

STATE OF NEW HAMPSHIRE

**Impairments Added to Categories
4A, 4B, or 4C
of the 2016 305(b) Report**

November 30, 2017



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NOVEMBER 30, 2017

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Introduction

In accordance with Section 303(d) of the federal Clean Water Act, States must prepare a list of impaired waters that require a Total Maximum Daily Load study every two years (i.e., the 303(d) List). The last approved 303(d) List was prepared by the New Hampshire Department of Environmental Services (NHDES) in 2012. A final of the 2014 Section 303(d) List of impaired waters was submitted to the US Environmental Protection Agency (USEPA) on March 27, 2017. Downloadable copies of the past list as well as the 303(d) 2016 list are available on the NHDES website for review (<http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm>). This document provides a list of all surface waters and parameter combinations that were added as categories 4A, 4B, or 4C impairments on the 2016 305(b) and the reasons why they were added.

Assessment outcomes cover a spectrum from very good to very bad coded as an alpha numeric scale that provides additional distinctions in cases where an impairment exists. In each of the new impairments detailed within this document the 2014 and 2016 assessment status is highlighted applying the categories in the table below.

	Severe	Poor	Likely Bad	No Data	Likely Good	Marginal	Good
	Not Supporting, Severe	Not Supporting, Marginal	Insufficient Information – Potentially Not Supporting	No Data	Insufficient Information – Potentially Full Supporting	Full Support, Marginal	Full Support, Good
CATEGORY	Description						
*Category 2	Meets standards					2-M or 2-OBS	2-G
Category 3	Insufficient Information		3-PNS	3-ND	3-PAS		
Category 4	Does not Meet Standards;						
4A	TMDL Completed	4A-P	4A-M or 4A-T				
4B	Other enforceable measure will correct the issue.	4B-P	4B-M or 4B-T				
4C	Non-pollutant (i.e. exotic weeds)	4C-P	4C-M				
Category 5	TMDL Needed	5-P	5-M or 5-T				

* “Category 1” only exists at the Assessment Unit Level.

Mercury

Toxic substances are taken up and may accumulate in aquatic organisms. Env-Wq 1703.21(a)(2) specifies that surface waters be free from toxic substances or chemical constituents in concentrations or combinations that persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life. The New Hampshire Department of Environmental Services, Environmental Health Program performs detailed fish consumption assessments and where warranted publishes fish consumption advisories. For assessment purposes, these published advisories qualify as indicators that the criteria in Env-Wq 1703.21(a)(2) are not being met.

Assessment Unit Name	Assessment Unit ID	Primary Town	Parameter Name	2014	2016
KIMBALL POND - HOPKINTON TOWN BEACH	NHIMP700030507-02-02	HOPKINTON	Mercury	N/A	4A-M
JERICO MOUNTAIN STATE PARK BEACH	NHLAK400010606-01-02	BERLIN	Mercury	N/A	4A-M
MICHAWANIC POND	NHLAK600020703-06	WAKEFIELD	Mercury	N/A	4A-M
SQUAM LAKE - WISTER POINT WEST BEACH	NHLAK700010501-04-06	CENTER HARBOR	Mercury	N/A	4A-M
SQUAM LAKE - MOON ISLAND SOUTH BEACH	NHLAK700010501-04-07	HOLDERNESS	Mercury	N/A	4A-M
SQUAM LAKE - WISTER POINT EAST BEACH	NHLAK700010501-04-08	CENTER HARBOR	Mercury	N/A	4A-M
DALTON DRIVE BEACH	NHLAK700060402-03-03	BARNSTEAD	Mercury	N/A	4A-M
SAINT ANSLEMS SWIMMING POND	NHLAK700060607-06	GOFFSTOWN	Mercury	N/A	4A-M
MASCOMA LAKE - LAKEVIEW CONDOMINIUM ASSOCIATION BEACH	NHLAK801060105-04-05	ENFIELD	Mercury	N/A	4A-M
QUIMBY BROOK	NHRIV600020703-17	WAKEFIELD	Mercury	N/A	4A-M
WILDER BROOK	NHRIV700030104-31	PETERBOROUGH	Mercury	N/A	4A-M
NORTHWOOD LAKE INLET	NHRIV700060502-50	NORTHWOOD	Mercury	N/A	4A-M

The above list contains new freshwater assessment units for the 2016 cycle with no other sources of mercury. New Hampshire, in listing these new waters on the 2016, 303(d) list proposes for comment that these waters be included in the previously approved mercury TMDL (and put in category 4a). Section 5.1 of the Northeast Regional Mercury TMDL states; "In addition to the impaired waters listed in Appendix A, the TMDL may, in appropriate circumstances, also apply to waterbodies that are listed for mercury impairment in subsequent Clean Water Act Section 303(d) Lists of Impaired Waters. For such waterbodies, this TMDL may apply if, after listing the waters for mercury impairment and taking into account all relevant comments submitted on the Impaired Waters List, a state determines with EPA approval of the list that this TMDL should apply to future mercury impaired waterbodies."

(https://www.des.nh.gov/organization/divisions/water/wmb/tmdl/documents/mercury_final.pdf, pg 12)

Debris/Floatables/Trash

MEADOW BROOK - SACO RIVER - UNNAMED BROOK - BARTLETT BROOK - STONY BROOK (NHRIV600020106-08)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
MEADOW BROOK - SACO RIVER - UNNAMED BROOK - BARTLETT BROOK - STONY BROOK	NHRIV600020106-08	Debris/Floatables /Trash	BARTLETT	3-ND	4C-M

Designated Use: Primary Contact Recreation

Summary

In 2016 NHDES received a complaint regarding a landfill along the shore of the Saco River in Bartlett. NHDES conducted a site visit and confirmed that debris from a closed landfill was eroding along the shore of the river and

materials from the landfill were being deposited directly into the Saco River. The debris was present throughout the majority of the 8 foot tall bank profile. During the site visit debris was actively falling into the river. The bank material is very unstable. This erosion and deposition of debris will continue unless the bank is stabilized. This section of the Saco River is a popular recreation area. The metal and glass debris lodged between rocks and on the bottom of the river poses a threat to swimming, boating and fishing.

