception:

Scores below are based on 0-10 scale, from 0 = “minimal or more natural and pristine” to 10 = “negative and more altered”.

Water Clarity	Suspended Phytoplankton	Periphyton Cover	Macrophyte Cover	Odor	Trash	Discharge Pipes
0	5	5	10	0	0	0

WAVE Habitat Assessment:

In-stream, scores are based on an A-C scale, A = optimal, B = marginal, C = poor.

Epifaunal Substrate/ Available Cover	Embeddedness/ Pooling	Velocity/ Depth Combinations	Sediment Deposition	Channel Flow Status	Channel Alterations	Frequency of Rifles
b	a	a	a	b	b	b

Stream bank, scores are based on an A-C scale, A = optimal, B= marginal, C = poor.

	Bank Stability	Bank Vegetative Protection	Riparian Vegetation Zone Width
Left Bank	b	b	b
Right Bank	b	b	b

4.2 Water Sampling and Laboratory Testing

Flatley Read Inc., acting as a subconsultant to LaBella, performed the collection and testing of water samples to evaluate the presence of various pollutants entering the lake from the Town of Stillwater watershed.

Water quality sampling locations were selected at four stream locations immediately upstream of the lake, as described below:

- Site A - Sample taken from the Mill Branch stream. It was taken across from Brown Road approximately 6 feet downstream from the NYS Route 9P culvert.
- Site B - Sample taken from an unnamed stream located adjacent to the Saratoga County Sewer District #1 pump station. This is just south of Gooseneck Drive and was approximately 8 feet up from the existing culvert.
- Site C - Sample taken from an unnamed stream located adjacent to Compass, approximately 25 feet downstream of the NYS Route 9P culvert.
- Site D - Sample taken from the Salvatore Court stream, approximately 10 feet upstream of the culvert.

A 5th sampling location was selected at the outlet of Saratoga Lake, from the Fish Creek near the NYS Route 9P bridge. This fifth location is intended to act as a control point.

A map depicting the locations of the sampling sites is included in Appendix D.

Samples were collected and analyzed at each of the 5 locations in three rounds: October 2021, April 2022, and July 2022. These dates were selected to understand pollutant level fluctuations throughout the seasons, and could provide some insight into sources of contamination and the best ways to address the contaminants.

The samples were analyzed for bacteria, mineral chemistry, radiochemistry, heavy metals, volatile and semi volatile organics, pesticides, herbicides and other contaminates. This broad-spectrum analysis was done to identify all possible contaminates within the lake.

The following table summarizes the testing results for the most relevant pollutants. A copy of the full reports prepared by Flatley Read for each round of testing is included in Appendix E1-E3. A summary table of the results is included in Appendix E4.

Pollutant Levels for Sampled Locations Throughout the Year

Pollutant	**Parameter**	**Site A**	**Site B**	**Site C**	**Site D**	**Site E (Fish Creek)**
Bacteria, E.Coli/ coliform	N/A (3)	Fall: Present Spring: Present Summer: Present	Fall: Present Spring: Present Summer: Present	Fall: Present Spring: Present Summer: Present	Fall: Present Spring: Present Summer: Present	Fall: Present Spring: Present Summer: Present
Aluminum mg/L	Limit: 0.1 (1)	Fall: 1.15 Spring: 0.37 Summer: 0.03	Fall: 0.53 Spring: 0.24 Summer: 0.02	Fall: 0.54 Spring: 0.26 Summer: 0.08	Fall: 1.35 Spring: 0.10 Summer: 0.02	Fall: 0.52 Spring: 0.04 Summer: 0.01
Iron, mg/L	Limit: 0.3 (1)	Fall: 0.29 Spring: 0.51 Summer: 0.42	Fall: 0.20 Spring: 0.45 Summer: 0.12	Fall: 0.13 Spring: 0.33 Summer: 0.09	Fall: 1.65 Spring: 0.86 Summer: 0.37	Fall: 0.14 Spring: 0.15 Summer: 0.04
Manganese mg/L	Limit: 0.3 (1)	Fall: 0.03 Spring: 0.04 Summer: 0.02	Fall: 0.03 Spring: 0.05 Summer: 0.02	Fall: 0.02 Spring: 0.02 Summer: 0.01	Fall: 0.18 Spring: 0.09 Summer: 0.04	Fall: 0.02 Spring: 0.02 Summer: 0.02
Nitrogen mg/L	Limit: 10 (1)	Fall: 5.69 Spring: 3.35 Summer: 0.54	Fall:0.22 Spring: 0.56 Summer: 0.00	Fall: 0.92 Spring: 0.00 Summer: 1.44	Fall: 0.00 Spring: 0.21 Summer: 0.00	Fall: 0.19 Spring: 0.60 Summer: 0.00
Phosphorous mg/L	Range: 0.01-0.02 (2)	Fall: 0.16 Spring: 0.04 Summer: 0.04	Fall: 0.01 Spring: 0.01 Summer: 0.02	Fall: 0.00 Spring: 0.02 Summer: 0.01	Fall: 0.03 Spring: 0.04 Summer: 0.04	Fall:0.00 Spring: 0.00 Summer: 0.00

1. *According to part 703 of the NYSDEC Water Classification and standards of Quality and Purity for Class A waterbody. The standards classify Saratoga Lake as Class A. The streams are being compared to the classification of the lake if possible instead of the EPA drinking water limits as the lake water must undergo purification before consumption. Natural levels of nutrients and bacteria are healthy for a lake, whereas the EPA drinking water limitations are more stringent on bacteria and nutrients in tap water where it can be hazardous to humans.*
2. *NYSDEC Classification of Mesotrophic total phosphorus levels between 0.01 and 0.02 mg/L according to Phosphorus Fact Sheet*
3. *EPA drinking water limitations limits bacteria to zero. This is not feasible for any open water source as bacteria live naturally in this environment. Though there are precautionary levels, Quantitative testing is typically only performed for specific application e.g., public beach*

We offer the following observations regarding these testing results:

- Overall: The testing results are not abnormal or alarming, and are typical of mildly impacted open channels and watersheds.
- Bacteria: Coliform and E. Coli were present in all sites including Fish Creek. Though this is in exceedance of the EPA levels for drinking water, it is not uncommon for open water sources. The NYSDEC open water standard for total coliform reads: “The monthly median value and more than 20 percent of the samples, from a minimum of five examinations, shall not exceed 2,400 and 5,000, respectively” number per 100mL. (NYSDEC 703.4 water quality standards for coliforms, enterococci, and E. coli. Class A)
- Aluminum: In the fall, all sites had exceedance levels of Class A standards. During the summer test only Sites A, B, and C had exceedances. The control and Site D were within both limits. Aluminum can enter the water via natural processes, like weathering of rocks. Aluminum is also released by mining, industrial processes, and wastewater treated with alum (EPA Aquatic Life Criteria). There is no immediate threat to human health, but this could indicate a source of contamination for Saratoga Lake. Excess aluminum can potentially disrupt some fish species.
- Iron: In the fall, Site D was more than the Class A standard. In the spring, all sites except the control were in exceedance. Iron in the summer consistently dropped for all the sites. Iron may alter the aesthetic of the water. Iron is typically found in groundwater and may come from runoff or steel pipes sitting in water. This is not a threat to human health and safety.
- Manganese: All sites are within the Class A limit. Manganese is found in natural sources like weathering and industrial human activities.
- Nitrogen: Site A was within Class A limits however it was a higher quantity than other sites. This could indicate potential upstream contamination from fertilizers, agriculture waste, or wastewater (EPA National Aquatic Resource Surveys).
- Phosphorus: Sites A and D were in excess of the mesotrophic level of phosphorus in lakes. High Phosphorus is possibly a result of poor agriculture practices, runoff from urban areas and lawns, leaking septic tanks, or discharges from sewage treatment plants (EPA National Aquatic Resource Surveys). This can result in excess algae growth which has potential to harm humans.
- It should be noted that all pollutants decreased from the spring to summer samples. The summer samples had consistently lower pollutants than the previous two samples.

4.3 CSLAP

The Citizen Statewide Lake Assessment Program (CSLAP) is a volunteer-based program used to monitor lake eutrophication (lake nourishment). The most important measures are phosphorus levels, chlorophyll *a*, and Secchi disk transparency. Using these parameters (and a few more), a trophic state can be determined for a lake.

The trophic state can be thought of as the productivity of a waterbody. This represents the biological, physical, and chemical characteristics of the lake. High lake clarity and low productivity are associated with oligotrophic lakes, whereas low clarity and high productivity are associated with eutrophic lakes. Mesotrophic lakes, as in the case of Saratoga Lake, fall in the middle. While the trophic state of a lake can change naturally over time, the change can be accelerated by human activity. Using trophic states as a reference for changing conditions can help show use (e.g. drinking water, recreation) impairments.

5 Modeling and Analysis

An EPA SWMM model of the Town of Stillwater portion of the Saratoga Lake watershed was created for the purpose of analyzing pollutant loading and transport. EPA SWMM is a hydrologic and hydraulic modeling software package that is capable of calculating rainfall-runoff relationships. In addition, the software can track the deposition, mobilization, transport, and absorption/removal of pollutants in stormwater runoff over time.

5.1 Pollutant Selection

The EPA SWMM software is pollutant agnostic in that any pollutant can theoretically be modeled. However, for a pollutant to be modeled with any degree of accuracy, reliable deposition and transport characteristics must be available. Unfortunately, this type of data is largely inexistant for the majority of the pollutants identified in the water sampling and testing results described in the previous section. It is therefore not practical or economical to model every pollutant.

For these reasons, the model focusses on the following three pollutants:

- Total Phosphorous (TP) - Phosphorus is a nutrient important for plant growth. In most lakes, phosphorus is the limiting nutrient. Major sources include human and animal wastes, soil erosion, detergents, septic systems and runoff from farmland or fertilized

lawns. Sediment at the bottom of the lake can also be a significant source of phosphorus. Total phosphorus includes both ortho-phosphate and the phosphorus in plant and animal fragments suspended in lake water.

- Total Nitrogen (TN) - Nitrogen is an essential nutrient for plants and animals. However, an excess amount of nitrogen in a waterway can lead to low levels of dissolved oxygen and negatively alter various plant life and organisms. Sources of nitrogen include wastewater treatment plants, runoff from animal manure and storage areas, and industrial discharges that contain corrosion inhibitors.
- Total Suspended Solids (TSS) - Total suspended solids are waterborne particles that are not dissolved. The majority of total suspended solids are inorganic materials such as sand and sediment. Algae, bacteria, and other organic materials may also be considered TSS. Solids originate from many sources including the erosion of pervious surfaces and dust, litter and other particles deposited on impervious surfaces from human activities and the atmosphere. Erosion at construction sites is also a major source of solids.

These three pollutants have been more extensively studied than many others, and significant data and research have been published regarding their characteristics.

5.2 Model Setup and Calibration

5.2.1 Precipitation Patterns

Two precipitation patterns were used in the model:

- Extreme 24-hour precipitation events, with depths and hydrograph distributions obtained from the Northeast Regional Climate Center (NRCC) website. These storms were used to calibrate the model hydraulically to reproduce the runoff predicted by StreamStats.
- A full year of rainfall data collected at the NOAA weather station at Albany airport. The water year 2013 was selected as representative because it was neither extremely wet or dry, and because it did not include any major outlier storm events such as a hurricane. This rainfall data was used to run the model for a full simulated year in order to calculate annual pollutant loading from the watershed.

5.2.2 Watershed Characteristics

The hydrologic characteristics of each of the subcatchments were derived from the soil maps and land use data described earlier in this report, as well as from publicly available lidar topography.

The model was calibrated by adjusting these parameters such that the model peak flow output for each subcatchment approximates the flows predicted by StreamStats. The calibration was performed using the 1-year storm as a basis, as most of the pollutant carrying storms from water year 2013 are smaller than the 1-year storm. Calibrating to larger storms would therefore not benefit the analysis being considered in this report.

5.2.3 Pollutant Loading

The EPA SWMM software package allows for several methods for modeling pollutant buildup and washoff. For the purposes of this report the pollutant buildup and washoff were modeled on the basis of an "event mean concentration" (EMC), usually expressed in milligrams per liter (mg/L). Under this approach, all runoff from a given land use is assumed to carry a certain fixed concentration of each pollutant being considered.

A literature search was performed to obtain reasonable values of the EMC for each pollutant from each land use type (Residential, Industrial, Open/Recreation, Agriculture, Woods, Highway, and Water) within the watershed. The primary sources used were the NYSDEC Stormwater Management Design Manual, the Minnesota Storm Water Manual, and a research article titled "Stormwater Runoff Pollutant Loading Distributions and Their Correlation with Rainfall and Catchment Characteristics in a Rapidly Industrialized City", by Dongya Li et al. (2015).

The model was then calibrated by adjusting the EMC values to result in pollutant concentrations that match those observed in the water quality testing and sampling. The final EMCs are presented in the table below:

Pollutant Event Mean Concentrations by Land Use Type

Land Use	TP (mg/L)	TN (mg/L)	TSS (mg/L)	Total Area (acres)
Residential	0.074	1.54	66	767.4
Industrial	0.07	1.54	75	217.2
Open/Rec.	0.09	1.155	37	95.8

Land Use	TP (mg/L)	TN (mg/L)	TSS (mg/L)	Total Area (acres)
Agriculture	0.078	2.31	70	1062.8
Woods	0.012	0.77	64	3821.7
Highway	0.056	1.54	71	10.7
Water	0.02	0.77	10	95.4
Total				6071.0
Weighted Average	0.035	1.172	64.43	
Target Concentration (Observed via WQ Testing)	0.031	1.174	n/a	

5.2.4 Further Model Calibration and Improvement

It is important to note that the model is meant to calculate an annual pollutant loading discharging into the lake (for example 3,700 pounds per year of total nitrogen). However, the only data we have available for calibration is snapshots of concentration taken in the fall, spring, and summer. The streams would have to be monitored daily for both flow rate and pollutant concentration to provide a full data set to calibrate the model against. This is unfortunately prohibitively expensive.

In addition, while adding complexity to the model is always possible, it can never hope to perfectly predict the behavior of an infinitely complex natural system. Investing more resources into developing a more complex model unfortunately suffers from the law of diminishing returns.

Because of the above limitations in our ability to calibrate the model, the model should not be considered an accurate predictor of absolute pollutant loads in any given storm. However, it is useful for performing a comparative analysis of multiple scenarios. For example, the model is well suited to evaluating the relative change in pollutant loads that might result from a change in land use or zoning within the watershed (e.g. a planning tool).

A printout of the final EPA SWMM input file is included in Appendix F.

5.3 Modeling Results

The model was successfully run to estimate the annual pollutant washoff from each subcatchment. Select model output tables have been included in Appendix F, and the overall results are summarized in the table below:

Modeling Results by Subcatchment

Subcatchment	Annual Runoff (10^6 Gal)	Peak Runoff Rate (cfs)	Annual TP (lbs)	Annual TN (lbs)	Annual TSS (lbs)
S01A	30.5	61	4.7	211	15,700
S01B	11.2	23	134.4	2,957	144,000
S02	1.9	10	4.2	105	5,800
S03	9.7	31	3.7	87	5,100
S04	269.4	357	0.7	15	900
S05	9.5	28	1.5	68	5,100
S06A	14.7	42	10.6	350	22,000
S06B	9.9	27	69.4	2,542	141,200
S07	324.3	230	2.3	77	4,900
S08	10.8	42	4.2	149	7,900
S09	107.2	170	1.9	80	5,300
S10A	48.1	63	13.5	480	25,300
S10B	41.5	83	140.1	4,444	179,400
S11	233.9	238	39.0	1,036	57,600
TOTAL	1,122.6	n/a	430.2	12,601	620,200

When considering these results it is important to bear in mind the model's limitations, as discussed in the previous section. In addition, it should be noted that pollutant washoff from the watershed may not necessarily reach the lake, but may instead be redeposited elsewhere in the watershed.

6 Pollutant Loading Reduction Opportunities

The preceding sections of this report show that the runoff entering the lake from the Town watershed generally does not exhibit signs of significant degradation or pollution. Nevertheless, the scope of this report includes evaluating sites for the potential construction of green infrastructure practices. Construction of these types of practices within the watershed would help mitigate the impacts of development, and could build long term resiliency within the stormwater management system.

6.1 Site Selection Parameters

Parcels within the watershed were explored in both GIS and Google Maps to determine candidate green infrastructure site locations. Criteria for candidate sites include the following:

- Land Use - The current use of each tax parcel was considered when deciding the best locations for each green infrastructure practice. Ideal land uses open, grassy areas such as recreation areas and open space adjacent roads or buildings.
- Location - Ideal locations exist at low elevations, downstream of high pollutant areas and in a stream path where a GI practice will maximize how much stormwater it collects.
- Ownership - Parcels owned by the Town were prioritized as candidate sites, to make the permissions process as smooth as possible. As the number of these sites were limited, various LLC's such as Saratoga Development and Endeavors, Mason Street and Luther Forest Corp. were also considered.
- Constructability - An in-person visit was made to each candidate site to evaluate the feasibility of constructing each green infrastructure practice.

6.2 Candidate Site Identification

The following table lists the 10 candidate sites that were chosen based on the above criteria:

Candidate Site Parcel Information

Parcel ID	Address	Owner	Subcatchment #
242.-1-96,11	28 Cold Spring Road	The Luther Forest Corporation	S01A
218.20-2-23	Brown's Beach	Town of Stillwater	S11
230.12-1-46	555 County Road 76	Town of Stillwater	S01A
218.12-1-39.2	608 NYS Route 9P	Saratoga County Sewer District #1	S11
219.21-1-6	1 Lakepoint Way	Mason Street LLC	S11 and S07
206.-1	93 Brown Road	Saratoga Development LLC	S10B
207.-1-12	54 Radar Road	Saratoga Endeavors LLC	S06B
231.-1-66	35 Grace Moore Road	The Luther Forest Corporation	S03
206.17-3-21.2	726 NYS Route 9P	Saratoga County Sewer District #1	S09
230.27-2-6	Pine Ridge Road Rec. Area	Saratoga Pine Ridge Inc	S02

A location map for these candidate sites is included in Appendix G.

6.3 Initial Site Evaluations

A site visit was made on December 14, 2021, to observe the existing conditions of each candidate green infrastructure site. This initial visit was intended to narrow down the list of candidate sites based on obvious factors such as excessive slopes, ownership or constructability issues, etc.

Of the ten sites visited, five were eliminated from consideration for the following reasons:

- **93 Brown Road:** Was not included because the parcel has been built on and is now a homeowner's property.
- **54 Radar Road:** Was not included because its elevation is too high and would not collect much stormwater.
- **35 Grace Moore Road (Golf Course):** Was not included because it is located on private property and could not be explored thoroughly.
- **726 NYS Route 9P:** Was not included because there is not enough space near the pump station to build a viable practice.

- **Pine Ridge Road Rec Area:** Was not included because it is located on private property and could not be explored thoroughly.

6.4 Infiltration Testing and Development

On May 18, 2022, a second site visit was performed at each remaining candidate site and infiltration tests were completed. In addition, for each location a concept plan for at least one green infrastructure practice was developed (at several locations multiple possible green infrastructure practices were considered).

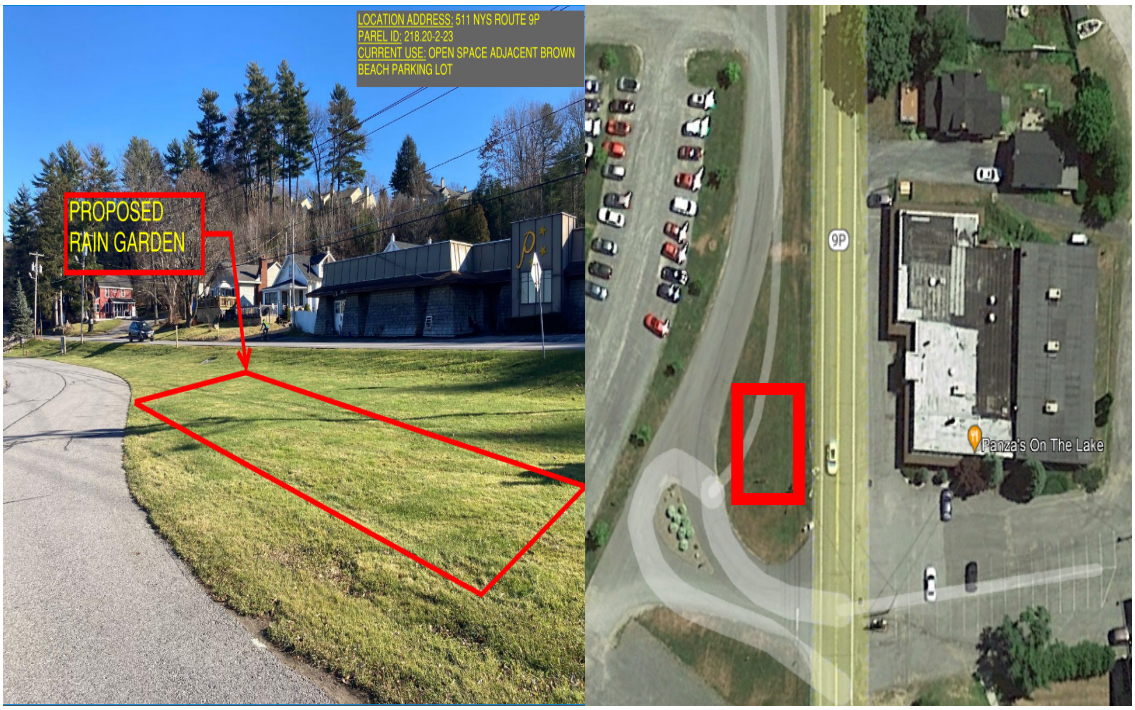
As a result of this effort, a total of nine possible green infrastructure practices were selected, as described in the following sections.

6.4.1 28 Cold Springs Road

This location is next to Cold Springs Road. The site would collect stormwater runoff from the road, including vehicle pollution and help to treat it prior to entering the surrounded wooded areas and subcatchment. This area should be noted as having increased construction presence in the coming seasons or years and is adjacent to the Global Foundries manufacturing facility. The infiltration tests showed that this area infiltrates very well as the soils consist of mostly sand in the areas and to the depth explored. The rate of infiltration was faster than 1 inch per minute. This property is located within the Luther Forest group's property. The area of the potential green infrastructure sites are shown below.

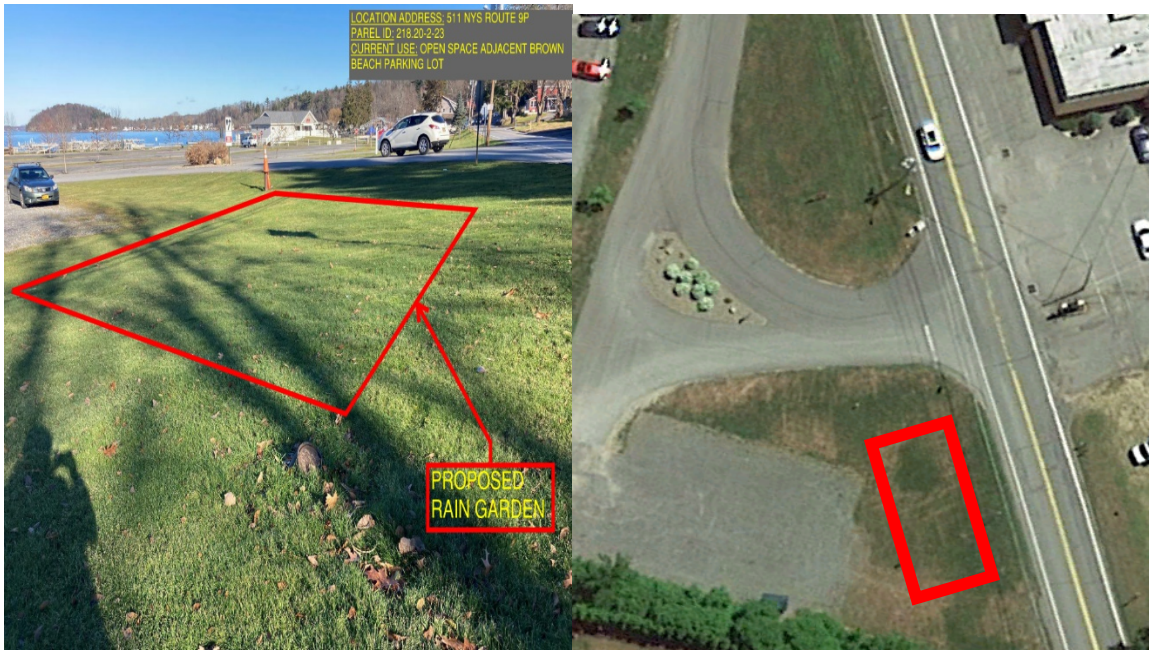
6.4.2 Brown's Beach (a)

This location is located in the open space to the north of Panza's on the Lake. This rain garden would collect stormwater from NYS Route 9P and would be able to collect pollutants before they enter the lake and the Browns Beach public facility. This area has an infiltration rate of approximately 6 minutes per inch. A concern with this option is that this area is sometimes used as overflow parking for large events.



6.4.3 Brown's Beach (b)

This location is a second option for the Browns Beach parcel. This is located immediately to the south of the entrance. The infiltration rate of the soils in this area is approximately 14 minutes per inch. As with the previous area, a concern with this option is that this area is sometimes used as overflow parking for large events.



6.4.4 Brown's Beach (c)

The third option at Brown's Beach is to convert the asphalt paved portion of the driveway to permeable pavers. The permeable pavers would encourage stormwater infiltration and reduce the quantity of surface runoff directly entering the lake.

6.4.5 555 County Route 76 (a)

This location is located within Stillwater Glen Hollow Park and is on the north side of the soccer field adjacent to the parking lot. This location would be helpful in absorbing pollutants from the field and would help with the natural beauty of the park. The location has an infiltration rate faster than 1 inch per minute. Though there are no constructability concerns at this location, the proposed rain garden would take up a portion of the playable field.

6.4.6 555 County Route 76 (b)

This location is a second option within the Stillwater Glen Hollow Park, located behind the pavilion. The location has an infiltration rate of greater than 1 inch per minute. There are no known issues or concerns with this location.

6.4.7 608 NYS Route 9P

This location is along the side of a parking area and municipal utility area. The soils in this area infiltrate at approximately 8 minutes per inch. The location has no major concerns except for the potential utility service needed to be accessed and or maintained.

6.4.8 1 Lakepoint Way (a)

This location is adjacent to the entrance of the existing Saratoga Pointe subdivision. This area would be effective at collecting pollutants from the subdivision and taking stormwater runoff from the road. This location has an infiltration rate of approximately 6 minutes per inch. A concern with this site is that the HOA might not approve the construction of a rain garden at this location.

6.4.9 1 Lakepoint Way (b)

A second location (not pictured) is available just beyond and to the west of the location shown above. This location may be more palatable to the subdivision HOA, as it would be farther removed from the subdivision entrance boulevard.

6.5 Rain Garden Construction and Maintenance

Rain Gardens are an effective way to treat stormwater runoff and deal with pollution. As stormwater flows over the land, it picks up various contaminates that are on the surface. As the water seeps into the Rain Garden, it is filtered through a prepared soil mix that optimizes their effectiveness. Rain Gardens are used to capture this polluted water and treat the

contaminates before they migrate further through the environment. Rain gardens result in cleaner water and increase groundwater recharge. They also add some beauty and interest to the surrounding environment and provide habitats for local wildlife. Please see pictures below as well as those in Appendix H for typical rain garden information.

In recent years, chlorides, mainly road salts, have been used in large amounts to maintain roads and for many other uses. These chlorides, when transported by stormwater runoff seasonally, can be problematic for water bodies as they accumulate. Rain gardens are very effective at absorbing these chlorides and stopping them from polluting larger water bodies. Many native species are salt tolerant and can function effectively in this setting.

According to the NYSDEC Stormwater Management Design Manual, rain gardens are a passive filter system that allows for the treatment of stormwater runoff. To get the most benefit of the rain garden system, it important to properly maintain them. As a whole, rain gardens do not require a large amount of maintenance. However, it is important that their makeup remains as intended and that they do not deteriorate and or succumb to invasive species. It is recommended that rain gardens be treated as a component of landscaping and that the parties responsible for maintenance be clearly identified. The most important maintenance items are to weed and mulch the garden and to occasionally replace plants as needed. Using native plants and keeping up with weeding in the first years is critical as the rain garden is not fully established at this time. Lastly, it is important to inspect the rain garden for large gatherings of debris and remove them so that flows throughout the garden as intended. Overall, rain gardens are a low maintenance stormwater treatment system that only requires simple landscaping management to keep operational and functioning as intended.

An effective way to evaluate rain gardens is with a visual test. This test includes identifying species for diversity, the amount of visible soil in the garden, the general color and apparent health of the plants and lastly any notable smells or sounds coming from the garden. Rating these while the garden is forming as well as throughout its functional service life will help to establish a baseline for the garden's health and where it should be in the future. This also will help to track invasive species and any diseases that could infect the rain garden.

6.6 Construction Cost Breakdown

Rain gardens typically do not exceed 1,000 square feet in size. Due to this, the majority of the cost estimates are very similar. All of the sites except for the site at 608 Route 9P have over 1,000 square feet available for the creation of a rain garden. To construct a typical rain garden, the following items are required:

- Mobilization/Demobilization
- General Excavation
- Filter Fabric
- Planting Soil Media
- Clean Washed Gravel
- Hardwood Mulch
- Native Plant Landscaping
- Site Restoration

Further, the Brown's Beach (c) option is to construct permeable pavers system to infiltrate water prior to entering the lake.

Refer to Appendix I for a typical detail of a rain garden and permeable pavers.

The following table presents a summary of the anticipated constructions costs associated with each of the green infrastructure practices recommended in this report.

Opinion of Probable Construction Costs by Site

Site	Practice Type	Construction Cost
28 Cold Springs Road	Rain Garden	$13,200
Brown's Beach (a)	Rain Garden	$12,400
Brown's Beach (b)	Rain Garden	$13,500
Brown's Beach (c)	Permeable Pavers	$470,000
555 County Route 76 (a)	Rain Garden	$14,400
555 County Route 76 (b)	Rain Garden	$12,400
608 NYS 9P	Rain Garden	$5,400
1 Lakepoint Way(a)	Rain Garden	$16,700
1 Lakepoint Way(b)	Rain Garden	$16,700
Total	Rain Garden	$574,700

A detailed breakdown of the cost estimates is included in Appendix J.

7 Conclusion and Recommendations

We have completed an analysis of the Town of Stillwater portion of the Saratoga Lake Watershed. Based on the collection and lab analysis of water samples collected at multiple locations and at various times of the year, the water quality of the runoff entering the lake was found to be generally in line with acceptable norms for open water bodies of this size. Therefore, no urgent remedial actions or investigations are recommended at this time.

We have developed an EPA-SWMM model of the watershed which represents both stormwater runoff and pollutant loading. This model has been calibrated with the data obtained by water quality sampling and testing. The model can be used to predict the effects of future zoning and land use changes on both runoff quantity and quality.

We have also evaluated a number of sites within the Town for suitability to construct green infrastructure practices to collect and treat stormwater runoff. The practices presented in this report have been selected based on the suitability of the sites and soils to support green infrastructure practices.

As a result of our analysis, we offer the following recommendations:

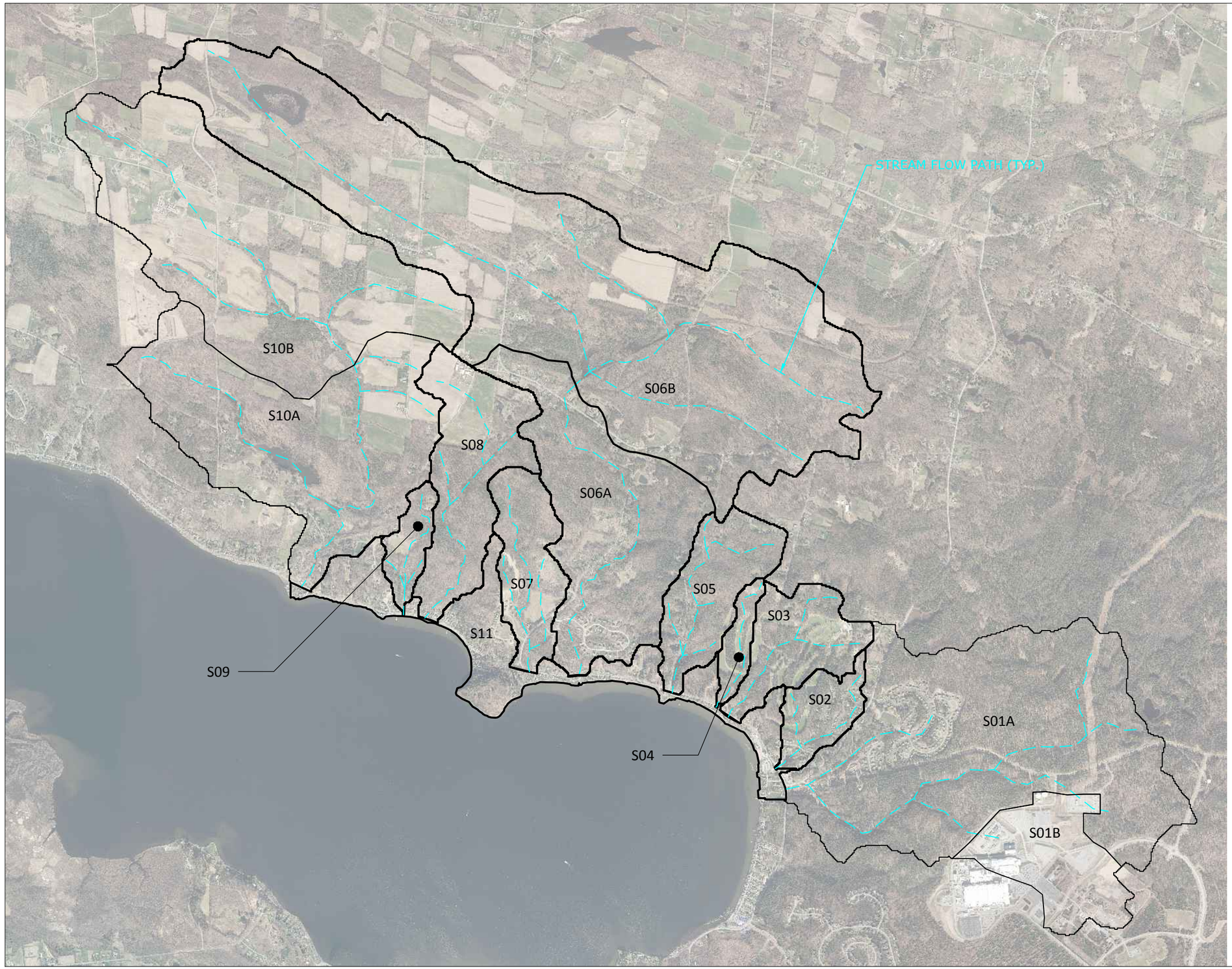
1. **Develop a program of regular water quality sampling and testing.**
   A program of regular water quality sampling and testing could help reveal long term trends in pollutant loadings. This data would be helpful for planning purposes and would provide a useful baseline for any future environmental studies and engineering plans. It could also allow the Town to identify emerging issues in real time. This would help in potentially pinpointing the source of a particular pollutant and could help the Town to mitigate the threat before it grows in severity. These benefits would likely result in significant savings in engineering analysis and construction costs associated with any future mitigation projects.

2. **Develop a program of building and maintaining green infrastructure practices.**
   Pending the availability of adequate funding, we recommend that the Town develop a program of constructing and maintaining a variety of green infrastructure practices on publicly owned parcels throughout the Town. Though each individual practice would have a negligible impact on the watershed, their combined presence in the near shore environment would have an outsized impact on pollutant levels entering the lake. In addition, the presence of rain gardens and other green infrastructure practices in the community can be an encouragement to residents to construct similar practices on their properties (see next recommendation).

3. **Encourage private property owners to build raingardens.**
   A program to encourage private property owners to install rain gardens (and other green infrastructure practices) should also be considered. Though the proper design and maintenance of each of these private practices would be difficult to monitor and enforce, in the aggregate they would provide a significant resiliency to the Town's stormwater system and would ultimately benefit the water quality of Saratoga Lake.

Appendix A

Subcatchment Delineation Map



LaBella
Powered by Partnership.

