STATE OF NEW HAMPSHIRE

Impairments Added to the 2016 303(d) List of Threatened or Impaired Waters

November 30, 2017

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

STATE OF NEW HAMPSHIRE

Impairments Added to the 2016 303(d) List of Threatened or Impaired Waters

STATE OF NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES
29 HAZEN DRIVE
CONCORD, N.H. 03302

ROBERT R. SCOTT
COMMISSIONER

CLARK B. FREISE
ASSISTANT COMMISSIONER

EUGENE FORBES, P.E.
DIRECTOR
WATER DIVISION

Prepared by:
Ken Edwardson

NOVEMBER 30, 2017

New Hampshire Department of Environmental Services
PO Box 95, Concord, NH 03302-0095
www.des.nh.gov | (603) 271-3503

TABLE OF CONTENTS

Introduction **6**
Bacteria – Beaches (Primary Contact recreation [i.e. Swimming]) **7**
OPECHEE LAKE BOND BEACH (NHLAK700020201-06-02) 7
Bacteria – Non-Beaches (Primary Contact recreation [i.e. Swimming]) **9**
AMMONOOSUC RIVER DAM POND (NHIMP801030506-02) 9
EXETER RIVER (NHRIV600030803-05) 11
FLAT MEADOW BROOK (NHRIV700060502-05) 13
MINK BROOK (NHRIV801040401-05) 14
Dissolved Oxygen (Aquatic Life Use Support) **15**
BROWN BROOK - TO PISCASSIC RIVER (NHRIV600030708-14) 15
NORTON BROOK (NHRIV600030901-06) 17
WHEELWRIGHT POND (NHLAK600030902-02) 19
HAWKINS POND (NHLAK700020108-04) 22
SAINT ANSELM BROOK - TO PISCATAQUOG RIVER (NHRIV700060607-35) 24
BLACK BROOK - HARDY BROOK (NHRIV700060801-05-01) 26
RIDDLE BROOK (NHRIV700060905-18) 28
LONG POND (NHLAK700061205-02-01) 30
WEST RIVER - ASH SWAMP BROOK - LILY POND BROOK - UNNAMED BROOK (NHRIV801070507-01) 33
Lake – Chlorophyll-a/Total Phosphorus (Aquatic Life Use Support) **34**
LOCKE LAKE (NHIMP700060402-02) 34
JENNESS POND (NHLAK700060502-06) 37
Cyanobacteria (Primary Contact recreation [i.e. Swimming]) **37**
SUNRISE LAKE (NHLAK600030601-05-01) 37
DOWNING POND (NHLAK700020102-02) 38
JONES POND (NHIMP700020102-01-01) 38
HOTHOLE POND (NHLAK700060302-05) 38
DARRAH POND (NHLAK700061002-01-01) 38
pH (Aquatic Life Use Support) **39**
EAST BRANCH SACO RIVER - UNNAMED BROOK - GARDINER BROOK - WHITTEN BROOK (NHRIV600020301-03 39
BRANCH RIVER (NHRIV600030402-06) 39
EAGLE ROCK BROOK (NHRIV801060402-46) 40
BOW BOG BROOK (NHRIV700060302-21) 41
PAVILLON BROOK (NHRIV700060905-25) 42
UNNAMED BROOK - TO ISINGLASS RIVER (NHRIV600030605-12) 44
UNNAMED BROOK - TO LAMPREY RIVER (NHRIV600030703-17) 44
FORDWAY BROOK (NHRIV600030801-01) 45
MILLER BROOK (NHRIV600030404-04) 46
BRANCH RIVER (NHRIV600030401-08) 47
STONY BROOK (NHRIV600020803-07) 48
UNNAMED BROOK - FROM LONG POND TO PURITY LAKE (NHRIV600020803-04) 49
DURRELL BROOK (NHRIV600020603-07) 50
BAKER RIVER (NHRIV700010302-14) 51

BAKER RIVER (NHRIV700010303-09-01) 52
BAKER RIVER (NHRIV700010303-12) 54
SOUTH BRANCH BAKER RIVER (NHRIV700010304-12) 55
BAKER RIVER (NHRIV700010305-11) 56
BAKER RIVER (NHRIV700010307-11) 58
BEAR POND BROOK (NHRIV700020108-07) 59
UNNAMED BROOK - TO MOUNTAIN BROOK RESERVOIR (NHRIV700030101-09) 60
UNNAMED BROOK - TO HODGE POND (NHRIV700030101-22) 62
STONY BROOK - UNNAMED BROOK (NHRIV700030101-35) 63
NORTH BRANCH - INTERLOCKEN DAM TO STEELS PD (NHRIV700030202-18) 65
BEAVER MEADOW BROOK (NHRIV700060302-10) 66
BOW BOG BROOK - HORSE BROOK (NHRIV700060302-20) 67
THE GULF (NHRIV700060502-06) 69
LITTLE BEAR BROOK (NHRIV700060503-12) 70
CATAMOUNT BROOK (NHRIV700060607-20) 71
SAINT ANSELM BROOK - TO PISCATAQUOG RIVER (NHRIV700060607-35) 73
COHAS BROOK - UNNAMED BROOK (NHRIV700060703-02) 74
UNNAMED BROOKS - TO KEMP BROOK (NHRIV802020202-01) 75
NORTHWOOD LAKE INLET (NHRIV700060502-50) 77
HAYWARD BROOK (NHRIV700060302-08) 78
UNNAMED BROOK - BETWEEN LITTLE BABOOSIC LAKE AND WASHER COVE BABOOSIC LAKE (NHRIV700060905-09) 79
ELBOW POND (NHLAK700010203-01) 80
BAILEY POND (NHLAK700060606-01) 82
GLEN LAKE (NHLAK700060607-01-01) 83
HEDGEHOG POND (NHLAK700061102-13-02) 84
COBBETTS POND (NHLAK700061204-01-01) 85
MOUNTAIN POND (NHLAK802020103-07) 87
ISLAND POND (NHLAK802020103-05) 88
LOVELL LAKE (NHLAK600030401-01-01) 89
MILTON POND (NHLAK600030404-01-01) 91
SALMON FALLS RIVER - GREAT FALLS UPPER DAM (NHIMP600030405-03) 92
ASHUELOT RIVER DAM POND (NHIMP802010301-02) 93
TOWNHOUSE POND (NHLAK600030404-01-02) 94
NORTHEAST POND (NHLAK600030404-02) 96
Toxics (Aquatic Life Use Support) 97
COCHECO RIVER (NHRIV600030607-15) 97
WILD MEADOW BROOK (NHRIV700010702-02) 99
BEAR BROOK (NHRIV700060503-16) 102
POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18) 104
POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18) 107

AMMONOOSUC RIVER - UNNAMED BROOK (NHRIV801030403-01) 109
TULLY BROOK - UNNAMED BROOKS (NHRIV802020203-05) 111
Macroinvertebrates (Aquatic Life Use Support) 114
ISINGLASS RIVER (NHRIV600030607-01) 114

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 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 impairments on the 2016 303(d) List 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 Not Supporting, Severe	**Poor** Not Supporting, Marginal	**Likely Bad** Insufficient Information – Potentially Not Supporting	**No Data** No Data	**Likely Good** Insufficient Information – Potentially Full Supporting	**Marginal** Full Support, Marginal	**Good** 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					

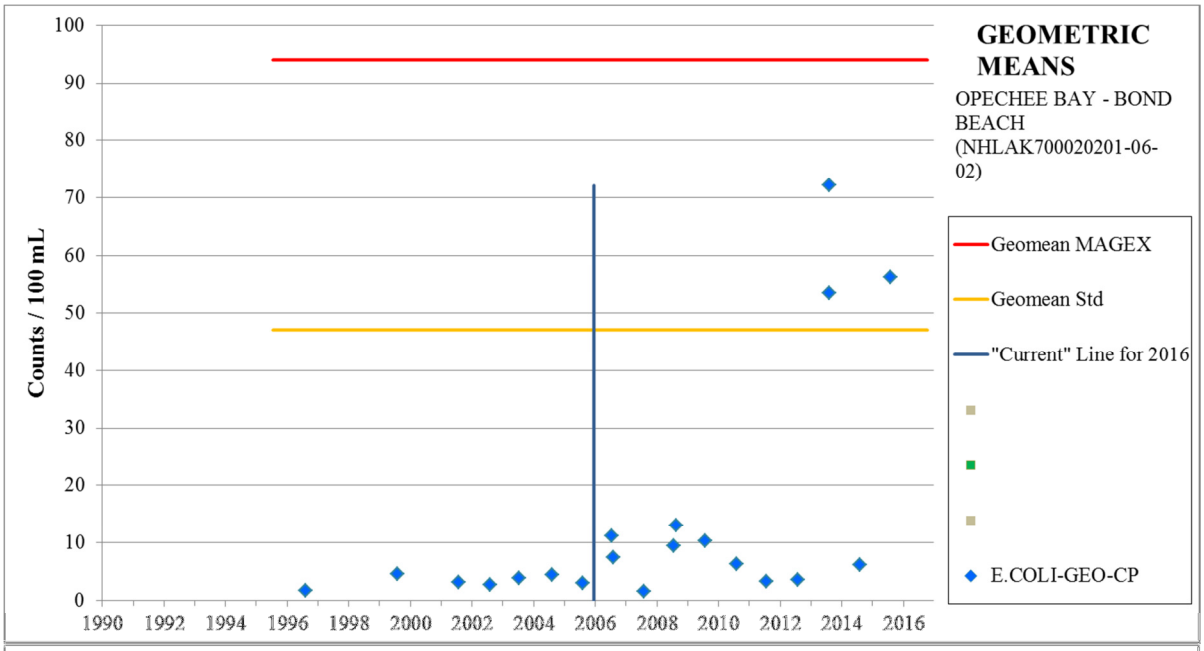
* “Category 1” only exists at the Assessment Unit Level.