Relevant Water Quality Standards

Env-Wq 1703.03 General Water Quality Criteria.

(c) Unless otherwise specifically allowed by a statute, rule, order, or permit, the following physical, chemical, and biological criteria shall apply to all surface waters:

(1) All surface waters shall be free from substances in kind or quantity that:

- a. Settle to form harmful benthic deposits;
- b. Float as foam, debris, scum or other visible substances;
- c. Produce odor, color, taste or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses;
- d. Result in the dominance of nuisance species; or
- e. Interfere with recreational activities;

Impairments (referenced from 2014 CALM)

1. Primary Contact Recreation

Indicator 5: Color, foam, debris, scum, slicks, odors, surface floating solids

The General Water Quality Criteria (Env-Wq 1703.03) require that surface waters be free of substances which: float as foam, debris, or scum; produce odor, color, taste, or turbidity making the water unsuitable for the designated use; or interfere with recreational activities (Env-Wq 1703.03 (c)(1) b, c, & e). Two common examples of scums are those produced by cyanobacteria blooms, which produce a human health risk and iron scums that may be the result on landfill leachate or fill activities.

FS: The surface water does not contain color, foam, debris, scum, slicks, odors, and/or surface floating solids in amounts and for durations that significantly interfere with the primary contact recreational use, unless naturally occurring.

NS: The surface water contains color, foam, debris, scum, slicks, odors and/or surface floating solids in significant amounts and for durations that significantly interfere with the primary contact recreational use, and they are not naturally occurring.

Figure 1. Location of landfill and impacted shoreline -71.278191, 44.080262 Bartlett, NH.



Figure 2. Southern shore of the Saco River. This is the section of the river where the bank is eroding and material from the landfill is eroding into the river. The landfill comprises approximately 300 feet of the shoreline.



Figure 3. The eroding bank of the river showing materials from the landfill. The bank is very unstable – and undercut.



Figure 4. Example of a large piece of metal debris within the bank.



Figure 5. Metal and glass debris embedded in the eroding shoreline. The tree roots depict how undercut and unstable the bank has become.



Non-Native Aquatic Plants

Exotic macrophytes are non-native, fast growing aquatic plants, which can quickly dominate and choke out native aquatic plant growth in the surface water. Examples of exotic macrophytes include variable milfoil (*Myriophyllum heterophyllum*), Eurasian milfoil (*Myriophyllum spicatum*), fanwort (*Cabomba caroliniana*) and water chestnut (*Trapa natans*). Such infestations are in violation of Env-Wq 1703.19, which states that surface waters shall support and maintain a balanced, integrated and adaptive community of organisms having a species composition, diversity and functional organization comparable to that of similar natural habitats of a region.

Assessment Category 4C represents cases where a waterbody is impaired or threatened for one or more designated uses but does not require the development of a TMDL because the impairment is not caused by a pollutant.

UPPER SUNCOOK POND (NHLAK700060402-10-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UPPER SUNCOOK POND	NHLAK700060402-10-02	Non-Native Aquatic Plants	BARNSTEAD	3-PNS	4C-M

Designated Use: Aquatic Life

Variable milfoil growth present in scattered patches in the lake. Managed by hand removal in 2015 and 2016.

LOWER SUNCOOK POND (NHLAK700060402-10-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LOWER SUNCOOK POND	NHLAK700060402-10-01	Non-Native Aquatic Plants	BARNSTEAD	3-PNS	4C-M

Designated Use: Aquatic Life

Variable milfoil growth present in scattered patches in the lake. Required active management by hand removal in 2015 and 2016.

CROOKED POND (NHLAK700060202-04)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
CROOKED POND	NHLAK700060202-04	Non-Native Aquatic Plants	LOUDON	3-ND	4C-M

Designated Use: Aquatic Life

Milfoil infestation discovered in 2016. No control actions implemented.