LaBella Associates, D.P.C.
20 Elm Street, Suite 110
Glens Falls, NY 12801

www.labellapc.com

SARATOGA LAKE WATER QUALITY STUDY

TOWN OF STILLWATER
SARATOGA COUNTY
NEW YORK

LABELLA PROJECT NO.
CZ32000.13

SUBCATCHMENT DELINEATION MAP

N

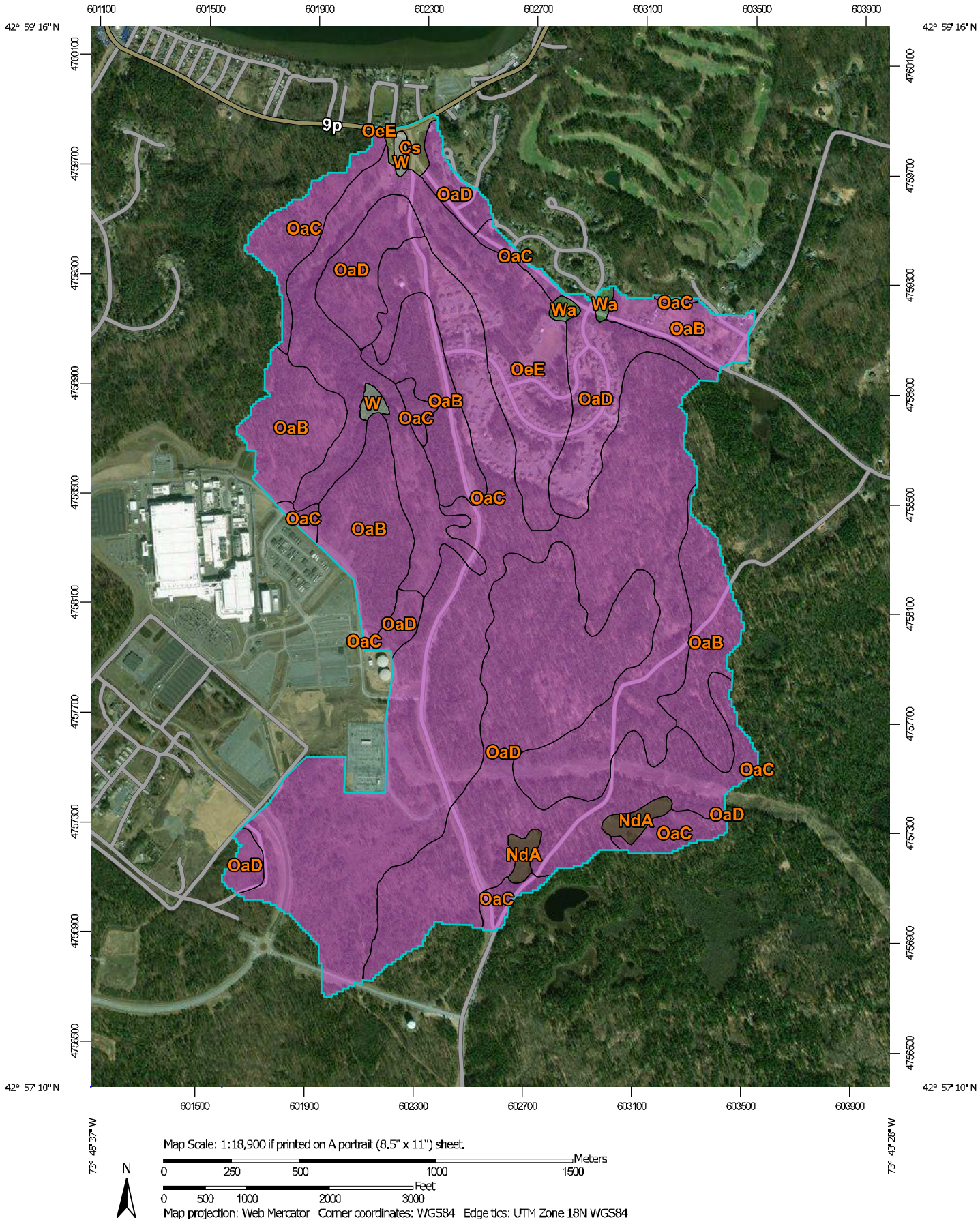
0 2500 5000 Feet

SEPTEMBER 2022

Appendix B

Web Soil Survey Reports

Hydrologic Soil Group—Saratoga County, New York
(S01A)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cs	Cosad fine sandy loam	C/D	4.6	0.5%
NdA	Natchaug muck, ponded, 0 to 2 percent slopes	B/D	8.3	0.9%
OaB	Oakville loamy fine sand, undulating	A	157.9	16.5%
OaC	Oakville loamy fine sand, rolling	A	375.0	39.2%
OaD	Oakville loamy fine sand, hilly	A	268.3	28.1%
OeE	Windsor loamy sand, 25 to 35 percent slopes	A	134.7	14.1%
W	Water		3.9	0.4%
Wa	Wareham loamy sand	A/D	3.2	0.3%
Totals for Area of Interest			**955.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

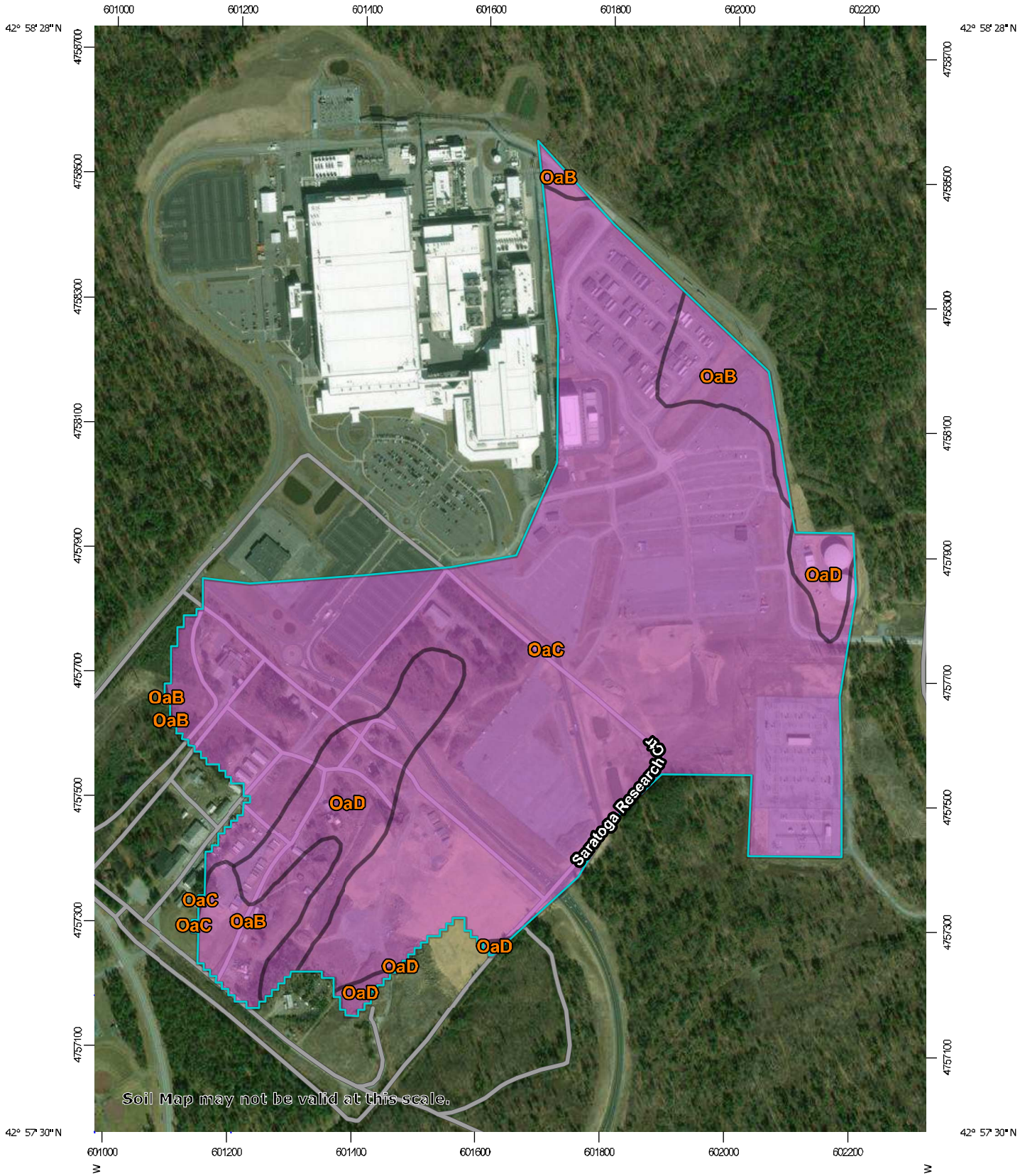
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S01B)



Map Scale: 1:8,630 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
OaB	Oakville loamy fine sand, undulating	A	13.9	7.6%
OaC	Oakville loamy fine sand, rolling	A	150.6	82.1%
OaD	Oakville loamy fine sand, hilly	A	18.8	10.3%
Totals for Area of Interest			**183.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

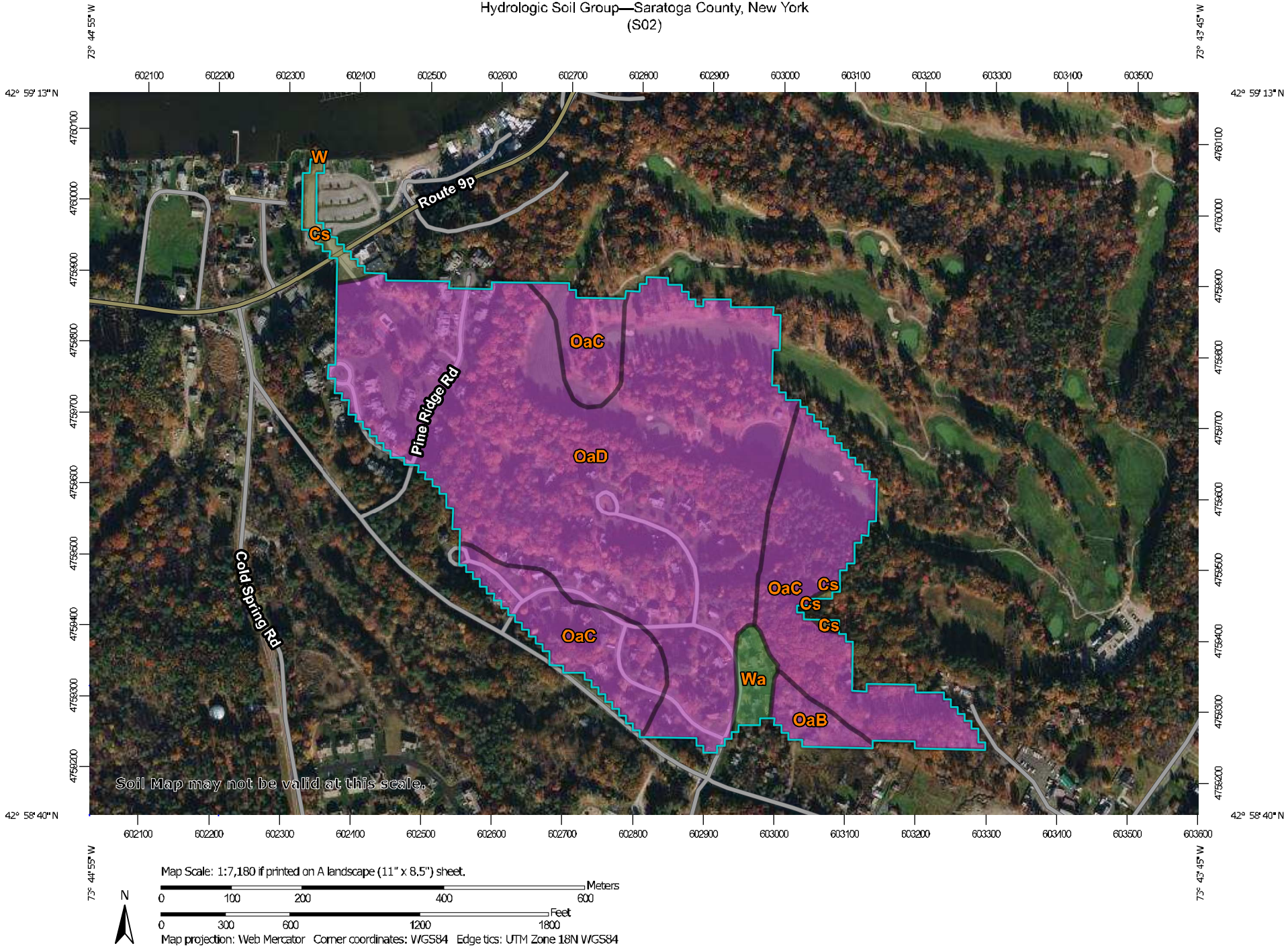
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Map Scale: 1:7,180 if printed on A landscape (11" x 8.5") sheet.

Meters: 0, 100, 200, 400, 600

Feet: 0, 300, 600, 1200, 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 21, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 15, 2021—Nov 8, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cs	Cosad fine sandy loam	C/D	1.3	1.5%
OaB	Oakville loamy fine sand, undulating	A	1.8	2.0%
OaC	Oakville loamy fine sand, rolling	A	24.5	27.5%
OaD	Oakville loamy fine sand, hilly	A	59.8	67.1%
W	Water		0.0	0.0%
Wa	Wareham loamy sand	A/D	1.7	1.9%
Totals for Area of Interest			**89.2**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

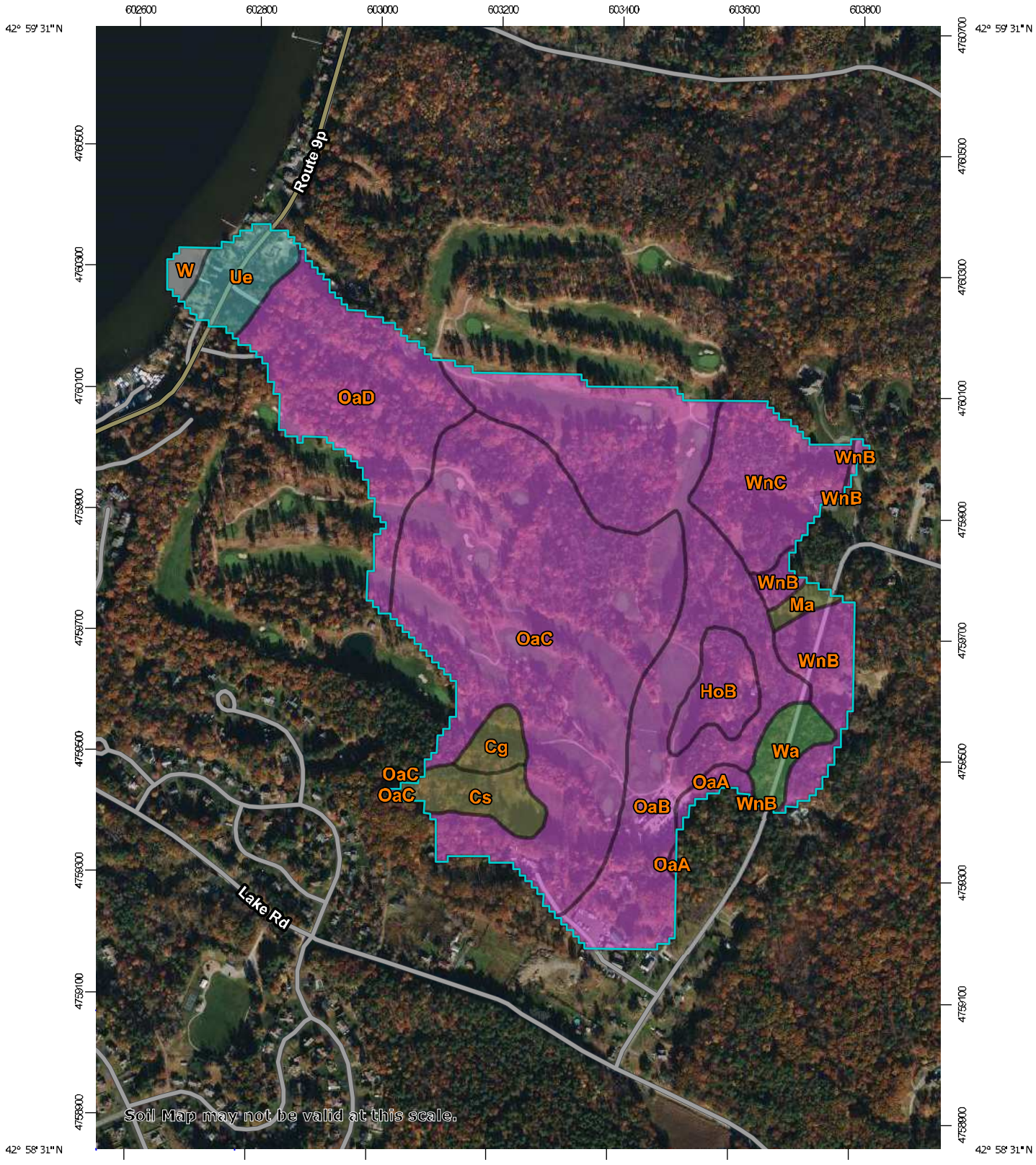
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(SO3)



Map Scale: 1:9,020 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 21, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 15, 2021—Nov 8, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cg	Cheektowaga mucky very fine sandy loam	C/D	2.2	1.4%
Cs	Cosad fine sandy loam	C/D	4.2	2.6%
HoB	Hoosic gravelly sandy loam, undulating	A	4.6	2.9%
Ma	Madalin mucky silty clay loam	C/D	1.0	0.6%
OaA	Oakville loamy fine sand, nearly level	A	1.3	0.8%
OaB	Oakville loamy fine sand, undulating	A	39.6	24.9%
OaC	Oakville loamy fine sand, rolling	A	56.6	35.5%
OaD	Oakville loamy fine sand, hilly	A	21.6	13.6%
Ue	Udorthents, smoothed	C	5.0	3.1%
W	Water		1.0	0.6%
Wa	Wareham loamy sand	A/D	3.2	2.0%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	7.4	4.7%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	11.5	7.2%
Totals for Area of Interest			**159.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

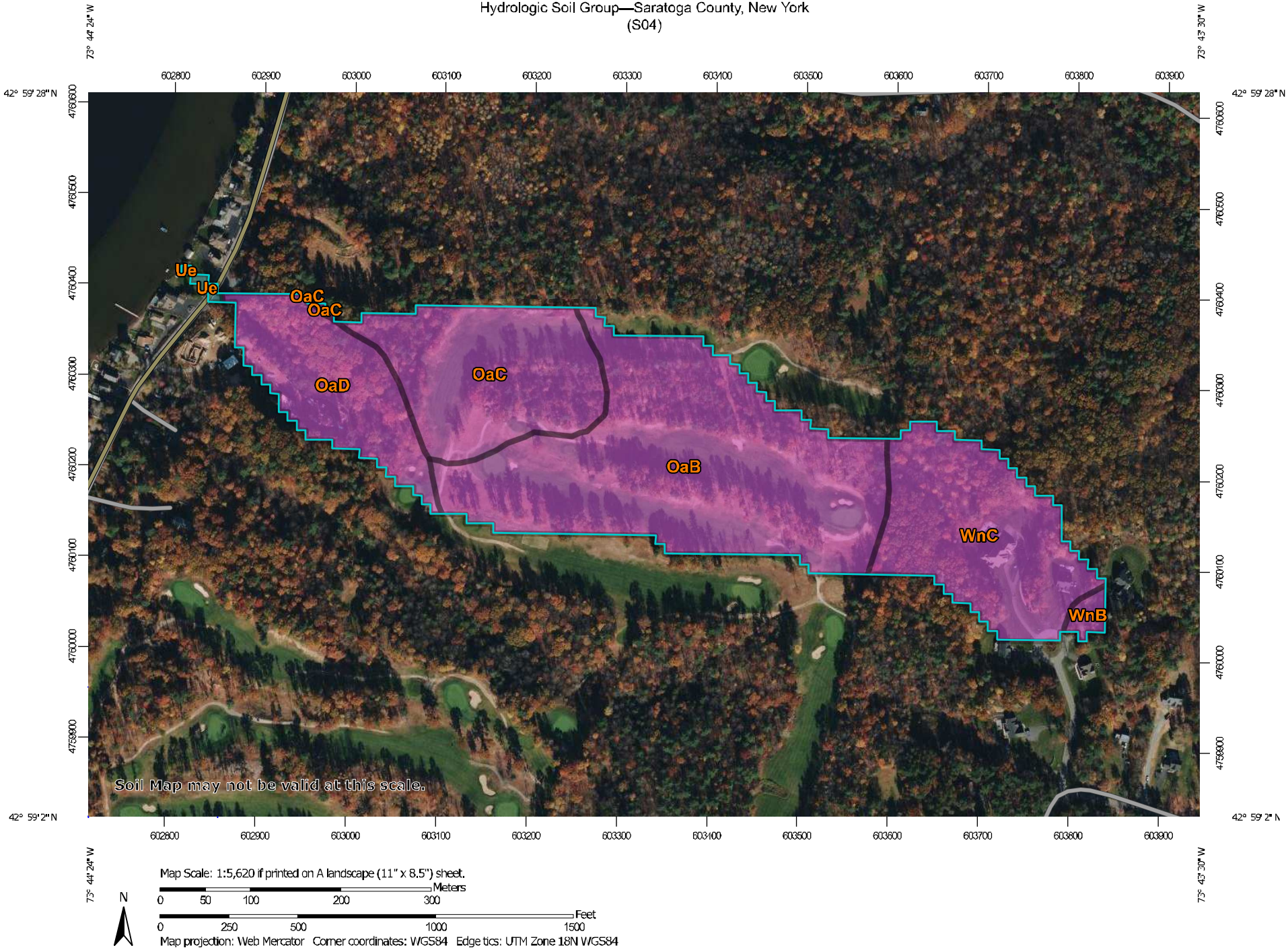
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S04)



Map Scale: 1:5,620 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 21, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 15, 2021—Nov 8, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
OaB	Oakville loamy fine sand, undulating	A	19.4	44.2%
OaC	Oakville loamy fine sand, rolling	A	8.6	19.5%
OaD	Oakville loamy fine sand, hilly	A	6.3	14.3%
Ue	Udorthents, smoothed	C	0.2	0.4%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	0.4	1.0%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	9.1	20.7%
Totals for Area of Interest			**44.0**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

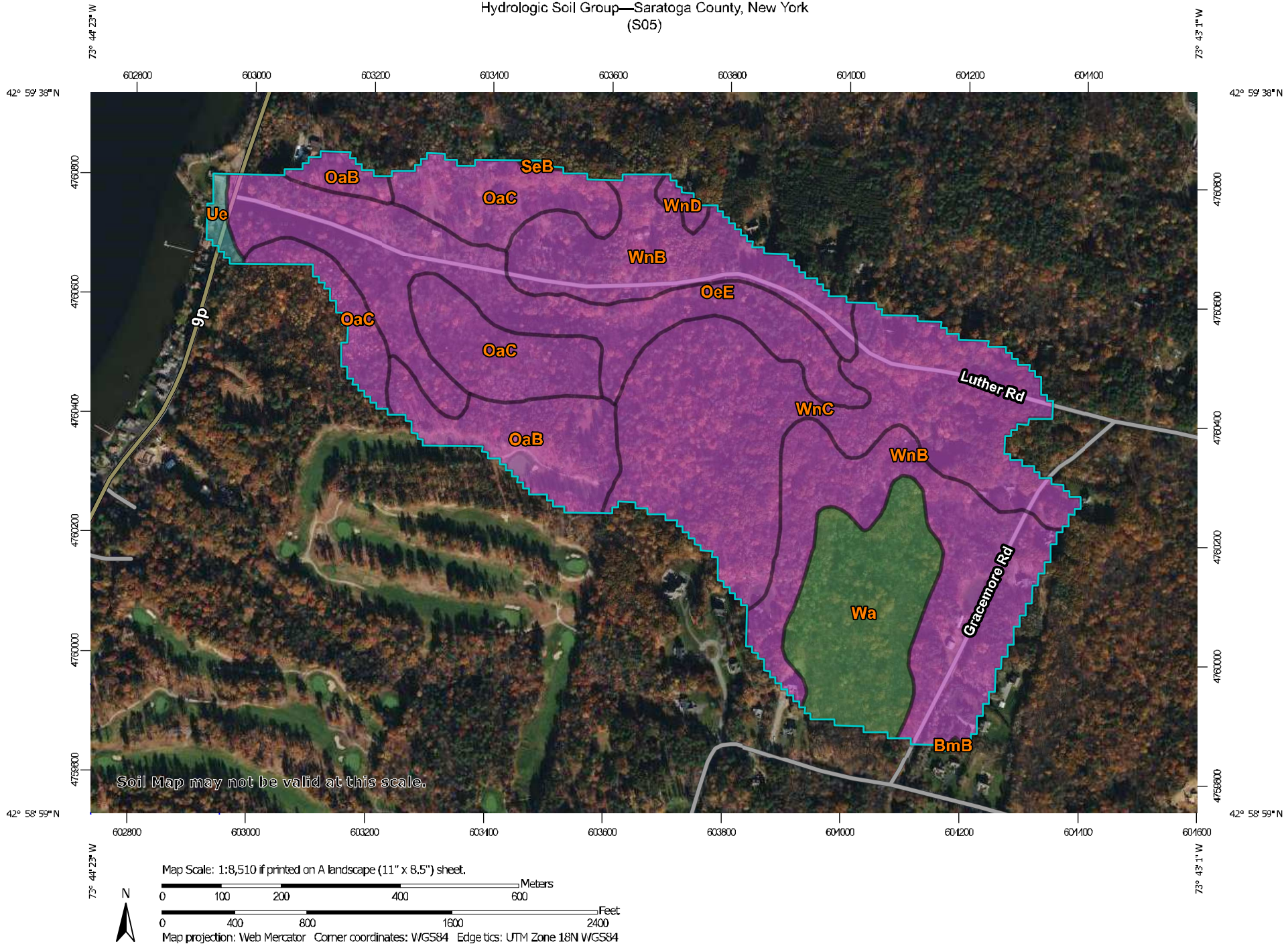
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S05)



Map Scale: 1:8,510 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 21, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 15, 2021—Nov 8, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BmB	Bernardston silt loam, 3 to 8 percent slopes	C/D	0.1	0.1%
OaB	Oakville loamy fine sand, undulating	A	13.8	7.8%
OaC	Oakville loamy fine sand, rolling	A	23.6	13.2%
OeE	Windsor loamy sand, 25 to 35 percent slopes	A	29.1	16.3%
SeB	Scio silt loam, 3 to 8 percent slopes	B/D	0.2	0.1%
Ue	Udorthents, smoothed	C	1.2	0.6%
Wa	Wareham loamy sand	A/D	18.8	10.5%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	45.1	25.3%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	45.5	25.5%
WnD	Windsor loamy sand, 15 to 25 percent slopes	A	0.9	0.5%
Totals for Area of Interest			**178.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

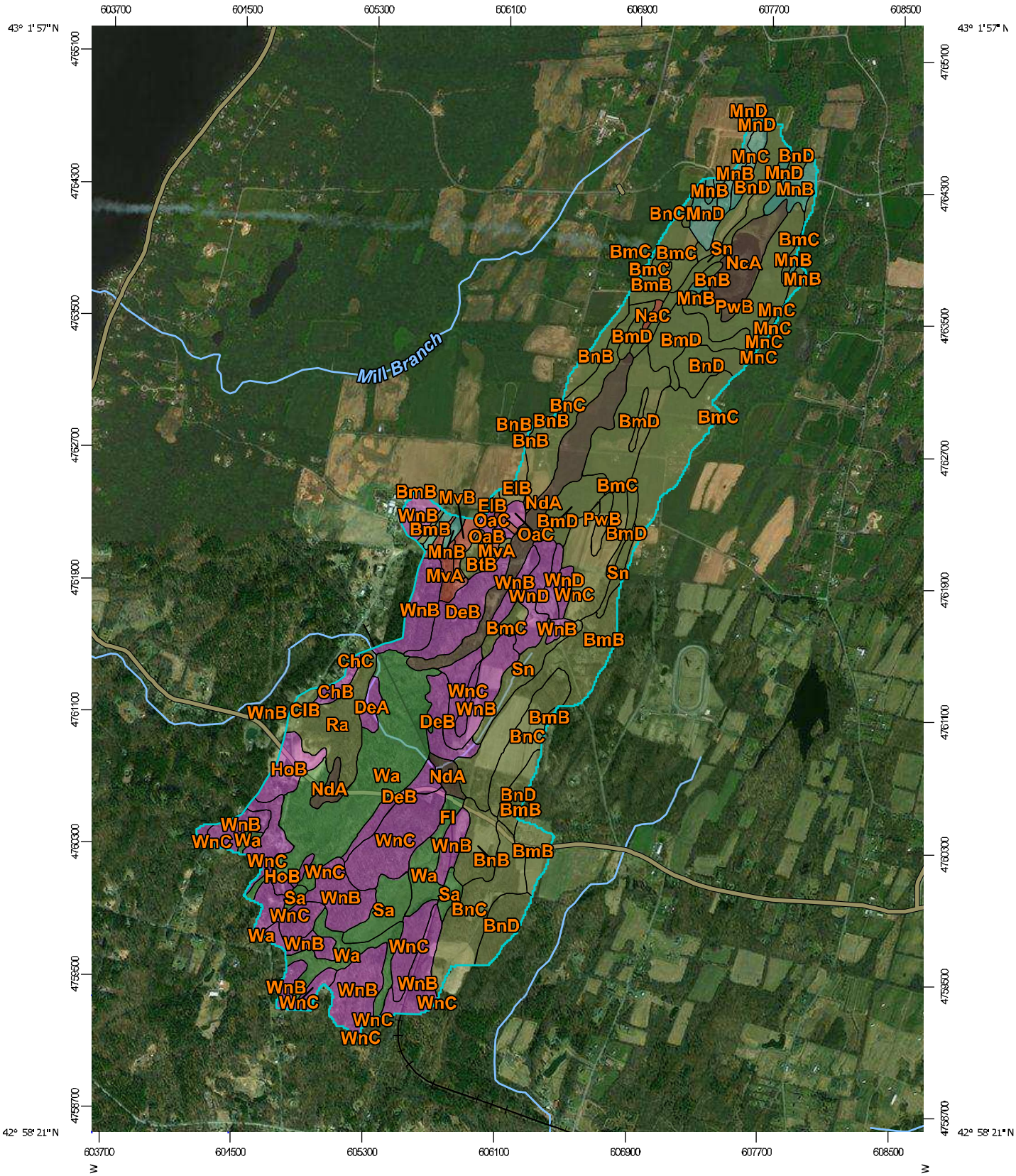
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S06A)



Map Scale: 1:32,600 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 450 900 1800 2700

Feet
0 1500 3000 6000 9000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

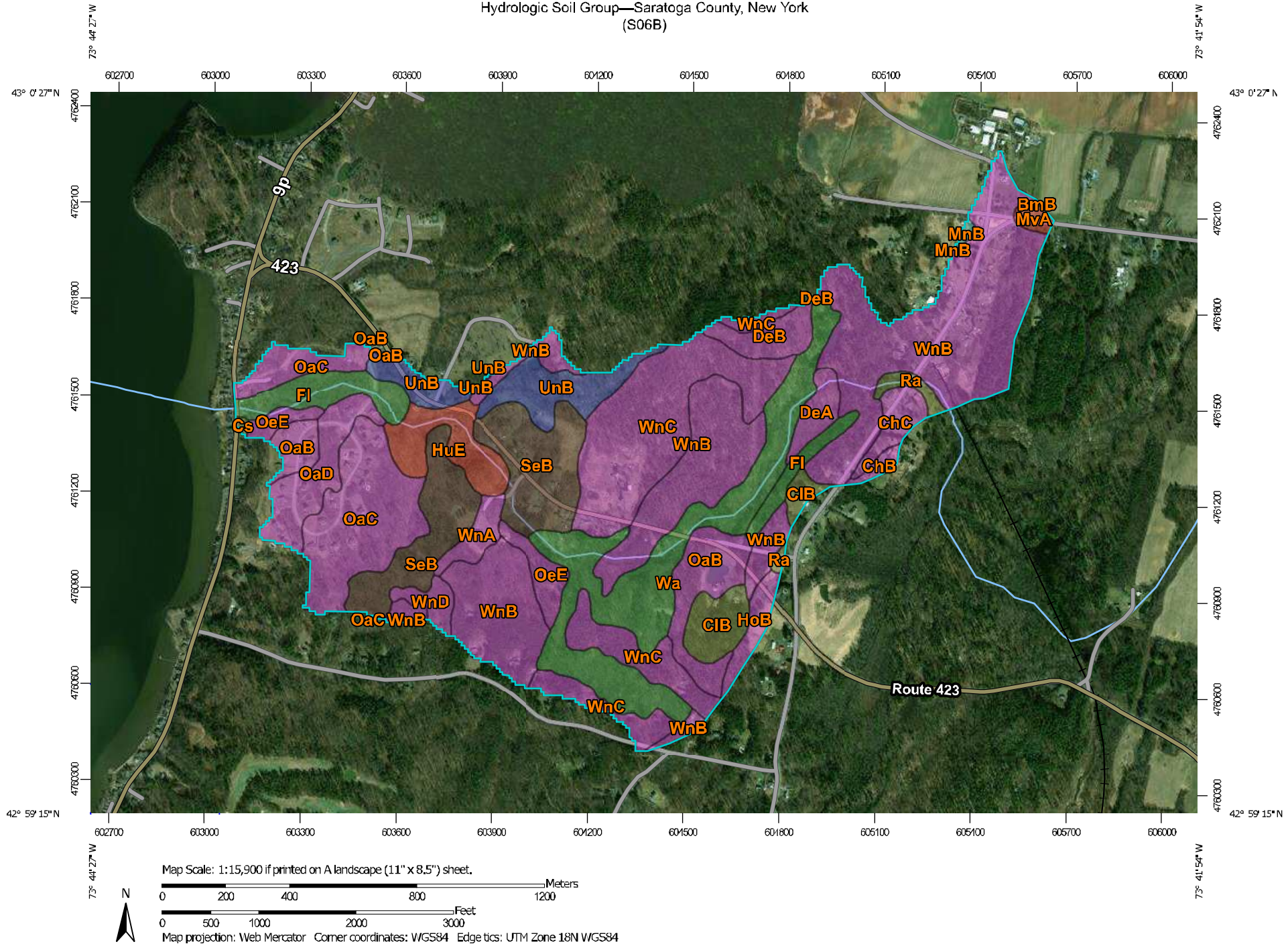
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BmB	Bernardston silt loam, 3 to 8 percent slopes	C/D	165.4	10.1%
BmC	Bernardston silt loam, 8 to 15 percent slopes	C/D	119.4	7.3%
BmD	Bernardston silt loam, 15 to 25 percent slopes	C/D	66.3	4.0%
BnB	Bernardston-Manlius-Nassau complex, undulating	C/D	38.8	2.4%
BnC	Bernardston-Manlius-Nassau complex, rolling	C/D	127.1	7.7%
BnD	Bernardston-Manlius-Nassau complex, hilly	C/D	76.8	4.7%
BtB	Broadalbin silt loam, 3 to 8 percent slopes	C/D	10.9	0.7%
ChB	Chenango silt loam, loamy substratum, udulating	A	6.1	0.4%
ChC	Chenango silt loam, loamy substratum, rolling	A	0.8	0.1%
ClB	Claverack loamy fine sand, 3 to 8 percent slopes	C/D	3.5	0.2%
DeA	Deerfield loamy fine sand, 0 to 3 percent slopes	A	7.5	0.5%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	A	64.3	3.9%
ElB	Elmridge very fine sandy loam, 3 to 8 percent slopes	C/D	6.6	0.4%
Fl	Fluvaqvents frequently flooded	A/D	6.1	0.4%
HoB	Hoosic gravelly sandy loam, undulating	A	22.7	1.4%
MnB	Manlius-Nassau complex, undulating, rocky	C	34.1	2.1%
MnC	Manlius-Nassau complex, rolling, rocky	C	9.5	0.6%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MnD	Manlius-Nassau complex, hilly, rocky	C	15.8	1.0%
MvA	Mosherville silt loam, 0 to 3 percent slopes	D	13.4	0.8%
MvB	Mosherville silt loam, 3 to 8 percent slopes	D	9.1	0.6%
NaC	Nassau-Rock outcrop complex, rolling	D	2.0	0.1%
NcA	Natchaug muck, 0 to 2 percent slopes	B/D	34.4	2.1%
NdA	Natchaug muck, ponded, 0 to 2 percent slopes	B/D	76.1	4.6%
OaB	Oakville loamy fine sand, undulating	A	2.0	0.1%
OaC	Oakville loamy fine sand, rolling	A	7.0	0.4%
PwB	Pittstown silt loam, 3 to 8 percent slopes	C/D	50.6	3.1%
Ra	Raynham silt loam	C/D	45.6	2.8%
Sa	Scarboro mucky fine sandy loam, 0 to 3 percent slopes	A/D	30.2	1.8%
Sn	Sun silt loam	C/D	50.5	3.1%
Wa	Wareham loamy sand	A/D	179.8	10.9%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	208.6	12.7%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	126.8	7.7%
WnD	Windsor loamy sand, 15 to 25 percent slopes	A	25.3	1.5%
Totals for Area of Interest			**1,643.3**	**100.0%**