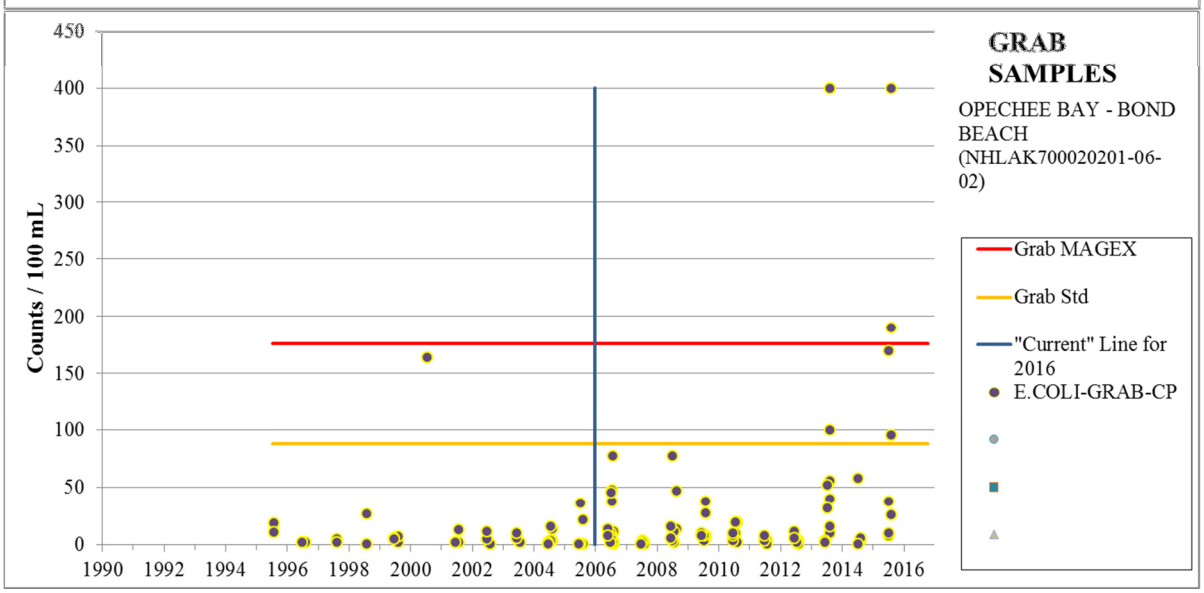
Bacteria – Beaches (Primary Contact recreation [i.e. Swimming])

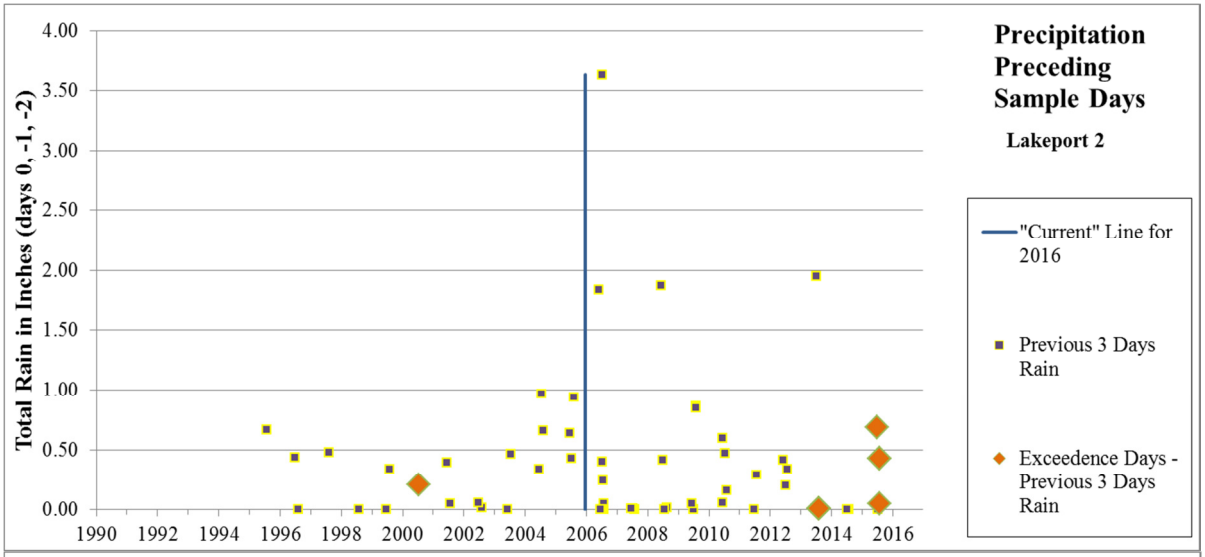
OPECHEE LAKE BOND BEACH (NHLAK700020201-06-02)

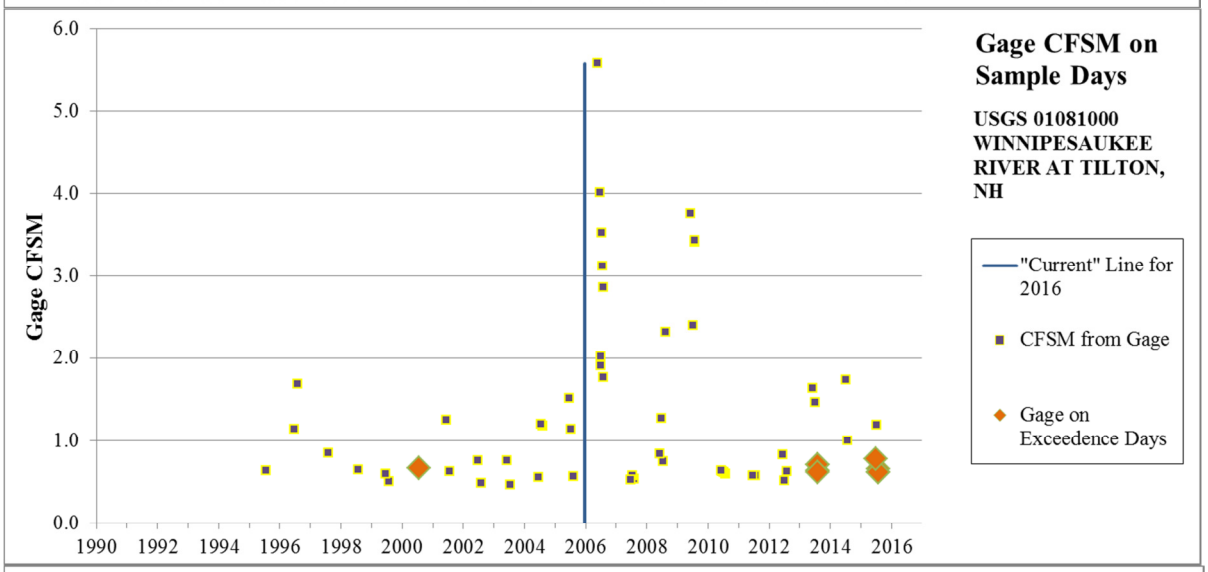
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
OPECHEE LAKE BOND BEACH	NHLAK700020201-06-02	Escherichia coli	Laconia	3-PNS	5-P