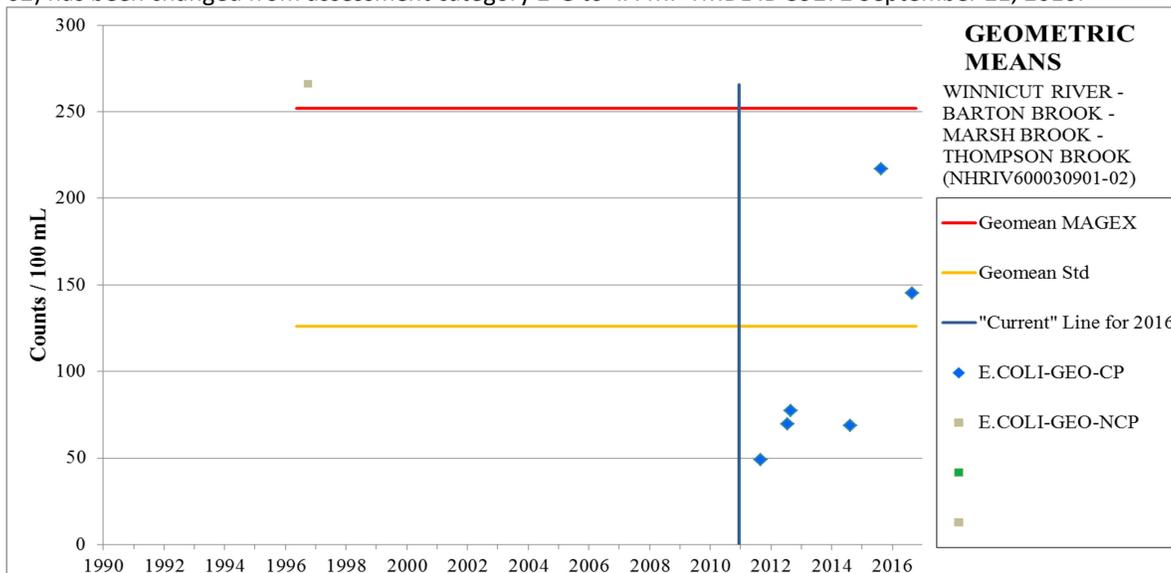
Bacteria – Non-Beaches

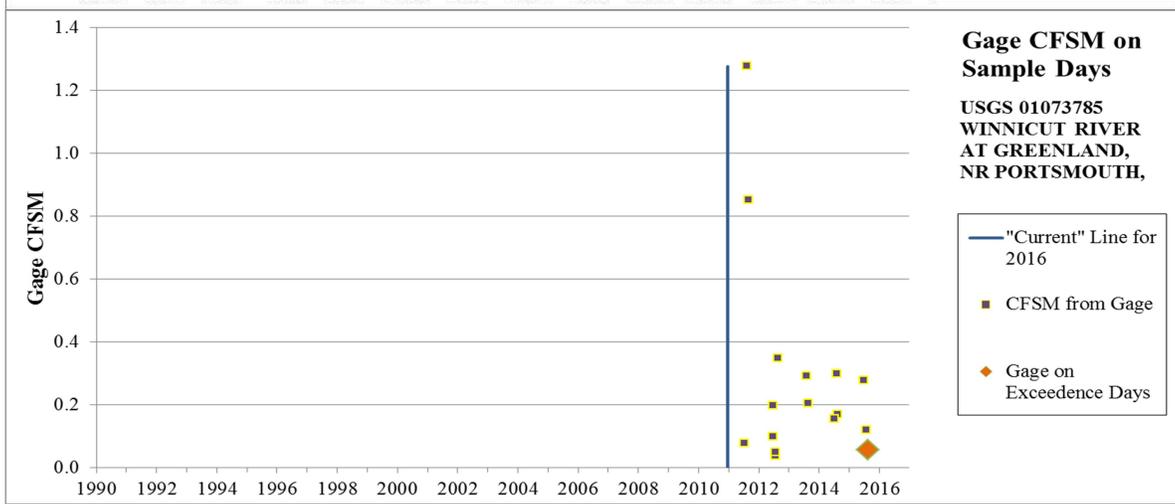
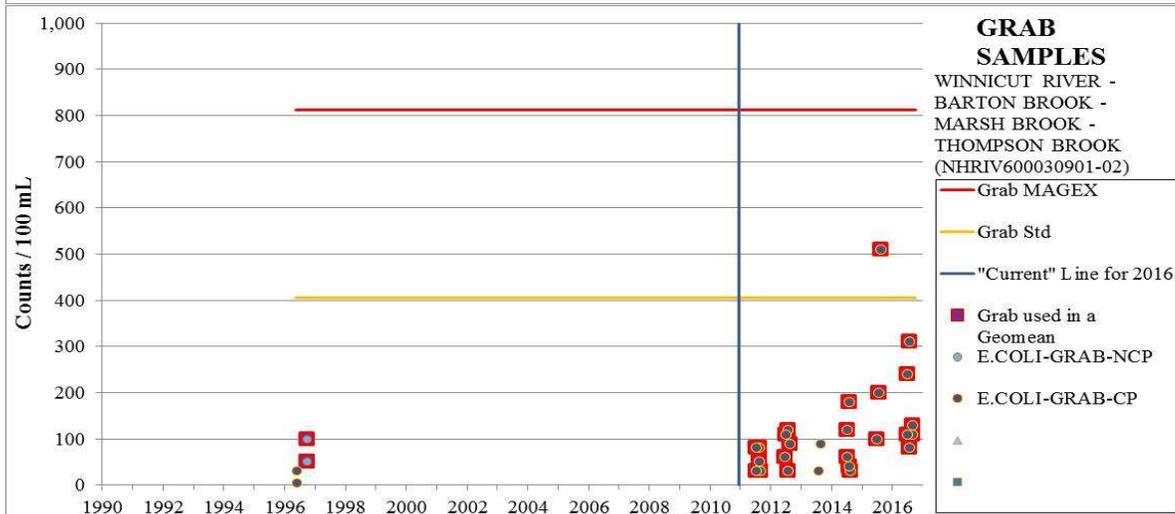
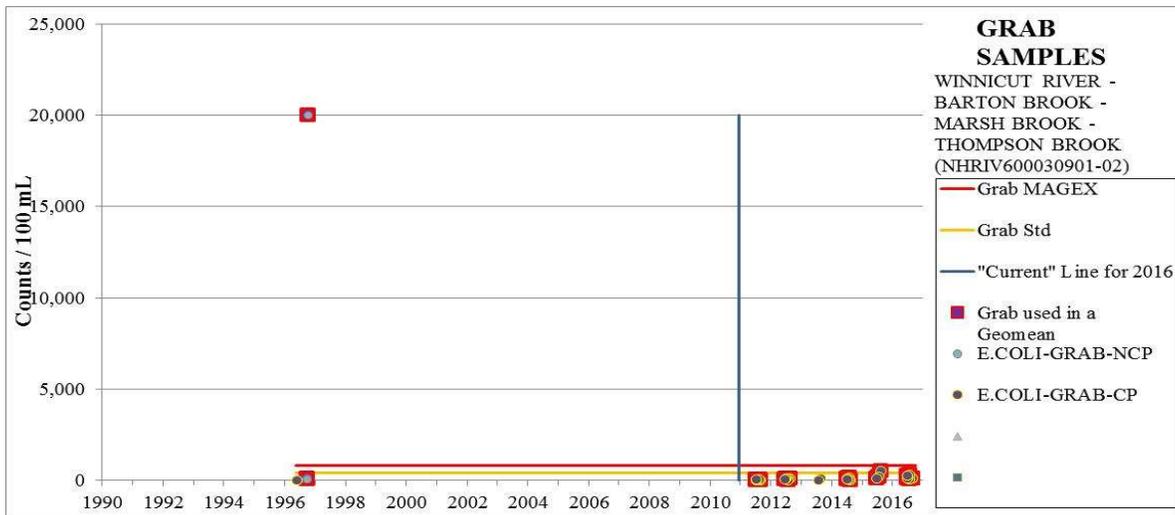
WINNICUT RIVER - BARTON BROOK - MARSH BROOK - THOMPSON BROOK (NHRIV600030901-02)