Hydrologic Soil Group—Saratoga County, New York
(S06B)



Map Scale: 1:15,900 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 200 400 800 1200

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BmB	Bernardston silt loam, 3 to 8 percent slopes	C/D	0.1	0.0%
ChB	Chenango silt loam, loamy substratum, udulating	A	1.7	0.3%
ChC	Chenango silt loam, loamy substratum, rolling	A	6.1	1.2%
ClB	Claverack loamy fine sand, 3 to 8 percent slopes	C/D	11.9	2.4%
Cs	Cosad fine sandy loam	C/D	0.5	0.1%
DeA	Deerfield loamy fine sand, 0 to 3 percent slopes	A	5.7	1.1%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	A	8.1	1.6%
Fl	Fluvaqvents frequently flooded	A/D	17.5	3.5%
HoB	Hoosic gravelly sandy loam, undulating	A	5.2	1.0%
HuE	Hudson silt loam, 25 to 35 percent slopes	D	14.6	2.9%
MnB	Manlius-Nassau complex, undulating, rocky	C	0.6	0.1%
MvA	Mosherville silt loam, 0 to 3 percent slopes	D	1.9	0.4%
OaB	Oakville loamy fine sand, undulating	A	20.9	4.2%
OaC	Oakville loamy fine sand, rolling	A	41.9	8.4%
OaD	Oakville loamy fine sand, hilly	A	15.0	3.0%
OeE	Windsor loamy sand, 25 to 35 percent slopes	A	8.8	1.8%
Ra	Raynham silt loam	C/D	3.3	0.7%
SeB	Scio silt loam, 3 to 8 percent slopes	B/D	45.1	9.0%
UnB	Unadilla very fine sandy loam, 3 to 8 percent slopes	B	20.2	4.1%
Wa	Wareham loamy sand	A/D	56.3	11.3%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
WnA	Windsor loamy sand, 0 to 3 percent slopes	A	5.4	1.1%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	138.1	27.7%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	66.1	13.2%
WnD	Windsor loamy sand, 15 to 25 percent slopes	A	4.1	0.8%
Totals for Area of Interest			**499.2**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

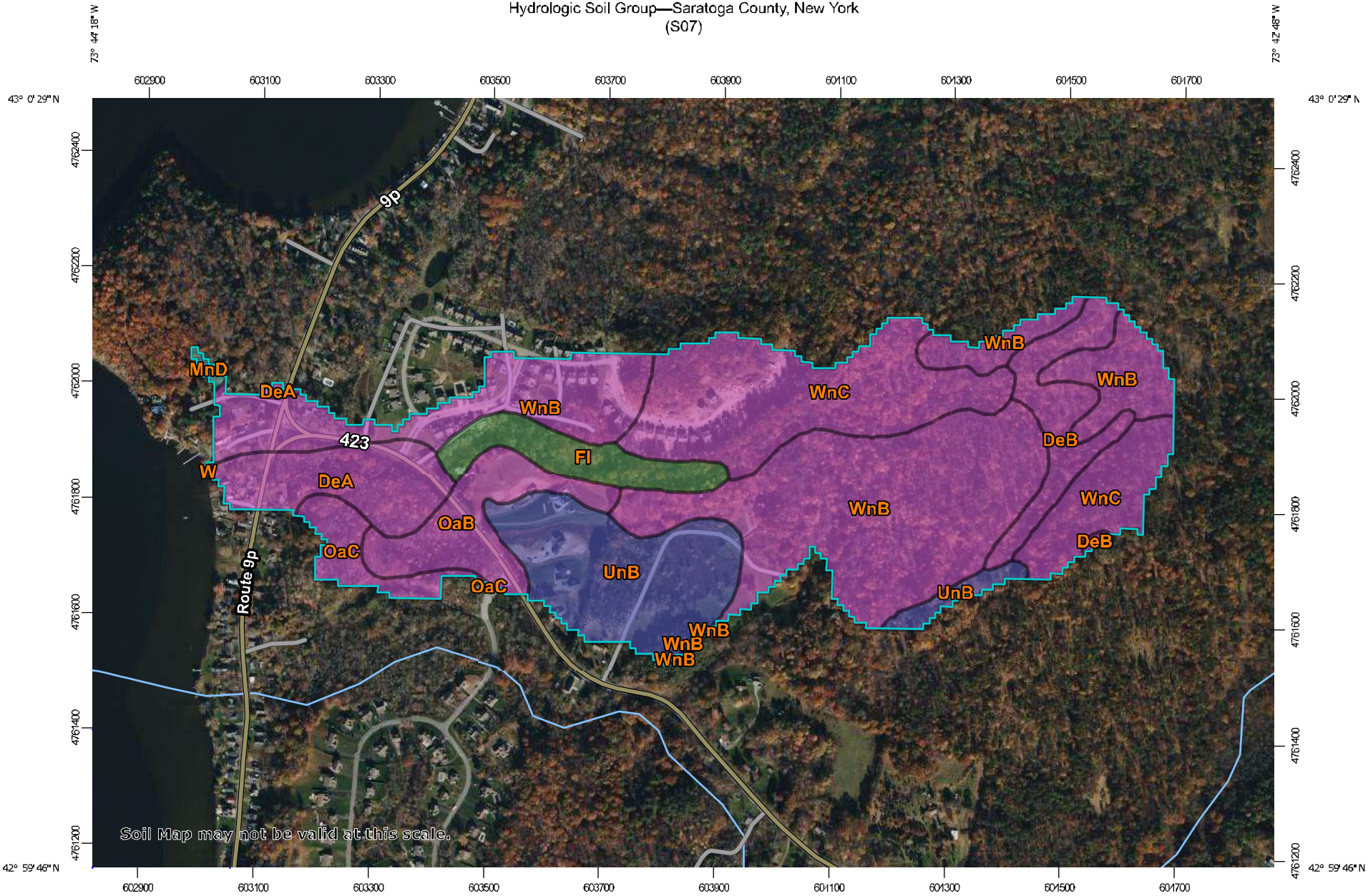
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S07)



Map Scale: 1:9,380 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 21, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 15, 2021—Nov 8, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DeA	Deerfield loamy fine sand, 0 to 3 percent slopes	A	11.4	7.0%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	A	9.1	5.6%
Fl	Fluvaqvents frequently flooded	A/D	7.7	4.7%
MnD	Manlius-Nassau complex, hilly, rocky	C	0.4	0.2%
OaB	Oakville loamy fine sand, undulating	A	10.5	6.4%
OaC	Oakville loamy fine sand, rolling	A	4.6	2.8%
UnB	Unadilla very fine sandy loam, 3 to 8 percent slopes	B	22.1	13.5%
W	Water		0.0	0.0%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	63.8	39.1%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	33.7	20.7%
Totals for Area of Interest			**163.3**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

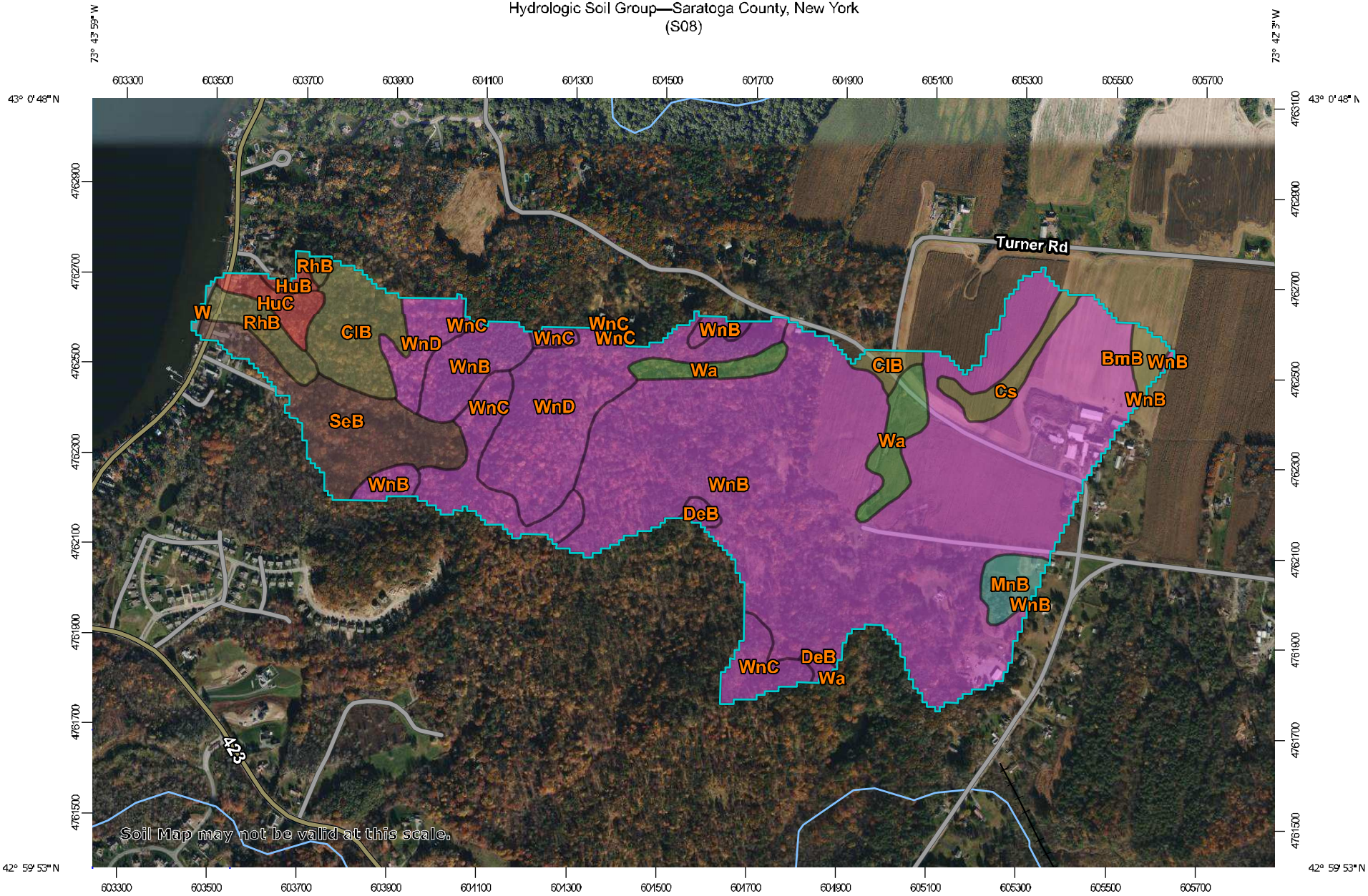
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S08)



Map Scale: 1:12,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 150 300 600 900

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 21, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 9, 2020—Nov 8, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BmB	Bernardston silt loam, 3 to 8 percent slopes	C/D	2.3	0.8%
ClB	Claverack loamy fine sand, 3 to 8 percent slopes	C/D	13.4	4.9%
Cs	Cosad fine sandy loam	C/D	4.2	1.6%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	A	1.7	0.6%
HuB	Hudson silt loam, 3 to 8 percent slopes	D	1.0	0.4%
HuC	Hudson silt loam, 8 to 15 percent slopes	D	3.7	1.4%
MnB	Manlius-Nassau complex, undulating, rocky	C	4.0	1.5%
RhB	Rhinebeck silt loam, 3 to 8 percent slopes	C/D	5.4	2.0%
SeB	Scio silt loam, 3 to 8 percent slopes	B/D	18.4	6.8%
W	Water		0.4	0.1%
Wa	Wareham loamy sand	A/D	9.3	3.4%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	160.1	58.9%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	16.9	6.2%
WnD	Windsor loamy sand, 15 to 25 percent slopes	A	31.2	11.5%
Totals for Area of Interest			**271.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

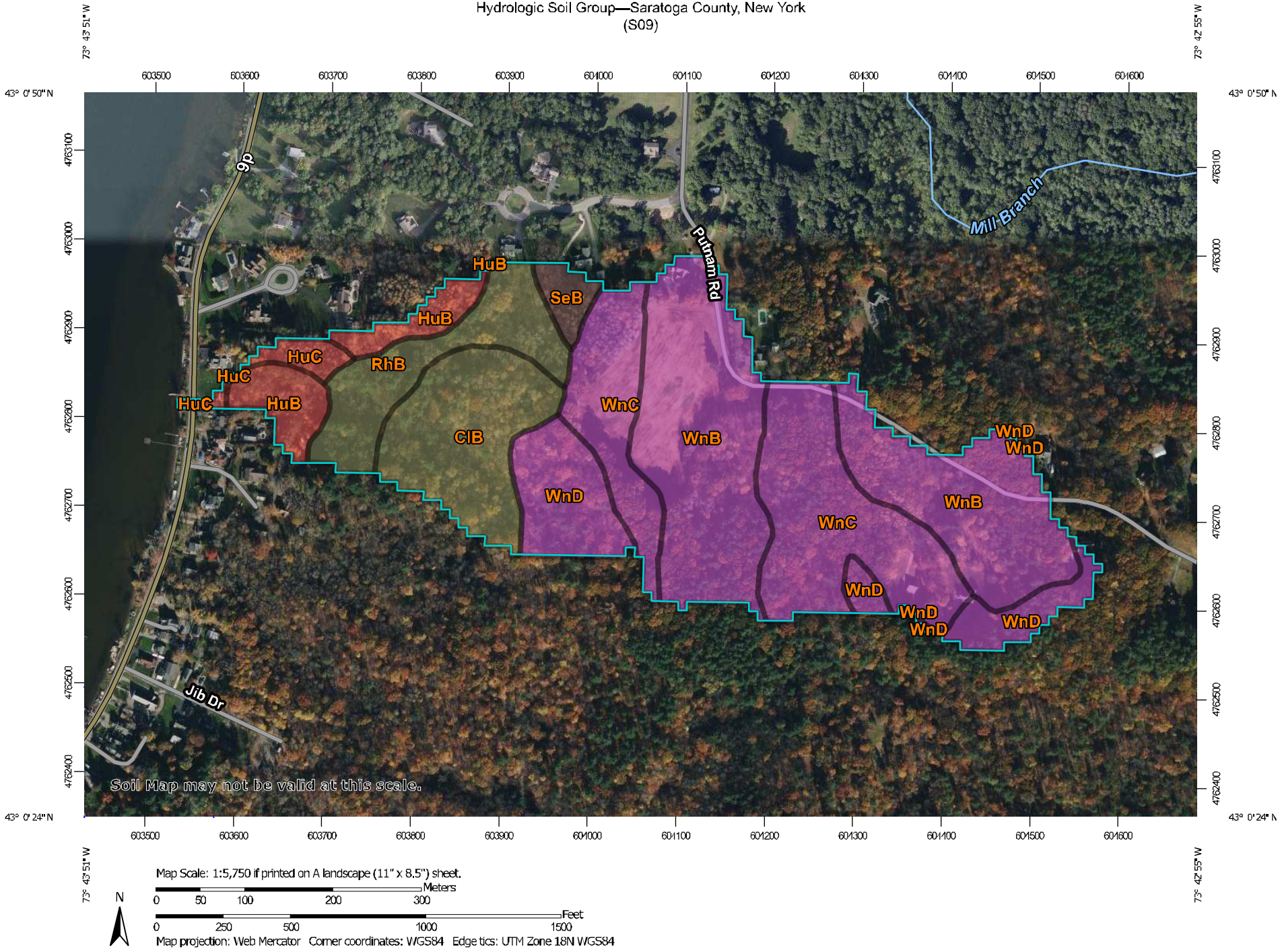
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S09)



Map Scale: 1:5,750 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 21, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 9, 2020—Nov 8, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CIB	Claverack loamy fine sand, 3 to 8 percent slopes	C/D	7.2	12.5%
HuB	Hudson silt loam, 3 to 8 percent slopes	D	3.3	5.8%
HuC	Hudson silt loam, 8 to 15 percent slopes	D	1.0	1.8%
RhB	Rhinebeck silt loam, 3 to 8 percent slopes	C/D	5.4	9.4%
SeB	Scio silt loam, 3 to 8 percent slopes	B/D	1.0	1.8%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	19.5	33.7%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	14.0	24.2%
WnD	Windsor loamy sand, 15 to 25 percent slopes	A	6.2	10.8%
Totals for Area of Interest			**57.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

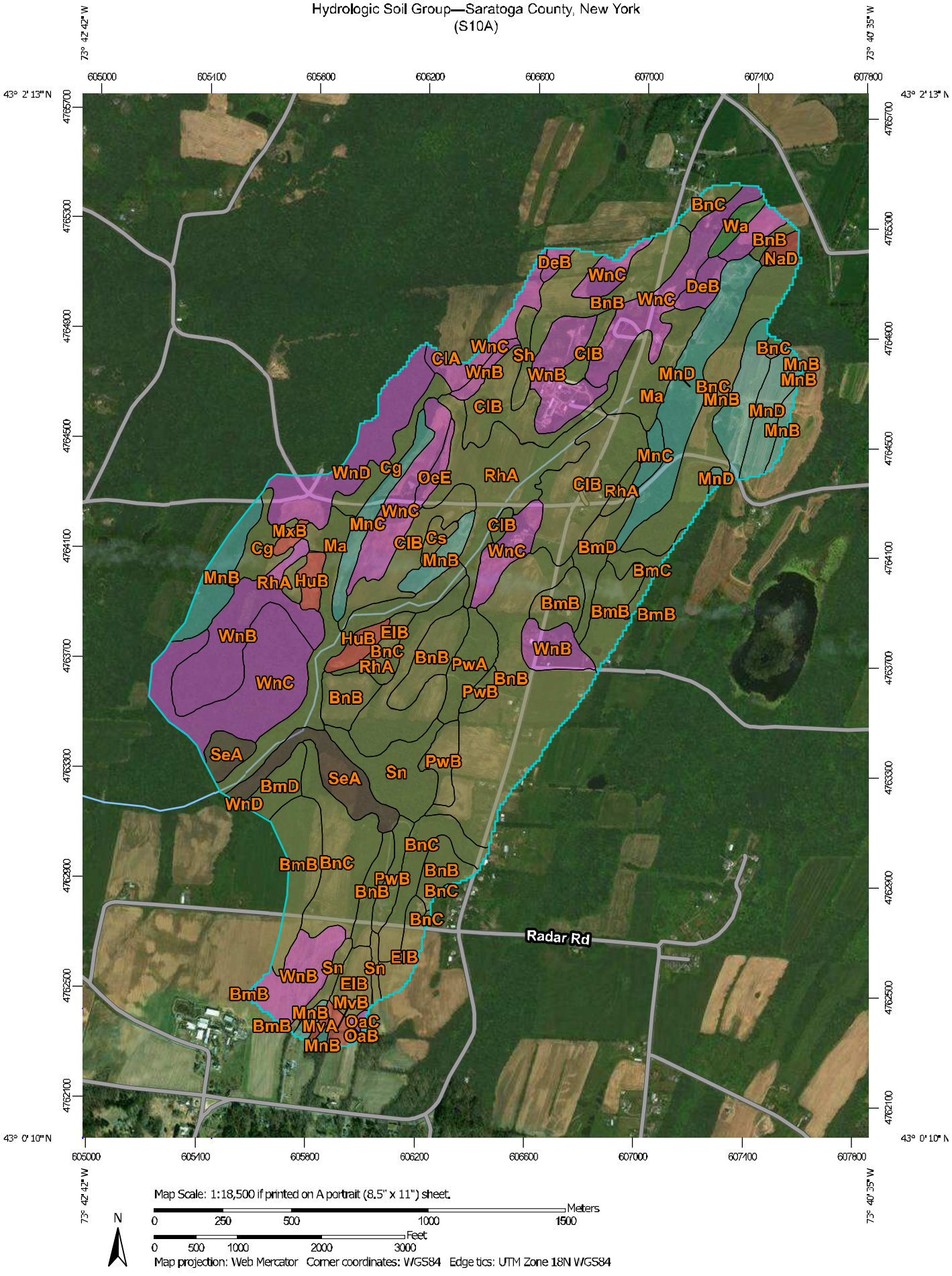
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S10A)



Map Scale: 1:18,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 250 500 1000 1500

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BmB	Bernardston silt loam, 3 to 8 percent slopes	C/D	36.2	4.2%
BmC	Bernardston silt loam, 8 to 15 percent slopes	C/D	5.2	0.6%
BmD	Bernardston silt loam, 15 to 25 percent slopes	C/D	16.9	2.0%
BnB	Bernardston-Manlius-Nassau complex, undulating	C/D	116.0	13.5%
BnC	Bernardston-Manlius-Nassau complex, rolling	C/D	97.1	11.3%
Cg	Cheektowaga mucky very fine sandy loam	C/D	16.6	1.9%
ClA	Claverack loamy fine sand, 0 to 3 percent slopes	C/D	0.0	0.0%
ClB	Claverack loamy fine sand, 3 to 8 percent slopes	C/D	64.2	7.5%
Cs	Cosad fine sandy loam	C/D	2.7	0.3%
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	A	6.8	0.8%
ElB	Elmridge very fine sandy loam, 3 to 8 percent slopes	C/D	17.2	2.0%
HuB	Hudson silt loam, 3 to 8 percent slopes	D	8.4	1.0%
Ma	Madalin mucky silty clay loam	C/D	45.7	5.3%
MnB	Manlius-Nassau complex, undulating, rocky	C	36.8	4.3%
MnC	Manlius-Nassau complex, rolling, rocky	C	13.8	1.6%
MnD	Manlius-Nassau complex, hilly, rocky	C	41.0	4.8%
MvA	Mosherville silt loam, 0 to 3 percent slopes	D	0.8	0.1%
MvB	Mosherville silt loam, 3 to 8 percent slopes	D	2.7	0.3%
MxB	Mosherville-Hornell complex, undulating	D	1.7	0.2%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
NaD	Nassau-Rock outcrop complex, hilly	D	2.7	0.3%
OaB	Oakville loamy fine sand, undulating	A	0.7	0.1%
OaC	Oakville loamy fine sand, rolling	A	5.5	0.6%
OeE	Windsor loamy sand, 25 to 35 percent slopes	A	3.5	0.4%
PwA	Pittstown silt loam, 0 to 3 percent slopes	C/D	10.5	1.2%
PwB	Pittstown silt loam, 3 to 8 percent slopes	C/D	14.7	1.7%
RhA	Rhinebeck silt loam, 0 to 3 percent slopes	C/D	41.9	4.9%
SeA	Scio silt loam, 0 to 3 percent slopes	B/D	21.5	2.5%
Sh	Shaker very fine sandy loam	C/D	4.6	0.5%
Sn	Sun silt loam	C/D	21.7	2.5%
Wa	Wareham loamy sand	A/D	3.7	0.4%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	71.4	8.3%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	100.8	11.7%
WnD	Windsor loamy sand, 15 to 25 percent slopes	A	26.6	3.1%
Totals for Area of Interest			**859.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

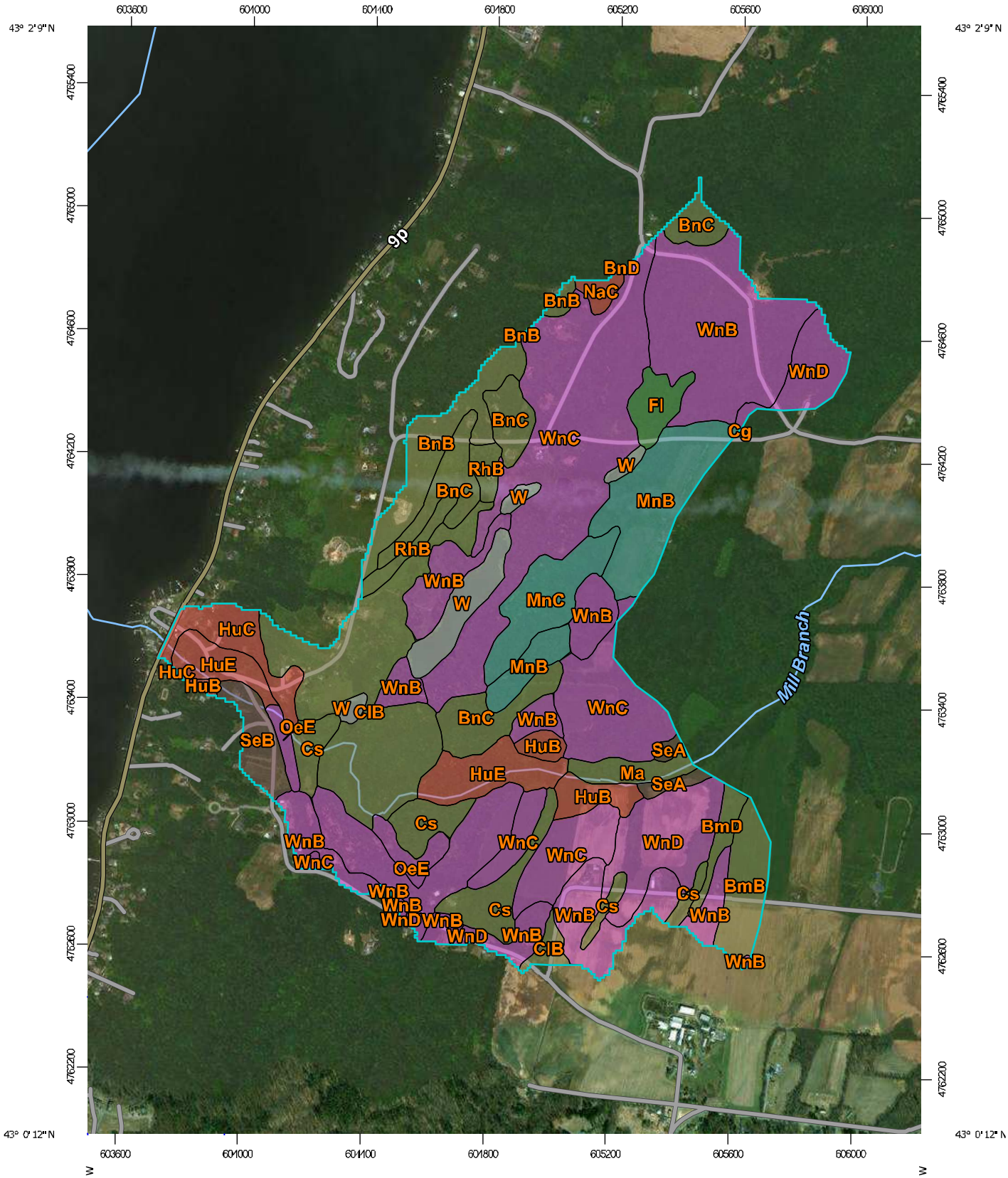
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Saratoga County, New York
(S10B)



Map Scale: 1:17,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0, 250, 500, 1000, 1500

Feet: 0, 500, 1000, 2000, 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Lines

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Soil Rating Points

A
A/D
B
B/D
C
C/D
D
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 10, 2015—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BmB	Bernardston silt loam, 3 to 8 percent slopes	C/D	14.6	2.2%
BmD	Bernardston silt loam, 15 to 25 percent slopes	C/D	4.7	0.7%
BnB	Bernardston-Manlius-Nassau complex, undulating	C/D	22.5	3.4%
BnC	Bernardston-Manlius-Nassau complex, rolling	C/D	36.3	5.5%
BnD	Bernardston-Manlius-Nassau complex, hilly	C/D	0.0	0.0%
Cg	Cheektowaga mucky very fine sandy loam	C/D	0.0	0.0%
ClB	Claverack loamy fine sand, 3 to 8 percent slopes	C/D	65.3	9.8%
Cs	Cosad fine sandy loam	C/D	29.0	4.4%
Fl	Fluvaqvents frequently flooded	A/D	7.7	1.2%
HuB	Hudson silt loam, 3 to 8 percent slopes	D	10.6	1.6%
HuC	Hudson silt loam, 8 to 15 percent slopes	D	13.2	2.0%
HuE	Hudson silt loam, 25 to 35 percent slopes	D	24.0	3.6%
Ma	Madalin mucky silty clay loam	C/D	7.0	1.1%
MnB	Manlius-Nassau complex, undulating, rocky	C	38.1	5.7%
MnC	Manlius-Nassau complex, rolling, rocky	C	19.4	2.9%
NaC	Nassau-Rock outcrop complex, rolling	D	2.9	0.4%
OeE	Windsor loamy sand, 25 to 35 percent slopes	A	8.2	1.2%
RhB	Rhinebeck silt loam, 3 to 8 percent slopes	C/D	7.9	1.2%
SeA	Scio silt loam, 0 to 3 percent slopes	B/D	3.7	0.6%
SeB	Scio silt loam, 3 to 8 percent slopes	B/D	10.5	1.6%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
W	Water		16.3	2.4%
WnB	Windsor loamy sand, 3 to 8 percent slopes	A	121.4	18.2%
WnC	Windsor loamy sand, 8 to 15 percent slopes	A	135.7	20.4%
WnD	Windsor loamy sand, 15 to 25 percent slopes	A	67.0	10.1%
Totals for Area of Interest			**665.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

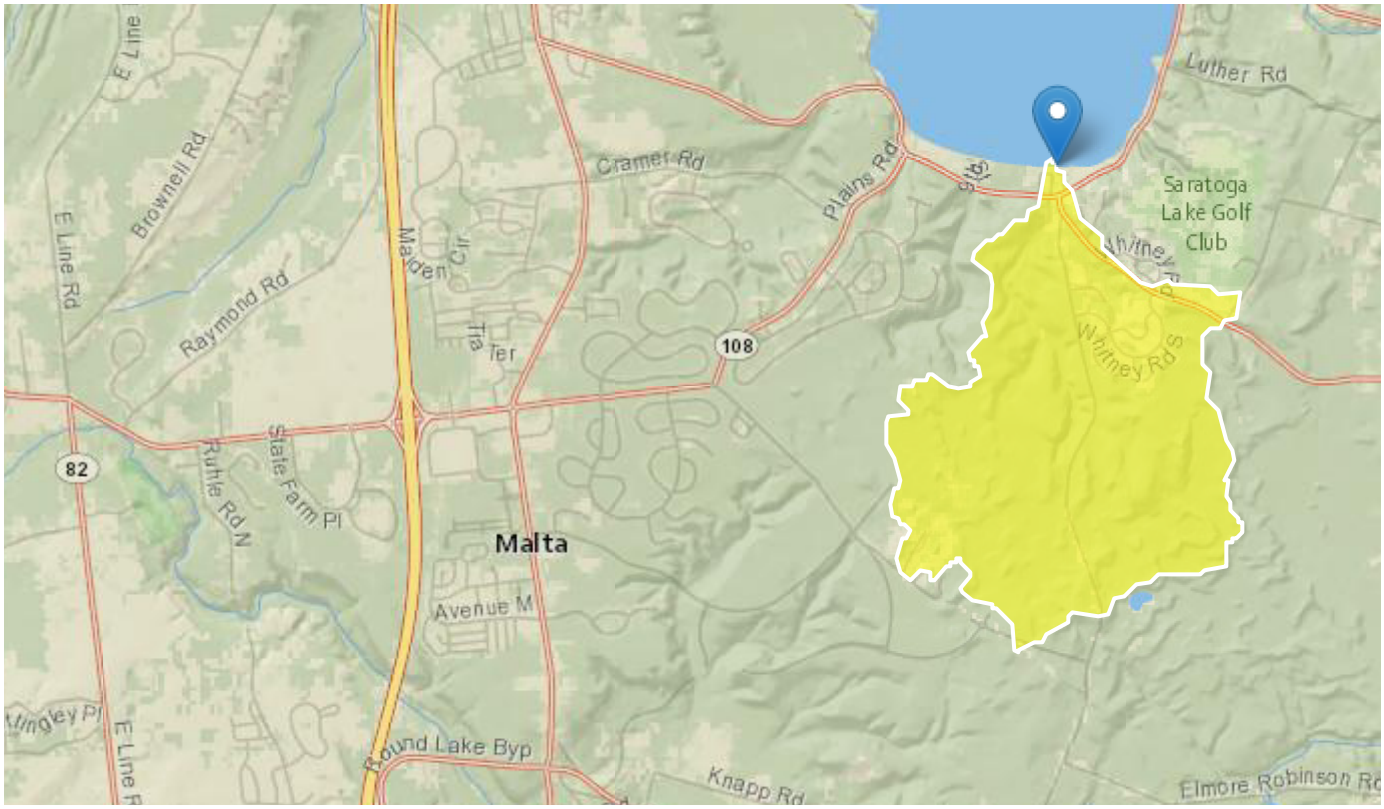
Tie-break Rule: Higher

Appendix C

StreamStats Reports

StreamStats Report WS 1

Region ID: NY
Workspace ID: NY20210603140359751000
Clicked Point (Latitude, Longitude): 42.98628, -73.74620
Time: 2021-06-03 10:04:17 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.95	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.0611	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	1.36	percent
FOREST	Percentage of area covered by forest	83.4	percent
PRECIP	Mean Annual Precipitation	35.2	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.95	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.0611	dimensionless	0.004	15.229
STORAGE	Percent Storage	1.36	percent	0	28.92
FOREST	Percent Forest	83.4	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.2	inches	29.49	56.1

Peak-Flow Statistics Flow Report [2006 Full Region 1]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp	Equiv. Yrs.
80-percent AEP flood	37.7	ft^3/s	31.6	31.6	2.2
66.7-percent AEP flood	46.2	ft^3/s	30.3	30.3	2
50-percent AEP flood	57.8	ft^3/s	29	29	2.1
20-percent AEP flood	89.8	ft^3/s	27.3	27.3	3.6
10-percent AEP flood	113	ft^3/s	27.2	27.2	5.1
4-percent AEP flood	144	ft^3/s	28.2	28.2	6.9
2-percent AEP flood	168	ft^3/s	29.4	29.4	8
1-percent AEP flood	194	ft^3/s	30.8	30.8	8.8
0.5-percent AEP flood	218	ft^3/s	32.5	32.5	9.4
0.2-percent AEP flood	255	ft^3/s	35.1	35.1	9.8

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report WS 2

Region ID: NY
Workspace ID: NY20210603143534382000
Clicked Point (Latitude, Longitude): 42.98633, -73.74470
Time: 2021-06-03 10:35:50 -0400

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.14	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00418	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
FOREST	Percentage of area covered by forest	87	percent
PRECIP	Mean Annual Precipitation	35.3	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.14	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.00418	dimensionless	0.004	15.229
STORAGE	Percent Storage	0	percent	0	28.92
FOREST	Percent Forest	87	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.3	inches	29.49	56.1

Peak-Flow Statistics Disclaimers [2006 Full Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [2006 Full Region 1]

Statistic	Value	Unit
80-percent AEP flood	3.31	ft^3/s
66.7-percent AEP flood	4.07	ft^3/s
50-percent AEP flood	5.13	ft^3/s
20-percent AEP flood	8.1	ft^3/s
10-percent AEP flood	10.3	ft^3/s
4-percent AEP flood	13.4	ft^3/s
2-percent AEP flood	15.7	ft^3/s
1-percent AEP flood	18.3	ft^3/s
0.5-percent AEP flood	20.7	ft^3/s
0.2-percent AEP flood	24.4	ft^3/s

