Appendix E

2016 Stormwater Sampling Results

DEEP Summary of Water Quality and Statements

Stormwater Management Plan Update

Wolcott, CT

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

Please send completed form to: STORMWATER GROUP
BUREAU OF MATERIALS MANAGEMENT & COMPLIANCE ASSURANCE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

PERMITTEE INFORMATION

Town: Wolcott

Mailing Address: 10 Kenea Avenue; Wolcott, Connecticut 06716

Contact Person: Mr. David Kalinowski Title: Director of Public Works

Phone: 203-879-8100 Permit Registration #GSM: 000033

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): Bound Line Road

Please check the appropriate area description: ☐ Industrial ☐ Commercial ☒ Residential

Receiving Water (name, basin): Mad River, 6914

Time of Start of Discharge: 11:50 AM

Date/Time Collected: 9/19/2016 1:45 PM Water Temperature: 70.8° F

Person Collecting Sample: Jenabay Sezen (Milone & MacBroom, Inc.)

Storm Magnitude (inches): 0.26" Storm Duration (hours): 3 hours

Date of Previous Storm Event: 9/14/2016

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-H+B	6.48	CET
Rain pH	Handheld Device	7.3	
Hardness	2340 B	4.6(mg/L)	CET
Conductivity	2510 B	46(umhos/cm)	CET
Oil & Grease	1664 A	ND	CET
COD	410.4	26(mg/L)	CET
Turbidity	180.1	4.2(NTU)	CET
TSS	2540 D	6.0(mg/L)	CET
TP	365.3	ND	CET
Ammonia	350.1	0.33(mg/L)	CET
TKN	351.2	1.1(mg/L)	CET
NO_3+NO_2	4500-NO3 F	0.29(mg/L)	CET
E. coli	9223 B	5300 (E Coli/100 mL)	CTL

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: David Kalinowski
(Print Name)

Signature: David Kalinowski Date: 10/21/16

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

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PERMITTEE INFORMATION

Town: Wolcott

Mailing Address: 10 Kenea Avenue; Wolcott, Connecticut 06716

Contact Person: Mr. David Kalinowski Title: Director of Public Works

Phone: 203-879-8100 Permit Registration #GSM: 000033

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): 8 Kimberly Court

Please check the appropriate area description: ☐ Industrial ☐ Commercial ☒ Residential

Receiving Water (name, basin): Mad River, 6914

Time of Start of Discharge: 11:50 AM

Date/Time Collected: 9/19/2016 12:50 PM Water Temperature: 70.2° F

Person Collecting Sample: Jenabay Sezen (Milone & MacBroom, Inc.)

Storm Magnitude (inches): 0.26" Storm Duration (hours): 3 hours

Date of Previous Storm Event: 9/14/2016

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-H+B	6.77	CET
Rain pH	Handheld Device	7.3	
Hardness	2340 B	16 (mg/L)	CET
Conductivity	2510 B	70 (umhos/cm)	CET
Oil & Grease	1664 A	ND	CET
COD	410.4	37 (mg/L)	CET
Turbidity	180.1	12 (NTU)	CET
TSS	2540 D	ND	CET
TP	365.3	ND	CET
Ammonia	350.1	0.28 (mg/L)	CET
TKN	351.2	1.3 (mg/L)	CET
NO_3+NO_2	4500-NO3 F	0.50 (mg/L)	CET
E. coli	9223 B	>12,000 (E Coli/100 mL)	CTL

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Signature: David Kalinowski Date: 10/21/16

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HARTFORD, CT 06106-5127

PERMITTEE INFORMATION

Town: Wolcott

Mailing Address: 10 Kenea Avenue; Wolcott, Connecticut 06716

Contact Person: Mr. David Kalinowski Title: Director of Public Works

Phone: 203-879-8100 Permit Registration #GSM: 000033

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): Long Meadow Drive

Please check the appropriate area description: ☐ Industrial ☒ Commercial ☐ Residential

Receiving Water (name, basin): Mad River, 6914

Time of Start of Discharge: 11:50 AM

Date/Time Collected: 9/19/2016 12:30 PM Water Temperature: 72.3° F

Person Collecting Sample: Jenabay Sezen (Milone & MacBroom, Inc.)

Storm Magnitude (inches): 0.26" Storm Duration (hours): 3 hours

Date of Previous Storm Event: 9/14/2016

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-H+B	6.80	CET
Rain pH	Handheld Device	7.3	
Hardness	2340 B	6.3 (mg/L)	CET
Conductivity	2510 B	55 (umhos/cm)	CET
Oil & Grease	1664 A	ND	CET
COD	410.4	69 (mg/L)	CET
Turbidity	180.1	11 (NTU)	CET
TSS	2540 D	12 (mg/L)	CET
TP	365.3	0.20 (mg/L)	CET
Ammonia	350.1	1.1 (mg/L)	CET
TKN	351.2	ND	CET
NO_3+NO_2	4500-NO3 F	0.35 (mg/L)	CET
E. coli	9223 B	>12,000 (E Coli/100 mL)	CTL

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Authorized Official: David Kalinowski
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Signature: [signature] Date: 10/21/16

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PERMITTEE INFORMATION

Town: Wolcott

Mailing Address: 10 Kenea Avenue; Wolcott, Connecticut 06716

Contact Person: Mr. David Kalinowski Title: Director of Public Works

Phone: 203-879-8100 Permit Registration #GSM: 000033

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): Nutmeg Valley Road

Please check the appropriate area description: ☒ Industrial ☐ Commercial ☐ Residential

Receiving Water (name, basin): Mad River, 6914

Time of Start of Discharge: 11:50 AM

Date/Time Collected: 9/19/2016 1:30 PM Water Temperature: 71.5° F

Person Collecting Sample: Jenabay Sezen (Milone & MacBroom, Inc.)