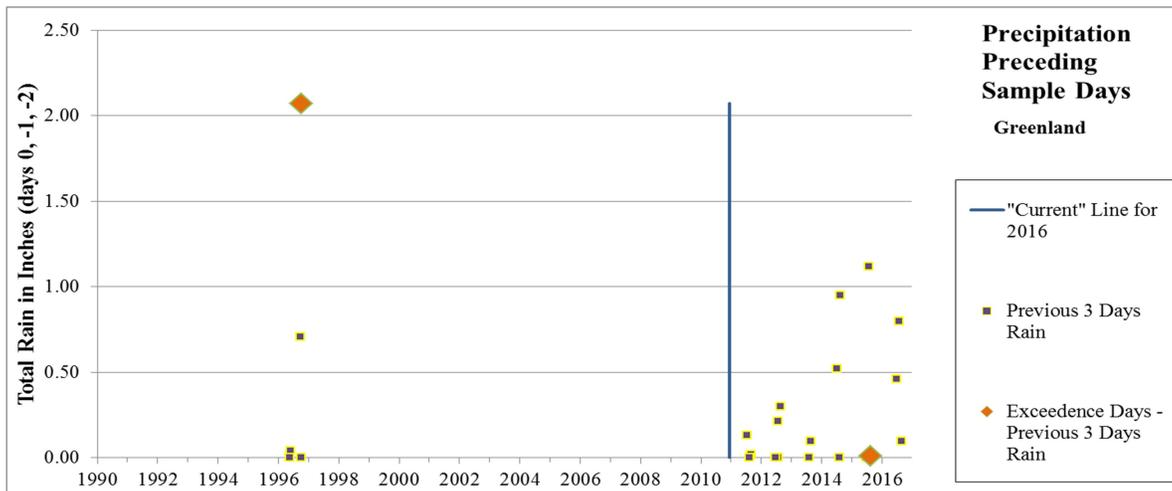
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WINNICUT RIVER - BARTON BROOK - MARSH BROOK - THOMPSON BROOK	NHRIV600030901-02	<i>Escherichia coli</i>	Greenland	2-G	4A-M

Designated Use: Primary contact recreation

Two out of six geometric means in the current assessment period are above the bacteria standard. One high grab sample over the standard relates to low flow and no rainfall at station 11-WNC. Additional stations sampled that were calculated into the geometric mean are 02-TBK and 05-WNC. Grab sample results appear to slowly be increasing. Winnicut River (NHRIV600030901-02) has been changed from assessment category 2-G to 4A-M. TMDL ID 39272 September 21, 2010.







Notes:

- E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during the summer critical period.
 - E. COLI -GEO-NCP = *Escherchia coli* geometric mean calculated from samples collected outside the summer critical period.
 - E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.
 - E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.
- “Current” Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered “current”. Available older data is provided for context. See the 2016 CALM for additional details.