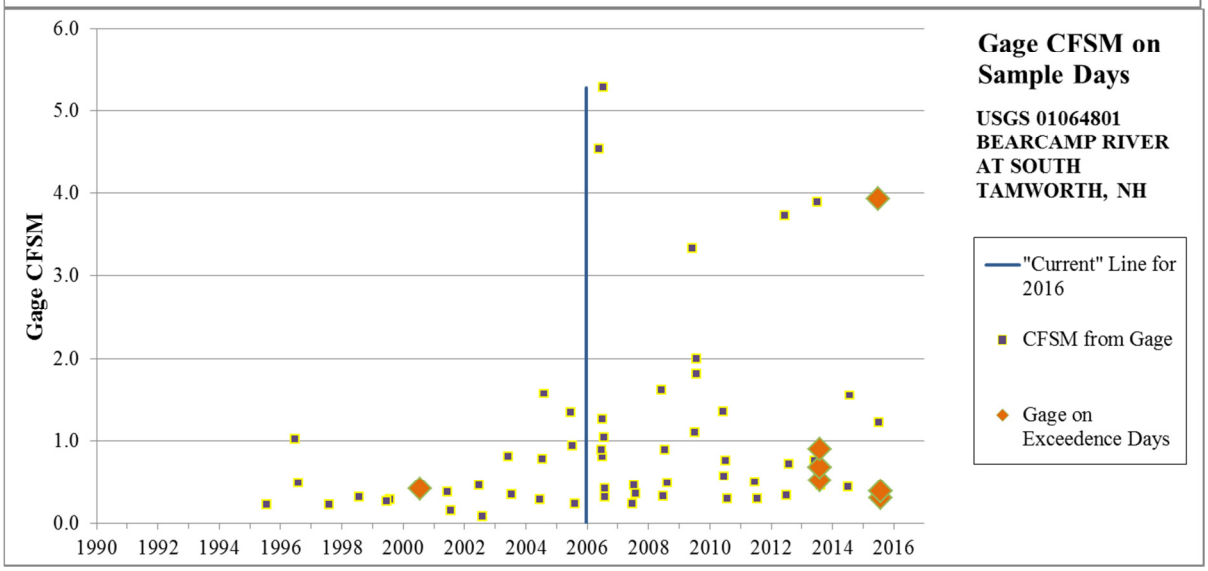
2016: The city of Laconia decided to stop sampling for *E.coli* at the beaches of Opechee Lake in 2015 and there were no samples taken in 2016. There have been three exceedences of the geometric mean criteria, occurring on August 23 and 28, 2013, and another on August 19, 2015. Six samples exceeded grab sample criteria with three of those grab samples over the MAGEX at the upper detection limit of the lab method without sample dilution, all occurring since 2013. Both the flow and preceding precipitation conditions were not especially elevated during these times with the exception of July 21, 2015, when flow conditions were elevated in the Tamworth region of the state. On this date, there was one grab sample exceedence. Overall, 23% of geometric mean samples exceeded the criteria, while 10% of grab samples were in exceedence.

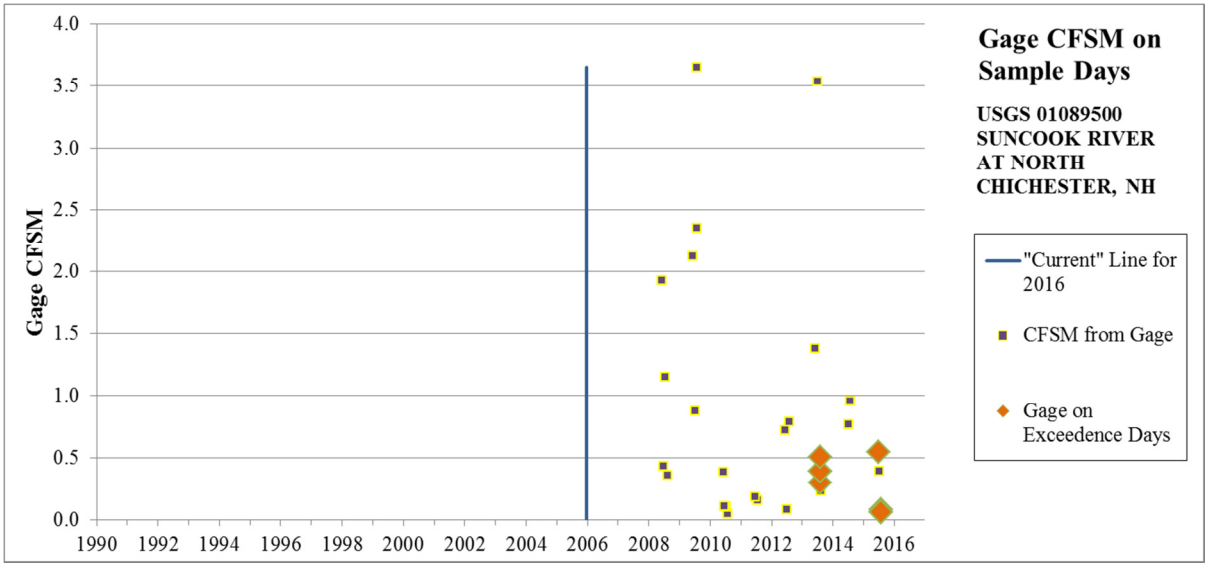





Precipitation Preceding Sample Days
Lakeport 2
Total Rain in Inches (days 0, -1, -2)
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain


Gage CFSM on Sample Days
USGS 01081000 WINNIPESAUKEE RIVER AT TILTON, NH
Gage CFSM
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days


Gage CFSM on Sample Days
USGS 01064801 BEARCAMP RIVER AT SOUTH TAMWORTH, NH
Gage CFSM
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days



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.

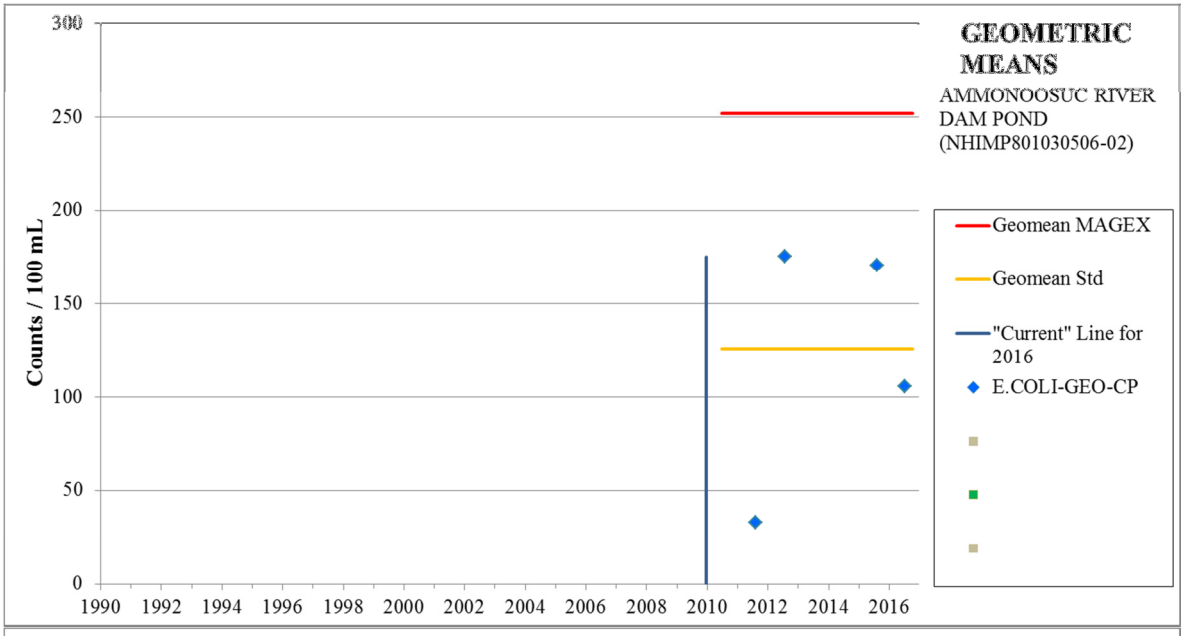
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

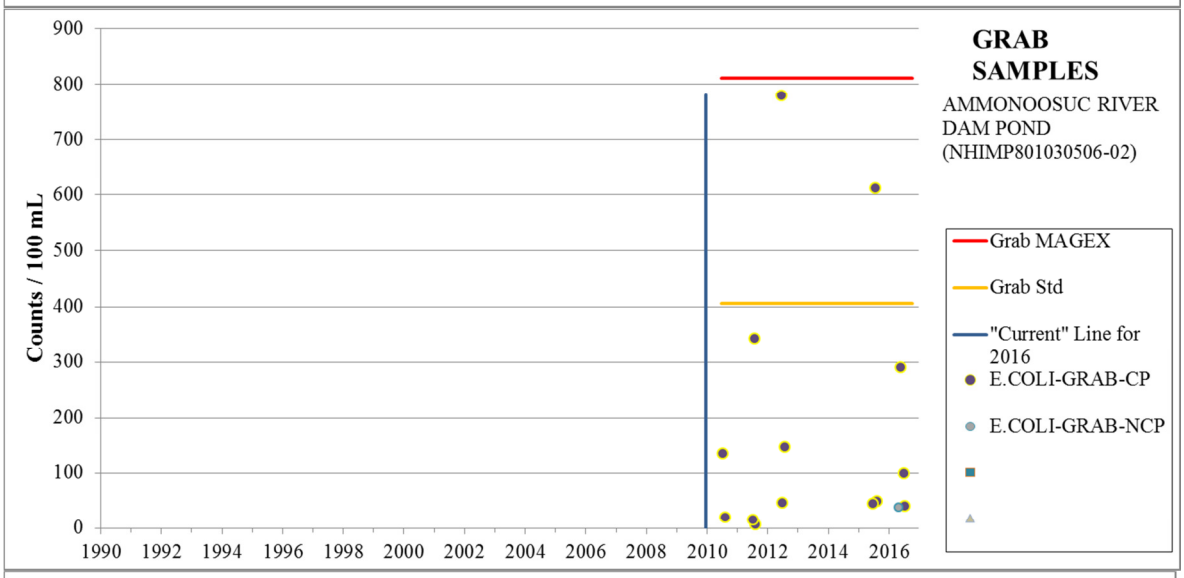
Bacteria – Non-Beaches (Primary Contact recreation [i.e. Swimming])