Storm Magnitude (inches): 0.26" Storm Duration (hours): 3 hours

Date of Previous Storm Event: 9/14/2016

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-H+B	6.13	CET
Rain pH	Handheld Device	7.3	
Hardness	2340 B	26 (mg/L)	CET
Conductivity	2510 B	220 (umhos/cm)	CET
Oil & Grease	1664 A	ND	CET
COD	410.4	17 (mg/L)	CET
Turbidity	180.1	19 (NTU)	CET
TSS	2540 D	16 (mg/L)	CET
TP	365.3	ND	CET
Ammonia	350.1	0.19 (mg/L)	CET
TKN	351.2	1.2 (mg/L)	CET
NO_3+NO_2	4500-NO3 F	0.77 (mg/L)	CET
E. coli	9223 B	5,100 (E Coli/100 mL)	CTL

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(Print Name)

Signature: [signature] Date: 10/21/16

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PERMITTEE INFORMATION

Town: Wolcott

Mailing Address: 10 Kenea Avenue; Wolcott, Connecticut 06716

Contact Person: Mr. David Kalinowski Title: Director of Public Works

Phone: 203-879-8100 Permit Registration #GSM: 000033

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): Town Line Road

Please check the appropriate area description: ☒ Industrial ☐ Commercial ☐ Residential

Receiving Water (name, basin): Mad River, 6914

Time of Start of Discharge: 11:50 AM

Date/Time Collected: 9/19/2016 1:15 PM Water Temperature: 71.3° F

Person Collecting Sample: Jenabay Sezen (Milone & MacBroom, Inc.)

Storm Magnitude (inches): 0.26" Storm Duration (hours): 3 hours

Date of Previous Storm Event: 9/14/2016

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-H+B	6.76	CET
Rain pH	Handheld Device	7.3	
Hardness	2340 B	17 (mg/L)	CET
Conductivity	2510 B	24 (umhos/cm)	CET
Oil & Grease	1664 A	ND	CET
COD	410.4	91 (mg/L)	CET
Turbidity	180.1	190 (NTU)	CET
TSS	2540 D	130 (mg/L)	CET
TP	365.3	ND	CET
Ammonia	350.1	0.42 (mg/L)	CET
TKN	351.2	1.2 (mg/L)	CET
NO_3+NO_2	4500-NO3 F	ND	CET
E. coli	9223 B	1900 (E Coli/100 mL)	CTL

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(Print Name)

Signature: David Kalinowski Date: 10/21/16

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PERMITTEE INFORMATION

Town: Wolcott

Mailing Address: 10 Kenea Avenue; Wolcott, Connecticut 06716

Contact Person: Mr. David Kalinowski Title: Director of Public Works

Phone: 203-879-8100 Permit Registration #GSM: 000033

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): Woodtick Road

Please check the appropriate area description: ☐ Industrial ☐ Commercial ☒ Residential

Receiving Water (name, basin): Mad River, 6914

Time of Start of Discharge: 11:50 AM

Date/Time Collected: 9/19/2016 2:15 PM Water Temperature: 68° F

Person Collecting Sample: Jenabay Sezen (Milone & MacBroom, Inc.)

Storm Magnitude (inches): 0.26" Storm Duration (hours): 3 hours

Date of Previous Storm Event: 9/14/2016

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	4500-H+B	6.74	CET
Rain pH	Handheld Device	7.3	
Hardness	2340 B	20 (mg/L)	CET
Conductivity	2510 B	46 (umhos/cm)	CET
Oil & Grease	1664 A	ND	CET
COD	410.4	280 (mg/L)	CET
Turbidity	180.1	130 (NTU)	CET
TSS	2540 D	220 (mg/L)	CET
TP	365.3	0.44 mg/L	CET
Ammonia	350.1	0.73 mg/L	CET
TKN	351.2	5.9 (mg/L)	CET
NO_3+NO_2	4500-NO3 F	0.18 (mg/L)	CET
E. coli	9223 B	3700 (E Coli/100mL)	CTL

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Authorized Official: David Kalinowski
(Print Name)

Signature: David Kalinowski Date: 10/21/16

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Factsheet: Town of Wolcott Water Quality and Stormwater Summary

This document was created for each town that has submitted monitoring data under the current Small Municipal Separate Storm Sewer System (MS4) General Permit. What follows is information on how stormwater can affect water quality in streams and rivers and a summary of data submitted by your town. This factsheet is intended to help you interpret your monitoring results and assist you in compliance with the MS4 program.

Water Quality in Connecticut

Surface waters are important resources that support numerous uses, including water supply, recreation, fishing, shellfishing and sustaining aquatic life. Water quality conditions needed to support these uses are identified within the Connecticut Water Quality Standards (WQS). In order to protect and restore these uses, we need acceptable environmental conditions (physical, chemical and biological) to be present within surface waters.

To assess and track water quality conditions, CT DEEP conducts monitoring across the State. The data is synthesized into a biennial state water quality report called the Integrated Water Quality Report. Currently, specific water quality monitoring in the state encompasses about 50% of rivers, 47% of lakes, and 100% of estuary/coastline. In addition, CT DEEP may have information about certain land uses or discharges which could indicate a potential for water quality to be impacted, even if the waterbody has not been fully monitored and assessed.

To find more detailed information on water quality in your town, please see the Integrated Water Quality Report (IWQR) on the CT DEEP website at www.ct.gov/deep/iwqr. Information on water quality within your town is also presented on the maps included in this fact sheet.

Impacts of Impervious Cover on Water Quality

Impervious cover (IC) refers to hard surfaces across the landscape such as roads, sidewalks, parking lots and roofs. Studies have focused on the amount of hard surfaces to evaluate the impacts of stormwater runoff from these hard surfaces on water quality and found that IC affects both the quantity and quality of stormwater. IC forces rain to runoff the land, carrying pollutants quickly and directly to lakes and streams instead of soaking into the ground and being filtered by the soil. For more information on impervious cover, please see the CT DEEP web page www.ct.gov/deep/imperviouscoverstudies and EPA's web page www.epa.gov/caddis/ssr_urb_is1.html.