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

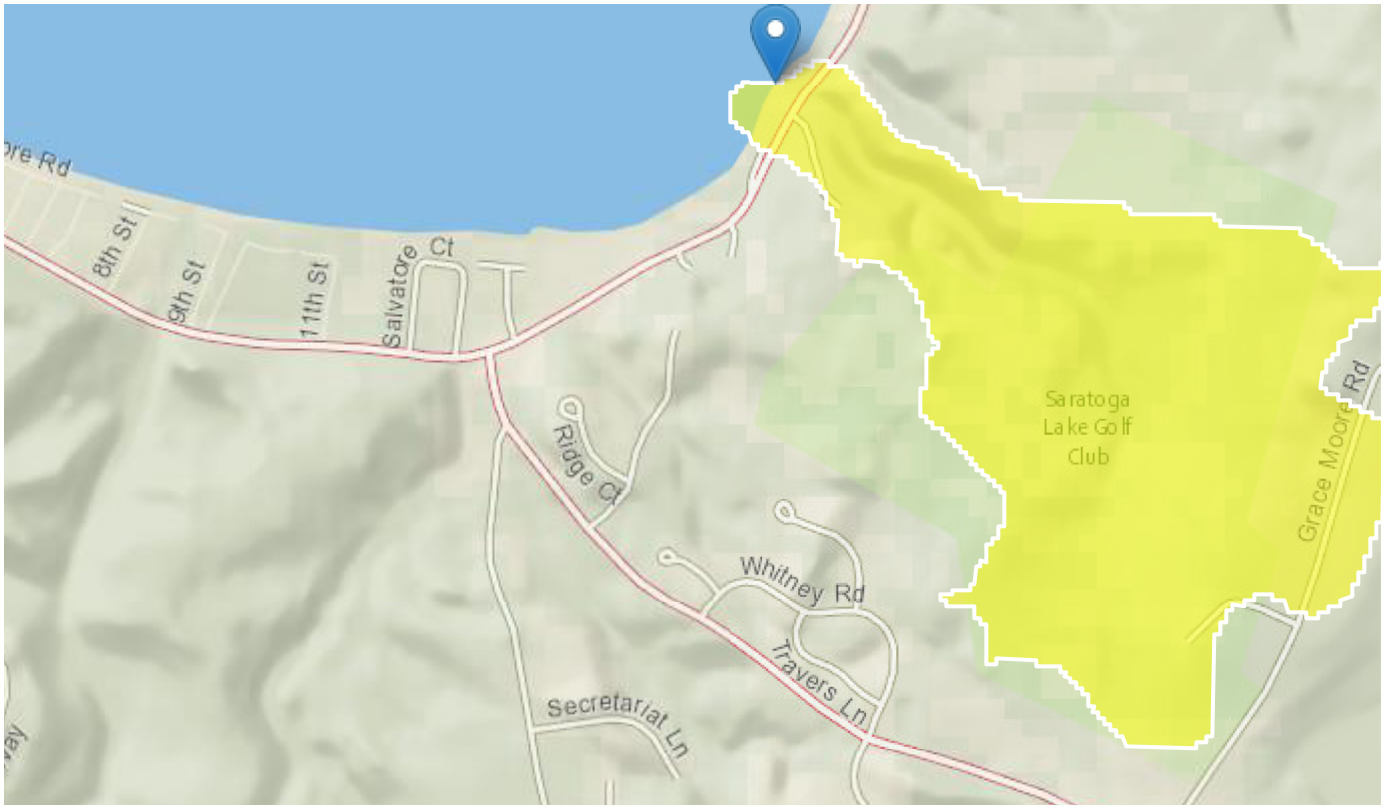
USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report WS 3

Region ID: NY
Workspace ID: NY20210603143839933000
Clicked Point (Latitude, Longitude): 42.98862, -73.73996
Time: 2021-06-03 10:38:56 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.25	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00564	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.31	percent
FOREST	Percentage of area covered by forest	92.6	percent
PRECIP	Mean Annual Precipitation	35.3	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.00564	dimensionless	0.004	15.229
STORAGE	Percent Storage	0.31	percent	0	28.92
FOREST	Percent Forest	92.6	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.3	inches	29.49	56.1

Peak-Flow Statistics Disclaimers [2006 Full Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [2006 Full Region 1]

Statistic	Value	Unit
80-percent AEP flood	5.3	ft^3/s
66.7-percent AEP flood	6.51	ft^3/s
50-percent AEP flood	8.19	ft^3/s
20-percent AEP flood	12.9	ft^3/s
10-percent AEP flood	16.4	ft^3/s
4-percent AEP flood	21.1	ft^3/s
2-percent AEP flood	24.6	ft^3/s
1-percent AEP flood	28.6	ft^3/s
0.5-percent AEP flood	32.3	ft^3/s
0.2-percent AEP flood	37.9	ft^3/s

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

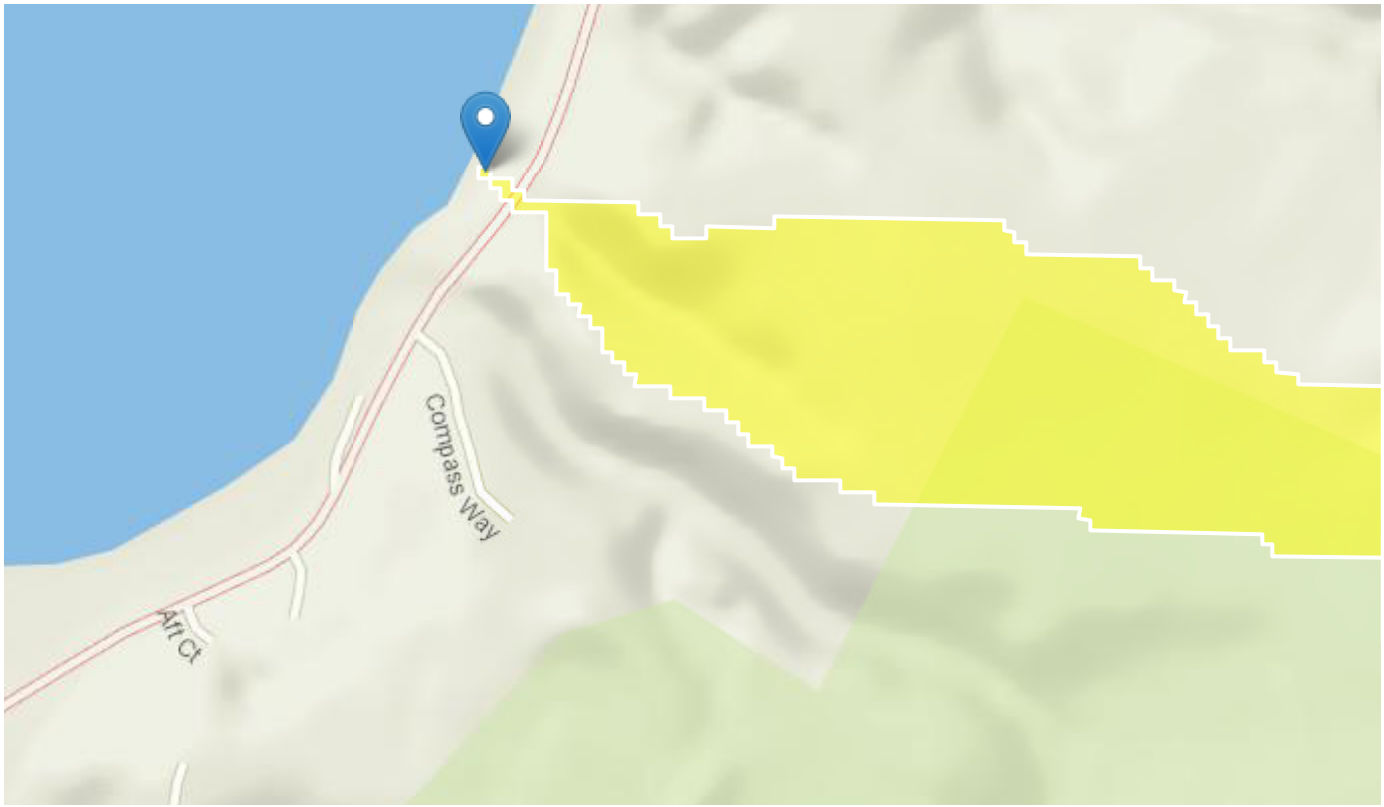
USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report WS 4

Region ID: NY
Workspace ID: NY20210603144231125000
Clicked Point (Latitude, Longitude): 42.98944, -73.73884
Time: 2021-06-03 10:42:51 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0687	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.0024	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
FOREST	Percentage of area covered by forest	96.8	percent
PRECIP	Mean Annual Precipitation	35.3	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0687	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.0024	dimensionless	0.004	15.229
STORAGE	Percent Storage	0	percent	0	28.92
FOREST	Percent Forest	96.8	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.3	inches	29.49	56.1

Peak-Flow Statistics Disclaimers [2006 Full Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [2006 Full Region 1]

Statistic	Value	Unit
80-percent AEP flood	1.52	ft^3/s
66.7-percent AEP flood	1.87	ft^3/s
50-percent AEP flood	2.36	ft^3/s
20-percent AEP flood	3.72	ft^3/s
10-percent AEP flood	4.75	ft^3/s
4-percent AEP flood	6.15	ft^3/s
2-percent AEP flood	7.22	ft^3/s
1-percent AEP flood	8.39	ft^3/s
0.5-percent AEP flood	9.52	ft^3/s
0.2-percent AEP flood	11.2	ft^3/s

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

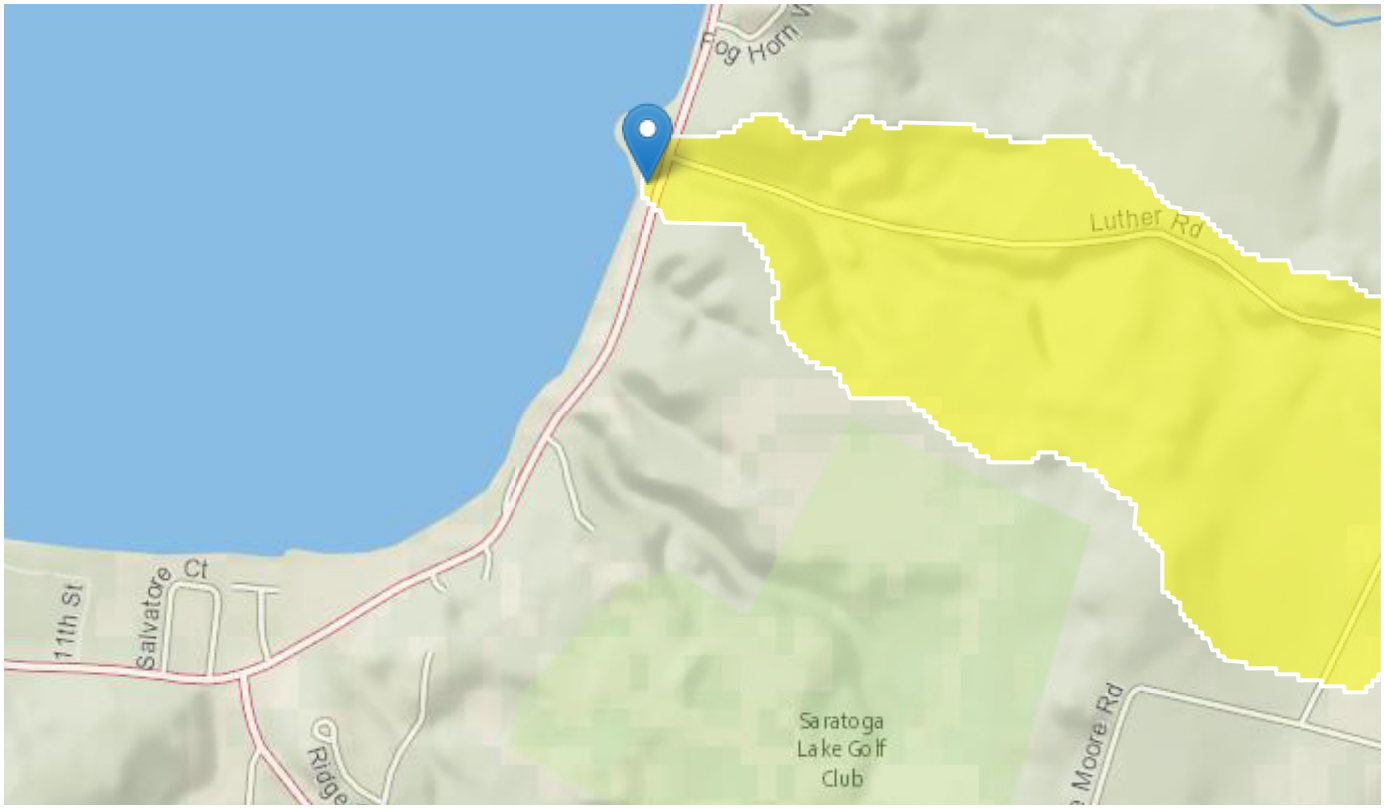
USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report WS 5

Region ID: NY
Workspace ID: NY20210603145133183000
Clicked Point (Latitude, Longitude): 42.99216, -73.73747
Time: 2021-06-03 10:51:50 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.28	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00853	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
FOREST	Percentage of area covered by forest	95.9	percent
PRECIP	Mean Annual Precipitation	35.3	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.28	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.00853	dimensionless	0.004	15.229
STORAGE	Percent Storage	0	percent	0	28.92
FOREST	Percent Forest	95.9	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.3	inches	29.49	56.1

Peak-Flow Statistics Disclaimers [2006 Full Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [2006 Full Region 1]

Statistic	Value	Unit
80-percent AEP flood	6	ft^3/s
66.7-percent AEP flood	7.37	ft^3/s
50-percent AEP flood	9.28	ft^3/s
20-percent AEP flood	14.6	ft^3/s
10-percent AEP flood	18.6	ft^3/s
4-percent AEP flood	24	ft^3/s
2-percent AEP flood	28.1	ft^3/s
1-percent AEP flood	32.6	ft^3/s
0.5-percent AEP flood	36.9	ft^3/s
0.2-percent AEP flood	43.2	ft^3/s

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

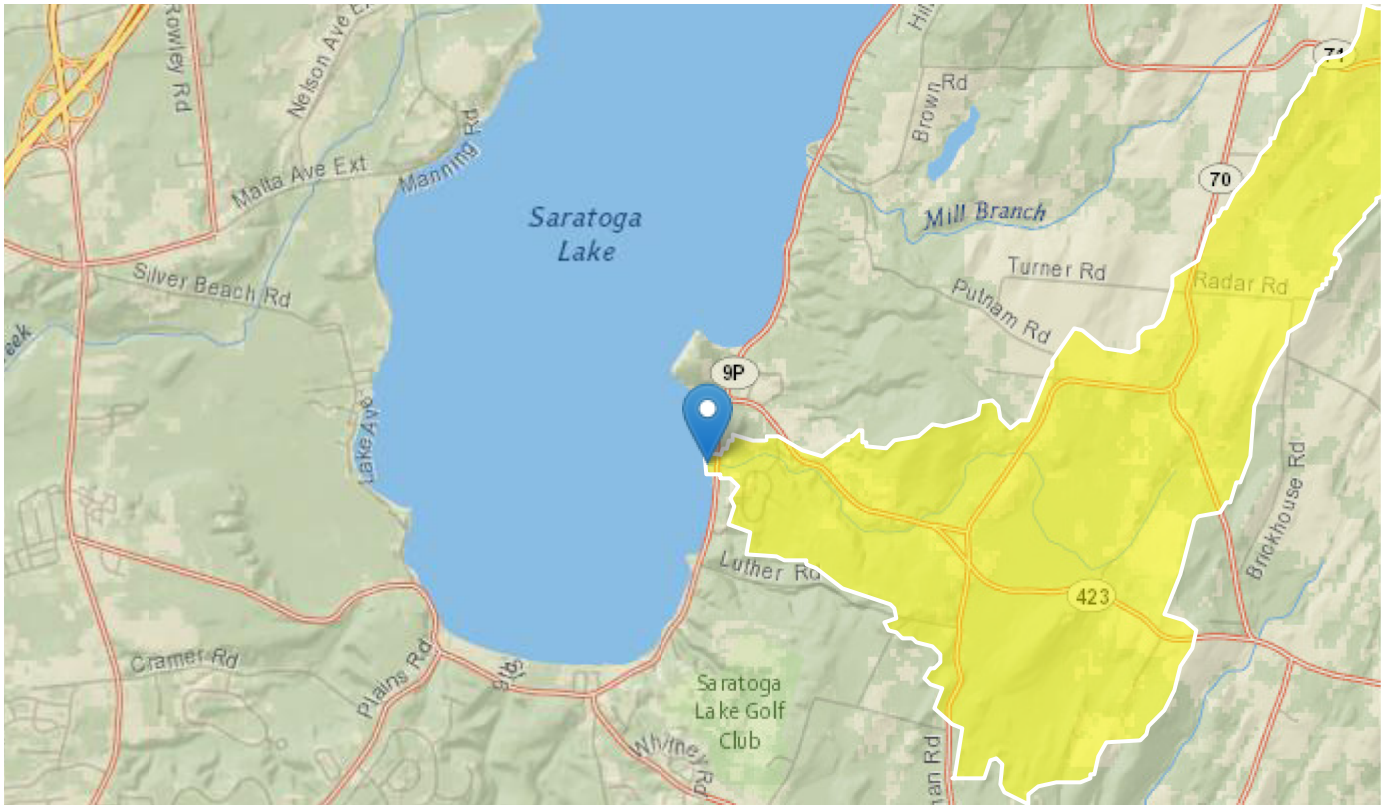
USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report WS 6

Region ID: NY
Workspace ID: NY20210603145525797000
Clicked Point (Latitude, Longitude): 42.99889, -73.73624
Time: 2021-06-03 10:55:44 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	3.35	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.11	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	8.33	percent
FOREST	Percentage of area covered by forest	67.1	percent
PRECIP	Mean Annual Precipitation	35.3	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.35	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.11	dimensionless	0.004	15.229
STORAGE	Percent Storage	8.33	percent	0	28.92
FOREST	Percent Forest	67.1	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.3	inches	29.49	56.1

Peak-Flow Statistics Flow Report [2006 Full Region 1]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp	Equiv. Yrs.
80-percent AEP flood	59.4	ft^3/s	31.6	31.6	2.2
66.7-percent AEP flood	72.3	ft^3/s	30.3	30.3	2
50-percent AEP flood	89.6	ft^3/s	29	29	2.1
20-percent AEP flood	137	ft^3/s	27.3	27.3	3.6
10-percent AEP flood	172	ft^3/s	27.2	27.2	5.1
4-percent AEP flood	217	ft^3/s	28.2	28.2	6.9
2-percent AEP flood	251	ft^3/s	29.4	29.4	8
1-percent AEP flood	288	ft^3/s	30.8	30.8	8.8
0.5-percent AEP flood	323	ft^3/s	32.5	32.5	9.4
0.2-percent AEP flood	376	ft^3/s	35.1	35.1	9.8

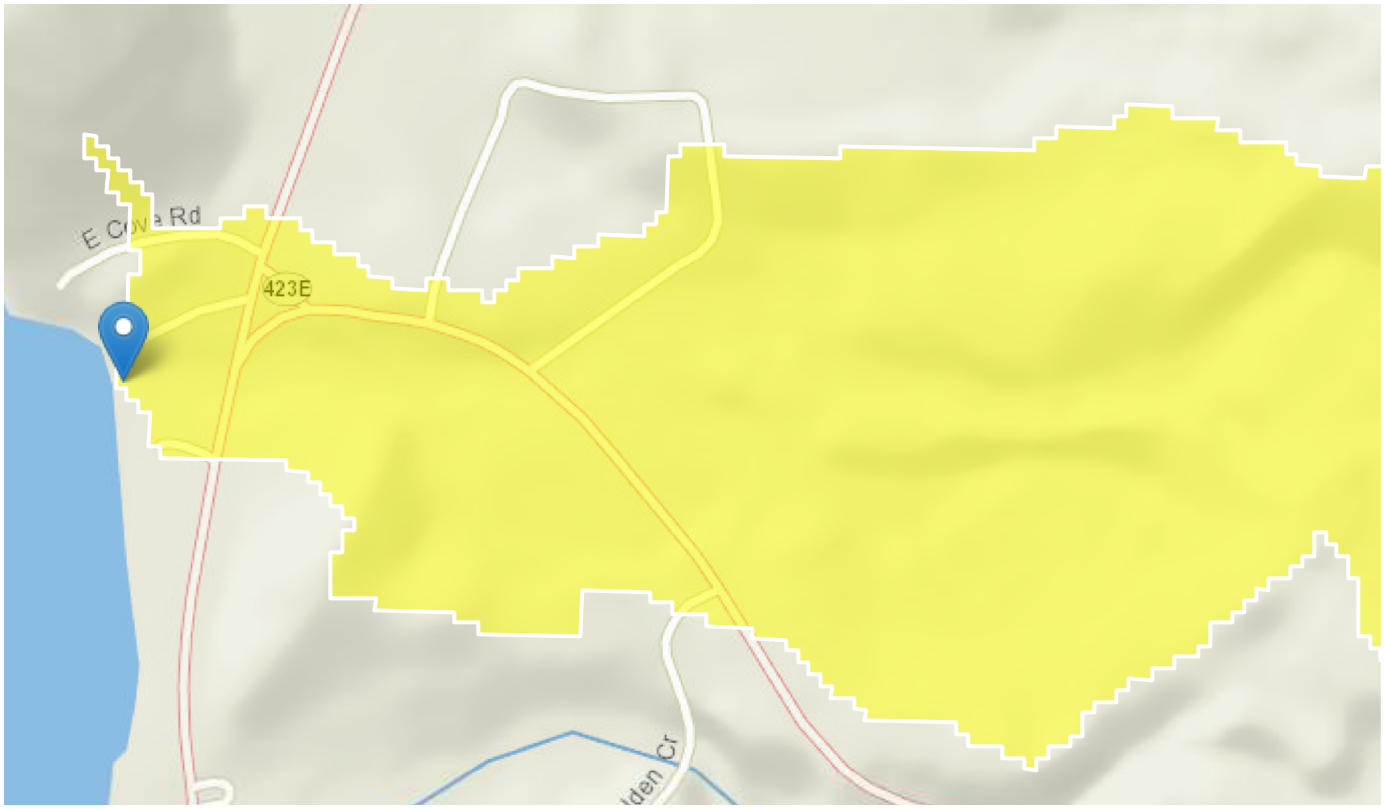
Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report WS 7

Region ID: NY
Workspace ID: NY20210603150001555000
Clicked Point (Latitude, Longitude): 43.00229, -73.73616
Time: 2021-06-03 11:00:19 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.25	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.0122	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0	percent
FOREST	Percentage of area covered by forest	74.6	percent
PRECIP	Mean Annual Precipitation	35.4	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.0122	dimensionless	0.004	15.229
STORAGE	Percent Storage	0	percent	0	28.92
FOREST	Percent Forest	74.6	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.4	inches	29.49	56.1

Peak-Flow Statistics Disclaimers [2006 Full Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [2006 Full Region 1]

Statistic	Value	Unit
80-percent AEP flood	6.56	ft^3/s
66.7-percent AEP flood	8.06	ft^3/s
50-percent AEP flood	10.1	ft^3/s
20-percent AEP flood	16	ft^3/s
10-percent AEP flood	20.4	ft^3/s
4-percent AEP flood	26.4	ft^3/s
2-percent AEP flood	31	ft^3/s
1-percent AEP flood	36.2	ft^3/s
0.5-percent AEP flood	41.1	ft^3/s
0.2-percent AEP flood	48.4	ft^3/s

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

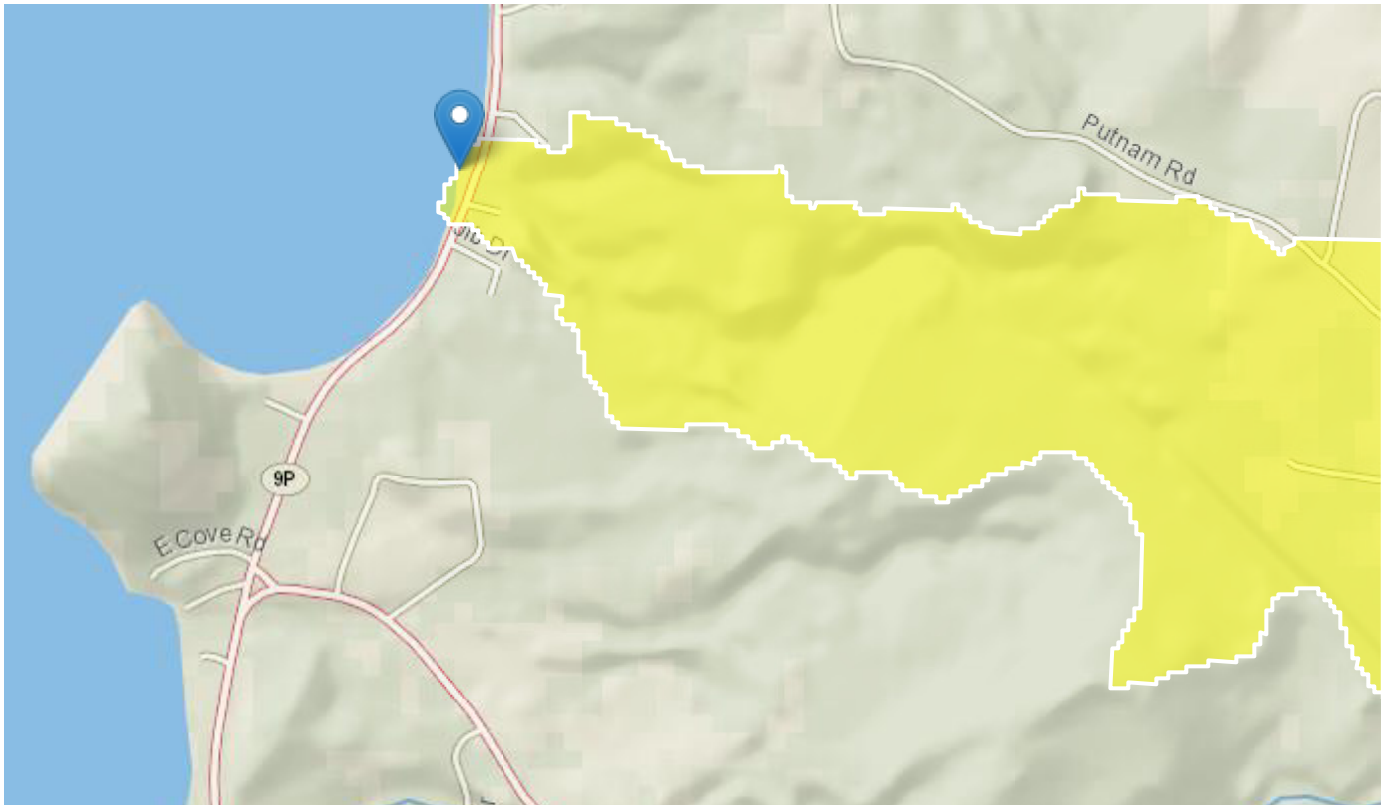
USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report WS 8

Region ID: NY
Workspace ID: NY20210603152208412000
Clicked Point (Latitude, Longitude): 43.00942, -73.73015
Time: 2021-06-03 11:22:24 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.42	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.0144	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.32	percent
FOREST	Percentage of area covered by forest	72	percent
PRECIP	Mean Annual Precipitation	35.4	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.42	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.0144	dimensionless	0.004	15.229
STORAGE	Percent Storage	0.32	percent	0	28.92
FOREST	Percent Forest	72	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.4	inches	29.49	56.1

Peak-Flow Statistics Disclaimers [2006 Full Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [2006 Full Region 1]

Statistic	Value	Unit
80-percent AEP flood	10.7	ft^3/s
66.7-percent AEP flood	13.1	ft^3/s
50-percent AEP flood	16.4	ft^3/s
20-percent AEP flood	25.8	ft^3/s
10-percent AEP flood	32.8	ft^3/s
4-percent AEP flood	42.4	ft^3/s
2-percent AEP flood	49.7	ft^3/s
1-percent AEP flood	57.8	ft^3/s
0.5-percent AEP flood	65.6	ft^3/s
0.2-percent AEP flood	77.2	ft^3/s

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

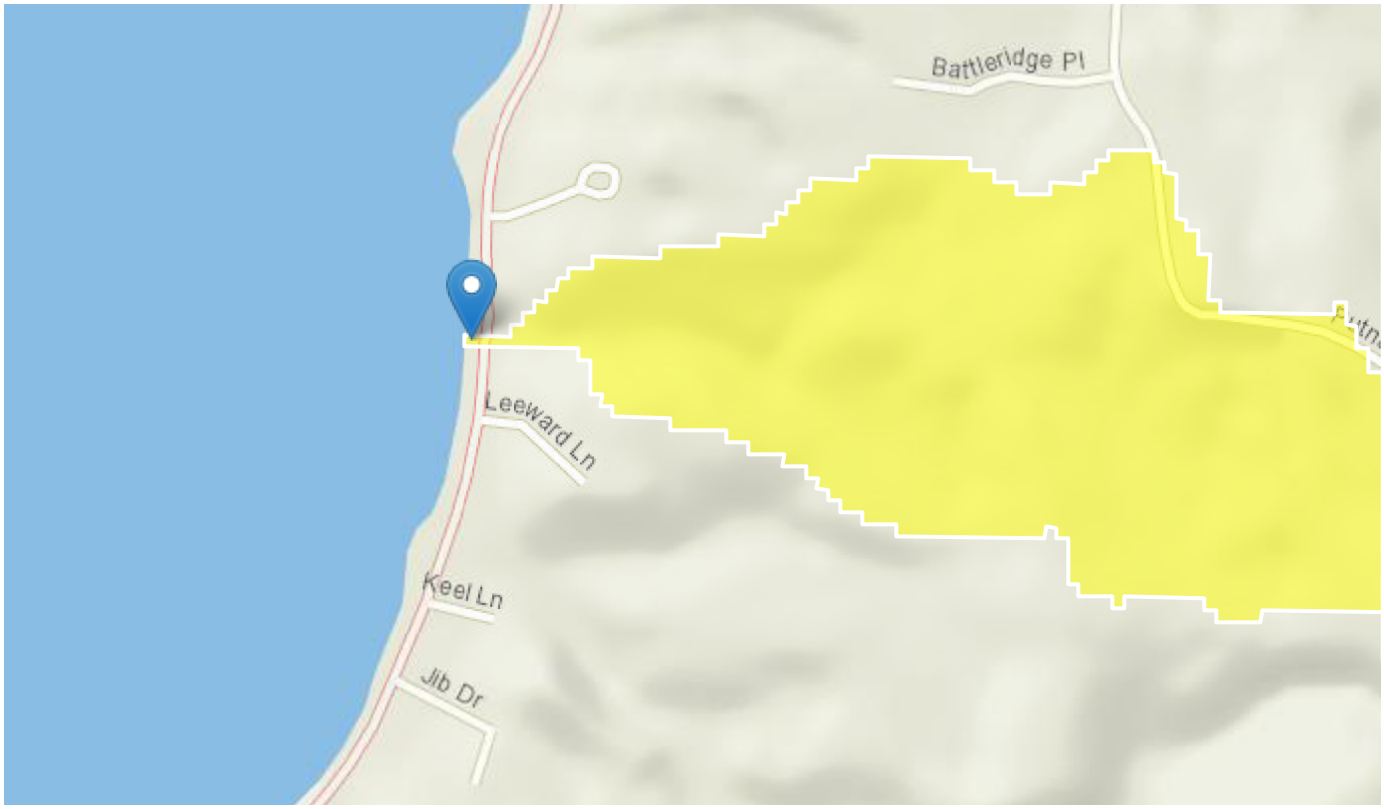
USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report WS 9

Region ID: NY
Workspace ID: NY20210603152651151000
Clicked Point (Latitude, Longitude): 43.01097, -73.72951
Time: 2021-06-03 11:27:09 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0902	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.00421	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.0428	percent
FOREST	Percentage of area covered by forest	85.8	percent
PRECIP	Mean Annual Precipitation	35.5	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0902	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.00421	dimensionless	0.004	15.229
STORAGE	Percent Storage	0.0428	percent	0	28.92
FOREST	Percent Forest	85.8	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.5	inches	29.49	56.1

Peak-Flow Statistics Disclaimers [2006 Full Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [2006 Full Region 1]

Statistic	Value	Unit
80-percent AEP flood	2.19	ft^3/s
66.7-percent AEP flood	2.69	ft^3/s
50-percent AEP flood	3.39	ft^3/s
20-percent AEP flood	5.34	ft^3/s
10-percent AEP flood	6.82	ft^3/s
4-percent AEP flood	8.83	ft^3/s
2-percent AEP flood	10.4	ft^3/s
1-percent AEP flood	12.1	ft^3/s
0.5-percent AEP flood	13.7	ft^3/s
0.2-percent AEP flood	16.1	ft^3/s

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

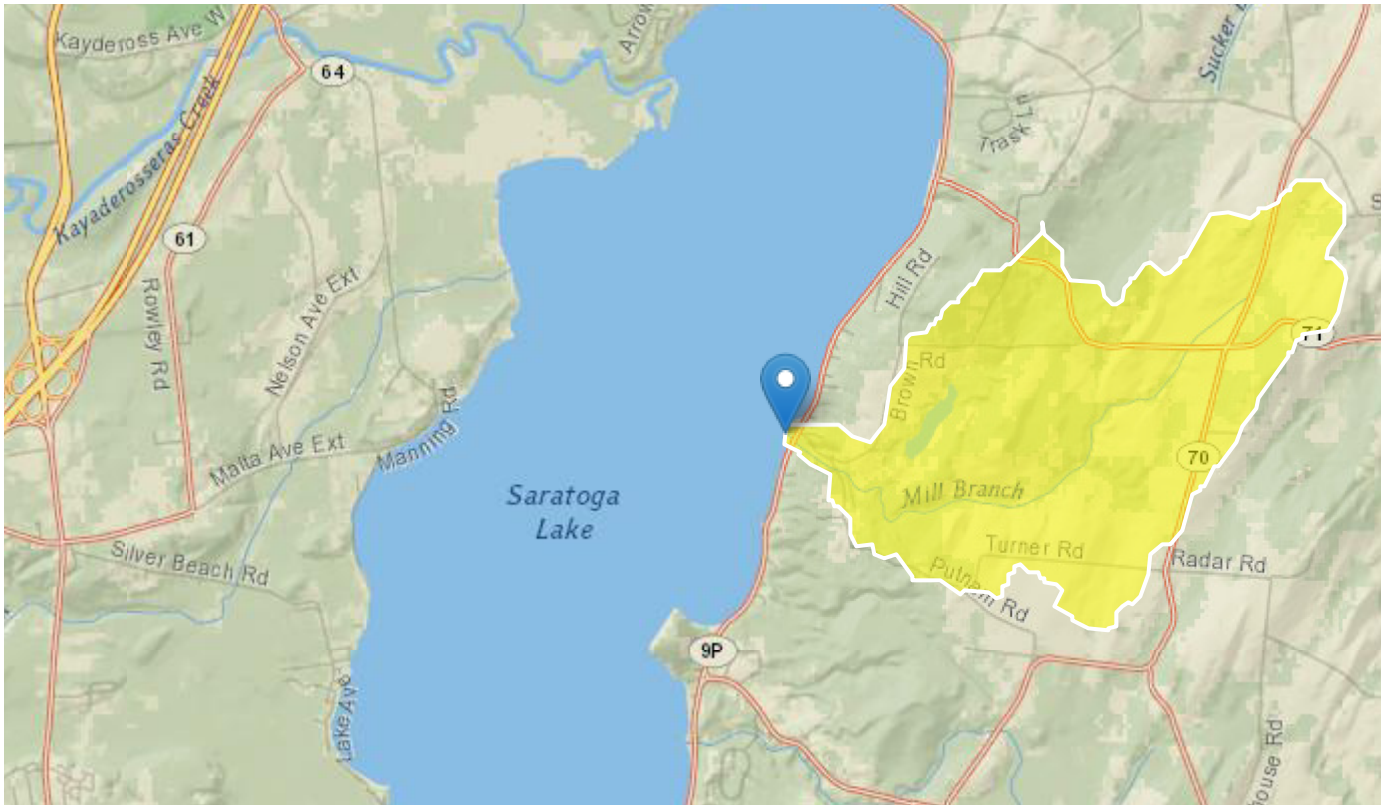
USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report 10

Region ID: NY
Workspace ID: NY20210604152632482000
Clicked Point (Latitude, Longitude): 43.01822, -73.72768
Time: 2021-06-04 11:26:48 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	2.39	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	0.061	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	1.34	percent
FOREST	Percentage of area covered by forest	42.5	percent
PRECIP	Mean Annual Precipitation	35.5	inches

Peak-Flow Statistics Parameters [2006 Full Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	2.39	square miles	0.54	4500
LAGFACTOR	Lag Factor	0.061	dimensionless	0.004	15.229
STORAGE	Percent Storage	1.34	percent	0	28.92
FOREST	Percent Forest	42.5	percent	23.83	99.61
PRECIP	Mean Annual Precipitation	35.5	inches	29.49	56.1

Peak-Flow Statistics Flow Report [2006 Full Region 1]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp	Equiv. Yrs.
80-percent AEP flood	72.3	ft^3/s	31.6	31.6	2.2
66.7-percent AEP flood	88.6	ft^3/s	30.3	30.3	2
50-percent AEP flood	111	ft^3/s	29	29	2.1
20-percent AEP flood	172	ft^3/s	27.3	27.3	3.6
10-percent AEP flood	218	ft^3/s	27.2	27.2	5.1
4-percent AEP flood	281	ft^3/s	28.2	28.2	6.9
2-percent AEP flood	329	ft^3/s	29.4	29.4	8
1-percent AEP flood	383	ft^3/s	30.8	30.8	8.8
0.5-percent AEP flood	434	ft^3/s	32.5	32.5	9.4
0.2-percent AEP flood	513	ft^3/s	35.1	35.1	9.8

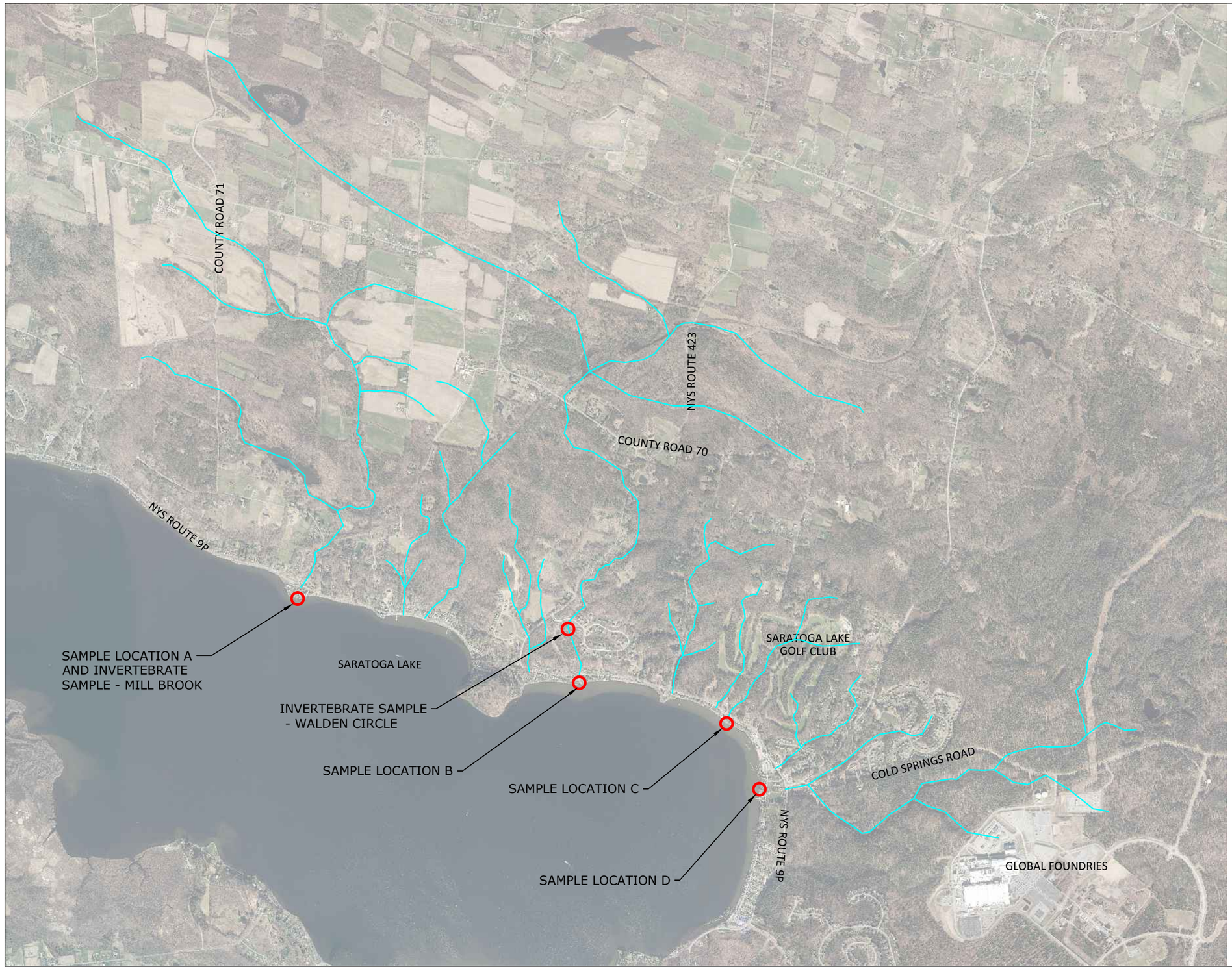
Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

Appendix D

Water Quality Sampling and Invertebrate Survey Location Map



LaBella
Powered by Partnership.