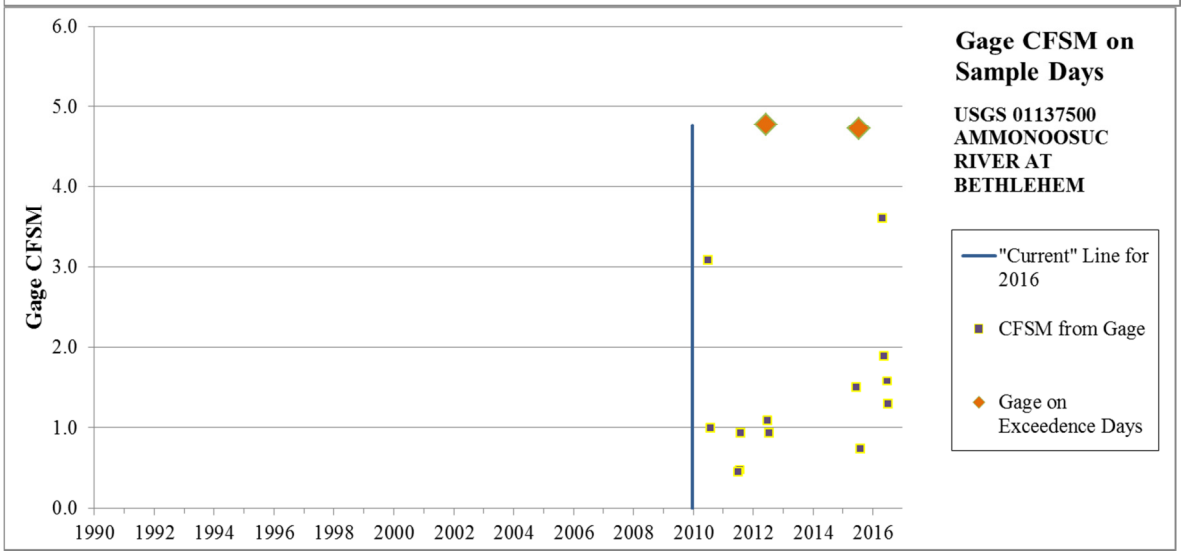
AMMONOOSUC RIVER DAM POND (NHIMP801030506-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
AMMONOOSUC RIVER DAM POND	NHIMP801030506-02	*Escherichia coli*	Bath	3-PNS	5-M

Four geometric means are included in the 2016 assessment. Two of these are above the geometric mean water quality criteria (126 cts./100 ml). Two individual samples (8/4/2015, 6/26/2012) are above the single sample water quality criteria (406 cts./100 ml). Streamflow (gage 01137500) and rainfall (Jefferson, NH; USC00274329) records indicate bacteria measurements over the grab sample criteria are associated with high streamflows (>3 cfsm) and recent rainfall (>0.40") while the geometric means incorporate a mix of flow conditions. All data collected at 04-AMM.


GEOMETRIC MEANS
AMMONOOSUC RIVER DAM POND (NHIMP801030506-02)
Counts / 100 mL
300
250
200
150
100
50
0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
Geomean MAGEX
Geomean Std
"Current" Line for 2016
E.COLI-GEO-CP


GRAB SAMPLES
AMMONOOSUC RIVER DAM POND (NHIMP801030506-02)
Counts / 100 mL
900
800
700
600
500
400
300
200
100
0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
Grab MAGEX
Grab Std
"Current" Line for 2016
E.COLI-GRAB-CP
E.COLI-GRAB-NCP


Gage CFSM on Sample Days
USGS 01137500 AMMONOOSUC RIVER AT BETHLEHEM
Gage CFSM
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days

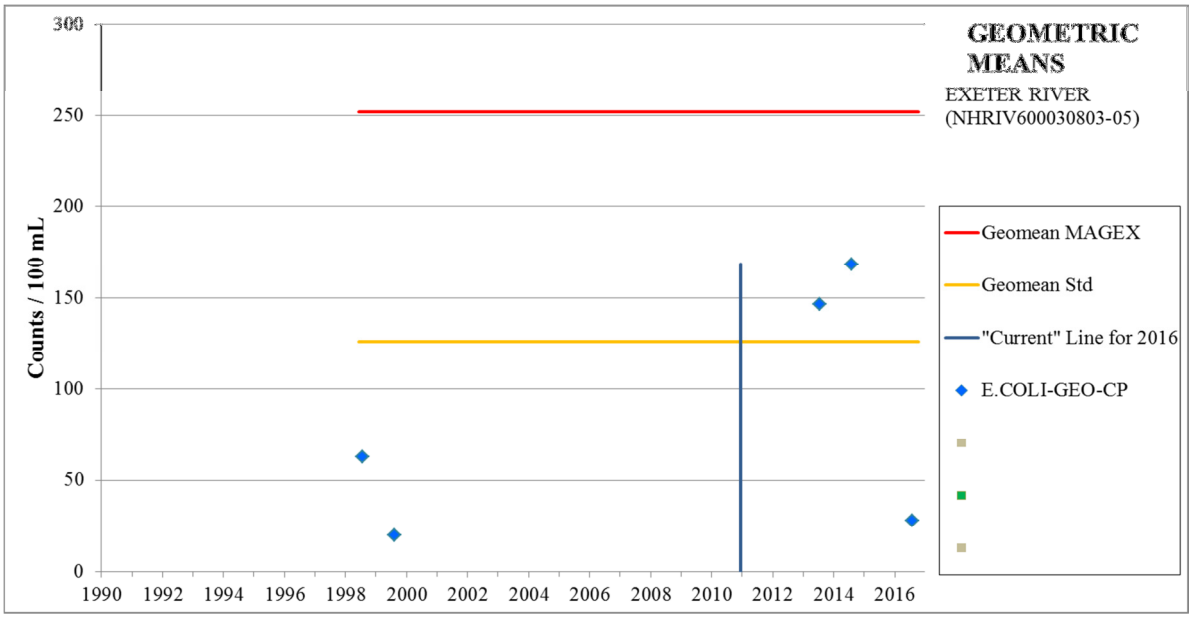
Notes:

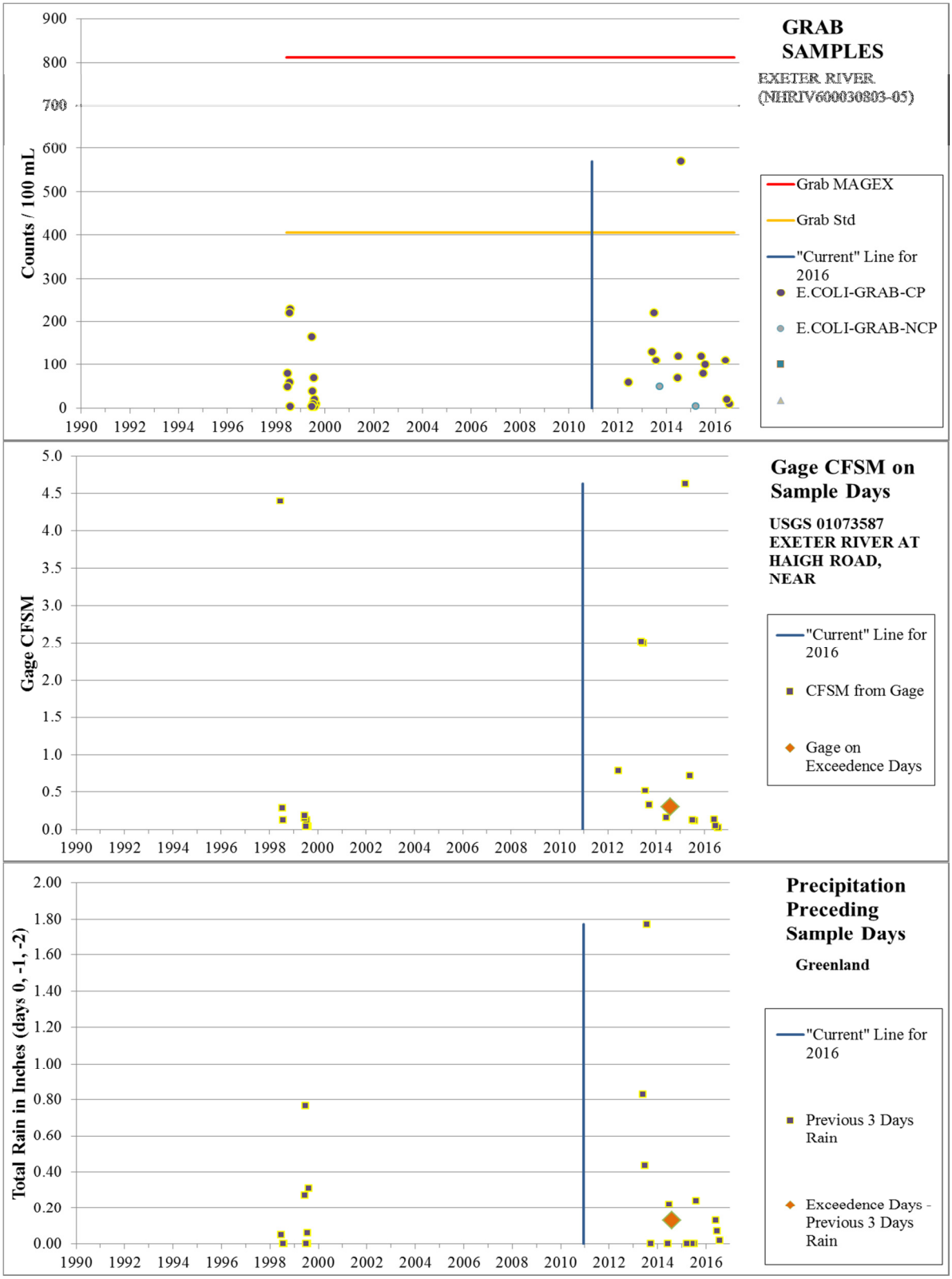
E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during the summer critical period.
E. COLI -GEO-NCP = *Escherchia coli* geometric mean calculated from samples collected outside the summer critical period.
E. COLI -GRAB-CP = *Escherchia coli* grab samples collected 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.