In general, the higher the percentage of IC in a watershed, the poorer the surface water quality. Research in Connecticut strongly suggests that aquatic life will be harmed when the IC within a

watershed exceeds 12%. Stormwater pollution from IC is a likely cause of impairment for these waterbodies.

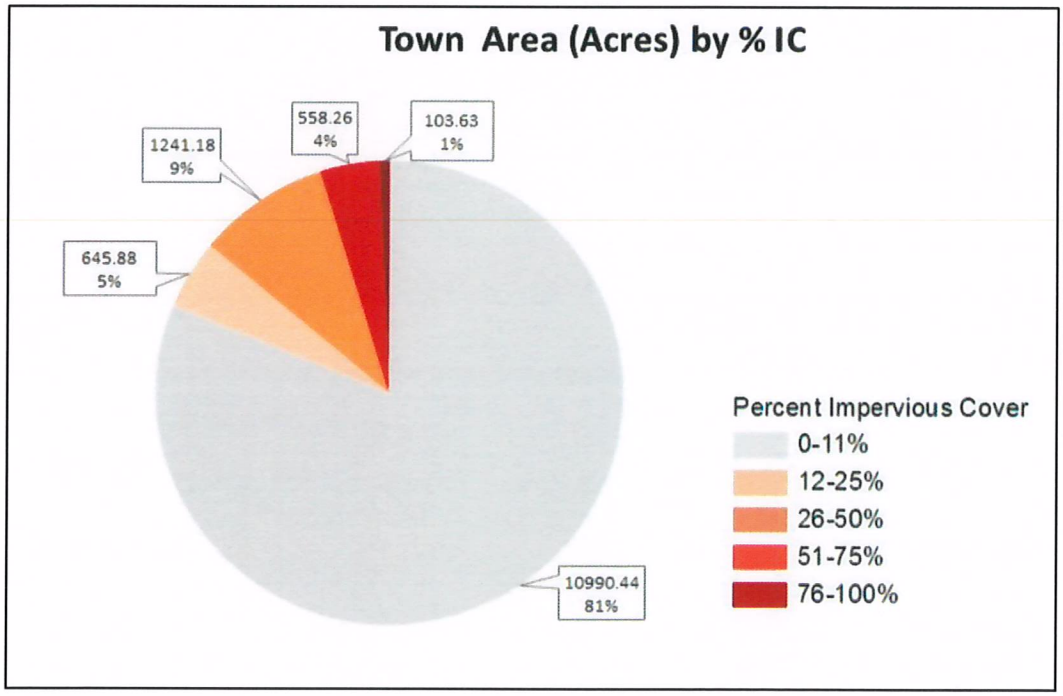
Town of Wolcott: Impervious Cover Data

This chart shows the amount of area within your town that contains IC. Data is grouped by acres and percent IC. While all levels of IC can contribute stormwater to streams, it is important to note that land with IC greater than 12% in town is likely to be contributing enough stormwater to streams to have a negative impact on water quality.

Towns should aim to make stormwater improvements in areas with IC greater than 12% in an effort to reduce the amount of stormwater pollution reaching surface waters which will protect and improve water quality.

For more information on areas of impervious cover within your town, please see the maps at the back of this factsheet.

Amounts of Impervious Cover within the Town of Wolcott



Pollution Reduction

Waterbodies often can handle a certain amount of pollutants and still maintain good water quality. However, impaired waterbodies have too much pollution impacting their water quality and therefore the streams do not support all uses for the waterbody. Total Maximum Daily Loads

(TMDLs) are pollution reduction budgets developed for impaired waterbodies in order to meet water quality. If the pollution budget is achieved through the recommended pollution reduction measures, then the waterbody is expected to meet water quality. CT DEEP also supports impaired waters restoration through watershed based plans (www.ct.gov/deep/watershed) which provide more specific non-point source pollution control measures. The following TMDLs or pollution reduction strategies have been developed and apply to areas within your town.

TMDLs or Strategies Applicable to the Town of Wolcott

Name of TMDL or Strategy	Pollutant	Waterbody Name	Link
Statewide Bacteria TMDL	Bacteria	Mad River / Lilly Brook / Hitchcock Lake	www.ct.gov/deep/lib/deep/water/tmdl/statewidebacteria/madriver6914.pdf
Statewide Bacteria TMDL	Bacteria	Naugatuck River / Hockanum Brook	www.ct.gov/deep/lib/deep/water/tmdl/statewidebacteria/naugatuckriverhockanumbrook6900.pdf
A TMDL Analysis for Recreational Uses of the Naugatuck River Regional Basin	Bacteria	Naugatuck River / Steele Brook / Great Brook / Mad River / Hop Brook / Long Meadow Pond Brook	www.ct.gov/deep/lib/deep/water/tmdl/tmdl_final/naugatucktmdl_final.pdf
A TMDL Analysis for the Pequabuck River Sub-Regional Basin	Bacteria	Coppermine Brook / Poland River / Pequabuck River	www.ct.gov/deep/lib/deep/water/tmdl/tmdl_final/pequabucktmdl_final.pdf
Statewide Bacteria TMDL	Bacteria	Tenmile River / Mixville Pond	www.ct.gov/deep/lib/deep/water/tmdl/statewidebacteria/tenmileriver5202.pdf
A TMDL Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound	Nitrogen	Long Island Sound and contributing watersheds	www.ct.gov/deep/lib/deep/water/lis_water_quality/nitrogen_control_program/tmdl.pdf
Northeast Regional Mercury TMDL	Mercury	All CT Inland waters	www.ct.gov/deep/lib/deep/water/tmdl/tmdl_final/ne_hg_tmdl.pdf
Interim Phosphorus Reduction Strategy	Phosphorus	Certain CT Inland waters	www.ct.gov/deep/lib/deep/water/water_quality_standards/p/interimmgntphosstrat_042614.pdf

For more information on these TMDLs or strategies please go to our website www.ct.gov/deep/tmdl.