LaBella Associates, D.P.C.
20 Elm Street, Suite 110
Glens Falls, NY 12801

www.labellapc.com

SARATOGA LAKE WATER QUALITY STUDY

TOWN OF STILLWATER
SARATOGA COUNTY
NEW YORK

LABELLA PROJECT NO.
CZ32000.13

WATER QUALITY SAMPLING AND INVERTEBRATE COUNTING LOCATIONS

N

0 2500 5000
Feet

SEPTEMBER 2022

Appendix E1

Flatley Read Contamination Report
October 2021

Water Contamination Report

October 2021 Sampling and Testing

Prepared For
Town of Stillwater

By:

Flatley Read, Inc.
12 Spring Street, Suite 102
PO Box 104
Schuylerville, NY 12871
(518) 577-5681

Summary

In October 2021, water samples were collected from four tributaries to Saratoga Lake, and a control sample from Fish Creek at the Route 9P overpass. These samples were analyzed for bacteria, mineral chemistry, radiochemistry, heavy metals, volatile and semi-volatile organics, pesticides, herbicides, and other associated contaminants. The purpose of this analysis is a broad-spectrum investigation of possible contaminants.

Findings

Bacteria: Both Coliform and E. Coli were present at all sites, including the Fish Creek control sample. Although total bacteria and fungi counts exceed EPA levels in drinking water, it is not uncommon to find high levels in open water sources. However, the presence of bacteria could indicate a potential hazard to human health and safety. Further testing of is recommended at swimming access points to ensure it is safe to use for recreational purposes.

Aluminum: All sites, including the Fish Creek control sample, contained more than twice the EPA Limit of Aluminum. Aluminum naturally occurs in in water through agrichemical and lawn care chemical runoff, atmospheric transport, or acid rain. The aluminum levels at the sites tested do not pose an immediate threat to human health and safety as they are not used as a potable water source. This could, however, indicate a source of Saratoga Lake contamination.

Iron: Site D water contained iron in excess of the EPA Limit. Iron naturally occurs in water through iron deposits in rock formations as well as iron content in soil. While iron can cause discoloration and change the taste and smell of water, it not a threat to human health and safety.

Manganese: Site D contained manganese in excess of the EPA Limit. Manganese is an essential trace element, necessary for human survival in small amounts, that can be toxic if ingested in very high concentrations. However, bioavailability of manganese through skin absorption is insignificant. As these sources are not used for drinking water, manganese levels are not a threat to human health and safety.

Nitrogen: Site A contained nitrate nitrogen at a level below the EPA Limit, but higher quantity than the other sample locations, including the Control site at Fish Creek. This indicates potential contamination from fertilizers, agricultural waste, or sewage effluent. The level indicated in the Site A sample is not an immediate threat to human health and safety, however high nitrogen levels could indicate contamination occurring upstream from the sample collection site that could negatively impact Saratoga Lake.

Phosphorus: Site A contained phosphorus in excess of normal background levels (<0.03mg/L). Site A phosphorus level was 0.16 at the time of sample collection, compared to .03 or less at the other sites, including the Control sample at Fish Creek. This could indicate agricultural or lawn care chemical runoff, sewage effluent, or soil erosion upstream from the collection site. This is not an immediate threat to human health and safety, however high phosphorus levels at Site A could negatively impact Saratoga Lake.

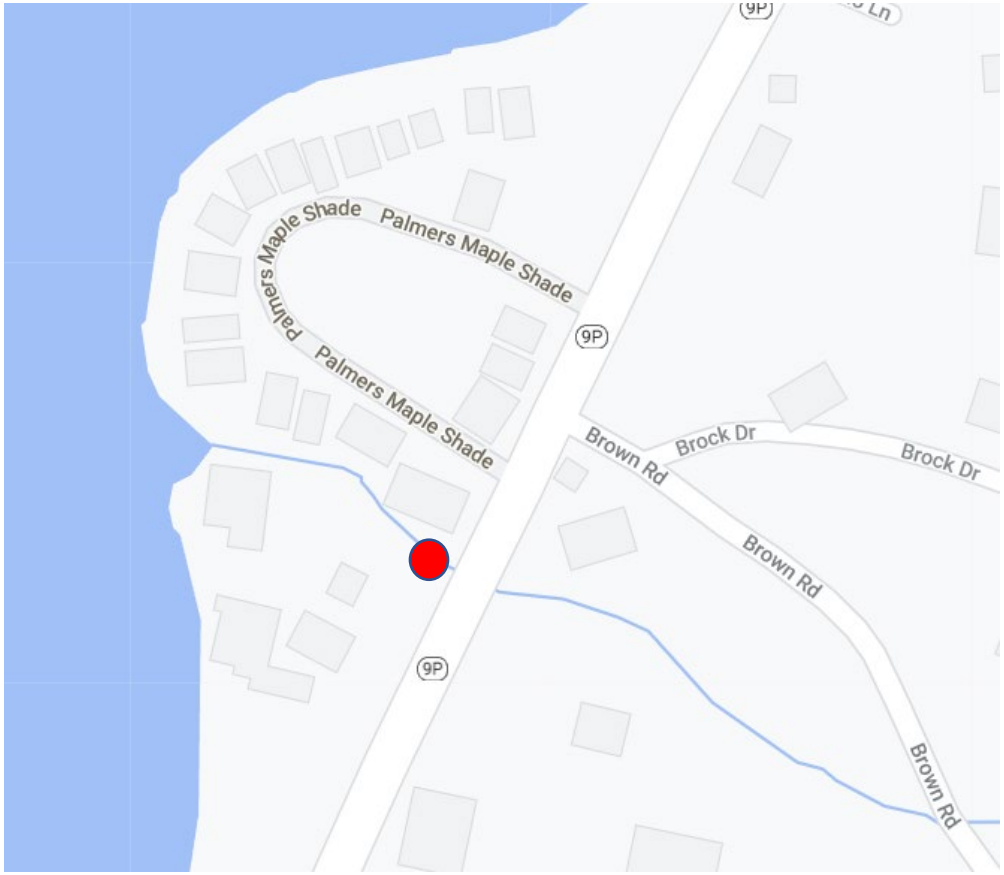
No other industrial chemical or VOC contaminants were found in excess of EPA Limits.

Recommendations

Further testing is scheduled for April and July 2022. These tests will provide a greater insight into the potential sources of contamination. Site A, in particular, may require additional sampling upstream as well as at the Saratoga Lake estuary.

These results are valid only for the date and time of the sample collection field visit. Conditions may change. New contaminants may be introduced to the water sources sampled. Flatley Read is not responsible the introduction of contamination from outside sources nor do we assume any liability therefore.

Map 1
Collection Site A



Sample collected approximately 6 feet downstream from the Route 9P culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211986
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site A
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 10:00:00 AM on 10/20/2021. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	29.06 mg/L	A Component of Salt	No Limit
Potassium	3.65 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.29 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.03 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	11.66 mg/L	A Component of Hardness	No Limit
Calcium	71.17 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.12 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	0.97 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	518.2 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	310.9 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	185.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	44.45 mg/L	A Component of Salt	250.0 mg/L
Hardness	225.7 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	5.69 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	17.17 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.13 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	10.57 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211986
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site A
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 10:00:00 AM on 10/20/2021. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	1.15 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.09 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.26 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	Not Detected	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.34 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	0.03	A Toxic Metal if Exposed to High Amounts	-
Titanium	0.14 mg/L	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.03 mg/L
Other Parameters			
T. Phosphorus	0.16 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211986
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site A
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 10:00:00 AM on 10/20/2021. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211986
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site A
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 10:00:00 AM on 10/20/2021. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211986
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site A
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 10:00:00 AM on 10/20/2021. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211986
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site A
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 10:00:00 AM on 10/20/2021. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211986
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water

Client: Flatley Read Inc.

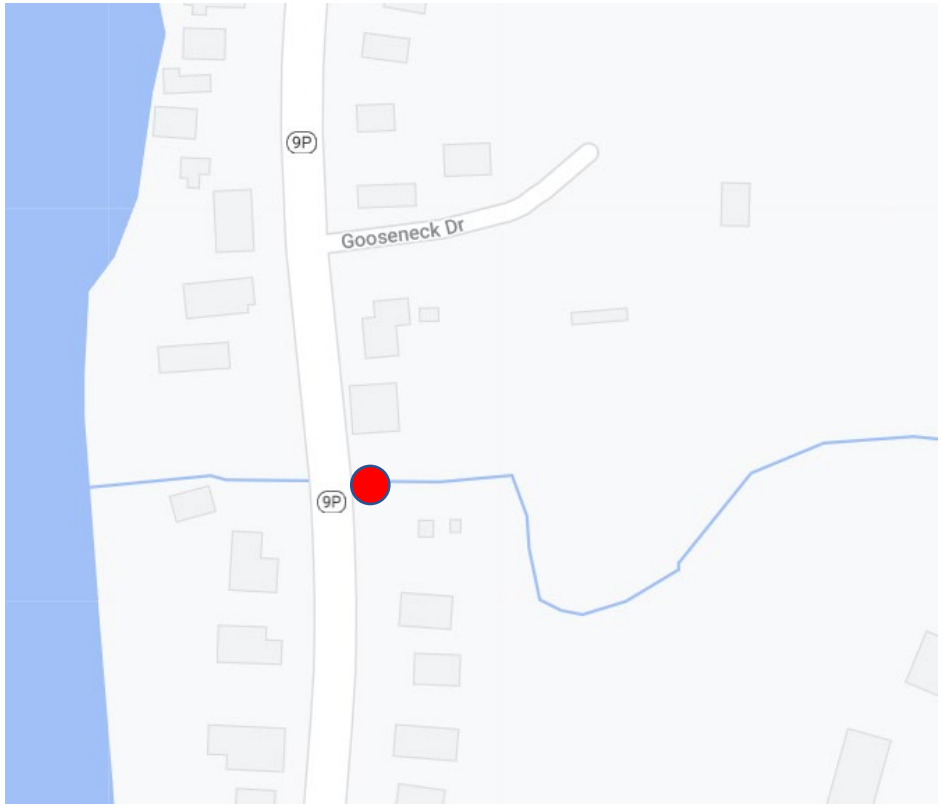
Sample Location: Saratogo Lake- Site A
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 10:00:00 AM on 10/20/2021. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 2
Collection Site B



Sample was collected approximately 8 feet upstream from the culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211982
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake- Site B
Saratogo Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:30:00 AM on 10/20/2021. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	23.87 mg/L	A Component of Salt	No Limit
Potassium	1.33 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.20 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.03 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	9.26 mg/L	A Component of Hardness	No Limit
Calcium	53.99 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	7.87 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	1.09 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	401.2 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	240.7 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	150.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	43.96 mg/L	A Component of Salt	250.0 mg/L
Hardness	172.9 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	0.22 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	13.50 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.12 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	12.18 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211982
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake- Site B
Saratogo Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:30:00 AM on 10/20/2021. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.53 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.06 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Boron	0.12 mg/L	A Toxic Metal if Exposed to High Amounts	-
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	Not Detected	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.25 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	0.01	A Toxic Metal if Exposed to High Amounts	-
Titanium	0.06 mg/L	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.03 mg/L
Other Parameters			
T. Phosphorus	0.01 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211982
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake- Site B
Saratogo Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:30:00 AM on 10/20/2021. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211982
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake- Site B
Saratogo Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:30:00 AM on 10/20/2021. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Ametryn	Not Detected		
Alachlor	Not Detected		-
Anthracene	Not Detected		
Atraton	Not Detected		
Benzo(a)pyrene	Not Detected		-
Atrazine	Not Detected		3.0 µg/L
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211982
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake- Site B
Saratogo Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:30:00 AM on 10/20/2021. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211982
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake- Site B
Saratogo Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:30:00 AM on 10/20/2021. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211982
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake- Site B
Saratogo Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:30:00 AM on 10/20/2021. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Trialemefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 3
Collection Site C

Sample was collected approximately 25 feet downstream from the Rt 9P culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211983
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site C
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 11:00:00 AM on 10/20/2021. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	9.28 mg/L	A Component of Salt	No Limit
Potassium	1.25 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.13 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.02 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	11.93 mg/L	A Component of Hardness	No Limit
Calcium	72.44 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.07 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	0.75 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	0 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	431.1 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	258.7 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	205.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	18.69 mg/L	A Component of Salt	250.0 mg/L
Hardness	230.0 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	0.92 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	17.90 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	Not Detected	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	14.26 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211983
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site C
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 11:00:00 AM on 10/20/2021. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.54 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.05 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.14 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	Not Detected	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.27 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	0.01	A Toxic Metal if Exposed to High Amounts	-
Titanium	0.07 mg/L	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.03 mg/L
Other Parameters			
T. Phosphorus	Not Detected	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211983
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site C
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 11:00:00 AM on 10/20/2021. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211983
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site C
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 11:00:00 AM on 10/20/2021. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211983
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site C
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 11:00:00 AM on 10/20/2021. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211983
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site C
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 11:00:00 AM on 10/20/2021. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211983
Date : 10/23/2021
P.O.Number: Internet

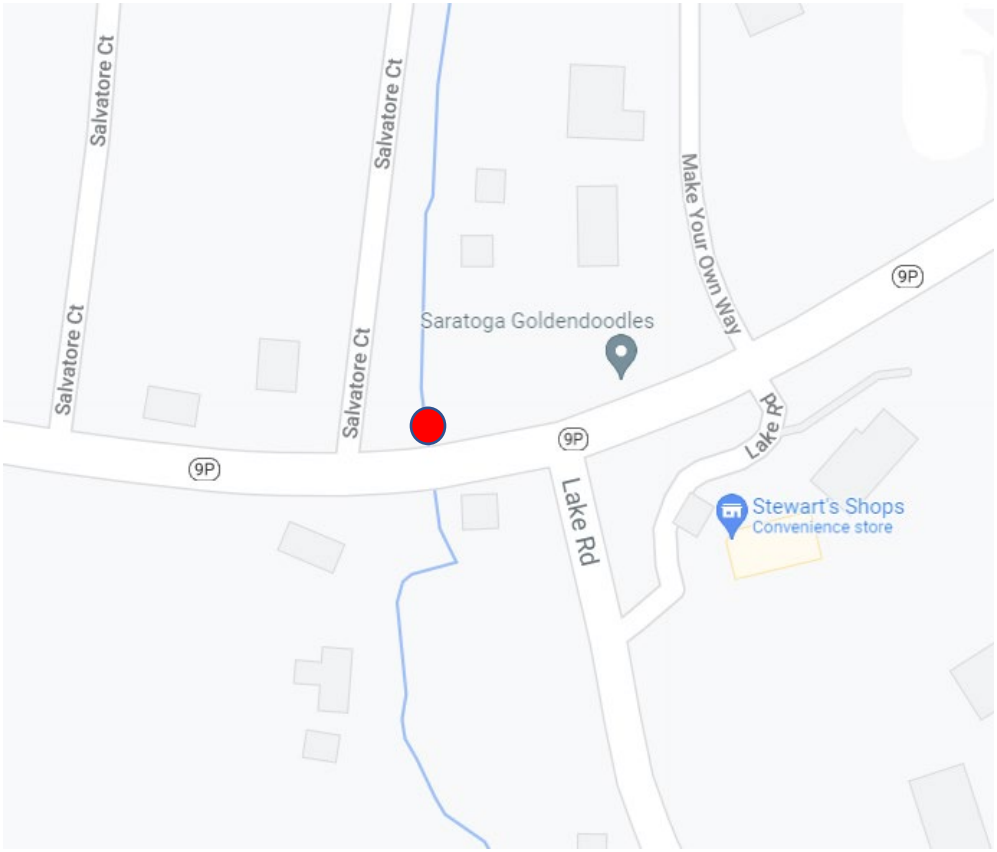
Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site C
Saratogo Springs NY 12866

This sample taken by Michelle DeGarmo at 11:00:00 AM on 10/20/2021. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 4
Collection Site D



Sample was collected approximately 10 feet from the Route 9P culvert

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211984
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake-Site D
Saratoga Springs NY 12866

This sample taken by Michelle DeGarmo at 11:30:00 AM on 10/20/2021. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	37.81 mg/L	A Component of Salt	No Limit
Potassium	1.11 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	1.65 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.18 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	14.13 mg/L	A Component of Hardness	No Limit
Calcium	81.13 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	0.004 mg/L	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	7.84 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	4.67 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	620.2 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	372.1 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	195.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	80.37 mg/L	A Component of Salt	250.0 mg/L
Hardness	260.8 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	Not Detected	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	25.22 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.11 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	14.80 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211984
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake-Site D
Saratoga Springs NY 12866

This sample taken by Michelle DeGarmo at 11:30:00 AM on 10/20/2021. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	1.35 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.09 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.30 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.27 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	0.04	A Toxic Metal if Exposed to High Amounts	-
Titanium	0.15 mg/L	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.03 mg/L
Other Parameters			
T. Phosphorus	0.03 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211984
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake-Site D
Saratoga Springs NY 12866

This sample taken by Michelle DeGarmo at 11:30:00 AM on 10/20/2021. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211984
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake-Site D
Saratoga Springs NY 12866

This sample taken by Michelle DeGarmo at 11:30:00 AM on 10/20/2021. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211984
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake-Site D
Saratoga Springs NY 12866

This sample taken by Michelle DeGarmo at 11:30:00 AM on 10/20/2021. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211984
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake-Site D
Saratoga Springs NY 12866

This sample taken by Michelle DeGarmo at 11:30:00 AM on 10/20/2021. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211984
Date : 10/23/2021
P.O.Number: Internet

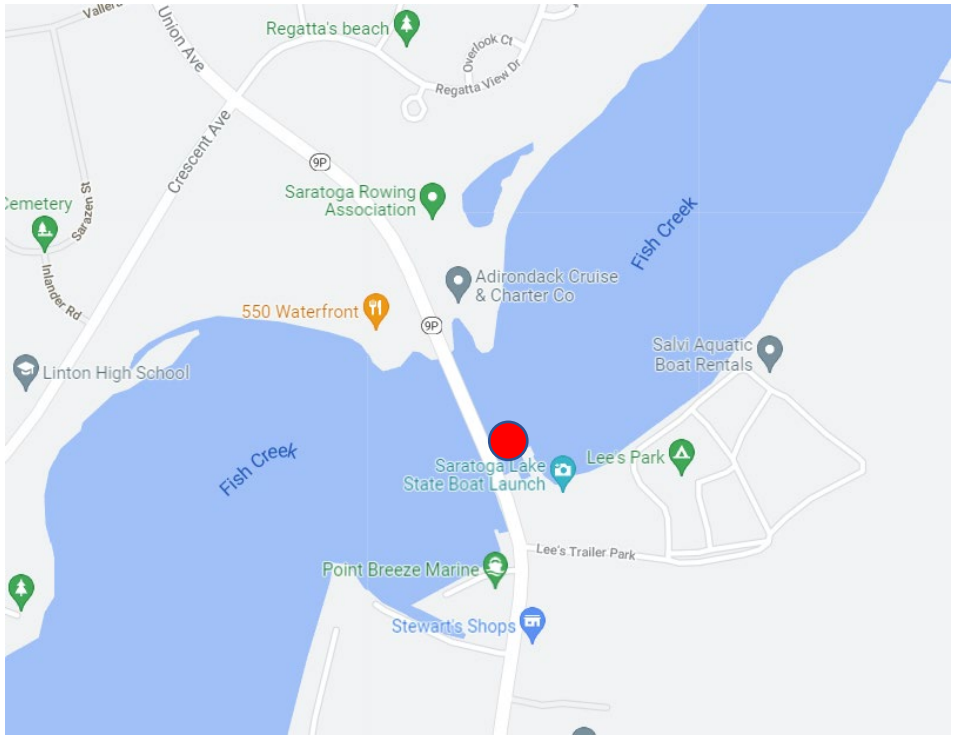
Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratoga Lake-Site D
Saratoga Springs NY 12866

This sample taken by Michelle DeGarmo at 11:30:00 AM on 10/20/2021. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 5
Control Sample



Sample was collected from the south side of the fishing pier, upstream from the boat launch and Route 9P bridge

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211985
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site Control
Saratogo Springs NY 12866

This sample taken by Michelle DeGramo at 12:00:00 PM on 10/20/2021. . Point of collection: Control Sample

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Absent	Known to Cause Illness	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	1890 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	37.74 mg/L	A Component of Salt	No Limit
Potassium	1.51 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.14 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.02 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	9.20 mg/L	A Component of Hardness	No Limit
Calcium	35.81 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.00 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	0.83 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	2 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	407.2 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	244.3 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	110.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	74.67 mg/L	A Component of Salt	250.0 mg/L
Hardness	127.3 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	0.19 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	9.73 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.19 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	5.58 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211985
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site Control
Saratogo Springs NY 12866

This sample taken by Michelle DeGramo at 12:00:00 PM on 10/20/2021. . Point of collection: Control Sample

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.52 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.05 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.14 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	Not Detected	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.13 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	0.01	A Toxic Metal if Exposed to High Amounts	-
Titanium	0.07 mg/L	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.03 mg/L
Other Parameters			
T. Phosphorus	Not Detected	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211985
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site Control
Saratogo Springs NY 12866

This sample taken by Michelle DeGramo at 12:00:00 PM on 10/20/2021. . Point of collection: Control Sample

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211985
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site Control
Saratogo Springs NY 12866

This sample taken by Michelle DeGramo at 12:00:00 PM on 10/20/2021. . Point of collection: Control Sample

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211985
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site Control
Saratogo Springs NY 12866

This sample taken by Michelle DeGramo at 12:00:00 PM on 10/20/2021. . Point of collection: Control Sample

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 1023211985
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site Control
Saratogo Springs NY 12866

This sample taken by Michelle DeGramo at 12:00:00 PM on 10/20/2021. . Point of collection: Control Sample

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 1023211985
Date : 10/23/2021
P.O.Number: Internet

Matrix: Water
Client: Flatley Read Inc.
Sample Location: Saratogo Lake- Site Control
Saratogo Springs NY 12866

This sample taken by Michelle DeGramo at 12:00:00 PM on 10/20/2021. . Point of collection: Control Sample

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Appendix E2

Flatley Read Contamination Report
April 2022

Water Contamination Report

April 2022 Sampling and Testing

Prepared For
Town of Stillwater

By:

Flatley Read, Inc.
12 Spring Street, Suite 102
PO Box 104
Schuylerville, NY 12871
(518) 577-5681

Summary

In April 2022, water samples were collected from four tributaries to Saratoga Lake, and a control sample from Fish Creek at the Route 9P overpass. These samples were analyzed for bacteria, mineral chemistry, radiochemistry, heavy metals, volatile and semi-volatile organics, pesticides, herbicides, and other associated contaminants. The purpose of this analysis is a broad-spectrum investigation of possible contaminants.

Findings

Bacteria: Both Coliform and E. Coli were present at all sites, including the Fish Creek control sample. Although total bacteria and fungi counts exceed EPA levels in drinking water, it is not uncommon to find high levels in open water sources. However, the presence of bacteria could indicate a potential hazard to human health and safety. Further testing of is recommended at swimming access points to ensure it is safe to use for recreational purposes.

The only notable change from the October 2021 samples was at Site B, with a ± 95,200 cfu/100mL decrease in total bacteria count. Site B still exceeds the EPA drinking water limit for bacteria.

Aluminum: Sites A, B, and C continue to contain aluminum in excess of the EPA limit. Aluminum naturally occurs in in water through agrichemical and lawn care chemical runoff, atmospheric transport, or acid rain. The aluminum levels at the sites tested do not pose an immediate threat to human health and safety as they are not used as a potable water source. This could, however, indicate a source of Saratoga Lake contamination.

Site D and the Fish Creek control sample both contained aluminum below the EPA limit. Overall aluminum findings show a decrease from October 2021 samples for all sites.

Iron: All sites except the control sample contained iron in excess of the EPA limit. Iron naturally occurs in water through iron deposits in rock formations as well as iron content in soil. While iron can cause discoloration and change the taste and smell of water, it not a threat to human health and safety.

Site A: +.22 mg/L increase
Site B: +.25 mg/L increase
Site C: +.20 mg/L increase
Site D: -.79 decrease (still above EPA limit)

Manganese: Site D contained manganese in excess of the EPA limit, and Site B contained manganese at the EPA Limit. Manganese is an essential trace element, necessary for human survival in small amounts, that can be toxic if ingested in very high concentrations. However, bioavailability of manganese through skin absorption is insignificant. As these sources are not used for drinking water, manganese levels are not a threat to human health and safety.

There are no notable changes from the October 2021 samples.

Nitrogen: Site A contained nitrate nitrogen at a level below the EPA limit, but higher quantity than the other sample locations, including the Control site at Fish Creek. This indicates potential contamination from fertilizers, agricultural waste, or sewage effluent. The level indicated in the Site A sample is not an immediate threat to human health and safety, however high nitrogen levels could indicate contamination occurring upstream from the sample collection site that could negatively impact Saratoga Lake.

There are no notable changes in nitrogen levels at the other sites.

Phosphorus: Site A contained phosphorus in excess of normal background levels (<0.03mg/L). This could indicate agricultural or lawn care chemical runoff, sewage effluent, or soil erosion upstream from the collection site. This is not an immediate threat to human health and safety, however high phosphorus levels at Site A could negatively impact Saratoga Lake.

There are no notable changes in phosphorus levels at the other sites.

No other industrial chemical or VOC contaminants were found in excess of EPA limit.

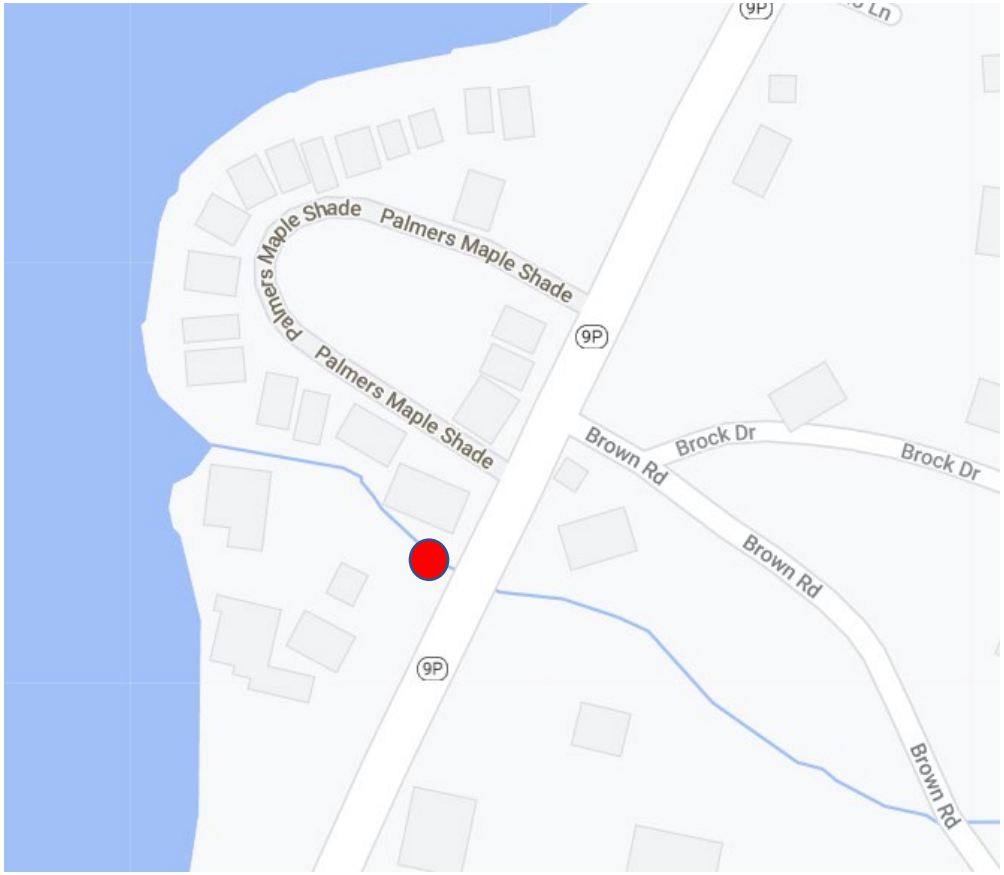
Overall, there is no significant change between the October 2021 and April 2022 findings. In general, levels originally found to be in excess of EPA limits in October 2021 decreased, and any increases were nominal. These changes may be attributable to significant rainfall prior to sample collection.

Recommendations

Further testing is scheduled for July 2022. This will provide a greater insight into the potential sources of contamination. Site A, in particular, may require additional sampling upstream as well as at the Saratoga Lake estuary.

These results are valid only for the date and time of the sample collection field visit. Conditions may change. New contaminants may be introduced to the water sources sampled. Flatley Read is not responsible the introduction of contamination from outside sources nor do we assume any liability therefore.