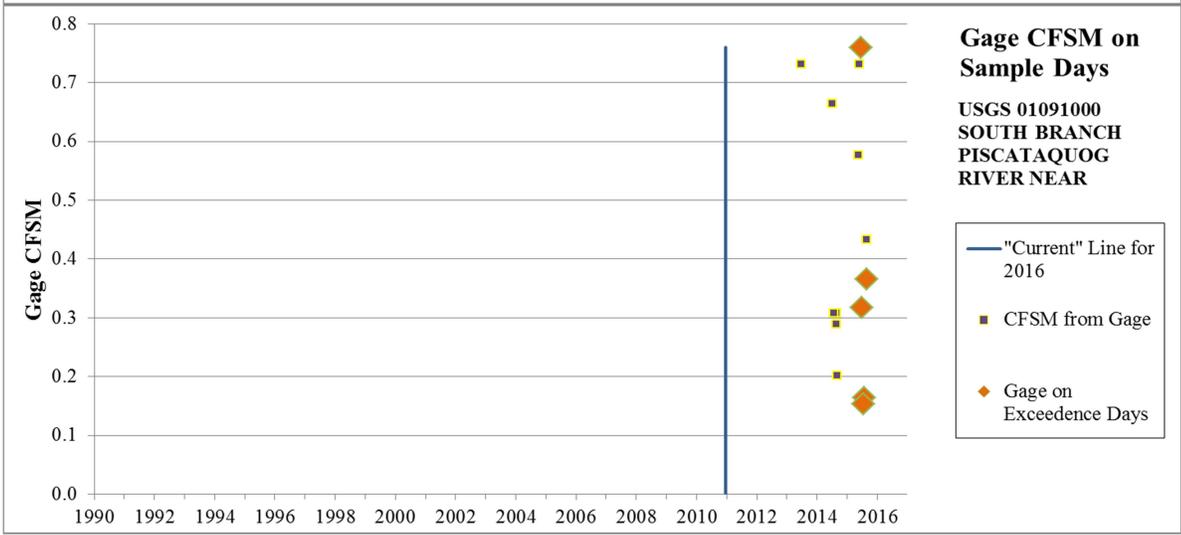
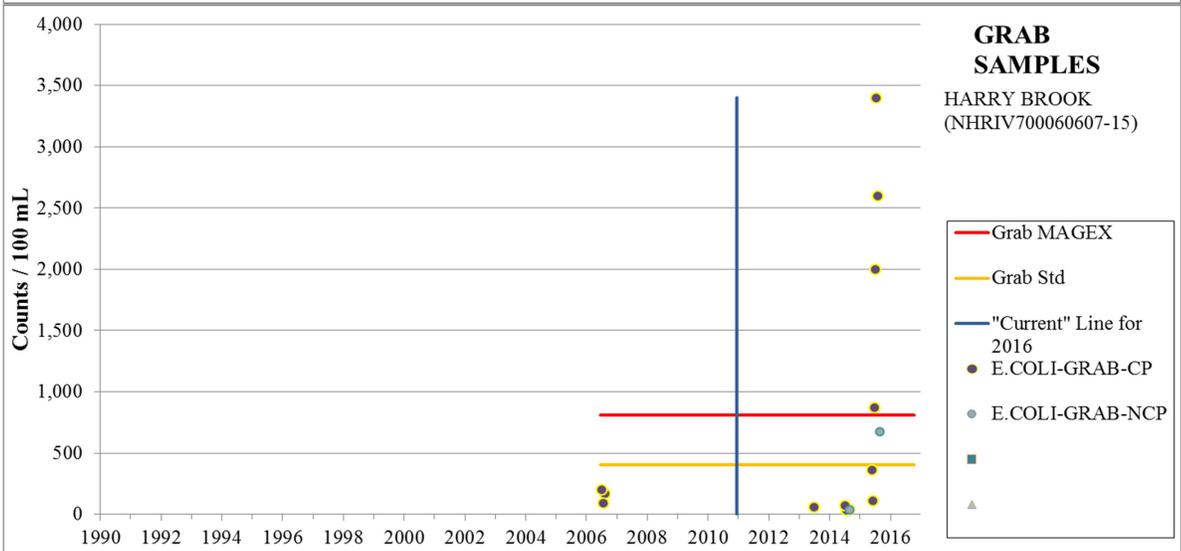
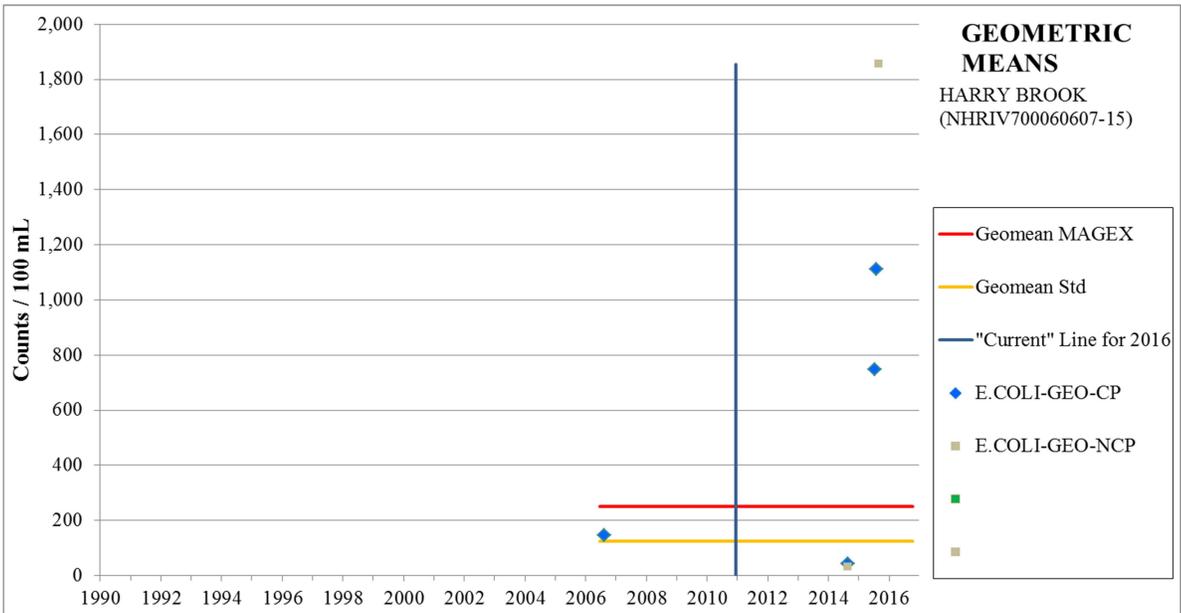
HARRY BROOK (NHRIV700060607-15)

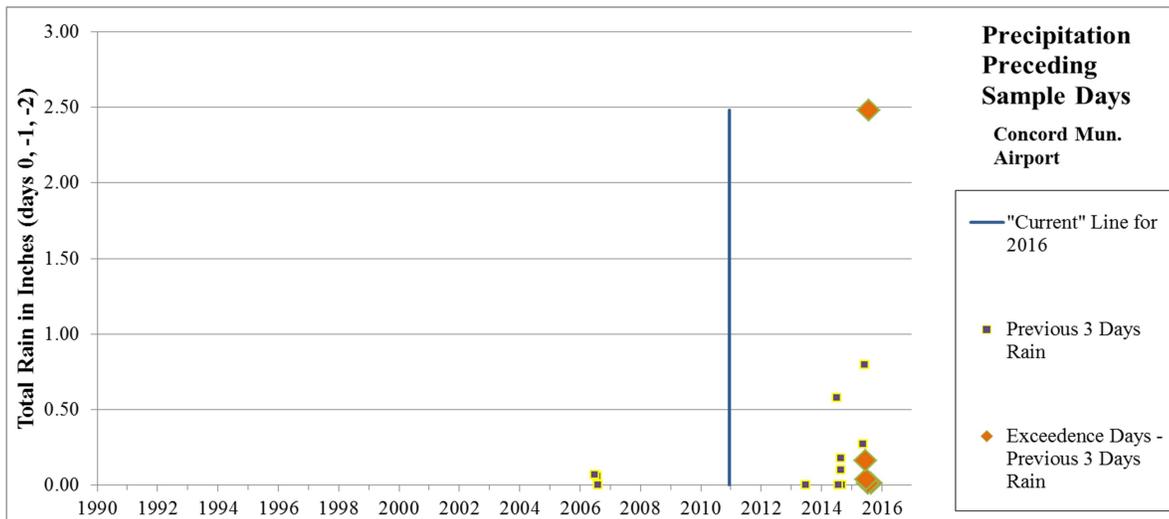
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
Harry Brook	NHRIV700060607-15	<i>Escherichia coli</i>	Goffstown	3-PAS	4A-P