Stormwater Quality Monitoring

Regular monitoring for targeted pollutants in stormwater provides an indication of potential for water quality impacts and helps identify sources and unlawful discharges. Annual monitoring at 6 locations from different areas of town has been a requirement of the MS4 permit since 2004. CT DEEP uses that information to evaluate the quality of stormwater and the potential for impacts to surface waters as well as to make sure that stormwater is managed properly.

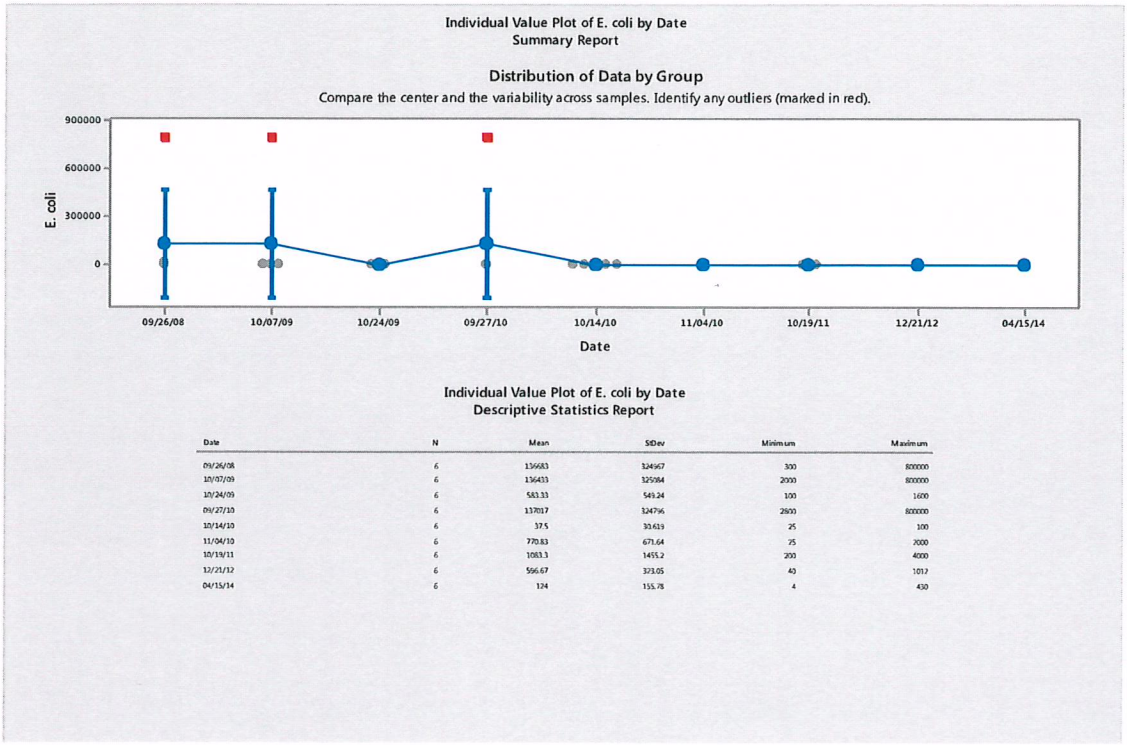
Below are 5 graphs tracking stormwater results submitted by your town for 5 parameters reported under the current MS4 General Permit. The results of each stormwater test submitted to CT DEEP by your town is shown. Individual sample results are shown in grey while the average of the samples collected on a particular day is shown in blue, with a line connecting the averages for the various sample dates. The bars show the statistical range of samples for each day with the red squares showing results which are considered to be outliers, that is, very different from the other samples collected on that day. The chart on the graph lists the sample dates and some basic statistics:

Statistic	Description
N	Number of stormwater samples collected on that date
Mean	Average of the results reported for that sample date
Standard Deviation (StdDev)	A measure of the variability of the results for the sample date
Minimum	The lowest sample result for the sample date
Maximum	The highest sample result for the sample date

Bacteria

Escherichia coli (*E. coli*) is a bacteria that lives in the intestines of humans and other warm-blooded animals and is used to indicate the presence of fecal matter in surface waters. Some strains of *E. coli* and other pathogens found in fecal material cause serious illness in people coming in contact with it. For this reason, high amounts of bacteria will cause authorities to close beaches for swimming. Bacteria is measured as the number of colony forming units, or CFU, per 100 ml of water. Any result that was reported as "to numerous to count" is included on the chart as 800,000 CFU/100 mL.

Results of annual stormwater monitoring under MS4 permit for *E.coli* (CFU/ 100 mL of sample)
Town of Wolcott