EXETER RIVER (NHRIV600030803-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
Exeter River	NHRIV600030803-05	*Escherichia coli*	Brentwood	3-PNS	5-M

In the current assessment period there are 13 critical period grab samples and three geometric means calculated resulting in one grab sample exceedance (570 cts/100mL) and two geometric mean exceedences (146.5, 168.5 cts/100mL). All samples in the current assessment period are from station 15-EXT which is located in a residential area and does not appear to be linked to rain or flow conditions. This station is part of the trend river monitoring project. Exeter River (NHRIV600030803-05) assessment category changed from 3-PNS to 5-M based on data collected in the current assessment period.





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.

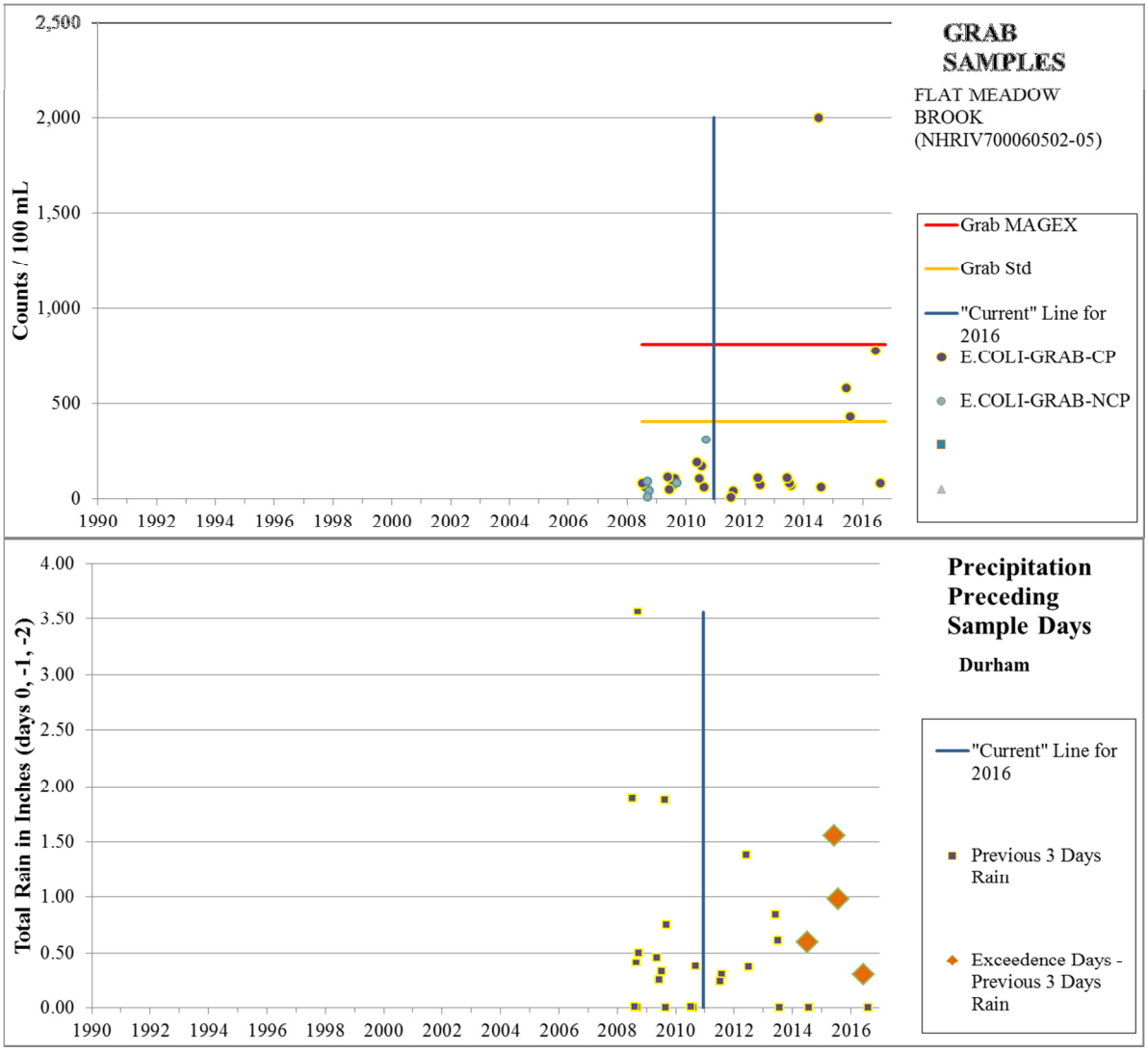
E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.

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.

FLAT MEADOW BROOK (NHRIV700060502-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
FLAT MEADOW BROOK	NHRIV700060502-05	*Escherichia coli*	Northwood	2-G	5-P

In current assessment period 4 out of 13 (31%) grab samples exceeded the standard including one exceeding the magnitude of exceedence threshold which is two times the water quality criteria. High results from grab samples all occur after some rainfall in the past three days from station NORNOR3. Flat Meadow Brook (NHRIV700060502-05) has been changed from assessment category 2-G to 5-P.



Notes:

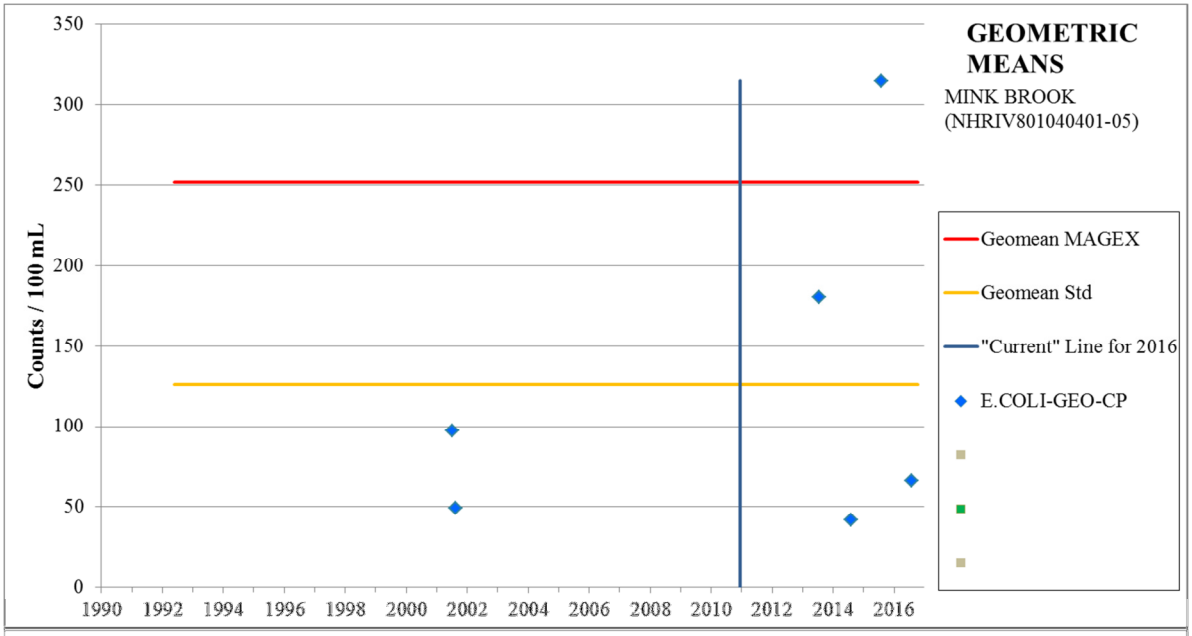
E. COLI -GRAB-CP = *Escherchia coli* grab samples collected during the summer critical period.
E. COLI -GRAB-NCP = *Escherchia coli* grab samples collected outside the summer critical period.
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is