Map 1
Collection Site A



Sample collected approximately 6 feet downstream from the Route 9P culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221532
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site A
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 4/19/2022. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	19.61 mg/L	A Component of Salt	No Limit
Potassium	2.62 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.51 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.04 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	6.95 mg/L	A Component of Hardness	No Limit
Calcium	35.66 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	7.96 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	17.0 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	2 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Present		3.0 T.O.N.
Conductivity	375.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	225.0 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	100.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	33.87 mg/L	A Component of Salt	250.0 mg/L
Hardness	117.7 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	3.35 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	12.94 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.27 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	5.92 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221532
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site A
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 4/19/2022. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.37 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.03 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.19 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	0.04 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221532
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site A
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 4/19/2022. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221532
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site A
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 4/19/2022. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221532
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site A
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 4/19/2022. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221532
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site A
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 4/19/2022. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221532
Date : 4/22/2022
P.O.Number: Internet

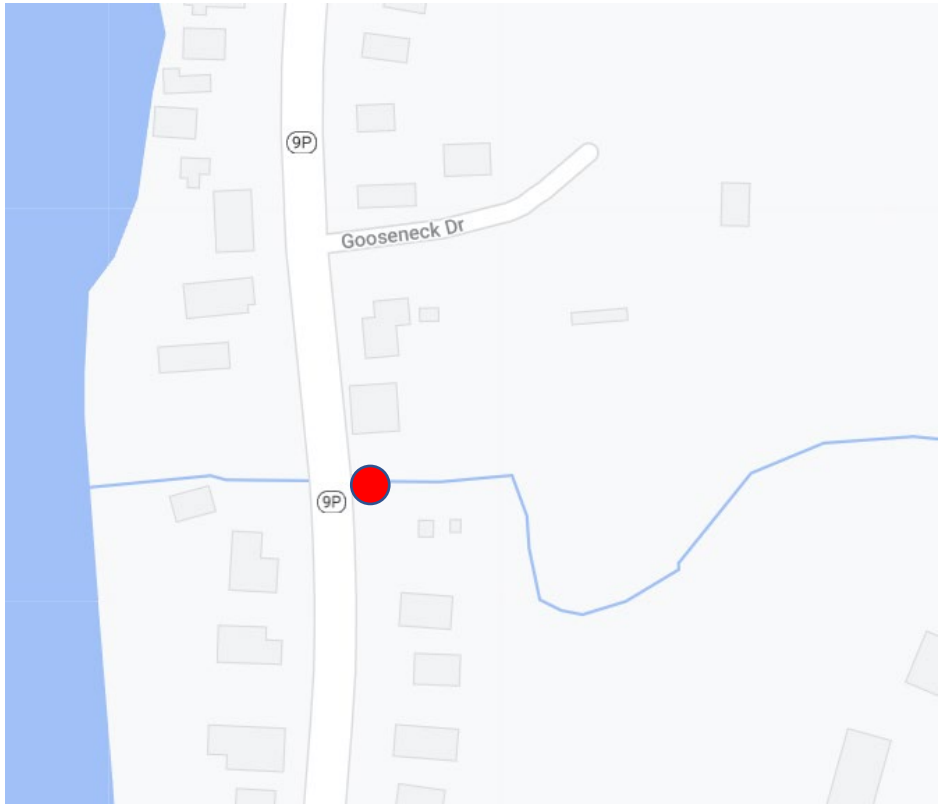
Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site A
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 4/19/2022. . Point of collection: Site A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Trialemefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 2
Collection Site B



Sample was collected approximately 8 feet upstream from the culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221533
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site B
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 4/19/2022. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	64800 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	20.22 mg/L	A Component of Salt	No Limit
Potassium	1.06 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.45 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.05 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	4.36 mg/L	A Component of Hardness	No Limit
Calcium	23.89 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	7.77 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	5.49 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Present		3.0 T.O.N.
Conductivity	301.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	180.6 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	80.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	36.84 mg/L	A Component of Salt	250.0 mg/L
Hardness	77.6 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	0.56 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	8.61 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.14 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	4.69 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221533
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site B
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 4/19/2022. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.24 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.12 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	0.01 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221533
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site B
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 4/19/2022. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221533
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site B
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 4/19/2022. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Benzo(a)pyrene	Not Detected		-
Atrazine	Not Detected		3.0 µg/L
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221533
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site B
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 4/19/2022. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221533
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site B
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 4/19/2022. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221533
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site B
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 4/19/2022. . Point of collection: Site B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 3
Collection Site C

Sample was collected approximately 25 feet downstream from the Rt 9P culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221534
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site C
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 4/19/2022. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	21500 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	9.79 mg/L	A Component of Salt	No Limit
Potassium	0.99 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.33 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.02 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	8.01 mg/L	A Component of Hardness	No Limit
Calcium	43.75 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.02 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	8.48 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Present		3.0 T.O.N.
Conductivity	366.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	219.6 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	130.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	22.04 mg/L	A Component of Salt	250.0 mg/L
Hardness	142.2 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	Not Detected	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	13.79 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.23 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	8.10 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221534
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site C
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 4/19/2022. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.26 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.18 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	0.02 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221534
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site C
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 4/19/2022. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221534
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site C
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 4/19/2022. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221534
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site C
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 4/19/2022. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221534
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site C
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 4/19/2022. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221534
Date : 4/22/2022
P.O.Number: Internet

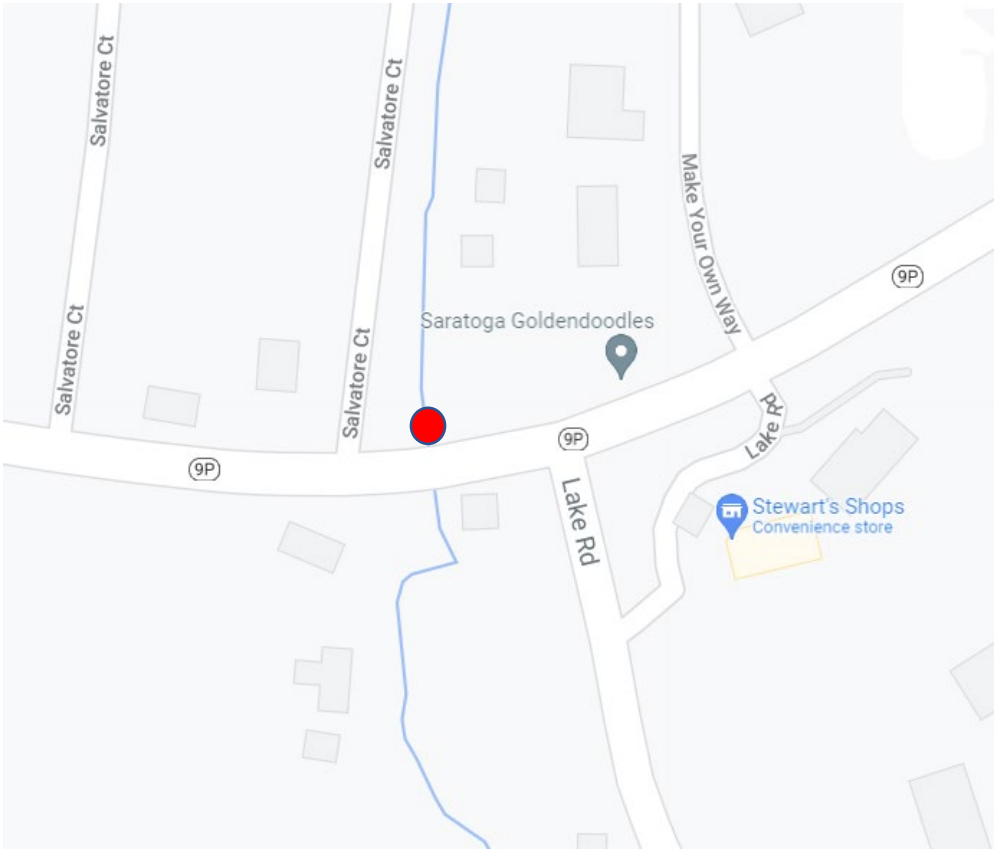
Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site C
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 4/19/2022. . Point of collection: Site C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Trialemefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 4
Collection Site D



Sample was collected approximately 10 feet from the Route 9P culvert

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221535
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site D
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 4/19/2022. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	33.65 mg/L	A Component of Salt	No Limit
Potassium	0.86 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.86 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.09 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	10.77 mg/L	A Component of Hardness	No Limit
Calcium	55.35 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.02 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	5.26 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Present		3.0 T.O.N.
Conductivity	579.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	347.4 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	155.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	74.18 mg/L	A Component of Salt	250.0 mg/L
Hardness	182.6 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	0.21 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	25.59 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.14 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	7.90 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221535
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site D
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 4/19/2022. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.10 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.22 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	0.04 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221535
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site D
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 4/19/2022. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221535
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site D
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 4/19/2022. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221535
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site D
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 4/19/2022. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 422221535
Date : 4/22/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site D
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 4/19/2022. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 422221535
Date : 4/22/2022
P.O.Number: Internet

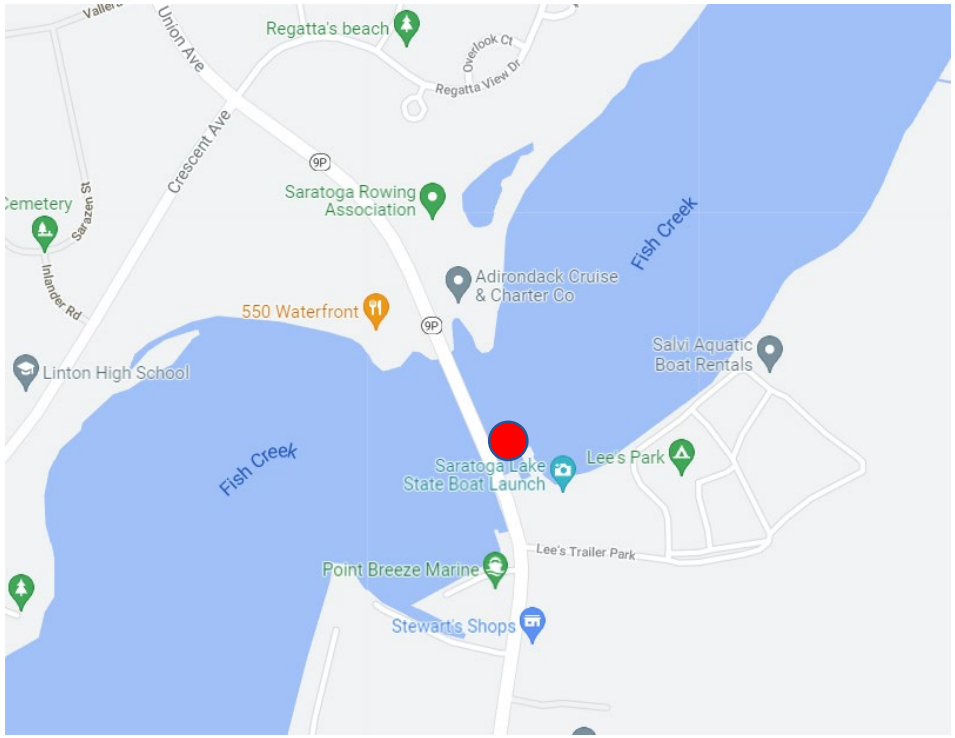
Matrix: Water
Client: Michelle DeGarmo
Sample Location: Collection Site D
Stillwater NY 12170
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 4/19/2022. . Point of collection: Site D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 5
Control Sample



Sample was collected from the south side of the fishing pier, upstream from the boat launch and Route 9P bridge

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 425221656
Date : 4/25/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Control Site 9P Marina
Saratoga Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 4/19/2022. . Point of collection: Control Site 9P Marina

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Absent	Known to Cause Illness	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	31.71 mg/L	A Component of Salt	No Limit
Potassium	Not Detected	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.14 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.02 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	7.51 mg/L	A Component of Hardness	No Limit
Calcium	27.15 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	7.85 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	3.39 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	389.8 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	233.9 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	120.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	48.95 mg/L	A Component of Salt	250.0 mg/L
Hardness	98.7 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	0.60 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	11.13 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.13 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	4.35 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 425221656
Date : 4/25/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Control Site 9P Marina
Saratoga Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 4/19/2022. . Point of collection: Control Site 9P Marina

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.04 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.11 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	Not Detected	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 425221656
Date : 4/25/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Control Site 9P Marina
Saratoga Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 4/19/2022. . Point of collection: Control Site 9P Marina

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 425221656
Date : 4/25/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Control Site 9P Marina
Saratoga Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 4/19/2022. . Point of collection: Control Site 9P Marina

Ultimate Water Test

Analytes	Results	Description	EPA Limits
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Alachlor	Not Detected		-
Ametryn	Not Detected		
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-
ButylBenzyl Pthalate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 425221656
Date : 4/25/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Control Site 9P Marina
Saratoga Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 4/19/2022. . Point of collection: Control Site 9P Marina

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-
Fluorene	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 425221656
Date : 4/25/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Control Site 9P Marina
Saratoga Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 4/19/2022. . Point of collection: Control Site 9P Marina

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-
Terbufos	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 425221656
Date : 4/25/2022
P.O.Number: Internet

Matrix: Water
Client: Michelle DeGarmo
Sample Location: Control Site 9P Marina
Saratoga Springs NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 4/19/2022. . Point of collection: Control Site 9P Marina

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Appendix E3

Flatley Read Contamination Report
July 2022

Water Contamination Report

July 2022 Sampling and Testing

Prepared For
Town of Stillwater

By:

Flatley Read, Inc.
12 Spring Street, Suite 102
PO Box 104
Schuylerville, NY 12871
(518) 577-5681

Summary

In July 2022, water samples were collected from four tributaries to Saratoga Lake, and a control sample from Fish Creek at the Route 9P overpass. These samples were analyzed for bacteria, mineral chemistry, radiochemistry, heavy metals, volatile and semi-volatile organics, pesticides, herbicides, and other associated contaminants. The purpose of this analysis is a broad-spectrum investigation of possible contaminants.

Findings

Bacteria: Both Coliform and E. Coli were present at all sites, including the Fish Creek control sample. Although total bacteria and fungi counts exceed EPA levels in drinking water, it is not uncommon to find high levels in open water sources. However, the presence of bacteria could indicate a potential hazard to human health and safety. Further testing of is recommended at swimming access points to ensure it is safe to use for recreational purposes.

Although both Site B and C indicated a decrease in the total bacteria count from October 2021 to April 2022, the July 2022 samples show that the levels are back to October 2021 levels.

The only notable change from the October 2021 samples was at Site D, with a ± 113,200 cfu/100mL decrease in total bacteria count. Site D is now within the EPA drinking water limit for bacteria.

Aluminum: The overall decrease of aluminum findings demonstrated in the April 2022 report have continued for all Sites. July 2022 samples of Sites A, B, and C show significant decreases in aluminum levels since October 2021. All Site samples contain aluminum below the EPA limit. Aluminum naturally occurs in in water through agrichemical and lawn care chemical runoff, atmospheric transport, or acid rain. This could, however, indicate a source of Saratoga Lake contamination.

Iron: Site A and Site D contained iron in excess of the EPA limit. Iron naturally occurs in water through iron deposits in rock formations as well as iron content in soil. While iron can cause discoloration and change the taste and smell of water, it not a threat to human health and safety. All Sites have decreased since the April 2022 sample testing. All Sites except Site A have lower iron levels than that measured in October 2021. The increases shown in the April 2022 report may not be consistent and demonstrate fluctuations, or a contained insistence of contamination.

Change from April 2022

Site A: -.09 mg/L decrease (still above EPA limit)
Site B: -.33 mg/L decrease
Site C: -.24 mg/L decrease
Site D: -.49 mg/L decrease (still above EPA limit)
Control Site:-0.1 mg/L decrease

Manganese: All of the sites contain manganese below the EPA Limit. All sites except the Control Site show a decrease in Manganese levels. Manganese is an essential trace element, necessary for human survival in small amounts, that can be toxic if ingested in very high concentrations. However, bioavailability of manganese through skin absorption is insignificant. As these sources are not used for drinking water, manganese levels are not a threat to human health and safety.

Nitrogen: All sites contain nitrate nitrogen below the EPA limit. All Sites except Site C showed a decrease in nitrate nitrogen. Site A showed significant decrease in nitrate nitrogen levels from October 2022, although Site A still contains the second highest level. Site C shows an increase in nitrate nitrogen levels. Site C contains nitrate nitrogen at a level below the EPA limit, but higher quantity than the other sample locations, including Site A and the Control site at Fish Creek. The level indicated in the Site A and Site C samples is not an immediate threat to human health and safety, however high nitrogen levels could indicate contamination occurring upstream from the sample collection site that could negatively impact Saratoga Lake.

Phosphorus: Site A and Site D contained phosphorus in excess of normal background levels (<0.03mg/L). This could indicate agricultural or lawn care chemical runoff, sewage effluent, or soil erosion upstream from the collection site. This is not an immediate threat to human health and safety, however high phosphorus levels at Site A and Site D could negatively impact Saratoga Lake.

There are no notable changes in phosphorus levels at the other sites.

No other industrial chemical or VOC contaminants were found in excess of EPA limit.

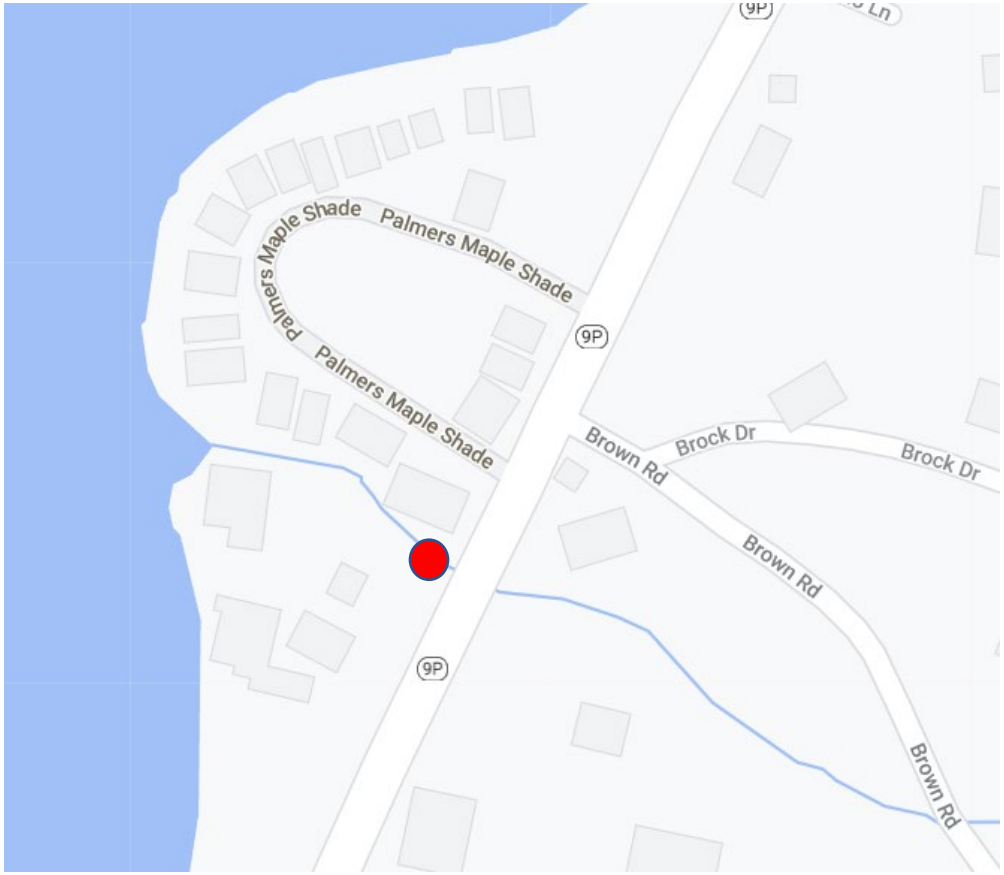
Overall, there is no significant change between the October 2021 and April 2022 findings. In general, levels originally found to be in excess of EPA limits in October 2021 decreased, and any increases were nominal. These changes may be attributable to significant rainfall prior to sample collection.

These results are valid only for the date and time of the sample collection field visit. Conditions may change. New contaminants may be introduced to the water sources sampled. Flatley Read is not responsible the introduction of contamination from outside sources nor do we assume any liability therefore.

Attachments:

- Average Data Chart
- Site Trends Chart

Map 1
Collection Site A



Sample collected approximately 6 feet downstream from the Route 9P culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222009
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample A
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 7/27/2022. . Point of collection: Sample A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	31.42 mg/L	A Component of Salt	No Limit
Potassium	1.84 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.42 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.02 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	9.21 mg/L	A Component of Hardness	No Limit
Calcium	38.79 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.22 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	2.42 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	2 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Present		3.0 T.O.N.
Conductivity	470.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	282.0 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	150.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	66.61 mg/L	A Component of Salt	250.0 mg/L
Hardness	134.8 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	0.54 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	19.62 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.16 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	5.07 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222009
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample A
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 7/27/2022. . Point of collection: Sample A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.03 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.03 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	Not Detected	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.23 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	0.04 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222009
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample A
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 7/27/2022. . Point of collection: Sample A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222009
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample A
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 7/27/2022. . Point of collection: Sample A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Vinyl Chloride	Not Detected	Plastic Manufacturing Byproduct	2.0 ug/L
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Ametryn	Not Detected		
Alachlor	Not Detected		-
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222009
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample A
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 7/27/2022. . Point of collection: Sample A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
ButylBenzyl Pthalate	Not Detected		-
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222009
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample A
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 7/27/2022. . Point of collection: Sample A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluorene	Not Detected		-
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222009
Date : 7/29/2022
P.O.Number: Internet

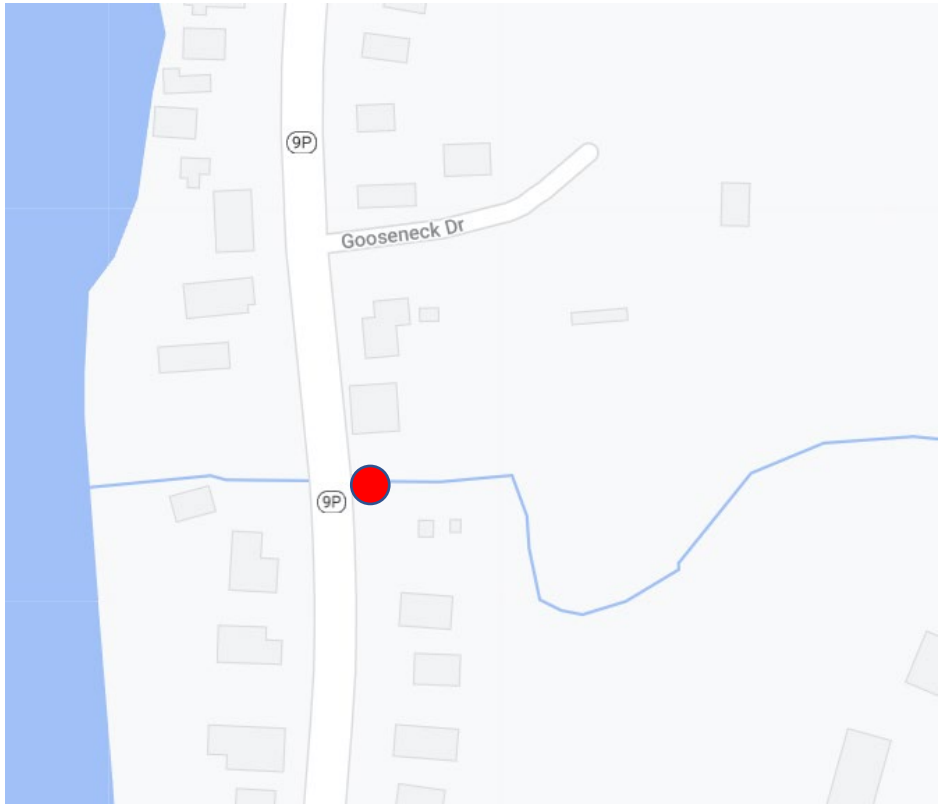
Matrix: Water
Client: Town of Stillwater
Sample Location: Sample A
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:00:00 AM on 7/27/2022. . Point of collection: Sample A

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbufos	Not Detected		-
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 2
Collection Site B



Sample was collected approximately 8 feet upstream from the culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222010
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample B
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 7/27/2022. . Point of collection: Sample B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	>160000 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	36.58 mg/L	A Component of Salt	No Limit
Potassium	1.13 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.12 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.02 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	8.34 mg/L	A Component of Hardness	No Limit
Calcium	29.39 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.02 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	1.14 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	441.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	264.6 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	100.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	64.73 mg/L	A Component of Salt	250.0 mg/L
Hardness	107.7 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	Not Detected	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	14.84 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	Not Detected	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	5.16 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222010
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample B
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 7/27/2022. . Point of collection: Sample B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.03 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	Not Detected	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.13 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	0.02 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222010
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample B
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 7/27/2022. . Point of collection: Sample B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222010
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample B
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 7/27/2022. . Point of collection: Sample B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Vinyl Chloride	Not Detected	Plastic Manufacturing Byproduct	2.0 ug/L
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Ametryn	Not Detected		
Alachlor	Not Detected		-
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222010
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample B
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 7/27/2022. . Point of collection: Sample B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
ButylBenzyl Pthalate	Not Detected		-
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222010
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample B
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 7/27/2022. . Point of collection: Sample B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluorene	Not Detected		-
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222010
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample B
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:45:00 AM on 7/27/2022. . Point of collection: Sample B

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbufos	Not Detected		-
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 3
Collection Site C

Sample was collected approximately 25 feet downstream from the Rt 9P culvert.

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222013
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample C
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 7/27/2022. . Point of collection: Sample C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	64200 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	6.63 mg/L	A Component of Salt	No Limit
Potassium	0.78 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.09 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.01 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	10.16 mg/L	A Component of Hardness	No Limit
Calcium	62.98 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.28 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	2.39 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	2 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	465.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	279.0 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Present	Undissolved Solids	Present
Alkalinity	210.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	14.14 mg/L	A Component of Salt	250.0 mg/L
Hardness	199.1 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	1.44 mg/L	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	24.94 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	Not Detected	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	13.44 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222013
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample C
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 7/27/2022. . Point of collection: Sample C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.08 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.03 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.24 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	0.01 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222013
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample C
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 7/27/2022. . Point of collection: Sample C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222013
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample C
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 7/27/2022. . Point of collection: Sample C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Vinyl Chloride	Not Detected	Plastic Manufacturing Byproduct	2.0 ug/L
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Ametryn	Not Detected		
Alachlor	Not Detected		-
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222013
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample C
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 7/27/2022. . Point of collection: Sample C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
ButylBenzyl Pthalate	Not Detected		-
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222013
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample C
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 7/27/2022. . Point of collection: Sample C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluorene	Not Detected		-
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222013
Date : 7/29/2022
P.O.Number: Internet

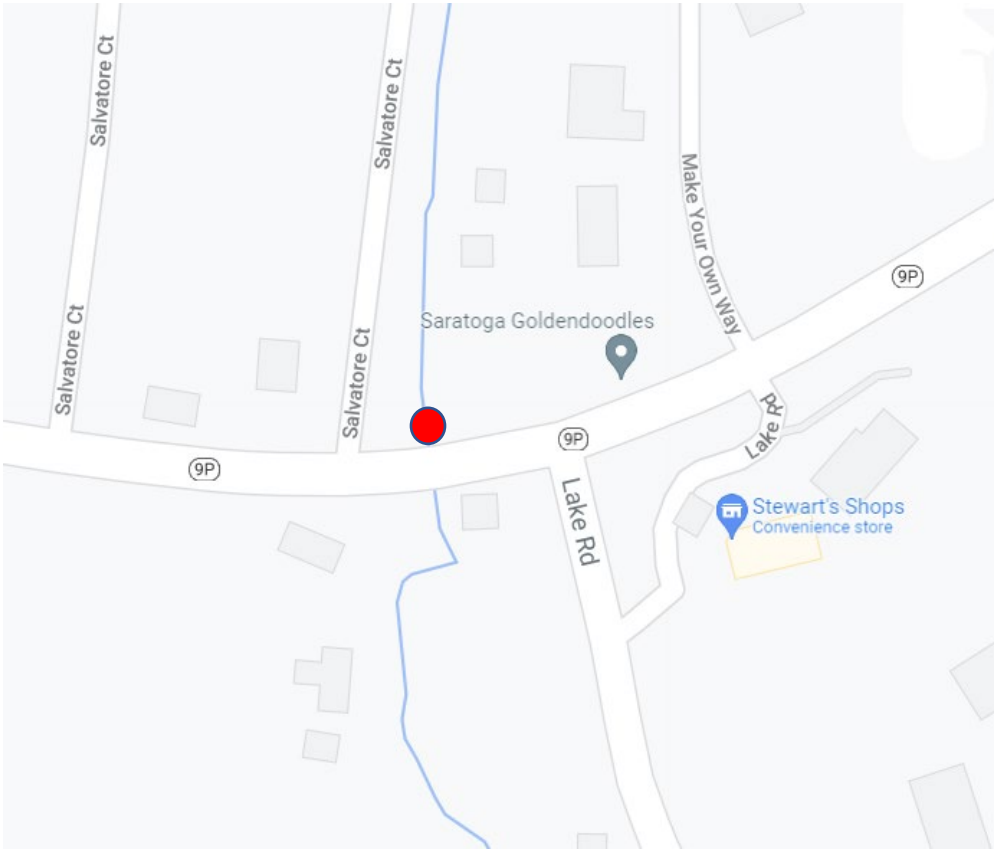
Matrix: Water
Client: Town of Stillwater
Sample Location: Sample C
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:30:00 AM on 7/27/2022. . Point of collection: Sample C

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbufos	Not Detected		-
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 4
Collection Site D



Sample was collected approximately 10 feet from the Route 9P culvert

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222012
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample D
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 7/27/2022. . Point of collection: Sample D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Present	There should be no Fecal/E. Coli bacteria in the sample.	0
Total Bacteria Count	46800 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	210 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	31.69 mg/L	A Component of Salt	No Limit
Potassium	0.92 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.37 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.04 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	12.70 mg/L	A Component of Hardness	No Limit
Calcium	63.73 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.10 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	1.44 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	1 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	645.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	387.0 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Absent	Undissolved Solids	Present
Alkalinity	190.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	77.24 mg/L	A Component of Salt	250.0 mg/L
Hardness	211.4 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	Not Detected	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	26.76 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.14 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	12.03 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222012
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample D
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 7/27/2022. . Point of collection: Sample D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.03 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.25 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	0.04 mg/L	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222012
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample D
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 7/27/2022. . Point of collection: Sample D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222012
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample D
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 7/27/2022. . Point of collection: Sample D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Vinyl Chloride	Not Detected	Plastic Manufacturing Byproduct	2.0 ug/L
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Ametryn	Not Detected		
Alachlor	Not Detected		-
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222012
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample D
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 7/27/2022. . Point of collection: Sample D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
ButylBenzyl Pthalate	Not Detected		-
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222012
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Sample D
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 7/27/2022. . Point of collection: Sample D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluorene	Not Detected		-
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222012
Date : 7/29/2022
P.O.Number: Internet

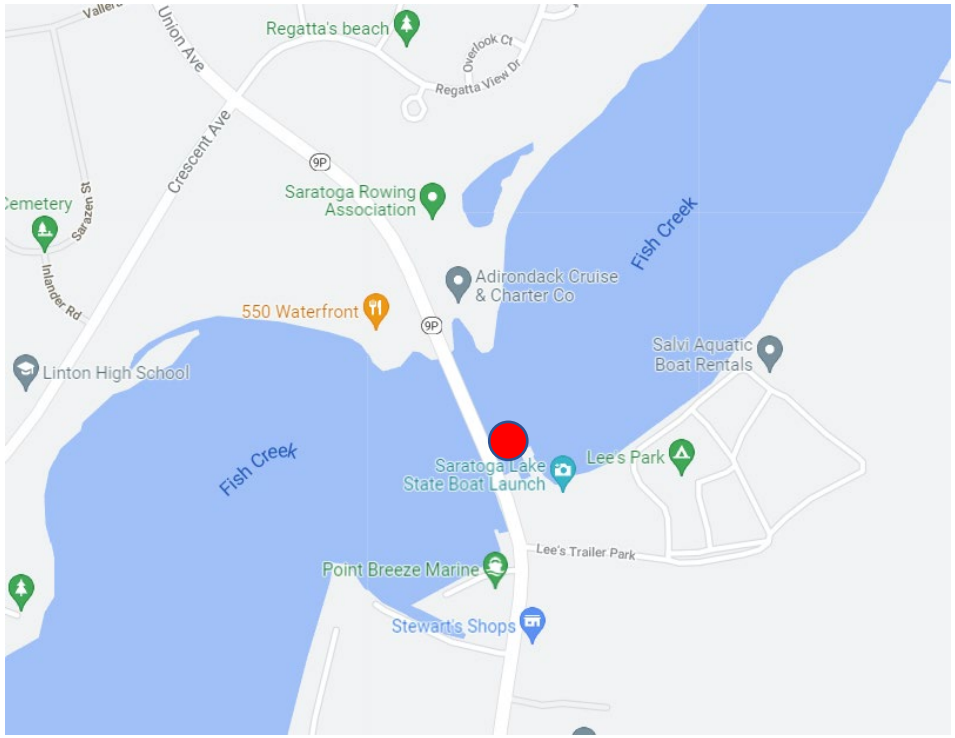
Matrix: Water
Client: Town of Stillwater
Sample Location: Sample D
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 9:15:00 AM on 7/27/2022. . Point of collection: Sample D

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbufos	Not Detected		-
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Map 5
Control Sample



Sample was collected from the south side of the fishing pier, upstream from the boat launch and Route 9P bridge

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222011
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Control Sample
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 7/27/2022. . Point of collection: Control

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Bacteria			
Total Coliform	Present	There should be no Coliform bacteria in the sample.	0
E. Coli	Absent	Known to Cause Illness	0
Total Bacteria Count	26600 cfu/100mL	Other Bacteria	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	Indicates Presence of Yeast or Mold	0 cfu/100mL
Mineral Chemistry			
Sodium	37.49 mg/L	A Component of Salt	No Limit
Potassium	1.04 mg/L	A Component of Salt	No Limit
Copper	Not Detected	Indicates Plumbing Corrosion	1.30 mg/L
Iron	0.04 mg/L	Brown Stains, Bitter Taste	0.30 mg/L
Manganese	0.02 mg/L	May Cause Black/ Laundry Staining	0.05 mg/L
Magnesium	8.62 mg/L	A Component of Hardness	No Limit
Calcium	29.17 mg/L	A Component of Hardness	No Limit
Arsenic (Total)	Not Detected	A Naturally Occurring Toxic Element	0.010 mg/L
Lead	Not Detected	A Toxic Metal, From Plumbing Components	0.015 mg/L
pH	8.28 SU	Acid/Basic Determination	6.5 - 8.5 SU
Turbidity	0.95 N.T.U.	Presence of Particles/Measure of Cloudiness	No Limit
Color	0 C.U.	Clarity (0), Discoloration (15)	15.0 C.U.
Odor	Absent	Odor May Be Due To Bacteria Contamination	3.0 T.O.N.
Conductivity	455.0 umhos	Electrical Resistance (umhos/cm)	No Limit
T.D.S.	273.0 mg/L	Total Dissolved Minerals Present	500.0 mg/L
Sediment	Absent	Undissolved Solids	Present
Alkalinity	120.0 mg/L	Ability to Neutralize Acid	No Limit
Chlorine	Not Detected	A Disinfectant Byproduct	4.0 mg/L
Chloride	71.35 mg/L	A Component of Salt	250.0 mg/L
Hardness	108.3 mg/L	75 or Higher is Considered Hard	No Limit
Nitrate as Nitrogen	Not Detected	Indicator of Biological Waste	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Indicator of Waste	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Indicator of Waste	No Limit
Sulfate	12.03 mg/L	A Mineral, Can Cause Odor	250.0 mg/L
Fluoride	0.12 mg/L	Naturally Occuring or Added By Municipalities	4.0 mg/L
Tannins	Not Detected	Bitter Tasting Organic Substance	No Limit
Silica	6.17 mg/L	A Hard, Unreactive, Colorless Compound	-
Radiochemistry			
Radon in Water	Not Detected	Massachusetts D.E.P. Guideline - 10,000 pCi/L	-
Heavy Metals			
Antimony	Not Detected	A Toxic Metal if Exposed to High Amounts	0.006 mg/L

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222011
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Control Sample
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 7/27/2022. . Point of collection: Control

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Aluminum	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	0.05-0.20 mg/L
Barium	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	2.0 mg/L
Beryllium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.004 mg/L
Boron	0.01 mg/L	A Toxic Metal if Exposed to High Amounts	-
Cadmium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.005 mg/L
Chromium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Mercury	Not Detected	A Toxic Metal	0.002 mg/L
Nickel	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mg/L
Selenium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.050 mg/L
Silver	Not Detected	A Toxic Metal if Exposed to High Amounts	0.100 mgL
Thallium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.002 mg/L
Zinc	0.02 mg/L	A Toxic Metal if Exposed to High Amounts	5.0 mg/L
Strontium	0.12 mg/L	A Toxic Metal if Exposed to High Amounts	-
Lithium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Tin	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Molybdenum	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cerium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Titanium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Vanadium	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Cobalt	Not Detected	A Toxic Metal if Exposed to High Amounts	-
Uranium	Not Detected	A Toxic Metal if Exposed to High Amounts	0.030 mg/L
Other Parameters			
T. Phosphorus	Not Detected	A Naturally Occurring Element	-
Volatile Organics			
Benzene	Not Detected	Industrial Solvent	5.0 ug/L
Bromobenzene	Not Detected	Industrial Solvent	-
Bromochloromethane	Not Detected	Industrial Solvent	-
Bromodichloromethane	Not Detected	A Disinfectant Byproduct	-
Bromoform	Not Detected	Industrial Solvent	-
Bromomethane	Not Detected	Industrial Solvent	-
n-Butylbenzene	Not Detected	Industrial Solvent	-
sec-Butylbenzene	Not Detected	Industrial Solvent	No Limit
tert-Butylbenzene	Not Detected	Industrial Solvent	-
Carbon-Tetrachloride	Not Detected	Industrial Solvent	5.0 ug/L
Chloroethane	Not Detected	Industrial Solvent	-
Chloroform	Not Detected	A Disinfectant Byproduct	-
Chloromethane	Not Detected	Industrial Solvent	-
1,2-Chlorotoluene	Not Detected	Industrial Solvent	-
1,4-Chlorotoluene	Not Detected	Industrial Solvent	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222011
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Control Sample
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 7/27/2022. . Point of collection: Control

Ultimate Water Test

Analytes	Results	Description	EPA Limits
1,2-Dibromo-3-chloropropane	Not Detected	Pesticide Byproduct	0.2 ug/L
Dibromomethane	Not Detected	Industrial Solvent	-
1,2-Dibromoethane	Not Detected	Pesticide Byproduct	-
1,3-Dichlorobenzene	Not Detected	Pesticide Byproduct	-
1,2-Dichlorobenzene	Not Detected	Pesticide Byproduct	600.0 ug/L
1,4-Dichlorobenzene	Not Detected	Pesticide Byproduct	5.0 ug/L
Dichlorodifluoromethane	Not Detected	Industrial Solvent	-
1,1-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	-
1,2-Dichloroethane	Not Detected	Plastic Manufacturing Byproduct	5.0 ug/L
1,1-Dichloroethylene	Not Detected	Plastic Manufacturing Byproduct	7.0 ug/L
trans-1,2-Dichloroethene	Not Detected	Industrial Solvent	100.0 ug/L
1,2-Dichloropropane	Not Detected	Industrial Solvent	5.0 ug/L
1,3-Dichloropropane	Not Detected	Pesticide Byproduct	-
2,2-Dichloropropane	Not Detected	Industrial Solvent	-
1,1-Dichloropropene	Not Detected	Pesticide Byproduct	-
1,3-Dichloropropene	Not Detected	Pesticide Byproduct	-
trans-1,3-Dichloropropene	Not Detected	Pesticide Byproduct	No Limit
Ethylbenzene	Not Detected	Industrial Solvent	700.0 ug/L
Trichlorofluoromethane	Not Detected	Industrial Solvent	No Limit
Hexachlorobutadiene	Not Detected	Industrial Solvent	-
Isopropylbenzene	Not Detected	Industrial Solvent	-
Methyl-t-Butyl Ether (MTBE)	Not Detected	Gasoline Byproduct	70.0 ug/L
p-Isopropyltoluene	Not Detected	Industrial Solvent	-
Methylene Chloride	Not Detected	Industrial Solvent	5.0 ug/L
Monochlorobenzene	Not Detected	Industrial Solvent	100.0 ug/L
Napthalene	Not Detected	Industrial Solvent	-
n-Propylbenzene	Not Detected	Industrial Solvent	-
Styrene	Not Detected	Plastic Manufacturing Byproduct	100.0 ug/L
1,1,1,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
1,1,2,2-Tetrachloroethane	Not Detected	Industrial Solvent	-
Tetrachloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
Toluene	Not Detected	Industrial Solvent	1000.0 ug/L
1,2,3-Trichlorobenzene	Not Detected	Industrial Solvent	-
1,2,4-Trichlorobenzene	Not Detected	Industrial Solvent	70.0 ug/L
1,1,1-Trichloroethane	Not Detected	Industrial Solvent	200.0 ug/L
1,1,2-Trichloroethane	Not Detected	Industrial Solvent	5.0 ug/L
Trichloroethylene	Not Detected	Industrial Solvent	5.0 ug/L
1,2,3-Trichloropropane	Not Detected	Industrial Solvent	-
1,2,4-Trimethylbenzene	Not Detected	Industrial Solvent	-
1,3,5-Trimethylbenzene	Not Detected	Plastic Manufacturing Byproduct	-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222011
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Control Sample
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 7/27/2022. . Point of collection: Control