Individual Value Plot of E. coli by Date
Descriptive Statistics Report

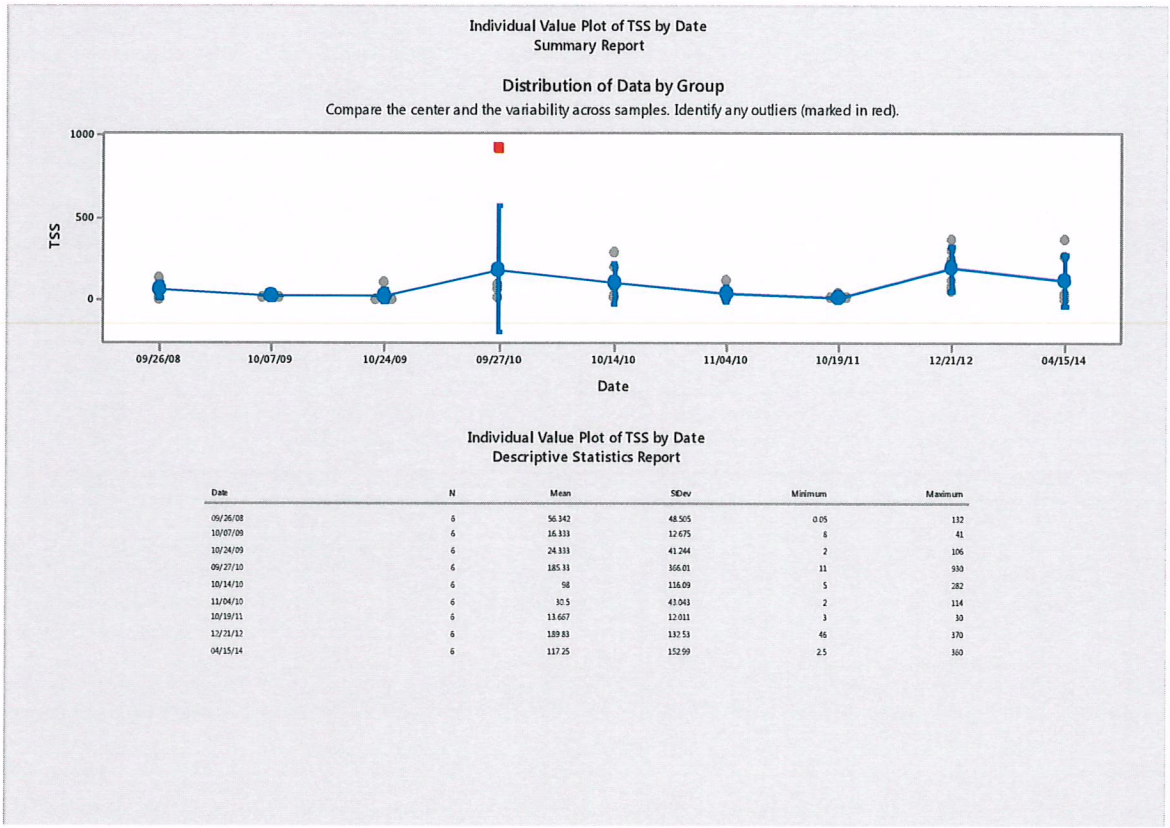
Date	N	Mean	StDev	Minimum	Maximum
09/26/08	6	136683	324967	300	800000
10/07/09	6	136433	325984	2000	800000
10/24/09	6	583.33	549.24	100	1600
09/27/10	6	117017	324796	2800	800000
10/14/10	6	37.5	30.619	25	100
11/04/10	6	770.83	671.64	25	2000
10/19/11	6	1083.3	1455.2	200	4000
12/21/12	6	596.67	373.05	40	1012
04/15/14	6	124	155.78	4	430

To support recreational uses of surface waters, the CT DEEP Water Quality Standards indicate that the average amount of *E. coli* found in a freshwater water body should be less than 126 CFU/100 mL and that a single sample tested for *E. coli* should be less than 235 CFU/100 mL at a designated swimming area and less than 410 CFU/100 mL in other areas. Monitoring for *E. coli* is currently required in the MS4 permit. Enterococci is another bacteria used to indicate the presence of fecal material in salt water environments. For recreation in salt water the Water Quality Standards indicate that average amount of Enterococci should be less than 35 CFU/100 mL in a designated swimming area and that a single sample tested for Enterococci should be less than 104 CFU/100 mL and in all other areas less than 500 CFU/100 mL. These targets have been included in the statewide bacteria TMDLs. In the Draft MS4 permit, *E.coli* results higher than 235 CFU/100 mL at a designated swimming area or greater than 410 CFU/100 mL in other areas requires a follow-up investigation. Individual stormwater sample results that exceed the applicable single sample maximum value for bacteria could impact water quality, so the associated outfalls should be evaluated for additional stormwater management.

Total Suspended Solids

Total Suspended Solids (TSS) is a measurement of the amount of solids (including sand and silt) found in the stormwater sample. High concentrations of TSS can lower water quality in the receiving stream by transporting various pollutants to the waterbody where they can directly affect aquatic life or affect aquatic life by absorbing light, reducing photosynthesis, and by making the water warmer. TSS can also clog fish gills and smother fish eggs and suffocate the organisms that fish eat. TSS comes from erosion and is found in agricultural, urban and industrial runoff. TSS can be reduced by protecting land from erosion and allowing stormwater time to settle before discharging to surface waters.

Results of annual stormwater monitoring under the MS4 general permit for TSS (mg/L)
Town of Wolcott