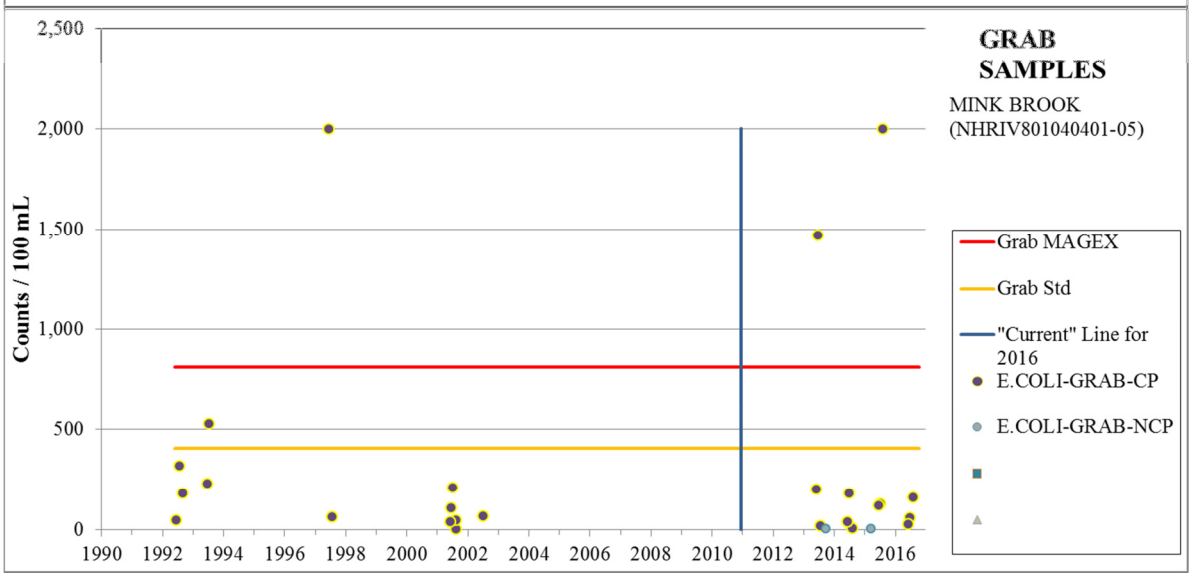
considered “current”. Available older data is provided for context. See the 2016 CALM for additional details.

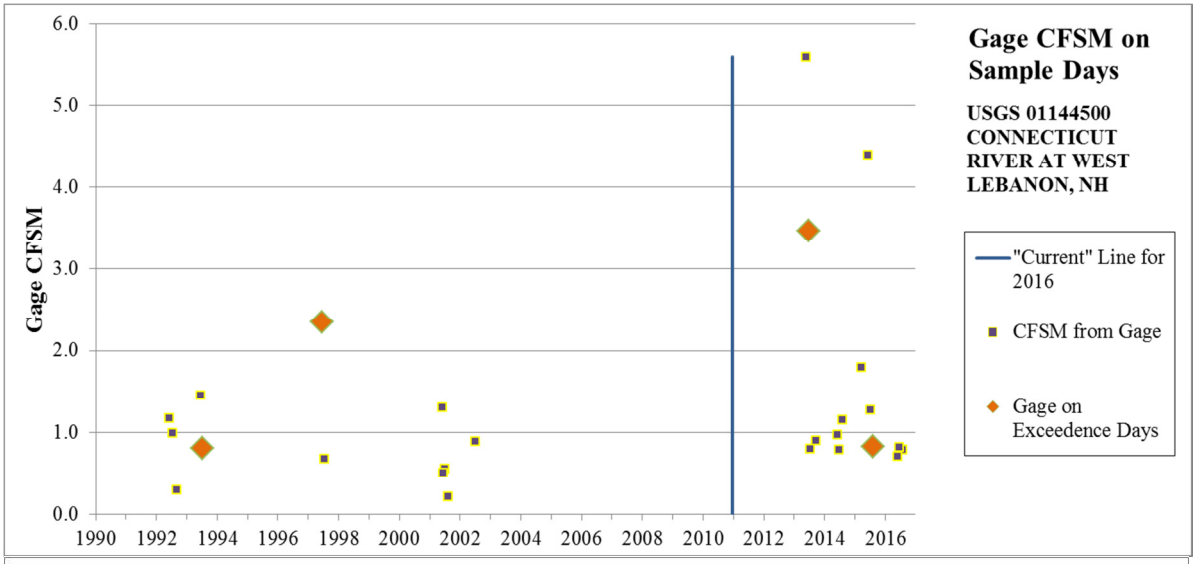
MINK BROOK (NHRIV801040401-05)

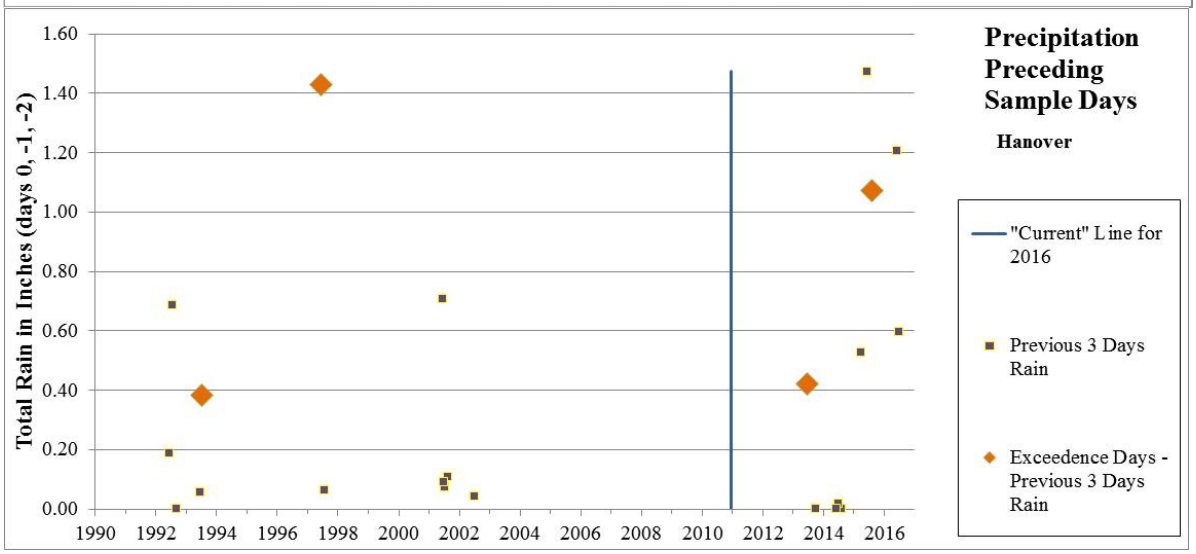
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
Mink Brook	NHRIV801040401-05	Escherichia coli	Hanover	3-PNS	5-P

There are four geometric means in current assessment period, 50% are above the standard including one geometric mean above the max exceedance. There are two grab samples above the magnitude of exceedance (twice the water quality criteria) that help drive high geometric means. The high grab samples were collected after some rainfall. All current samples were collected at station 01T-MKB, a river trend monitoring station. Mink Brook (NHRIV801040401-05) should change assessment category from 3-PNS to 5-P.









Notes:

E. COLI-GEO-CP = *Escherchia coli* geometric mean calculated from samples collected during 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.

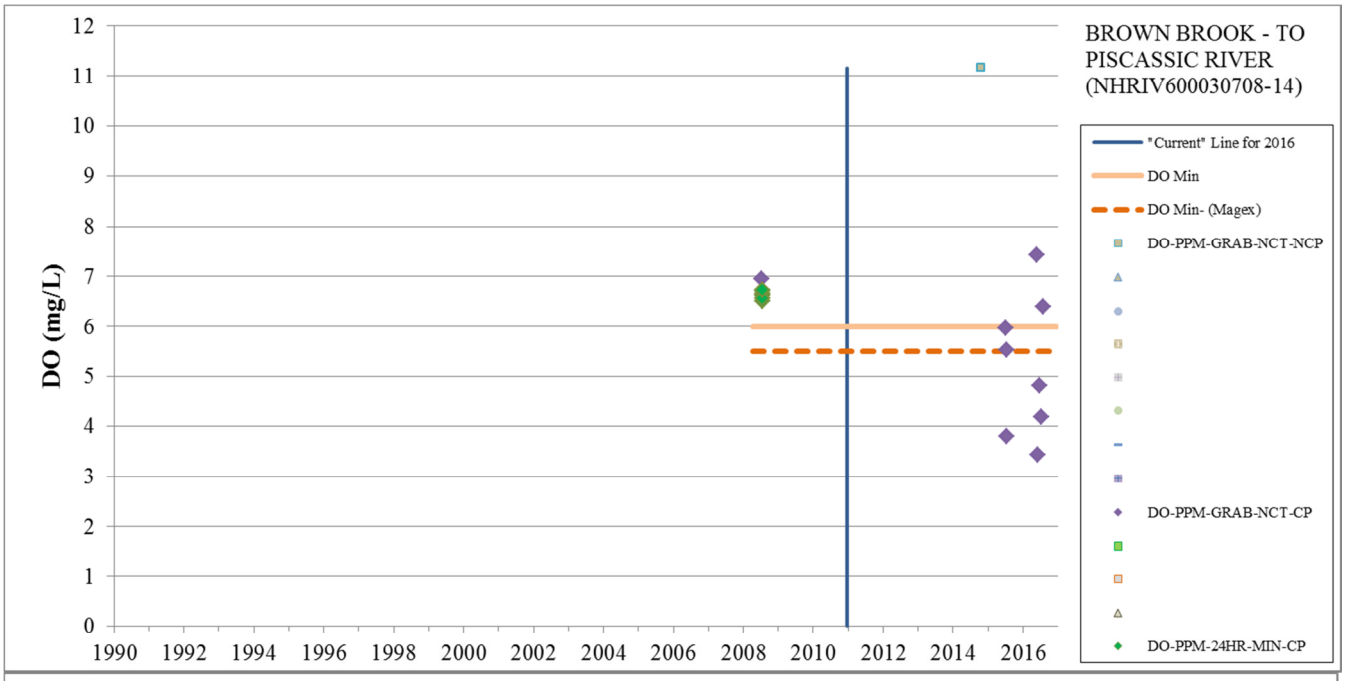
Dissolved Oxygen (Aquatic Life Use Support)