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Vinyl Chloride	Not Detected	Plastic Manufacturing Byproduct	2.0 ug/L
o-Xylene	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
m+p Xylenes	Not Detected	Industrial Solvent	T. Xylenes 10K ug/
Chlorodibromomethane	Not Detected	Industrial Solvent	5.0 ug/kg
Pesticides			
Aldrin	Not Detected		-
A-BHC	Not Detected		-
B-BHC	Not Detected		-
C-BHC	Not Detected		-
D-BHC	Not Detected		-
Chlordane	Not Detected		2.0 ug/L
4,4'-DDD	Not Detected		-
4,4'-DDE	Not Detected		-
4,4'-DDT	Not Detected		-
Dieldrin	Not Detected		-
Endrin	Not Detected		-
Heptachlor	Not Detected		-
Heptachlor Epoxide	Not Detected		-
Methoxychlor	Not Detected		-
Herbicides			
2,4-D	Not Detected		70.0 ug/L
2,4,5-TP	Not Detected		50.0 ug/L
2,4,5-T	Not Detected		-
Semi-Volatile Organic			
Acenaphthylene	Not Detected	Plastic Manufacturing Byproduct	-
Acenaphthene	Not Detected	Plastic Manufacturing Byproduct	-
Ametryn	Not Detected		
Alachlor	Not Detected		-
Anthracene	Not Detected		
Atraton	Not Detected		
Atrazine	Not Detected		3.0 µg/L
Benzo(a)pyrene	Not Detected		-
Benz (A) Anthracene	Not Detected		-
Benzo (B) Fluoranthene	Not Detected		-
Benzo (K) Fluoranthene	Not Detected		-
Bromacil	Not Detected		-
Butachlor	Not Detected		-
Butylate	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222011
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Control Sample
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 7/27/2022. . Point of collection: Control

Ultimate Water Test

Analytes	Results	Description	EPA Limits
ButylBenzyl Pthalate	Not Detected		-
Carboxin	Not Detected		--
Alpha Chlordane	Not Detected		
Gamma Chlordane	Not Detected		-
Trans Nonachlor	Not Detected		-
Chlorneb	Not Detected		-
Chlorobenzilate	Not Detected		-
Chlorpropam	Not Detected		-
Chlorothalonil	Not Detected		-
Chloropyrifos	Not Detected		-
2-Chlorobiphenyl	Not Detected		-
Chrysene	Not Detected		-
Cyanazine	Not Detected		-
Cycloate	Not Detected		-
DCPA	Not Detected		-
DDD, 4,4'-	Not Detected		-
DDE, 4,4'-	Not Detected		-
DDT, 4,4'-	Not Detected		-
Diazinon	Not Detected		-
Dibenz (A,H) Anthracene	Not Detected		-
Di-N-Butyl Phthalate	Not Detected		-
2,3-Dichlorobiphenyl	Not Detected	Industrial Solvent	-
Dichlorvos	Not Detected		-
Diethyl Phthalate	Not Detected		-
Di (2-Ethylhexyl) Adipate	Not Detected		-
Di (2-Ethylhexyl) Phthalate	Not Detected		-
Dimethyl Phthalate	Not Detected		-
2,4-Dinitrotoluene	Not Detected		-
2,6-Dinitrotoluene	Not Detected		-
Diphenamid	Not Detected		-
Disulfoton	Not Detected		-
Endosulfan I	Not Detected		-
Endosulfan II	Not Detected		-
Endosulfan Sulfate	Not Detected		-
Endrin Aldehyde	Not Detected		-
EPTC	Not Detected		-
Ethoprpo	Not Detected		-
Etridiazole	Not Detected		-
Fenamiphos	Not Detected		-
Fenarimol	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.
Same as Client

Report #: 729222011
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Control Sample
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 7/27/2022. . Point of collection: Control

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Fluorene	Not Detected		-
Fluridone	Not Detected		-
2,2',3,3',4,4'6-HeptachloroBiphenyl	Not Detected		-
Hexachlorobenzene	Not Detected		
2,2',4,4',5,6'-HexachloroBiphenyl	Not Detected		-
Alpha Hexachlorocyclohexane	Not Detected		
Beta Hexachlorocyclohexane	Not Detected		-
Delta Hexachlorocyclohexane	Not Detected		-
Hexachlorocyclohexane	Not Detected		-
Hexazinone	Not Detected		-
Indeno (1,2,3-CD) Pyrene	Not Detected		-
Isophorone	Not Detected		-
Lindane	Not Detected		-
Merphos	Not Detected		-
Methyl Paraoxon	Not Detected		-
Metolachlor	Not Detected		-
Metribuzin	Not Detected		-
Mevinphos	Not Detected		-
MGK 264	Not Detected		-
Molinate	Not Detected		-
Napropamide	Not Detected		-
Norflurazon	Not Detected		-
2,2',3,3',4,5',6,6'-OctachloroBipheny	Not Detected		-
Pebulate	Not Detected		-
2,2',3',4,6-Pentachlorobiphenyl	Not Detected		-
Pentachlorophenol	Not Detected		-
Phenanthrene	Not Detected		-
Permethrin, Cis	Not Detected		-
Permethrin, Trans	Not Detected		-
Prometron	Not Detected		-
Prometryn	Not Detected		-
Pronamide	Not Detected		-
Propachlor	Not Detected		-
Propazine	Not Detected		-
Pyrene	Not Detected		-
Simazine	Not Detected		-
Simetryn	Not Detected		-
Stifros	Not Detected		-
Terbuthiuron	Not Detected		-
Terbacil	Not Detected		-

ETR Laboratories
Environmental Testing and Research Laboratories, Inc.

Same as Client

Report #: 729222011
Date : 7/29/2022
P.O.Number: Internet

Matrix: Water
Client: Town of Stillwater
Sample Location: Control Sample
Saratoga Lake NY 12866
Phone: (518) 577-5681

This sample taken by Michelle DeGarmo at 10:15:00 AM on 7/27/2022. . Point of collection: Control

Ultimate Water Test

Analytes	Results	Description	EPA Limits
Terbufos	Not Detected		-
Terbutryn	Not Detected		-
2,2',4,4'-Tetrachlorobiphenyl	Not Detected		-
Triademefon	Not Detected		-
2,4,5-Trichlorobiphenyl	Not Detected		-
Tricyclazole	Not Detected		-
Trifluralin	Not Detected		-
Vernolate	Not Detected		-
PCB Screen	Not Detected		-
Toxaphene Screen	Not Detected		-
Technical Chloradane	Not Detected		-
Benzo(g,h,i)perylene	Not Detected		0.150 mg/kg

Appendix E4

Summary of WQ Testing Results

Average of Data Collected Oct-21, Apr-22, Jul-22

Analytes	Site A	Site B	Site C	Site D	Site E (Control)	EPA Limits
Bacteria						
Total Coliform	Present	Present	Present	Present	Present	0
E. Coli	Present	Present	Present	Present	Absent	0
Total Bacteria Count	>160000 cfu/100mL	>160000 cfu/100mL	>160000 cfu/100mL	>160000 cfu/100mL	>160000 cfu/100mL	50,000 cfu/100mL
Fungi Count	>16000 cfu/100mL	>16000 cfu/100mL	>16000 cfu/100mL	>16000 cfu/100mL	>16000 cfu/100mL	0 cfu/100mL
Mineral Chemistry						
Sodium (mg/L)	26.7 mg/L	26.89 mg/L	8.57 mg/L	34.38 mg/L	35.65 mg/L	No Limit
Potassium (mg/L)	2.7 mg/L	1.17 mg/L	1.01 mg/L	0.96 mg/L	0.85 mg/L	No Limit
Copper	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	1.30 mg/L
Iron (mg/L)	0.41 mg/L	0.26 mg/L	0.18 mg/L	0.96 mg/L	0.11 mg/L	0.30 mg/L
Manganese (mg/L)	0.03 mg/L	0.03 mg/L	0.02 mg/L	0.1 mg/L	0.02 mg/L	0.05 mg/L
Magnesium (mg/L)	9.27 mg/L	7.32 mg/L	10.03 mg/L	12.53 mg/L	8.44 mg/L	No Limit
Calcium (mg/L)	48.54 mg/L	35.76 mg/L	59.72 mg/L	66.74 mg/L	30.71 mg/L	No Limit
Arsenc (Total)	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.010 mg/L
Lead	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.015 mg/L
pH (SU)	8.1 SU	7.89 SU	8.12 SU	7.99 SU	8.04 SU	6.5-8.5 SU
Turbidity (N.T.U)	6.8 N.T.U.	2.57 N.T.U.	3.87 N.T.U.	3.79 N.T.U.	1.72 N.T.U.	No Limit
Color (C.U.)	1.67 C.U.	1 C.U.	1 C.U.	1 C.U.	1 C.U.	15.0 C.U.
Odor (Present (1) or Absent (0))	Present	Absent	Absent	Absent	Absent	3.0 T.O.N.
Conductivity (umhos)	454.4 umhos	381.07 umhos	420.7 umhos	614.73 umhos	417.33 umhos	No Limit
T.D.S. (mg/L)	272.63 mg/L	228.63 mg/L	252.43 mg/L	368.83 mg/L	250.4 mg/L	500.0 mg/L
Sediment (Present (1) or Absent (0))	Present	Present	Present	Present	Present	Present
Alkalinity (mg/L)	145 mg/L	110 mg/L	181.67 mg/L	180 mg/L	116.67 mg/L	No Limit
Chlorine	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	4.0 mg/L
Chloride (mg/L)	48.31 mg/L	48.51 mg/L	18.29 mg/L	77.26 mg/L	64.99 mg/L	250.0 mg/L
Hardness (mg/L)	159.4 mg/L	119.4 mg/L	190.43 mg/L	218.27 mg/L	111.43 mg/L	No Limit
Nitrate as Nitrogen (mg/L)	3.19 mg/L	0.26 mg/L	0.79 mg/L	0.07 mg/L	0.26 mg/L	10.0 mg/L
Nitrite as Nitrogen	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	1.0 mg/L
Ammonia as Nitrogen	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	No Limit
Sulfate (mg/L)	16.58 mg/L	12.32 mg/L	18.88 mg/L	25.86 mg/L	10.96 mg/L	250.0 mg/L
Flouride (mg/L)	0.19 mg/L	0.09 mg/L	0.08 mg/L	0.13 mg/L	0.15 mg/L	4.0 mg/L
Tannins	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	No Limit
Silica (mg/L)	7.09 mg/L	7.34 mg/L	11.93 mg/L	11.58 mg/L	5.37 mg/L	-
Radiochemistry						
Radon in Water	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	-
Heavy Metals						
Antimony	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.006 mg/L
Aluminum (mg/L)	0.52 mg/L	0.26 mg/L	0.29 mg/L	0.49 mg/L	0.19 mg/L	0.05-0.20 mg/L
Barium9mg/L)	0.05 mg/L	0.04 mg/L	0.03 mg/L	0.05 mg/L	0.03 mg/L	2.0 mg/L
Beryllium	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.004 mg/L

Boron (mg/L)	0.1 mg/L	0.05 mg/L	0.05 mg/L	0.11 mg/L	0.05 mg/L	-
Cadmium	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.005 mg/L
Chormium	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.100 mg/L
Mercury	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.002 mg/L
Nickel	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.100 mg/L
Selenium	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.050 mg/L
Silver	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.100 mg/L
Thallium	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.002 mg/L
Zinc (mg/L)	0 mg/L	0 mg/L	0.01 mg/L	0.01 mg/L	0.01 mg/L	5.0 mg/L
Strontium (mg/L)	0.25 mg/L	0.17 mg/L	0.23 mg/L	0.25 mg/L	0.12 mg/L	-
Lithium (mg/L)	0.01 mg/L	0 mg/L	0 mg/L	0.01 mg/L	0 mg/L	-
Tin	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	-
Molybdenum	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	-
Cerlum	0.01 mg/L	0 mg/L	0 mg/L	0.01 mg/L	0 mg/L	-
Titanium (mg/L)	0.05 mg/L	0.02 mg/L	0.03 mg/L	0.05 mg/L	0.02 mg/L	-
Vandadium	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	-
Cobalt	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	-
Uranium	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	0.030 mg/L
Other Parameters						
T. Phosphorous (mg/L)	0.08 mg/L	0.01 mg/L	0.01 mg/L	0.04 mg/L	0 mg/L	-
Volatile Organics						
All	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	
Pesticides						
All	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	
Herbicides						
All	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	
Semi-Volatile Organic						
All	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	

Site Trends

	Site A			Site B			Site C			Site D			Site E (Control)		
Analytes	Oct-21 to Apr-22	Apr-22 to Jul-22	Oct-21 to July-22	Oct-21 to Apr-22	Apr-22 to Jul-22	Oct-21 to July-22	Oct-21 to Apr-22	Apr-22 to Jul-22	Oct-21 to July-22	Oct-21 to Apr-22	Apr-22 to Jul-22	Oct-21 to July-22	Oct-21 to Apr-2	Apr-22 to Jul-2	Oct-21 to July-22
Bacteria															
Total Coliform	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present
E. Coli	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Absent	Both Absent	Both Absent
Total Bacteria Count	Same	Same	Same	Decreased	Increased	Same	Decreased	Increased	Same	Same	Decreased	Decreased	Same	Decrease	Decrease
Fungi Count	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same
Mineral Chemistry															
Sodium (mg/L)	-9.45 mg/L	11.81 mg/L	2.36 mg/L	-3.65 mg/L	16.36 mg/L	12.71 mg/L	0.51 mg/L	-3.16 mg/L	-2.65 mg/L	-4.16 mg/L	-1.96 mg/L	-6.12 mg/L	-6.03 mg/L	5.78 mg/L	-0.25 mg/L
Potassium (mg/L)	-1.03 mg/L	-0.78 mg/L	-1.81mg/L	-0.27 mg/L	0.07 mg/L	-0.2mg/L	-0.26 mg/L	-0.21 mg/L	-0.47mg/L	-0.25 mg/L	0.06 mg/L	-0.19mg/L	-1.51 mg/L	1.04 mg/L	-0.47mg/L
Copper	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D
Iron (mg/L)	0.22 mg/L	-0.09 mg/L	0.13 mg/L	0.25 mg/L	-0.33 mg/L	-0.08 mg/L	0.2 mg/L	-0.24 mg/L	-0.04 mg/L	-0.79 mg/L	-0.49 mg/L	-1.28 mg/L	0 mg/L	-0.1 mg/L	-0.1 mg/L
Manganese (mg/L)	0.01 mg/L	-0.02 mg/L	-0.01 mg/L	0.02 mg/L	-0.03 mg/L	-0.01 mg/L	0 mg/L	-0.01 mg/L	-0.01 mg/L	-0.09 mg/L	-0.05 mg/L	-0.14 mg/L	0 mg/L	0 mg/L	0 mg/L
Magnesium (mg/L)	-4.71 mg/L	2.26 mg/L	-2.45 mg/L	-4.9 mg/L	3.98 mg/L	-0.92 mg/L	-3.92 mg/L	2.15 mg/L	-1.77 mg/L	-3.36 mg/L	1.93 mg/L	-1.43 mg/L	-1.69 mg/L	1.11 mg/L	-0.58 mg/L
Calcium (mg/L)	-35.51 mg/L	3.13 mg/L	-32.38 mg/L	-30.1 mg/L	5.5 mg/L	-24.6 mg/L	-28.69 mg/L	19.23 mg/L	-9.46 mg/L	-25.78 mg/L	8.38 mg/L	-17.4 mg/L	-8.66 mg/L	2.02 mg/L	-6.64 mg/L
Arsenc (Total)	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D
Lead	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Both N D	Became N D	Both N D	Became N D	Both N D	Both N D	Both N D
pH (SU)	-0.16 SU	0.26 SU	0.1 SU	-0.1 SU	0.25 SU	0.15 SU	-0.05 SU	0.26 SU	0.21 SU	0.18 SU	0.08 SU	0.26 SU	-0.15 SU	0.43 SU	0.28 SU
Turbidity (N.T.U)	16.03 N.T.U.	-14.58 N.T.U.	1.45 N.T.U.	4.4 N.T.U.	-4.35 N.T.U.	0.05 N.T.U.	7.73 N.T.U.	-6.09 N.T.U.	1.64 N.T.U.	0.59 N.T.U.	-3.82 N.T.U.	-3.23 N.T.U.	2.56 N.T.U.	-2.44 N.T.U.	0.12 N.T.U.
Color (C.U.)	1 C.U.	0 C.U.	1 C.U.	0 C.U.	0 C.U.	0 C.U.	1 C.U.	1 C.U.	2 C.U.	0 C.U.	0 C.U.	0 C.U.	-1 C.U.	-1 C.U.	-2 C.U.
Odor (Present (1) or Ab	Became Present	Same	Became Present	Became Present	Became Absent	Same	Became Present	Became Absent	Same	Became Present	Became Absent	Same	Both Absent	Both Absent	Both Absent
Conductivity (umhos)	-143.2 umhos	95 umhos	-28.9 umhos	-100.2 umhos	140 umhos	23.9 umhos	-65.1 umhos	99 umhos	20.3 umhos	-41.2 umhos	66 umhos	14.9 umhos	-17.4 umhos	65.2 umhos	28.7 umhos
T.D.S. (mg/L)	-85.9 mg/L	57 mg/L	-28.9 mg/L	-60.1 mg/L	84 mg/L	23.9 mg/L	-39.1 mg/L	59.4 mg/L	20.3 mg/L	-24.7 mg/L	39.6 mg/L	14.9 mg/L	-10.4 mg/L	39.1 mg/L	28.7 mg/L
Sediment (Present (1) o	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Both Present	Became Absent	Became Absent	Both Present	Became Absen	Became Absent
Alkalinity (mg/L)	-85 mg/L	50 mg/L	-35 mg/L	-70 mg/L	20 mg/L	-50 mg/L	-75 mg/L	80 mg/L	5 mg/L	-40 mg/L	35 mg/L	-5 mg/L	10 mg/L	0 mg/L	10 mg/L
Chlorine	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Chloride (mg/L)	-10.58 mg/L	32.74 mg/L	22.16 mg/L	-7.12 mg/L	27.89 mg/L	20.77 mg/L	3.35 mg/L	-7.9 mg/L	-4.55 mg/L	-6.19 mg/L	695.16 mg/L	-3.13 mg/L	-25.72 mg/L	22.4 mg/L	-3.32 mg/L
Hardness (mg/L)	-108 mg/L	17.1 mg/L	-90.9 mg/L	-95.3 mg/L	30.1 mg/L	-65.2 mg/L	-87.8 mg/L	56.9 mg/L	-30.9 mg/L	-78.2 mg/L	28.8 mg/L	-49.4 mg/L	-28.6 mg/L	9.6 mg/L	-19 mg/L
Nitrate as Nitrogen (mg	-2.34 mg/L	-2.81 mg/L	-5.15 mg/L	0.34 mg/L	-0.56 mg/L	-0.22 mg/L	-0.92 mg/L	1.44 mg/L	0.52 mg/L	0.21 mg/L	-0.21 mg/L	0 mg/L	0.41 mg/L	-0.6 mg/L	-0.19 mg/L
Nitrite as Nitrogen	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Ammonia as Nitrogen	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Sulfate (mg/L)	-4.23 mg/L	6.68 mg/L	2.45 mg/L	-4.89 mg/L	6.23 mg/L	1.34 mg/L	-4.11 mg/L	11.15 mg/L	7.04 mg/L	0.37 mg/L	1.17 mg/L	1.54 mg/L	1.4 mg/L	0.9 mg/L	2.3 mg/L
Flouride (mg/L)	0.14 mg/L	-0.11 mg/L	0.03 mg/L	0.02 mg/L	-0.14 mg/L	-0.12 mg/L	0.23 mg/L	-0.23 mg/L	0 mg/L	0.03 mg/L	0 mg/L	0.03 mg/L	-0.06 mg/L	-0.01 mg/L	-0.07 mg/L
Tannins	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Silica (mg/L)	-4.95 mg/L	-0.55 mg/L	-5.5 mg/L	-7.49 mg/L	0.47 mg/L	-7.02 mg/L	-6.16 mg/L	5.34 mg/L	-0.82 mg/L	-6.9 mg/L	4.13 mg/L	-2.77 mg/L	-1.23 mg/L	1.82 mg/L	0.59 mg/L
Radiochemistry															
Radon in Water	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Heavy Metals															
Antimony	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Aluminum (mg/L)	-0.78 mg/L	-0.34 mg/L	-1.12 mg/L	-0.29 mg/L	-0.22 mg/L	-0.51 mg/L	-0.28 mg/L	-0.18 mg/L	-0.46 mg/L	-1.25 mg/L	-0.08 mg/L	-1.33 mg/L	-0.48 mg/L	-0.03 mg/L	-0.51 mg/L
Barium9mg/L)	-0.06 mg/L	0 mg/L	-0.06 mg/L	-0.04 mg/L	0.01 mg/L	-0.03 mg/L	-0.03 mg/L	0.01 mg/L	-0.02 mg/L	-0.07 mg/L	0.01 mg/L	-0.06 mg/L	-0.03 mg/L	0 mg/L	-0.03 mg/L
Beryllium	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Boron (mg/L)	-0.25 mg/L	0.01 mg/L	-0.24 mg/L	-0.12 mg/L	0.02 mg/L	-0.1 mg/L	-0.14 mg/L	0.01 mg/L	-0.13 mg/L	-0.29 mg/L	0.01 mg/L	-0.28 mg/L	-0.13 mg/L	0 mg/L	-0.13 mg/L
Cadmium	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Chormium	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Mercury	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Nickel	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0.01 mg/L	-0.01 mg/L	0 mg/L
Selenium	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Silver	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Thallium	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Zinc (mg/L)	0.01 mg/L	-0.01 mg/L	0 mg/L	0.01 mg/L	-0.01 mg/L	0 mg/L	0.01 mg/L	0 mg/L	0.01 mg/L	0 mg/L	0 mg/L	0 mg/L	0.01 mg/L	0.01 mg/L	0.02 mg/L
Strontium (mg/L)	-0.15 mg/L	0.04 mg/L	-0.11 mg/L	-0.13 mg/L	0.01 mg/L	-0.12 mg/L	-0.09 mg/L	0.06 mg/L	-0.03 mg/L	-0.05 mg/L	0.03 mg/L	-0.02 mg/L	-0.02 mg/L	0.01 mg/L	-0.01 mg/L
Lithium (mg/L)	-0.02 mg/L	0 mg/L	-0.02 mg/L	-0.01 mg/L	0 mg/L	-0.01 mg/L	-0.01 mg/L	0 mg/L	-0.01 mg/L	-0.02 mg/L	0 mg/L	-0.02 mg/L	-0.01 mg/L	0 mg/L	-0.01 mg/L
Tin	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Molybdenum	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Cerlum	-0.03 mg/L	0 mg/L	-0.03 mg/L	-0.01 mg/L	0 mg/L	-0.01 mg/L	-0.01 mg/L	0 mg/L	-0.01 mg/L	-0.04 mg/L	0 mg/L	-0.04 mg/L	-0.01 mg/L	0 mg/L	-0.01 mg/L
Titanium (mg/L)	-0.13 mg/L	-0.01 mg/L	-0.14 mg/L	-0.05 mg/L	-0.01 mg/L	-0.06 mg/L	-0.06 mg/L	-0.01 mg/L	-0.07 mg/L	-0.15 mg/L	0 mg/L	-0.15 mg/L	-0.07 mg/L	0 mg/L	-0.07 mg/L
Vandadium	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Cobalt	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Uranium	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L

Other Parameters															
T. Phosphorous (mg/L)	-0.12 mg/L	0 mg/L	-0.12 mg/L	0 mg/L	0.01 mg/L	0.01 mg/L	0.02 mg/L	-0.01 mg/L	0.01 mg/L	0.01 mg/L	0 mg/L	0.01 mg/L	0 mg/L	0 mg/L	0 mg/L
Volatile Organics															
All	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Pesticides															
All	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Herbicides															
All	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L
Semi-Volatile Organic															
All	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L	0 mg/L

Appendix F

EPA SWMM Model Printouts

```
[TITLE]
;;Project Title/Notes
Saratoga Lake Water Quality Study

[OPTIONS]
;;Option             Value
FLOW_UNITS           CFS
INFILTRATION         CURVE_NUMBER
FLOW_ROUTING         DYNWAVE
LINK_OFFSETS         ELEVATION
MIN_SLOPE            0
ALLOW_PONDING        YES
SKIP_STEADY_STATE    NO

START_DATE           10/01/2012
START_TIME           00:00:00
REPORT_START_DATE    10/01/2012
REPORT_START_TIME    00:00:00
END_DATE             10/01/2013
END_TIME             00:00:00
SWEEP_START          01/01
SWEEP_END            12/31
DRY_DAYS             0
REPORT_STEP          01:00:00
WET_STEP             01:00:00
DRY_STEP             01:00:00
ROUTING_STEP         0:00:30
RULE_STEP            00:00:00

INERTIAL_DAMPING     PARTIAL
NORMAL_FLOW_LIMITED  BOTH
FORCE_MAIN_EQUATION  H-W
VARIABLE_STEP        0.75
LENGTHENING_STEP     0
MIN_SURFAREA         12.566
MAX_TRIALS           8
HEAD_TOLERANCE       0.005
SYS_FLOW_TOL         5
LAT_FLOW_TOL         5
MINIMUM_STEP         0.5
THREADS              1

[EVAPORATION]
;;Data Source    Parameters
;;-------------- ----------------
CONSTANT         0.0
DRY_ONLY         NO

[RAINGAGES]
;;Name           Format    Interval SCF      Source
;;-------------- --------- ------ ------ ----------
1                INTENSITY 1:00     1.0      TIMESERIES NormalYearRainfall

[SUBCATCHMENTS]
;;Name           Rain Gage        Outlet           Area     %Imperv  Width    %Slope
CurbLen  SnowPack
;;-------------- ---------------- ---------------- -------- -------- -------- --------
-------- ----------------
S01A             1                J1A              955.8    3.1      7300     2
0
S02              1                J2out            88.8     13       1700     3.5
0
S04              1                J4out            43.9     0.4      800      5.1
0
S05              1                J5out            178.4    2.3      1900     5
0
S06B             1                J6B              1643.1   1.1      19400    2
0
S07              1                J7out            154.8    2.2      1900     3.2
```

```
    0
63  S08             1               J8out           267.6   0.8     2800    3.2
    0
64  S09             1               J9out           57.7    1.8     1300    6.1
    0
65  S10B            1               J10B            859.7   1.5     11400   2.6
    0
66  S03             1               J3out           159.1   4.2     2600    7.3
    0
67  S11             1               J11out          294.9   22.7    14200   2
    0
68  S10A            1               J10A            665.8   4       7800    0.5
    0
69  S06A            1               J6A             499.2   6.2     4900    3.5
    0
70  S01B            1               B1              204.1   72      2800    1
    0
71
72  [SUBAREAS]
73  ;;Subcatchment   N-Imperv   N-Perv     S-Imperv   S-Perv     PctZero    RouteTo
    PctRouted
74  ;;-------------- ---------- ---------- ---------- ---------- ---------- ----------
    ----------
75  S01A            0.01       0.1        .1         .25        25         PERVIOUS
    100
76  S02             0.01       0.1        .1         .25        25         PERVIOUS
    100
77  S04             0.01       0.1        .1         .25        25         PERVIOUS
    100
78  S05             0.01       0.1        .1         .25        25         PERVIOUS
    100
79  S06B            0.01       0.1        .1         0.25       25         PERVIOUS
    100
80  S07             0.01       0.1        .1         .25        25         PERVIOUS
    100
81  S08             0.01       0.1        .1         .25        25         PERVIOUS
    100
82  S09             0.01       0.1        .1         .25        25         PERVIOUS
    100
83  S10B            0.01       0.1        .1         .25        25         PERVIOUS
    100
84  S03             0.01       0.1        .1         .25        25         PERVIOUS
    100
85  S11             0.01       0.1        .1         .25        25         OUTLET
86  S10A            0.01       0.1        .1         .25        25         PERVIOUS
    100
87  S06A            0.01       0.1        .1         .25        25         PERVIOUS
    100
88  S01B            0.01       0.1        .1         .25        25         OUTLET
89
90  [INFILTRATION]
91  ;;Subcatchment   Param1     Param2     Param3     Param4     Param5
92  ;;-------------- ---------- ---------- ---------- ---------- ----------
93  S01A            36         0.5        7
94  S02             49         0.5        7
95  S04             42         0.5        7
96  S05             46         0.5        7
97  S06B            70         0.5        7
98  S07             49         0.5        7
99  S08             49         0.5        7
100 S09             69         0.5        7
101 S10B            74         0.5        7
102 S03             45         0.5        7
103 S11             60         0.5        7
104 S10A            54         .5         7
105 S06A            51         .5         7
106 S01B            81         0.5        7
107
108 [JUNCTIONS]
```

```
;;Name           Elevation  MaxDepth   InitDepth  SurDepth   Aponded
;;-------------- ---------- ---------- ---------- ---------- ----------
J1B              330        0          0          0          0
J10B             425        0          0          0          0
J6B              425        0          0          0          0
LAKE             200        0          0          0          152000000
J10A             350        0          0          0          0
J10out           210        0          0          0          0
J6A              355        0          0          0          0
J6out            210        0          0          0          0
J9out            210        0          0          0          0
J8out            210        0          0          0          0
J7out            210        0          0          0          0
J5out            210        0          0          0          0
J4out            210        0          0          0          0
J3out            210        0          0          0          0
J2out            210        0          0          0          0
J11out           210        0          0          0          0
J1A              255        0          0          0          0
J1out            210        0          0          0          0

[OUTFALLS]
;;Name           Elevation  Type       Stage Data       Gated    Route To
;;-------------- ---------- ---------- ---------------- -------- ----------------
CREEK            0          FREE                        NO

[STORAGE]
;;Name           Elev.    MaxDepth   InitDepth  Shape      Curve Name/Params
    N/A      Fevap    Psi      Ksat     IMD
;;-------------- -------- ---------- ----------- ----------
    ---------------------------- -------- --------          -------- --------
B1               302      13         0          TABULAR    B1Storage
    0        0

[CONDUITS]
;;Name           From Node        To Node          Length     Roughness  InOffset
    OutOffset  InitFlow   MaxFlow
;;-------------- ---------------- ---------------- ---------- ---------- ----------
    ---------- ---------- ----------
C10a             J10B             J10A             9000       0.04       425
    350        0          0
C6a              J6B              J6A              13000      0.04       425
    355        0          0
C10b             J10A             J10out           6000       0.04       350
    210        0          0
C10c             J10out           LAKE             100        0.04       210
    200        0          0
C6b              J6A              J6out            7100       0.04       355
    210        0          0
C6c              J6out            LAKE             100        0.04       210
    200        0          0
C9a              J9out            LAKE             100        0.04       210
    200        0          0
C8a              J8out            LAKE             100        0.04       210
    200        0          0
C7a              J7out            LAKE             100        0.04       210
    200        0          0
C5a              J5out            LAKE             100        0.04       210
    200        0          0
C4a              J4out            LAKE             100        0.04       210
    200        0          0
C3a              J3out            LAKE             100        0.04       210
    200        0          0
C2a              J2out            LAKE             100        .04        210
    200        0          0
C11a             J11out           LAKE             100        0.04       210
    200        0          0
C1b              J1A              J1out            5100       0.04       255
    210        0          0
```

```
C1c              J1out            LAKE             100        0.04       210
200        0          0
C1a              J1B              J1A              2500       0.04       330
255        0          0

[ORIFICES]
;;Name           From Node        To Node          Type         Offset     Qcoeff
Gated    CloseTime
;;-------------- ---------------- ---------------- ------------ ---------- ----------
-------- ----------
O1               B1               J1B              SIDE         304        0.65
NO       0

[WEIRS]
;;Name           From Node        To Node          Type         CrestHt    Qcoeff
Gated    EndCon   EndCoeff   Surcharge  RoadWidth  RoadSurf   Coeff. Curve
;;-------------- ---------------- ---------------- ------------ ---------- ----------
-------- -------- ---------- ---------- ---------- ---------- ----------------
W1               B1               J1B              ROADWAY      310.000    2.8
NO       0        0          YES        24         PAVED
OUTLET           LAKE             CREEK            TRANSVERSE   210        3.33
NO       0        0          YES

[XSECTIONS]
;;Link           Shape        Geom1            Geom2      Geom3      Geom4
Barrels    Culvert
;;-------------- ------------ ---------------- ---------- ---------- ----------
---------- ----------
C10a             PARABOLIC    5                70         0          0
1
C6a              PARABOLIC    5                70         0          0
1
C10b             PARABOLIC    5                70         0          0
1
C10c             PARABOLIC    5                70         0          0
1
C6b              PARABOLIC    5                70         0          0
1
C6c              PARABOLIC    5                70         0          0
1
C9a              PARABOLIC    5                70         0          0
1
C8a              PARABOLIC    5                70         0          0
1
C7a              PARABOLIC    5                70         0          0
1
C5a              PARABOLIC    5                70         0          0
1
C4a              PARABOLIC    5                70         0          0
1
C3a              PARABOLIC    5                70         0          0
1
C2a              PARABOLIC    5                70         0          0
1
C11a             PARABOLIC    5                70         0          0
1
C1b              PARABOLIC    5                70         0          0
1
C1c              PARABOLIC    5                70         0          0
1
C1a              PARABOLIC    5                70         0          0
1
O1               CIRCULAR     2                0          0          0
W1               RECT_OPEN    5                30         0          0
OUTLET           RECT_OPEN    5                200        0          0

[POLLUTANTS]
;;Name           Units  Crain      Cgw        Crdii      Kdecay     SnowOnly
Co-Pollutant     Co-Frac    Cdwf       Cinit
```

```
;;-------------- ------ ---------- ---------- ---------- ---------- ----------
---------------- ---------- ---------- ----------
TP               MG/L   0.0        0.0        0.0        0.0        NO
*                0.0        0.0        0.0
TN               MG/L   0.0        0.0        0.0        0.0        NO
*                0.0        0.0        0.0
TSS              MG/L   0.0        0.0        0.0        0.0        NO
*                0.0        0.0        0.0

[LANDUSES]
;;               Sweeping   Fraction   Last
;;Name           Interval   Available  Swept
;;-------------- ---------- ---------- ----------
Residential      0          0          0
Industrial       0          0          0
Open/Rec.        0          0          0
Agriculture      0          0          0
Woods            0          0          0
Highway          0          0          0
Water            0          0          0

[COVERAGES]
;;Subcatchment   Land Use         Percent
;;-------------- ---------------- ----------
S01A             Residential      10.1
S01A             Open/Rec.        0.8
S01A             Woods            88
S01A             Water            1.1
S02              Residential      41.7
S02              Industrial       0.5
S02              Open/Rec.        8.7
S02              Woods            48.3
S02              Water            0.9
S04              Residential      8.2
S04              Open/Rec.        33.9
S04              Woods            57.9
S05              Residential      11.4
S05              Woods            88.5
S05              Water            .2
S06B             Residential      9.1
S06B             Agriculture      20.9
S06B             Woods            66.9
S06B             Water            0.7
S07              Residential      9.9
S07              Open/Rec.        8.9
S07              Agriculture      6.9
S07              Woods            73.9
S07              Water            0.4
S08              Residential      6.6
S08              Open/Rec.        1.6
S08              Agriculture      26.2
S08              Woods            65.5
S09              Residential      9.2
S09              Agriculture      8.8
S09              Woods            82
S10B             Residential      7.4
S10B             Agriculture      54
S10B             Woods            37.8
S10B             Water            0.8
S03              Residential      10.8
S03              Industrial       2.8
S03              Open/Rec.        27.7
S03              Woods            58.7
S11              Residential      44.8
S11              Industrial       2.8
S11              Open/Rec.        1.3
S11              Woods            47.2
S11              Highway          3.6
S11              Water            0.3
```