Designated Use: Secondary contact recreation

CHANGED SINCE DRAFT - This AUID/Parameter combination already has an approved TMDL (TMDL ID 39272 September 21, 2010) based on the primary contact recreation designated use which has a more stringent bacteria criteria. This designated use should have gone directly to 4A in the 2016 draft 303(d).

In this assessment period there were five geometric means calculated. Two geometric means are above the magnitude of exceedence threshold which is two times the water quality criteria during the critical period and one geometric mean above the magnitude of exceedence during the non-critical period. 40% of grab samples exceeded the magnitude of exceedence threshold. All samples were collected at station O2-HRB. Harry Brook (NHRIV700060607-15) has been changed from assessment category 3-PAS to 4A-P.





Notes:

- E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during the summer critical period.
 - E. COLI -GEO-NCP = *Escherchia coli* geometric mean calculated from samples collected outside the summer critical period.
 - E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.
 - E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.
- “Current” Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered “current”. Available older data is provided for context. See the 2016 CALM for additional details.

WWTFs currently in “significant non-compliance”

Assessment Category 4B is reserved for cases where a waterbody is impaired or threatened for one or more designated uses but does not require the development of a TMDL because other pollution control requirements are reasonably expected to result in attainment of the water quality standard in the near future.

LAMPREY RIVER (NHRIV600030703-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LAMPREY RIVER	NHRIV600030703-18	PHOSPHORUS (TOTAL)	EPPING	N/A	4B-T

Designated Use: Aquatic Life

The Epping WWTF was in violation of its NPDES permit (effective April 1, 2000) in February (concentration only), May and June 2016, and February, March, April and July 2017 for effluent phosphorous daily maximum concentration and load limit violations. The facility was intermittently in "significant non-compliance" with its NPDES permit for exceeding its effluent phosphorous daily maximum concentration and load limits in excess of 40 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. Due to Epping’s compliance history EPA issued Order for Compliance CWA-AO-R01-FY-16-07 dated June 9, 2016 requiring Epping to procure the services of a licensed professional engineer with biological nutrient removal expertise to evaluate Epping’s WWTF and make recommendations for improvements to ensure compliance with its NPDES permit limits.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LAMPREY RIVER	NHRIV600030703-18	Total Suspended Solids (TSS)	EPPING	N/A	4B-T

Designated Use: Aquatic Life

The Epping WWTF was in violation of its NPDES permit (effective April 1, 2000) in February (concentration only), May and June 2016, and February, March, April and July 2017 for effluent phosphorous daily maximum concentration and load limit violations. The facility was intermittently in "significant non-compliance" with its NPDES permit for exceeding its effluent

phosphorous daily maximum concentration and load limits in excess of 40 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. Due to Epping's compliance history EPA issued Order for Compliance CWA-AO-R01-FY-16-07 dated June 9, 2016 requiring Epping to procure the services of a licensed professional engineer with biological nutrient removal expertise to evaluate Epping's WWTF and make recommendations for improvements to ensure compliance with its NPDES permit limits.

JOHNS RIVER - CHASE BROOK (NHRIV801030102-08)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
JOHNS RIVER - CHASE BROOK	NHRIV801030102-08	Copper	DALTON	3-PNS	4B-T

Designated Use: Aquatic Life

The Whitefield WWTF was in violation of its NPDES permit (effective December 1, 2014) January thru April 2015, January thru March 2016 and February 2017 for effluent copper monthly average concentration limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 through July 2017 for exceeding its effluent copper monthly average concentration limits in excess of 20 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. EPA issued Whitefield AOC CWA-AO-R01-FY16-11 on May 25, 2016 to address its NPDES permit violations. Whitefield is to evaluate its current WWTF and upgrade its WWTF as necessary to achieve full compliance with its NPDES permit limits.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
JOHNS RIVER - CHASE BROOK	NHRIV801030102-08	PHOSPHORUS (TOTAL)	DALTON	N/A	4B-T

Designated Use: Aquatic Life

The Whitefield WWTF was in violation of its NPDES permit (effective December 1, 2014) in April thru October 2015, April thru October 2016, and April thru July 2017 for effluent phosphorous monthly average concentration limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 through July 2017 for exceeding its effluent phosphorous monthly average concentration limits in excess of 40 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. EPA issued Whitefield AOC CWA-AO-R01-FY16-11 on May 25, 2016 to address its NPDES permit violations. Whitefield is to evaluate its current WWTF and upgrade its WWTF as necessary to achieve full compliance with its NPDES permit limits.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
JOHNS RIVER - CHASE BROOK	NHRIV801030102-08	ALUMINUM	DALTON	N/A	4B-T

Designated Use: Aquatic Life

The Whitefield WWTF was in violation of its NPDES permit (effective December 1, 2014) in July thru December 2016 and April thru July 2017 for effluent aluminum monthly average concentration limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 through July 2017 for exceeding its effluent aluminum monthly average concentration limits in excess of 20 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. EPA issued Whitefield AOC CWA-AO-R01-FY16-11 on May 25, 2016 to address its NPDES permit violations. Whitefield is to evaluate its current WWTF and upgrade its WWTF as necessary to achieve full compliance with its NPDES permit limits.