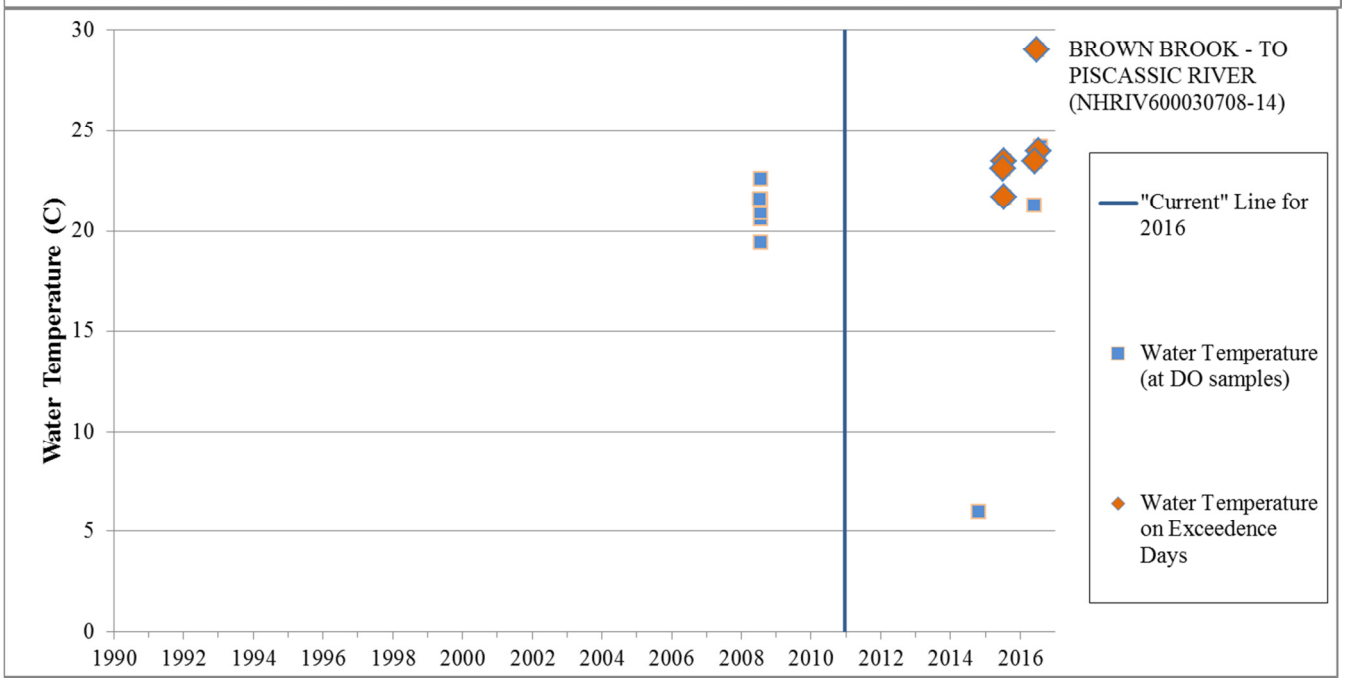
BROWN BROOK - TO PISCASSIC RIVER (NHRIV600030708-14)

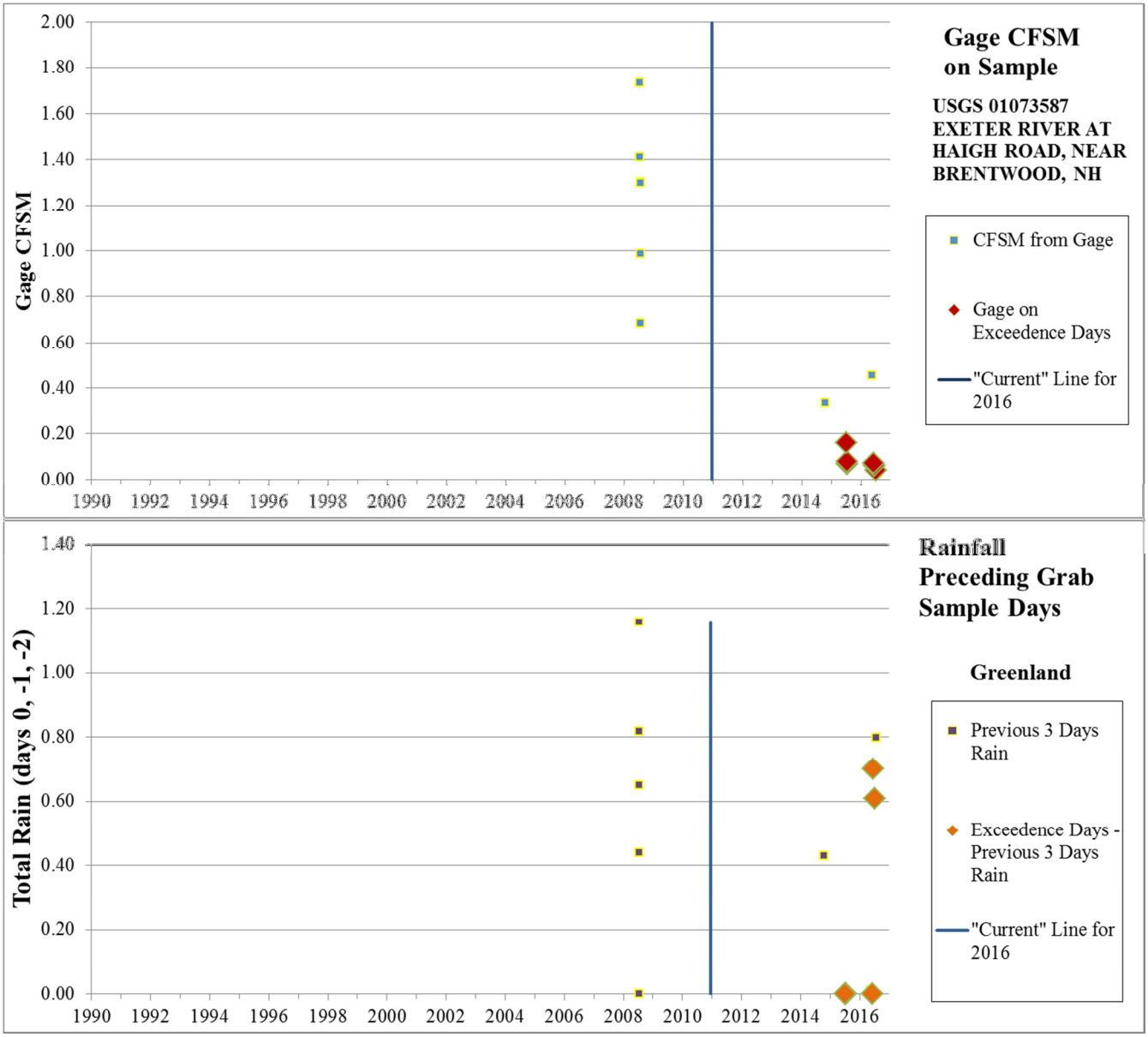
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BROWN BROOK - TO PISCASSIC RIVER	NHRIV600030708-14	DISSOLVED OXYGEN (mg/L)	FREMONT	3-PAS	5-P

2016: Class A waterbody. New data collected in 2014 and 2015 at station 10-PIS indicates that the river consistently has dissolved oxygen concentrations below 5.5 mg/L, and occasionally below 4 mg/L. The low dissolved oxygen samples

collected during the current assessment period (2011-2016) were collected during flows between 0.04 and 0.16 CFSM at the Exeter River gauge (01073587) and with 3-day rainfall totals between 0.0 and 0.7 inch.