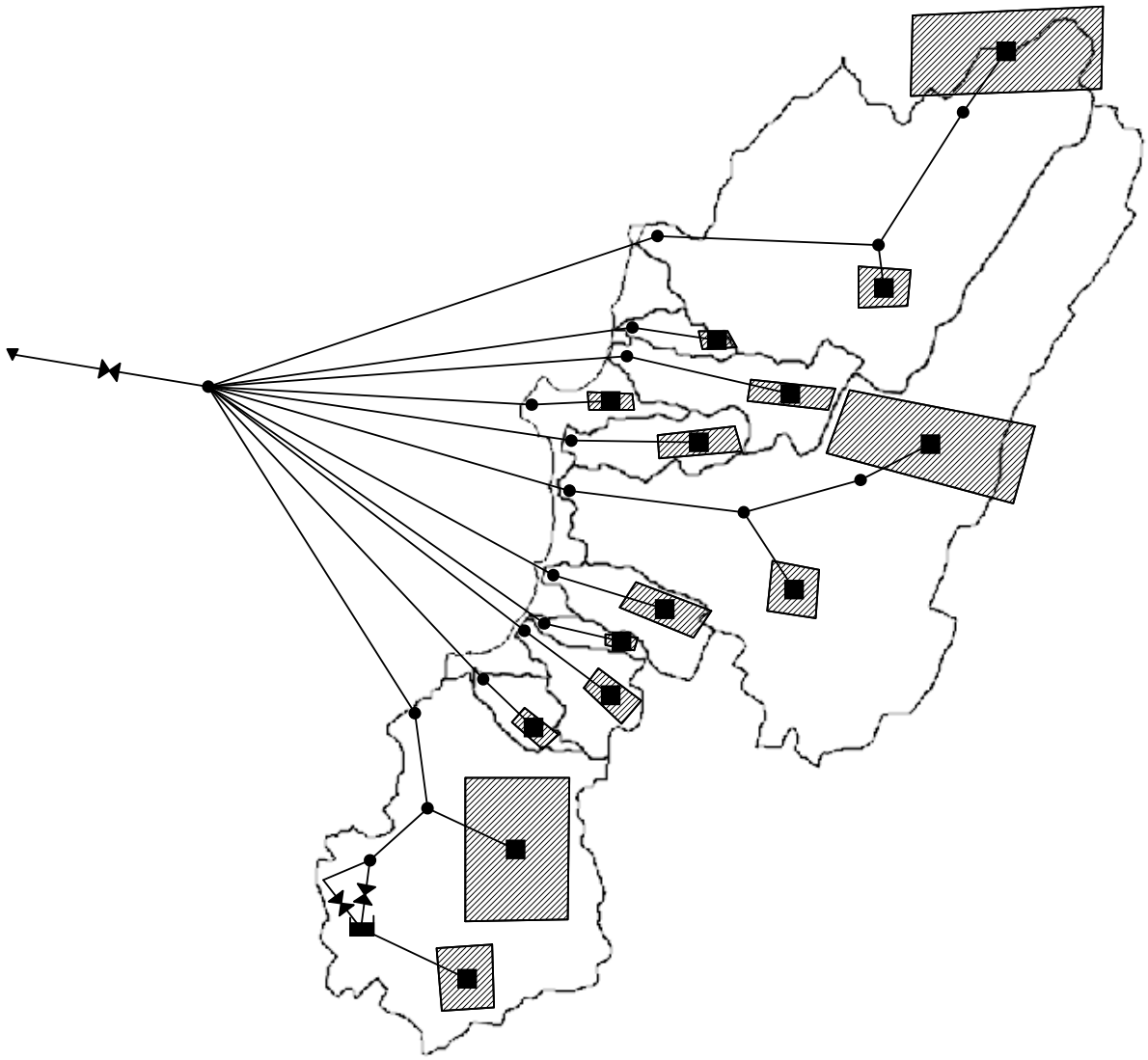
```
S10A             Residential      10.2
S10A             Agriculture      23.7
S10A             Woods            62.8
S10A             Water            3.3
S06A             Residential      28.1
S06A             Agriculture      2.3
S06A             Woods            68.8
S06A             Water            .7
S01B             Industrial       100

[LOADINGS]
;;Subcatchment   Pollutant        Buildup
;;-------------- ---------------- ----------

[BUILDUP]
;;Land Use       Pollutant        Function   Coeff1     Coeff2     Coeff3     Per Unit
;;-------------- ---------------- ---------- ---------- ---------- ---------- ----------
Residential      TP               NONE       0.0        0.0        0.0        AREA
Residential      TN               NONE       0.0        0.0        0.0        AREA
Residential      TSS              NONE       0.0        0.0        0.0        AREA
Industrial       TP               NONE       0.0        0.0        0.0        AREA
Industrial       TN               NONE       0.0        0.0        0.0        AREA
Industrial       TSS              NONE       0.0        0.0        0.0        AREA
Open/Rec.        TP               NONE       0.0        0.0        0.0        AREA
Open/Rec.        TN               NONE       0.0        0.0        0.0        AREA
Open/Rec.        TSS              NONE       0.0        0.0        0.0        AREA
Agriculture      TP               NONE       0.0        0.0        0.0        AREA
Agriculture      TN               NONE       0.0        0.0        0.0        AREA
Agriculture      TSS              NONE       0.0        0.0        0.0        AREA
Woods            TP               NONE       0.0        0.0        0.0        AREA
Woods            TN               NONE       0.0        0.0        0.0        AREA
Woods            TSS              NONE       0.0        0.0        0.0        AREA
Highway          TP               NONE       0.0        0.0        0.0        AREA
Highway          TN               NONE       0.0        0.0        0.0        AREA
Highway          TSS              NONE       0.0        0.0        0.0        AREA
Water            TP               NONE       0.0        0.0        0.0        AREA
Water            TN               NONE       0.0        0.0        0.0        AREA
Water            TSS              NONE       0.0        0.0        0.0        AREA

[WASHOFF]
;;Land Use       Pollutant        Function   Coeff1     Coeff2     SweepRmvl  BmpRmvl
;;-------------- ---------------- ---------- ---------- ---------- ---------- ----------
Residential      TP               EMC        .074       1          0.0        0.0
Residential      TN               EMC        1.54       1          0.0        0.0
Residential      TSS              EMC        66         1          0.0        0.0
Industrial       TP               EMC        .07        1          0.0        0.0
Industrial       TN               EMC        1.54       1          0.0        0.0
Industrial       TSS              EMC        75         1          0.0        0.0
Open/Rec.        TP               EMC        .09        1          0.0        0.0
Open/Rec.        TN               EMC        1.155      1          0.0        0.0
Open/Rec.        TSS              EMC        37         1          0.0        0.0
Agriculture      TP               EMC        0.078      1          0.0        0.0
Agriculture      TN               EMC        2.31       1          0.0        0.0
Agriculture      TSS              EMC        70         1          0.0        0.0
Woods            TP               EMC        .012       1          0.0        0.0
Woods            TN               EMC        .77        1          0.0        0.0
Woods            TSS              EMC        64         1          0.0        0.0
Highway          TP               EMC        .056       1          0.0        0.0
Highway          TN               EMC        1.54       1          0.0        0.0
Highway          TSS              EMC        71         1          0.0        0.0
Water            TP               EMC        .02        1          0.0        0.0
Water            TN               EMC        .77        1          0.0        0.0
Water            TSS              EMC        10         1          0.0        0.0

[CURVES]
;;Name           Type       X-Value    Y-Value
;;-------------- ---------- ---------- ----------
B1Storage        Storage    0          20000
B1Storage                   3          70000
```

```
B1Storage                   8          150000
B1Storage                   13         360000

[TIMESERIES]
;;Name           Date       Time       Value
;;-------------- ---------- ---------- ----------
1yr24hrRainfall  FILE "Z:\projects\32000-32099\32000-00_T Stillwater Master\32000.13 T. Stillwater Saratoga Lake Water Quality Study - DOS\ENG\00_EPASWMM\Rainfall Files\NRCC Rainfall 001-yr.dat"
;
NormalYearRainfall FILE "Z:\projects\32000-32099\32000-00_T Stillwater Master\32000.13 T. Stillwater Saratoga Lake Water Quality Study - DOS\ENG\00_EPASWMM\Rainfall Files\Albany Hourly Precip WY2013 Normal.dat"

[REPORT]
;;Reporting Options
SUBCATCHMENTS ALL
NODES ALL
LINKS ALL

[TAGS]

[MAP]
DIMENSIONS 667561.000 1502643.496 734833.500 1533053.799
Units      None

[COORDINATES]
;;Node           X-Coord            Y-Coord
;;-------------- ------------------ ------------------
J1B              691350.573         1508161.387
J10B             707617.284         1528721.249
J6B              704820.827         1518648.098
LAKE             686905.672         1521209.821
J10A             705293.468         1525097.672
J10out           699227.915         1525333.992
J6A              701591.117         1517732.357
J6out            696825.325         1518323.158
J9out            698538.647         1522842.783
J8out            698420.487         1522015.662
J7out            696884.405         1519731.233
J5out            696372.378         1516009.189
J4out            696136.058         1514670.041
J3out            695604.337         1514492.800
J2out            694442.429         1513133.959
J11out           695801.271         1520696.207
J1A              692906.348         1509608.848
J1out            692571.561         1512228.065
CREEK            681543.282         1522064.895
B1               691114.252         1506310.212

[VERTICES]
;;Link           X-Coord            Y-Coord
;;-------------- ------------------ ------------------
O1               690050.811         1507649.360

[Polygons]
;;Subcatchment   X-Coord            Y-Coord
;;-------------- ------------------ ------------------
S01A             693951.620         1506507.277
S01A             696758.894         1506552.512
S01A             696809.935         1510442.759
S01A             693951.620         1510442.759
S02              696067.132         1511227.580
S02              696539.771         1511611.552
S02              695594.491         1512379.494
S02              695240.010         1511960.616
S04              698617.421         1513959.541
S04              698696.194         1514308.605
S04              697829.686         1514378.418
```

```
S04              697829.686         1514064.261
S05              700704.916         1515002.821
S05              700232.275         1514304.692
S05              698184.166         1515142.447
S05              698656.807         1515805.671
S06B             709586.619         1520095.276
S06B             708995.818         1518000.887
S06B             703875.547         1519362.241
S06B             704545.121         1521072.659
S07              701384.337         1520088.791
S07              701541.883         1519425.567
S07              699296.841         1519216.128
S07              699257.454         1519879.352
S08              704111.866         1521146.447
S08              703954.320         1520553.037
S08              701709.277         1520797.381
S08              701788.051         1521390.792
S09              701187.403         1522715.195
S09              701423.723         1522296.317
S09              700478.442         1522226.504
S09              700360.282         1522715.195
S10B             711477.180         1531671.512
S10B             711437.794         1529367.683
S10B             706199.362         1529193.150
S10B             706238.749         1531427.166
S03              697199.498         1512883.964
S03              698262.940         1511906.582
S03              698814.354         1512569.806
S03              697593.366         1513442.468
S11              698548.493         1521016.224
S11              698587.880         1520563.277
S11              697347.199         1520543.584
S11              697307.812         1521055.611
S10A             706209.209         1524418.251
S10A             706091.049         1523394.196
S10A             704751.901         1523354.810
S10A             704751.901         1524497.024
S06A             703658.920         1516147.042
S06A             703580.146         1514847.280
S06A             702240.998         1515044.214
S06A             702398.545         1516383.362
S01B             694718.136         1505837.571
S01B             694757.523         1504104.556
S01B             693300.215         1504025.782
S01B             693182.055         1505758.798

[SYMBOLS]
;;Gage           X-Coord            Y-Coord
;;-------------- ------------------ ------------------
1                686905.672         1524964.362


[BACKDROP]
FILE       "Z:\projects\32000-32099\32000-00_T Stillwater Master\32000.13 T. Stillwater
Saratoga Lake Water Quality Study - DOS\ENG\00_EPASWMM\xWatershed.bmp"
DIMENSIONS 667561.000 1502659.500 734833.500 1531663.000

```

Saratoga Lake WQ SWMM Model

10/01/2012 01:00:00



Saratoga Lake WQ SWMM Model

Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Imperv Runoff in
S01A	44.64	0.00	0.00	43.46	1.39
S01B	44.64	0.00	0.00	3.74	33.28
S02	44.64	0.00	0.00	40.18	5.85
S03	44.64	0.00	0.00	42.30	1.88
S04	44.64	0.00	0.00	43.09	0.18
S05	44.64	0.00	0.00	42.69	1.03
S06A	44.64	0.00	0.00	41.66	2.79
S06B	44.64	0.00	0.00	38.69	0.49
S07	44.64	0.00	0.00	42.43	0.98
S08	44.64	0.00	0.00	42.64	0.36
S09	44.64	0.00	0.00	38.54	0.80
S10A	44.64	0.00	0.00	41.99	1.80
S10B	44.64	0.00	0.00	30.93	0.67
S11	44.64	0.00	0.00	31.57	10.21

Saratoga Lake WQ SWMM Model

Subcatchment Runoff Summary

Subcatchment	Perv Runoff in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
S01A	1.17	1.17	30.46	61.27	0.026
S01B	8.93	42.21	233.93	237.79	0.946
S02	4.64	4.64	11.19	22.94	0.104
S03	2.49	2.49	10.75	42.36	0.056
S04	1.61	1.61	1.92	9.90	0.036
S05	2.00	2.00	9.68	31.03	0.045
S06A	3.06	3.06	41.54	82.91	0.069
S06B	6.04	6.04	269.35	357.17	0.135
S07	2.26	2.26	9.51	27.53	0.051
S08	2.02	2.02	14.71	41.83	0.045
S09	6.31	6.31	9.88	26.71	0.141
S10A	2.66	2.66	48.13	62.58	0.060
S10B	13.89	13.89	324.25	229.92	0.311
S11	3.18	13.38	107.17	170.35	0.300

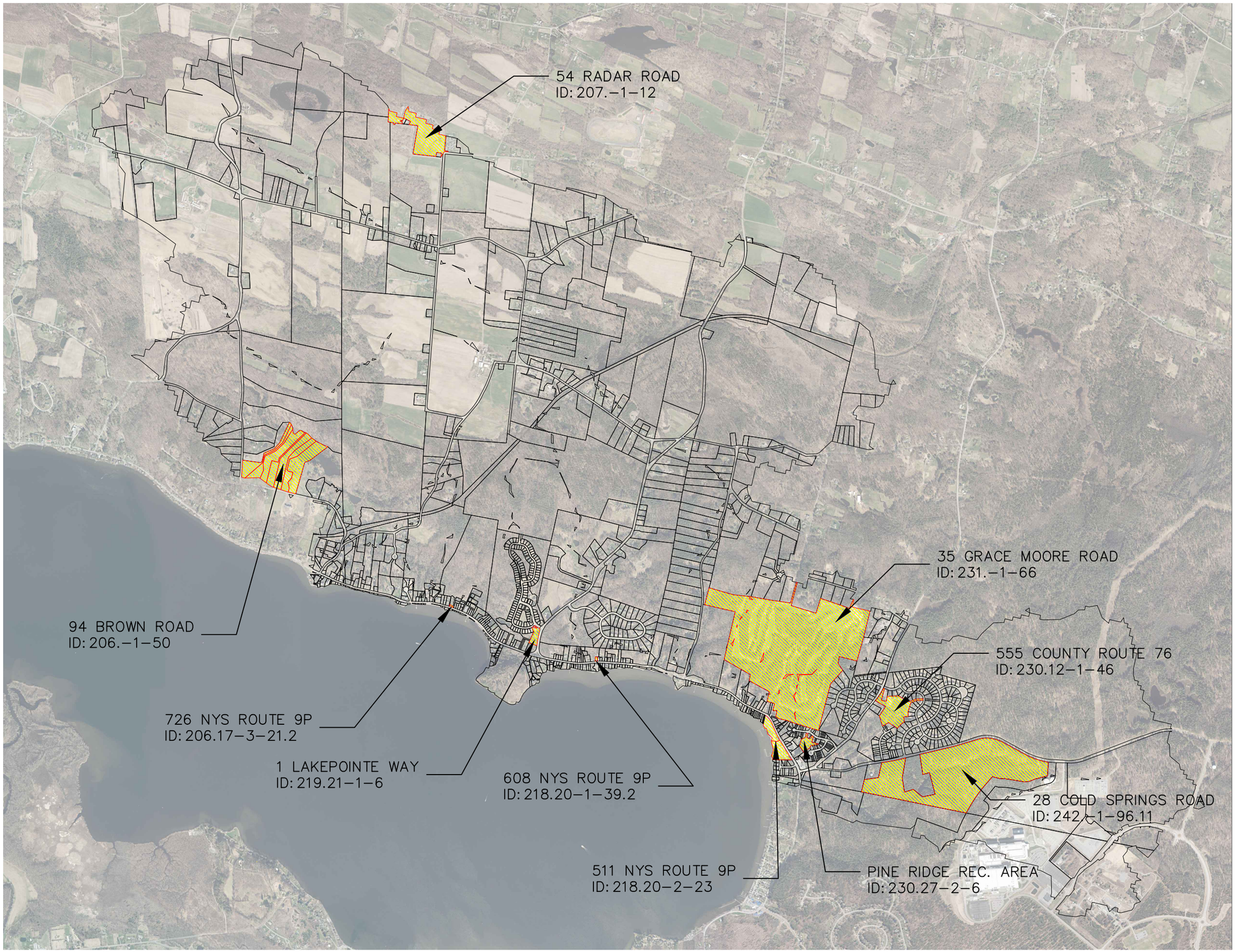
Saratoga Lake WQ SWMM Model

Subcatchment Washoff Summary

Subcatchment	TP lbs	TN lbs	TSS lbs
S01A	4.703	210.890	15712.209
S02	4.178	104.809	5765.595
S04	0.690	15.282	872.365
S05	1.523	68.490	5120.214
S06B	69.374	2542.179	141225.520
S07	2.328	77.437	4865.015
S08	4.190	148.820	7891.607
S09	1.930	80.133	5311.140
S10B	140.110	4443.963	179400.427
S03	3.730	87.301	5074.650
S11	39.012	1036.175	57551.945
S10A	13.540	480.013	25253.791
S06A	10.608	349.575	22000.510
S01B	134.422	2957.288	144023.768

Appendix G

Map of Candidate Green Infrastructure Sites



LaBella

LaBella Associates, D.P.C.
20 Elm Street, Suite 110
Glens Falls, NY 12801

www.labellapc.com

LEGEND:

CANDIDATE GI PARCEL

SARATOGA LAKE WATER QUALITY PROJECT

TOWN OF STILLWATER
SARATOGA COUNTY
NEW YORK
LABELLA PROJECT NO.
CZ32000.13

MAP OF CANDIDATE SITES

SEPTEMBER 2022

Appendix H

Rain Garden Brochure
(Cornell Cooperative Extension)

Garden for Cleaner Water

What is stormwater runoff?
Stormwater runoff is the water that runs over and off the land during a rainstorm or snowmelt, rather than soaking in.

What's the problem?
As stormwater runs over streets, parking lots, and lawns it can pick up and carry many kinds of materials that get washed into nearby streams and lakes. This leads to stormwater pollution!

Where do these pollutants come from?
Stormwater picks up contaminants that come from all of us-

- Fertilizers
- Pesticides
- Bacteria from pet waste
- Eroded soil
- Road salt
- Grass clippings
- Litter

Just to name a few!

Rain gardens capture and filter stormwater

Rain gardens are a beautiful and beneficial addition to any landscape. By capturing rain water, they help to reduce stormwater pollution and protect local streams, lakes, and rivers.

BEFORE:
Rainwater diverted off the roof flows into the yard.

Plant a Rain Garden of Your Own!

- Add beauty & interest to your yard.
- Contribute to cleaner water.
- Increase groundwater recharge.
- Provide habitat for butterflies & wildlife.

AFTER:
The gutter directs rain from the roof into a beautiful rain garden, which holds the water as it soaks into the ground. This rain garden is located at the Zen Center of Syracuse and helps to prevent stormwater from entering Onondaga Creek & Onondaga Lake.

The rain garden above is a demonstration project created by Cornell Cooperative Extension of Onondaga County. Funding was provided by an Onondaga Lake Partnership "Mini-Grant " through EPA Region II, & USDA Cooperative State Research, Education, and Extension Service Regional Water Quality Project, Region 2. This brochure was produced by Cornell Cooperative Extension of Onondaga County and has been re-printed with permission.

For more information about rain gardens, or how to design and construct one for your own yard, contact:

SARATOGA COUNTY
CORNELL COOPERATIVE EXTENSION
INTERMUNICIPAL STORMWATER MANAGEMENT PROGRAM
50 West High Street, Ballston Spa NY 12020
Phone: (518) 885-8995
Email: brn5@cornell.edu
Web: www.saratogastormwater.org

An Introduction to

Rain Gardens

Cornell University
Cooperative Extension

Building Strong and Vibrant New York Communities.

What is a Rain Garden?

Rain gardens are where form meets function and the gutter meets the ground. Simply put, rain gardens are gardens that are specifically designed to soak up rain water, mainly from roofs, but also from driveways and patios. Rain gardens look like regular flower gardens but they are more. When it rains, a rain garden fills with a few inches of water and allows the water to slowly filter into the ground rather than running off to the storm drains. Compared to a patch of lawn, a rain garden allows about 30% more water to soak into the ground! They also add beauty to neighborhoods and provide wildlife habitat!

Plan

Choosing a Spot

Rain gardens can be designed to catch water from a roof or even a driveway. When choosing a location for your garden, pick an area that is relatively flat or that has a slight slope. Keep the following considerations in mind:

- Rain gardens are **NOT** a solution to wet areas! The garden must have good drainage so that water can soak in within 24 hours after a rainfall. This will also prevent your garden from becoming a mosquito haven!
- The garden should be at least 10 feet away from the house.
- The garden should receive full or partial sunlight.
- Avoid the area over a septic system.
- The garden must include an overflow outlet that will transport excess rainfall to a proper location (not your neighbors lawn!).

Prepare

How Big?

The size of your garden will depend upon 3 main factors:

1. *The size of the drainage area.*
2. *The type of soils on the site.*
3. *The depth of the garden.*

A typical residential rain garden ranges from 100 to 300 square feet. Call Cornell Cooperative Extension for assistance in calculating the dimensions of your garden.

Ready to Dig?

- Use string to outline the shape of your garden.
- On a slope, more digging will be required on the uphill side. Use extra soil to build a berm on the downhill side.
- The bottom of the garden must be flat & level.
- Don't forget to make an overflow for heavy rain events!

Before you dig call
Dig Safe NY
(1-800-962-7962)
to locate any underground utility lines!

Plant

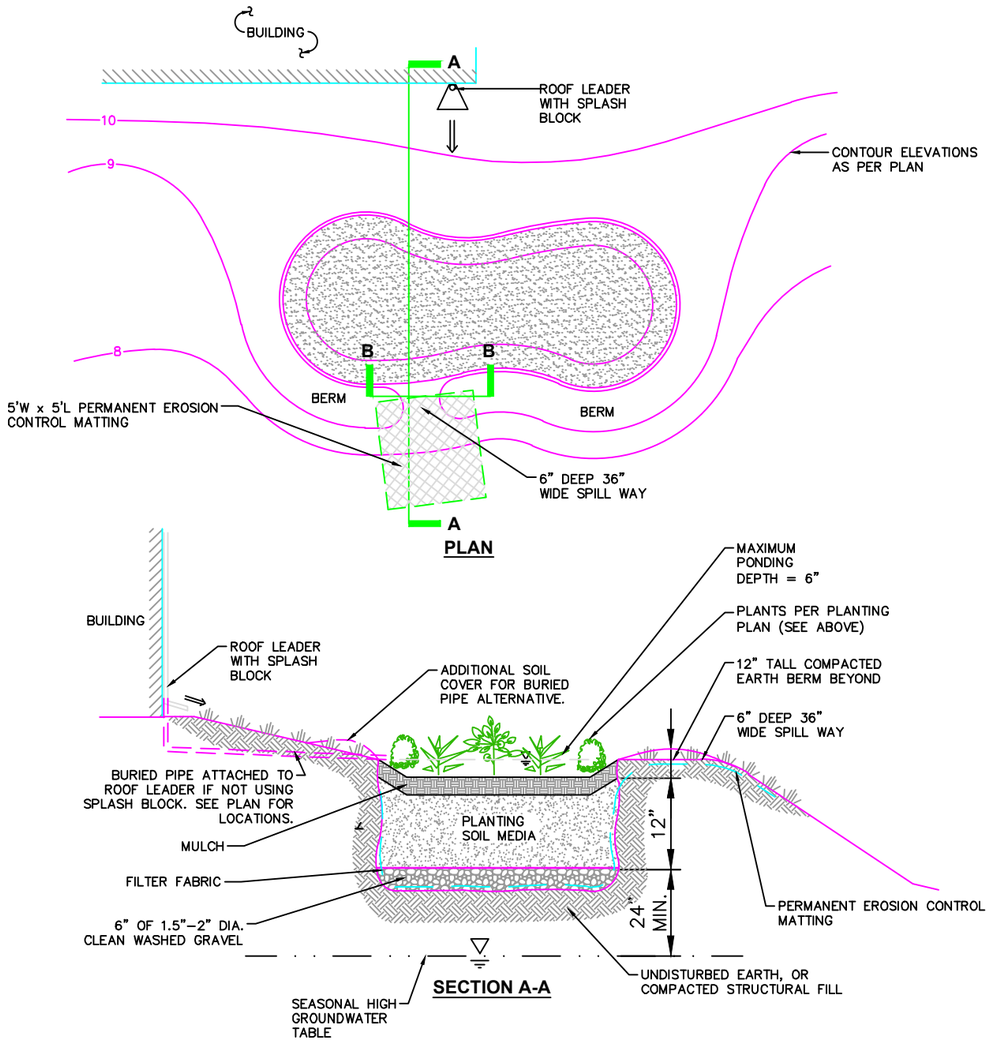
Plant Selection

Choose plants that have a variety of heights, textures, and bloom times. It is important to select plants that can tolerate both wet and dry conditions, and that are suited to the sun/shade exposure of your garden.

Tip: Dig each hole 2x the width of the plant plug. The hole should be deep enough so that the crown of the plug is level with the ground.

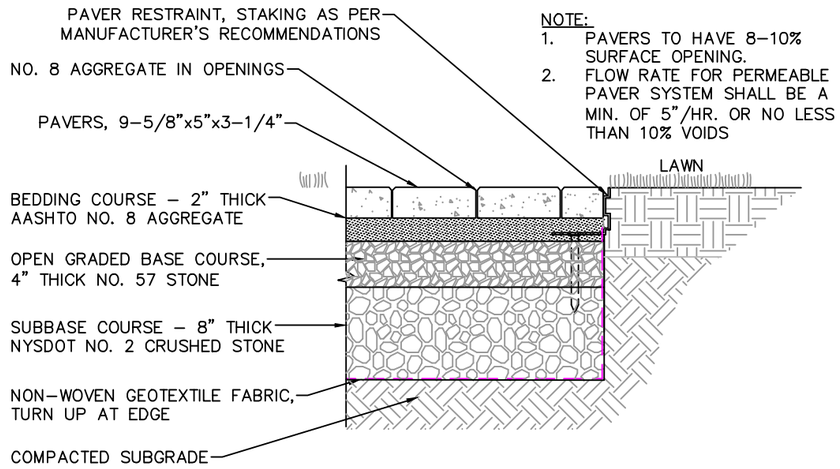
Appendix I

Rain Garden and Paver Typical Details



TYPICAL RAIN GARDEN DETAIL

SCALE: NTS LAST REVISED: SEPT 2022



PERMEABLE PAVER DETAIL

SCALE: NOT TO SCALE LAST REVISED: SEPT 2022

LaBella
Powered by Partnership.

LaBella Associates, D.P.C.
20 Elm Street, Suite 110
Glens Falls, NY 12801

www.labellapc.com

SARATOGA LAKE WATER QUALITY STUDY

TOWN OF STILLWATER
SARATOGA COUNTY
NEW YORK

LABELLA PROJECT NO.
CZ32000.13

TYPICAL RAIN GARDEN AND PERMEABLE PAVER DETAILS

SEPTEMBER 2022

Appendix J

Opinion of Probable Construction Cost Worksheets

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Rain Garden

Prepared by: Paul Guillet, PE

Date: September 2022

LaBella Project No. CZ32001.12 & CZ 32001.13

28 Cold Springs Road					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	LS	$500	$500
2	General Excavation	100	CY	$35	$3,500
3	Filter Fabric Amoco Style 4545	1,400	SF	$0.25	$350
4	Planting Soil Media 12"	50	CY	$35	$1,750
5	6" 1.5"-2" Diameter Clean Washed Gravel	26	CY	$55	$1,430
6	3" Shredded Hardwood Mulch	12	CY	$55	$660
7	Native Plant Landscaping	1	LS	$2,000	$2,000
8	Site Restoration	1	LS	$1,000	$1,000
				Subtotal	$11,190
				Contingency (20%)	$2,000
				Construction Total	$13,190
				Project Total	**$13,200**

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Rain Garden

Prepared by: Paul Guillet, PE

Date: September 2022

LaBella Project No. CZ32001.12 & CZ 32001.13

Brown's Beach (a)					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	LS	$500	$500
2	General Excavation	75	CY	$35	$2,630
3	Filter Fabric Amoco Style 4545	1,000	SF	$0.25	$250
4	Planting Soil Media 12"	40	CY	$35	$1,400
5	6" 1.5"-2" Diameter Clean Washed Gravel	20	CY	$55	$1,100
6	3" Shredded Hardwood Mulch	10	CY	$55	$550
7	Native Plant Landscaping	1	LS	$2,000	$2,000
8	Site Restoration	1	LS	$2,000	$2,000
				Subtotal	$10,430
				Contingency (20%)	$2,000
				Construction Total	$12,430
				Project Total	**$12,400**

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Rain Garden

Prepared by: Paul Guillet, PE

Date: September 2022

LaBella Project No. CZ32001.12 & CZ 32001.13

Brown's Beach (b)					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	LS	$500	$500
2	General Excavation	90	CY	$35	$3,150
3	Filter Fabric Amoco Style 4545	1,200	SF	$0.25	$300
4	Planting Soil Media 12"	45	CY	$35	$1,580
5	6" 1.5"-2" Diameter Clean Washed Gravel	23	CY	$55	$1,270
6	3" Shredded Hardwood Mulch	12	CY	$55	$660
7	Native Plant Landscaping	1	LS	$2,000	$2,000
8	Site Restoration	1	LS	$2,000	$2,000
				Subtotal	$11,460
				Contingency (20%)	$2,000
				Construction Total	$13,460
				Project Total	**$13,500**

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Permeable Pavers

Prepared by: Paul Guillet, PE

Date: September 8, 2022

LaBella Project No. CZ92101.00

Brown's Beach (C)					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	EA	$10,000	$10,000
2	General Excavation	1,800	CY	$4	$7,000
3	Pavers, 9-5/8"x5"x3-1/4"	70,000	EA	$3	$210,000
4	Bedding Course - 2" Thick AASHTO NO. 8 Aggregate	150	CY	$45	$7,000
5	Open Graded Base Course, 4" Thick	300	CY	$35	$11,000
6	Subbase Course - 8" Thick NYSDOT NO.2 Crushed Stone	600	CY	$40	$24,000
7	Non-woven Geotextile Fabric	24,000	SF	$0.25	$6,000
8	Site Restoration	1	LS	$20,000	$20,000
				Subtotal	$295,000
				Contingency (20%)	$59,000
				Construction Total	$354,000
				Legal, Technical, and Administrative Allowance (12% of Construction Total)	$42,000
				Project Total	**$396,000**

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Rain Garden

Prepared by: Paul Guillet, PE

Date: September 2022

LaBella Project No. CZ32001.12 & CZ 32001.13

555 County Route 76 (a)					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	LS	$500	$500
2	General Excavation	100	CY	$35	$3,500
3	Filter Fabric Amoco Style 4545	1,400	SF	$0.25	$350
4	Planting Soil Media 12"	55	CY	$35	$1,930
5	6" 1.5"-2" Diameter Clean Washed Gravel	26	CY	$55	$1,430
6	3" Shredded Hardwood Mulch	12	CY	$55	$660
7	Native Plant Landscaping	1	LS	$2,000	$2,000
8	Site Restoration	1	LS	$2,000	$2,000
				Subtotal	$12,370
				Contingency (20%)	$2,000
				Construction Total	$14,370
				Project Total	**$14,400**

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Rain Garden

Prepared by: Paul Guillet, PE

Date: September 2022

LaBella Project No. CZ32001.12 & CZ 32001.13

555 County Route 76 (b)					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	LS	$500	$500
2	General Excavation	75	CY	$35	$2,630
3	Filter Fabric Amoco Style 4545	1,000	SF	$0.25	$250
4	Planting Soil Media 12"	40	CY	$35	$1,400
5	6" 1.5"-2" Diameter Clean Washed Gravel	20	CY	$55	$1,100
6	3" Shredded Hardwood Mulch	10	CY	$55	$550
7	Native Plant Landscaping	1	LS	$2,000	$2,000
8	Site Restoration	1	LS	$2,000	$2,000
				Subtotal	$10,430
				Contingency (20%)	$2,000
				Construction Total	$12,430
				Project Total	**$12,400**

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Rain Garden

Prepared by: Paul Guillet, PE

Date: September 2022

LaBella Project No. CZ32001.12 & CZ 32001.13

608 NYS 9P					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	LS	$500	$500
2	General Excavation	25	CY	$35	$880
3	Filter Fabric Amoco Style 4545	300	SF	$0.25	$80
4	Planting Soil Media 12"	12	CY	$35	$420
5	6" 1.5"-2" Diameter Clean Washed Gravel	6	CY	$55	$330
6	3" Shredded Hardwood Mulch	3	CY	$55	$170
7	Native Plant Landscaping	1	LS	$1,000	$1,000
8	Site Restoration	1	LS	$1,000	$1,000
				Subtotal	$4,380
				Contingency (20%)	$1,000
				Construction Total	$5,380
				Project Total	**$5,400**

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Rain Garden

Prepared by: Paul Guillet, PE

Date: September 2022

LaBella Project No. CZ32001.12 & CZ 32001.13

1 Lakepoint Way (a)					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	LS	$500	$500
2	General Excavation	120	CY	$35	$4,200
3	Filter Fabric Amoco Style 4545	1,600	SF	$0.25	$400
4	Planting Soil Media 12"	60	CY	$35	$2,100
5	6" 1.5"-2" Diameter Clean Washed Gravel	30	CY	$55	$1,650
6	3" Shredded Hardwood Mulch	15	CY	$55	$830
7	Native Plant Landscaping	1	LS	$2,000	$2,000
8	Site Restoration	1	LS	$2,000	$2,000
				Subtotal	$13,680
				Contingency (20%)	$3,000
				Construction Total	$16,680
				Project Total	**$16,700**

Engineer's Opinion of Probable Costs

Saratoga Lake Water Quality Study

Rain Garden

Prepared by: Paul Guillet, PE

Date: September 2022

LaBella Project No. CZ32001.12 & CZ 32001.13

1 Lakepoint Way (b)					
Item No.	**Description**	**Quantity**	**Units**	**Unit Price**	**Cost**
1	Mobilization/Demobilization	1	LS	$500	$500
2	General Excavation	120	CY	$35	$4,200
3	Filter Fabric Amoco Style 4545	1,600	SF	$0.25	$400
4	Planting Soil Media 12"	60	CY	$35	$2,100
5	6" 1.5"-2" Diameter Clean Washed Gravel	30	CY	$55	$1,650
6	3" Shredded Hardwood Mulch	15	CY	$55	$830
7	Native Plant Landscaping	1	LS	$2,000	$2,000
8	Site Restoration	1	LS	$2,000	$2,000
				Subtotal	$13,680
				Contingency (20%)	$3,000
				Construction Total	$16,680
				Project Total	**$16,680**