SOUTH BRANCH ASHUELOT RIVER (NHRIV802010303-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SOUTH BRANCH ASHUELOT RIVER	NHRIV802010303-18	Copper	TROY	3-PNS	4B-T

Designated Use: Aquatic Life

The Troy WWTF was in violation of its NPDES permit (effective December 1, 2013) in July, October and November 2014, March, April, and May 2015, and February thru May 2017 for effluent copper monthly average concentration limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent copper monthly average concentration limits in excess of 20 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. Troy has made some process improvements during this time to reduce and/or eliminate its effluent permit violations, and continues to work towards

permit compliance.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SOUTH BRANCH ASHUELOT RIVER	NHRIV802010303-18	PHOSPHORUS (TOTAL)	TROY	N/A	4B-T

Designated Use: Aquatic Life

The Troy WWTF was in violation of its NPDES permit (effective December 1, 2013) in July 2014 for effluent monthly average phosphorous load limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent phosphorous monthly average loading limits in excess of 20 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. Troy has made some process improvements during this time to reduce and/or eliminate its effluent permit violations, and continues to work towards permit compliance.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SOUTH BRANCH ASHUELOT RIVER	NHRIV802010303-18	AMMONIA (TOTAL)	TROY	N/A	4B-T

Designated Use: Aquatic Life

Troy WWTF was in violation of its NPDES permit (effective December 1, 2013) in April, May and June 2015, and March, April and May 2017 for effluent ammonia nitrogen as nitrogen monthly average concentration limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent ammonia nitrogen as nitrogen monthly average concentration limits in excess of 40 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. Troy has made some process improvements during this time to reduce and/or eliminate its effluent permit violations, and continues to work towards permit compliance.

CONNECTICUT RIVER (NHRIV801010404-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
CONNECTICUT RIVER	NHRIV801010404-02	BOD, Biochemical oxygen demand	COLUMBIA	N/A	4B-T

Designated Use: Aquatic Life

The Colebrook WWTF was in violation of its NPDES permit (effective January 3, 2012) in February, March and April 2015 for effluent BOD monthly average concentration limit violations. The facility was in "significant non-compliance" for exceeding its BOD monthly average concentration limits in excess of 40 percent for at least two months during two consecutive quarter review periods. NHDES issued a Notice of Findings on October 16, 2015 to Colebrook to address deficiencies at its WWTF and in turn eliminate its NPDES permit violations. It should be noted that the Colebrook WWTF (permit NH0100315) discharges directly to assessment unit NHRIV801010305-02. However, the outfall is approximately 150 feet upstream of assessment unit NHRIV801010404-02. Because the WWTF is more apt to affect the downstream assessment unit, any significant noncompliance issues will be associated to assessment unit NHRIV801010404-02.

SOUHEGAN RIVER (NHRIV700060906-16)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SOUHEGAN RIVER	NHRIV700060906-16	Copper	AMHERST	N/A	4B-T

Designated Use: Aquatic Life

The Milford WWTF was in violation of its NPDES permit (effective March 24, 2000) in January 2015 for effluent copper monthly average concentration limit violation. The facility was in "significant non-compliance" for exceeding its interim effluent copper monthly average concentration limits in January 2015 as outlined in former EPA AO 03-08. Milford addressed its issues and has remained in compliance through July 2017.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SOUHEGAN RIVER	NHRIV700060906-16	Total Suspended	AMHERST	N/A	4B-T

Solids (TSS)

Designated Use: Aquatic Life

The Milford WWTF was in violation of its NPDES permit (effective March 24, 2000) in January, March, April and May 2015 for effluent TSS monthly average concentration limit violations. The facility was in "significant non-compliance" for exceeding its effluent TSS monthly average concentration limits in excess of 40 percent for at least two months during two consecutive quarter review periods and in any excess for at least four months during two consecutive quarter review periods.

BLOODS BROOK - UNNAMED BROOK (NHRIV801060301-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BLOODS BROOK - UNNAMED BROOK	NHRIV801060301-05	Copper	PLAINFIELD	N/A	4B-T

Designated Use: Aquatic Life

The Meriden Village Water District (MVWD) WWTF was in violation of its NPDES permit (effective September 1, 2014) from September 2014 thru April 2015, August and September 2015, November 2015 thru March 2016, and November 2016 thru April 2017 for effluent copper monthly average concentration limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent copper monthly average concentration limits in excess of 20 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. MVWD has been working towards a groundwater discharge via Rapid Infiltration Basins (RIBs). Most recently in March 2017 MVWD applied for a temporary groundwater discharge permit to pilot test RIBs. On July 21, 2017 MVWD was issued a 2-year temporary groundwater discharge permit to pilot test RIBs located at the same site as the WWTF.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BLOODS BROOK - UNNAMED BROOK	NHRIV801060301-05	PHOSPHORUS (TOTAL)	PLAINFIELD	N/A	4B-T

Designated Use: Aquatic Life

The Meriden Village Water District (MVWD) WWTF was in violation of its NPDES permit (effective September 1, 2014) in September 2014, April thru October 2015, April and May 2016, July thru October 2016, and April thru July 2017 for effluent phosphorous monthly average load limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent phosphorous monthly average loading limits in excess of 20 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. MVWD has been working towards a groundwater discharge via Rapid Infiltration Basins (RIBs). Most recently in March 2017 MVWD applied for a temporary groundwater discharge permit to pilot test RIBs. On July 21, 2017 MVWD was issued a 2-year temporary groundwater discharge permit to pilot test RIBs located at the same site as the WWTF.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BLOODS BROOK - UNNAMED BROOK	NHRIV801060301-05	AMMONIA (TOTAL)	PLAINFIELD	N/A	4B-T