Individual Value Plot of TSS by Date
Descriptive Statistics Report

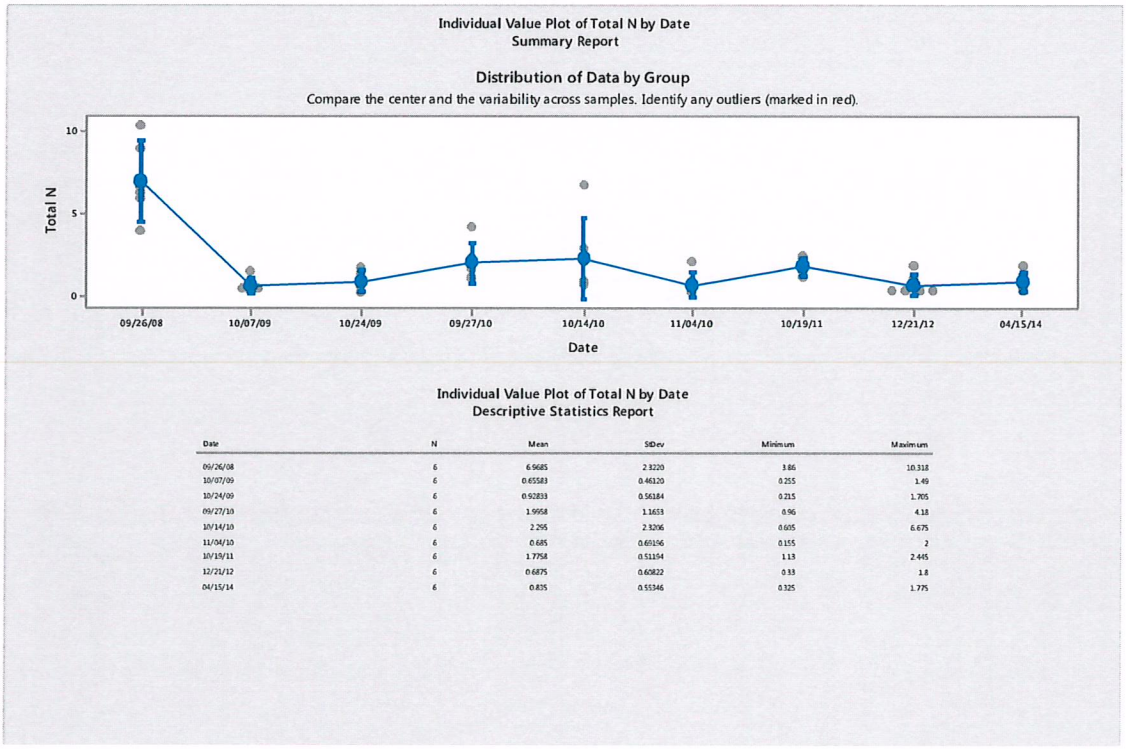
Date	N	Mean	StDev	Minimum	Maximum
09/26/08	6	56.342	48.505	0.05	132
10/07/09	6	16.333	12.675	6	41
10/24/09	6	24.333	41.244	2	106
09/27/10	6	185.31	366.01	11	930
10/14/10	6	98	116.09	5	282
11/04/10	6	30.5	43.043	2	114
10/19/11	6	13.667	12.011	3	30
12/21/12	6	189.83	132.53	46	370
04/15/14	6	117.25	152.99	2.5	360

Currently, there is not a water quality based target for TSS in stormwater but TSS is a general indicator of water quality and, lower amounts of TSS are better. For comparison purposes, the average MS4 stormwater result reported for TSS by all towns covered by this permit is 48 mg/L. Areas within your town which have elevated TSS may be places to consider additional stormwater management efforts.

Total Nitrogen

Nitrogen is an important nutrient in marine and estuarine waters such as Long Island Sound, as well as a concern in fresh water lakes and rivers. High amounts of nitrogen can lead to excessive growth of water plants and algae which then reduces the amount of oxygen available to living things in these waters. Unlawful discharges, animal waste, failing septic systems, leaves, litter and fertilizers are common sources of high nitrogen in stormwater. Responsible use of fertilizers, maintaining septic systems and proper disposal of pet waste will help reduce nitrogen in stormwater.

Results of annual stormwater monitoring under MS4 general permit for total nitrogen (Total N mg/L)
Town of Wolcott



Individual Value Plot of Total N by Date
Descriptive Statistics Report

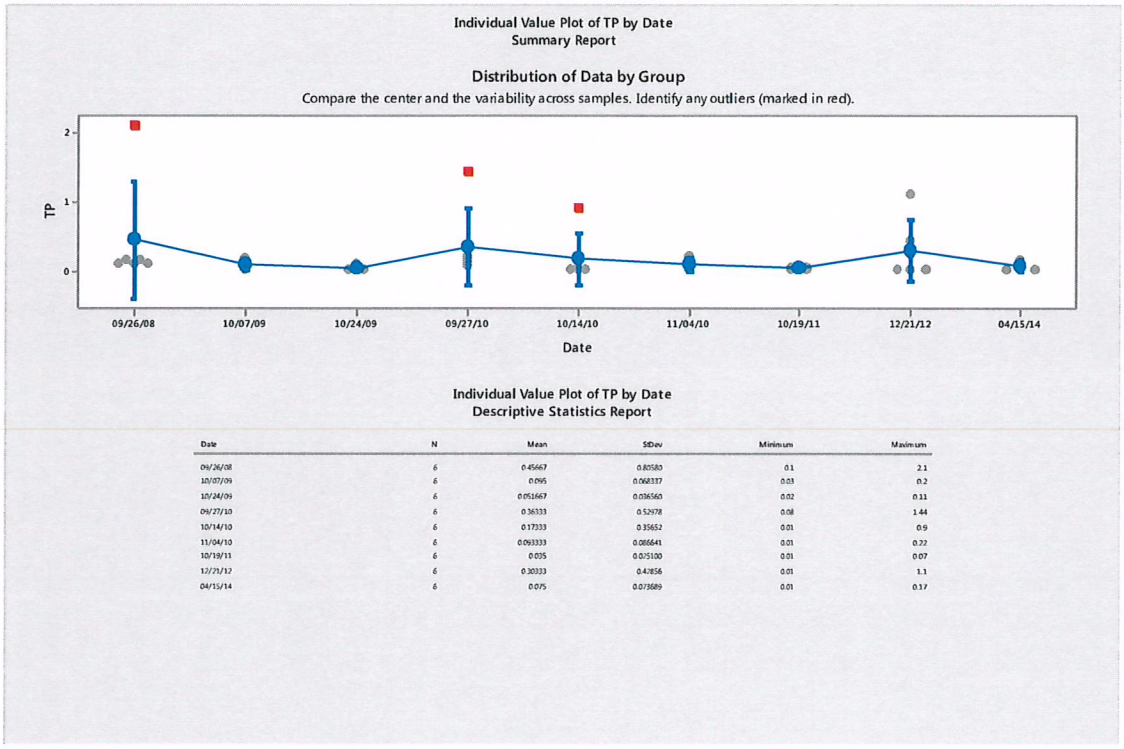
Date	N	Mean	StDev	Minimum	Maximum
09/26/08	6	6.9685	2.3220	3.86	10.318
10/07/09	6	0.65583	0.46320	0.255	1.49
10/24/09	6	0.92833	0.56184	0.215	1.705
09/27/10	6	1.9958	1.1653	0.96	4.18
10/14/10	6	2.295	2.3206	0.605	6.675
11/04/10	6	0.685	0.69156	0.155	2
10/19/11	6	1.7758	0.51154	1.13	2.445
12/21/12	6	0.6875	0.60822	0.33	1.8
04/15/14	6	0.835	0.55346	0.325	1.775