Designated Use: Aquatic Life

The Meriden Village Water District (MVWD) WWTF was in violation of its NPDES permit (effective September 1, 2014) in May and June 2015, May and June 2016, and May and June 2017 for effluent ammonia nitrogen as nitrogen monthly average concentration limits. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent ammonia nitrogen as nitrogen monthly average concentration limits in excess of 40 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. MVWD has been working towards a groundwater discharge via Rapid Infiltration Basins (RIBs). Most recently in March 2017 MVWD applied for a temporary groundwater discharge permit to pilot test RIBs. On July 21, 2017 MVWD was issued a 2-year temporary groundwater discharge permit to pilot test RIBs located at the same site as the WWTF.

WARNER RIVER (NHRIV700030304-16)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
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WARNER RIVER	NHRIV700030304-16	Copper	WARNER	N/A	4B-T
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Designated Use: Aquatic Life

The Warner Village Water District (WVWD) WWTF was in violation of its NPDES permit (effective September 28, 2015) from October 2015 thru July 2017 for effluent copper monthly average concentration limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent copper monthly average concentration limits in excess of 20 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. WVWD has been working towards a groundwater discharge. A formal enforcement action by EPA is anticipated.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WARNER RIVER	NHRIV700030304-16	PHOSPHORUS (TOTAL)	WARNER	N/A	4B-T

Designated Use: Aquatic Life

The Warner Village Water District (WVWD) WWTF was in violation of its NPDES permit (effective September 28, 2015) in October 2015, June thru August 2016 and June 2017 for effluent phosphorous monthly average load limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent copper monthly average concentration limits in excess of 40 percent for at least two months during two consecutive quarter review periods. WVWD has been working towards a groundwater discharge. A formal enforcement action by EPA is anticipated.

SUNCOOK RIVER (NHRIV700060501-16)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SUNCOOK RIVER	NHRIV700060501-16	PHOSPHORUS (TOTAL)	PITTSFIELD	N/A	4B-T

Designated Use: Aquatic Life

The Pittsfield WWTF was in violation of its NPDES permit (effective April 1, 2015) from April thru October 2015, and in April and May 2016 for effluent phosphorous monthly average load limit violations. The facility has intermittently been in "significant non-compliance" during the period of July 2014 thru July 2017 for exceeding its effluent phosphorous monthly average loading limits in excess of 40 percent for at least two months during two consecutive quarter review periods and/or in any excess for at least four months during two consecutive quarter review periods. NHDES issued AOC 16-014 WD on August 11, 2016 for Pittsfield to optimize its existing treatment processes to improve phosphorous removal capacity and efficiency, update its Facility Plan, and implement upgrades to its WWTF as necessary. Pittsfield has implemented chemical addition to eliminate its effluent phosphorous monthly average loading permit violations. Pittsfield has been in compliance with its NPDES permit limits since July 2016.

LAMPREY RIVER NORTH (NHEST600030709-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LAMPREY RIVER NORTH	NHEST600030709-01-01	Total Suspended Solids (TSS)	NEWMARKET	N/A	4B-T

Designated Use: Aquatic Life

The Newmarket WWTF was in violation of its NPDES permit (effective February 1, 2013) in January, March, April and June 2017 for effluent TSS monthly average concentration limit violations. The facility was in "significant non-compliance" for exceeding its TSS monthly average concentration limits for at least four months during two consecutive quarter review periods. Newmarket is currently undergoing a substantial WWTF upgrade per EPA AOC 13-009.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LAMPREY RIVER NORTH	NHEST600030709-01-01	BOD, Biochemical oxygen demand	NEWMARKET	N/A	4B-T

Designated Use: Aquatic Life

The Newmarket WWTF was in violation of its NPDES permit (effective February 1, 2013) in December 2016 thru March 2017 and

May and June 2016 for effluent BOD monthly average concentration limit violations. The facility was in "significant non-compliance" for exceeding its BOD monthly average concentration limits for at least four months during two consecutive quarter review periods. Newmarket is currently undergoing a substantial WWTF upgrade per EPA AOC 13-009.

CONTOOCCOOK RIVER - US OF PETERBOROUGH WWTF TO BOGLIE BK (NHRIV700030104-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
CONTOOCCOOK RIVER - US OF PETERBOROUGH WWTF TO BOGLIE BK	NHRIV700030104-18	Total Suspended Solids (TSS)	PETERBOROUGH	N/A	4B-T

Designated Use: Aquatic Life

The Peterborough WWTF was in violation of its NPDES permit (effective December 1, 2016) in December 2016 and January and February 2017 for effluent TSS daily maximum concentration limit violations. The facility was in "significant non-compliance" for exceeding its TSS daily maximum concentration limits in excess of 40 percent for at least two months during two consecutive quarter review periods. NHDES Operations is currently assisting Peterborough WWTF.

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
CONTOOCCOOK RIVER - US OF PETERBOROUGH WWTF TO BOGLIE BK	NHRIV700030104-18	ALUMINUM	PETERBOROUGH	N/A	4B-T

Designated Use: Aquatic Life

The Peterborough WWTF was in violation of its NPDES permit (effective December 1, 2016) in January thru March 2017 for effluent aluminum monthly average concentration limit violations. The facility was in "significant non-compliance" for exceeding its aluminum daily maximum concentration limits in excess of 20 percent for at least two months during two consecutive quarter review periods. NHDES Operations is currently assisting Peterborough WWTF.