The TMDL for Long Island Sound requires a 10% reduction of nitrogen in stormwater discharges to prevent low oxygen conditions in Long Island Sound. Each town should be working to reduce the amount of nitrogen in their stormwater to address this issue. Under the current draft MS4 permit, any result for total nitrogen greater than 2.5 mg/L will require a follow-up investigation. Areas within your town which have elevated nitrogen may be places to consider additional stormwater management activities.

Total Phosphorus

Phosphorus is an important nutrient necessary for growth in plants and animals in freshwater. Too much phosphorus in the water can throw off the balance of aquatic ecosystems causing excessive growth of water plants and algae blooms, which reduces the amount of oxygen in the water, potentially harming the fish. Sometimes these algae blooms can contain toxic forms of algae which are harmful to people and animals that come into contact with it. Sources of high phosphorus can be unlawful discharges, fertilizers, litter, leaves, erosion and animal waste.

Results of annual stormwater monitoring under MS4 permit for total phosphorus (mg/L)
Town of Wolcott



Individual Value Plot of TP by Date
Descriptive Statistics Report

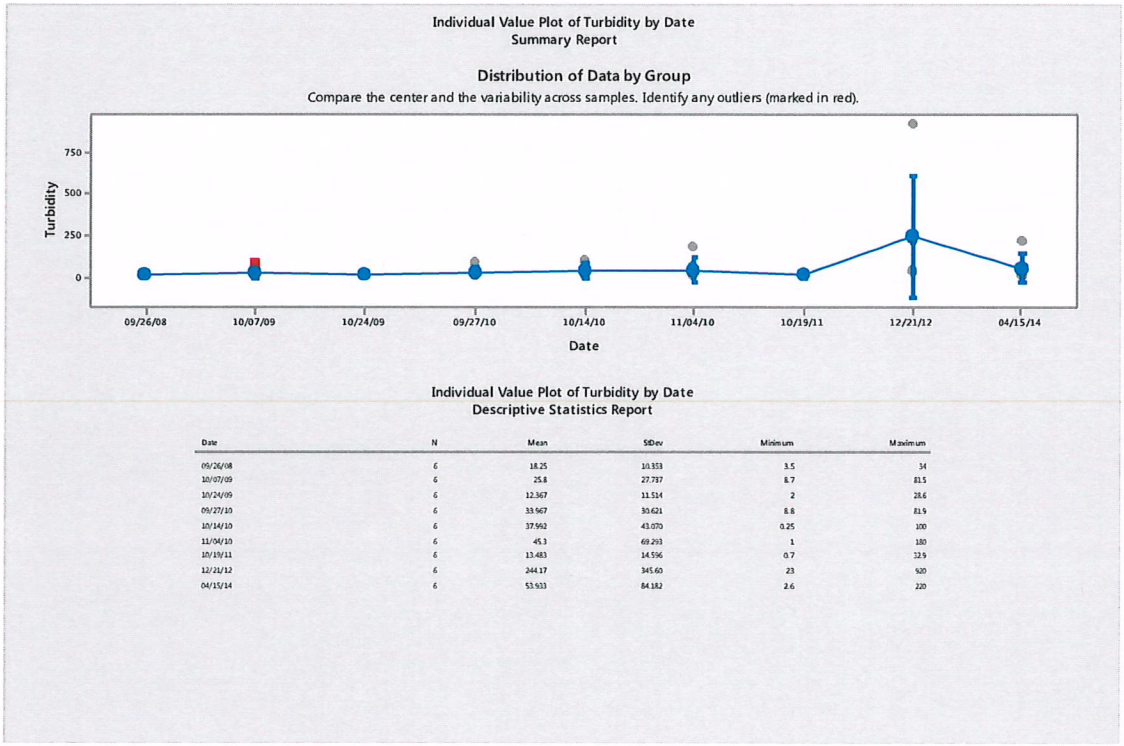
Date	N	Mean	StDev	Minimum	Maximum
09/26/08	6	0.45667	0.80580	0.1	2.1
10/07/09	6	0.095	0.068337	0.03	0.2
10/24/09	6	0.051667	0.036560	0.02	0.11
09/27/10	6	0.36333	0.52978	0.08	1.44
10/14/10	6	0.17333	0.35652	0.01	0.9
11/04/10	6	0.093333	0.086641	0.01	0.22
10/19/11	6	0.035	0.025100	0.01	0.07
12/21/12	6	0.30333	0.42856	0.01	1.1
04/15/14	6	0.075	0.073689	0.01	0.17

CT DEEP is actively working with many towns to reduce the amount of phosphorus reaching Connecticut's streams and rivers. Under the current draft MS4 permit, a total phosphorus result greater than 0.3 mg/L will require a follow-up investigation. Areas of your town that have elevated levels of phosphorus in the stormwater are good places to develop additional stormwater controls.

Turbidity

Turbidity measures the clarity of the stormwater sample. It measures how much material (soil, algae, pollution, microbes etc.) is suspended in the sample. High turbidity lowers the water quality of a surface water by blocking sunlight for the plants and makes food harder for the fish to find and may be an indication of a higher amounts of other pollution in the water. Surface waters with high turbidity are visually less appealing for recreational use. High turbidity can be caused by erosion, failing septic systems, decaying plants or animals, and excessive algae growth. Turbidity is reported in Nephelometric Turbidity Units (NTU) which is related to how easily light passes through the water sample.

Results of annual stormwater monitoring under MS4 permit for turbidity (NTU)
Town of Wolcott



Individual Value Plot of Turbidity by Date
Descriptive Statistics Report

Date	N	Mean	StDev	Minimum	Maximum
09/26/08	6	18.25	10.353	3.5	34
10/07/09	6	25.8	27.737	8.7	81.5
10/24/09	6	12.367	11.514	2	28.6
09/27/10	6	33.567	30.621	8.8	81.9
10/14/10	6	37.992	43.070	0.25	100
11/04/10	6	45.3	69.293	1	180
10/19/11	6	13.483	14.596	0.7	32.9
12/21/12	6	244.17	345.60	23	920
04/15/14	6	53.933	84.182	2.6	220

The Water Quality Standards have a criterion that indicates turbidity should not to exceed 5 NTU above ambient levels. In the draft MS4 permit, a turbidity result greater than 5 NTU over in-stream conditions will require a follow-up investigation. While there is not a fixed statewide criterion for turbidity, lower results are better for the health of the surface waters in town. Areas with higher levels of turbidity in stormwater would be a good place to develop additional stormwater controls.

Town Maps

The following maps were created to show the impervious cover (IC) in your town as well as the water quality in the rivers, streams, lakes and estuaries in and around your town.

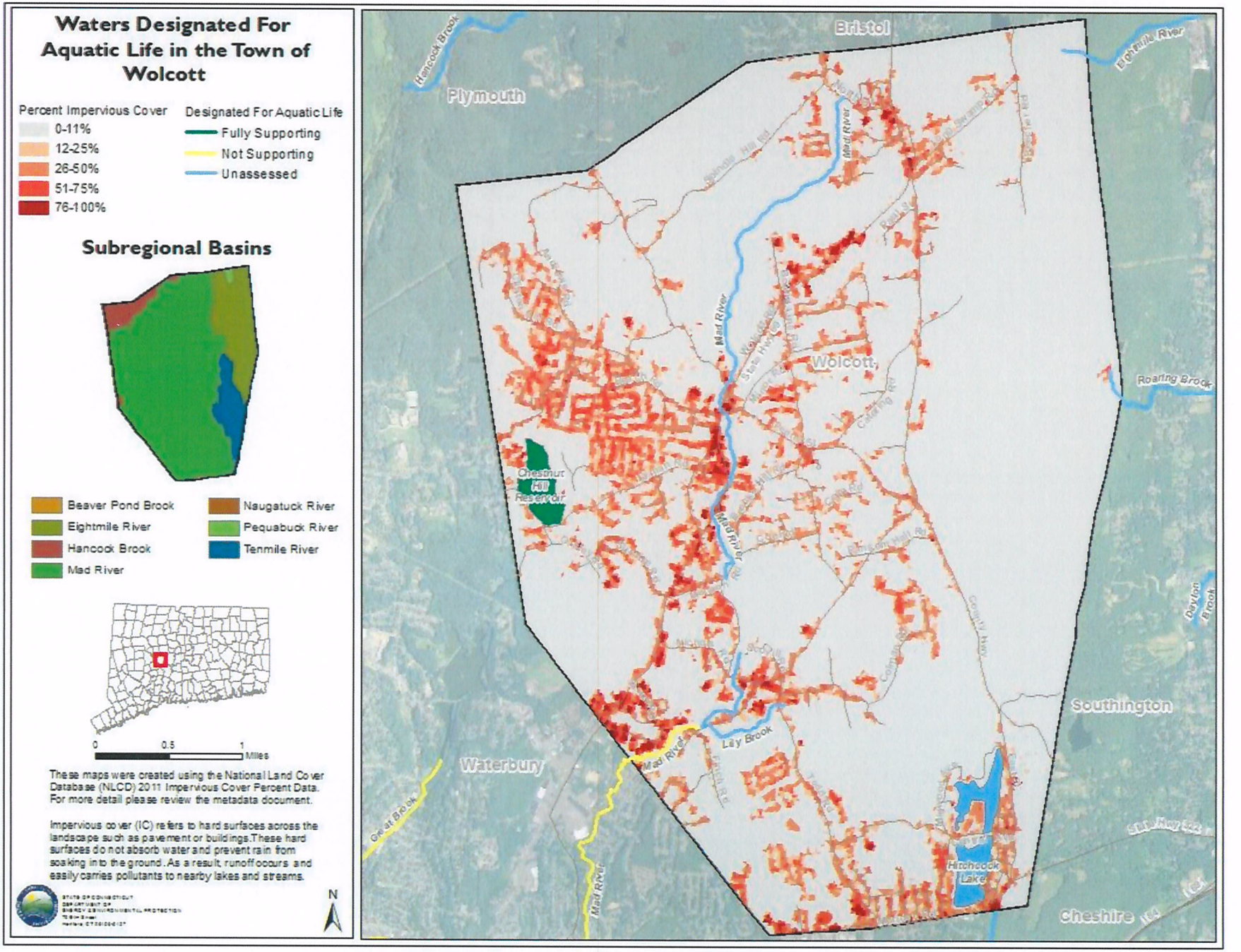
Impervious Cover on the Town Maps

IC is shown in red on the maps. Dark red areas indicate a higher percentage of IC, lighter red areas have less IC, while the grey areas indicate very little or no IC.

Water Quality on the Town Maps

Separate maps are provided for the different uses of the waterbodies such as Aquatic Life Uses, Recreation, and Shellfishing (in coastal towns). The waterbodies are colored to show the health of the waterbody. Green means that the waterbody meets the water quality requirements to fully support the specified use. Yellow means that water quality is poor and that the specified use is not met. Blue means that there is not enough information to know whether or not water quality is good or bad to support the specified use. Additionally, a small map is provided on the left side of each larger map to show which watersheds are within your town.

Waters Designated For Aquatic Life in the Town of Wolcott



Waters Designated For Recreation in the Town of Wolcott