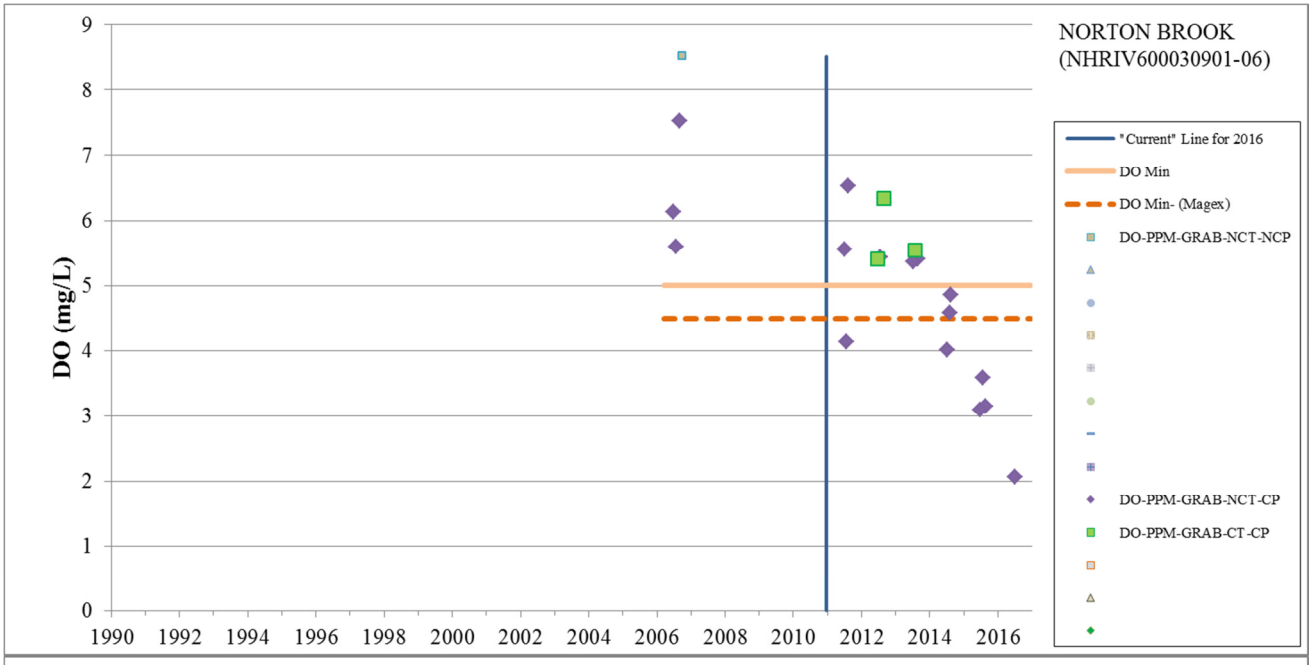


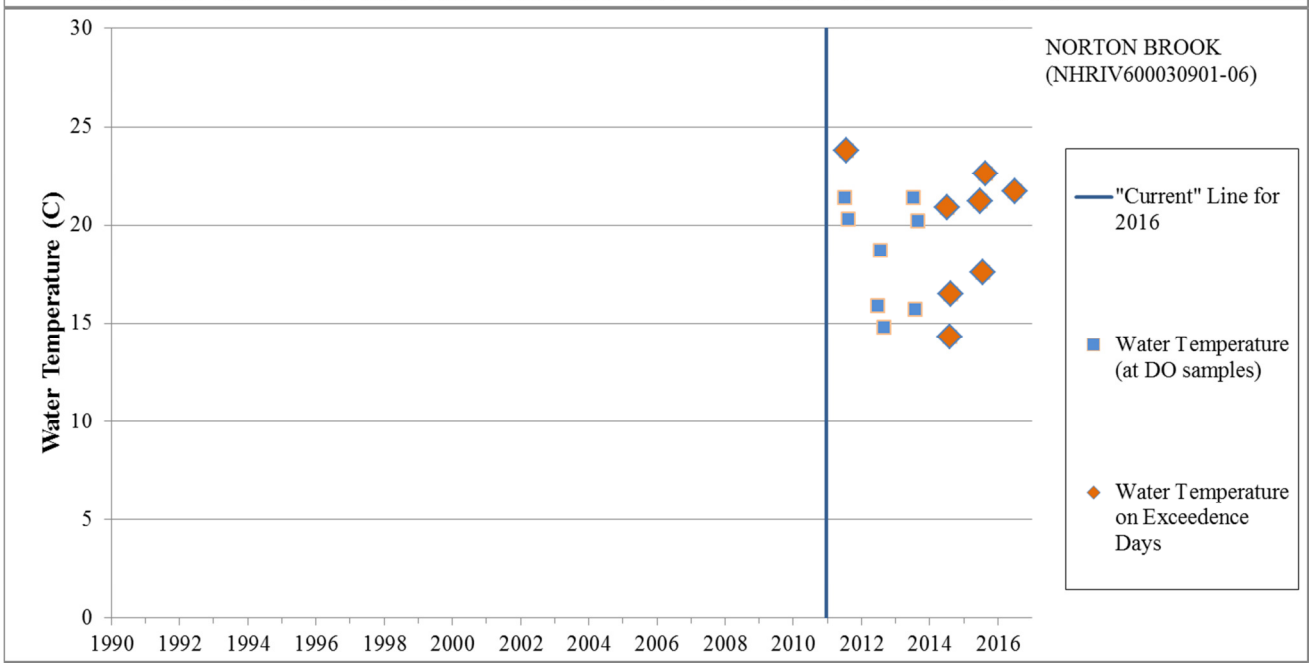


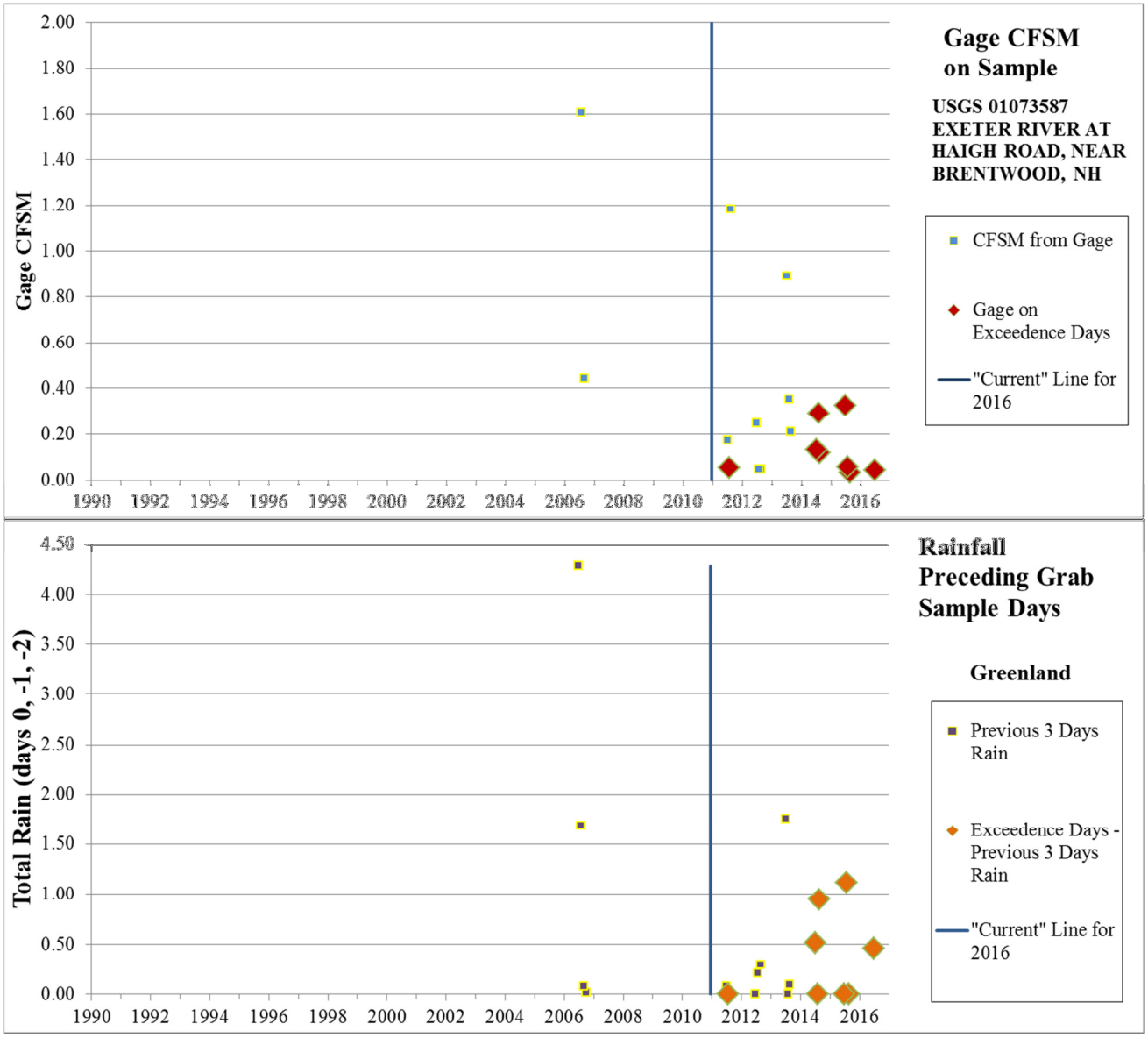
NORTON BROOK (NHRIV600030901-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTON BROOK	NHRIV600030901-06	Dissolved Oxygen (mg/L)	GREENLAND	3-PNS	5-P

2016: New data collected in during the current assessment period (2011-2016) at station 06-NOB indicate that the brook consistently has dissolved oxygen concentrations below 5 mg/L, and occasionally below 4 mg/L. It should be noted that there appears to be a steep declining trend in dissolved oxygen between 2011 and 2016. The low dissolved oxygen samples collected during the current assessment period were collected during flows between 0.03 and 1.18 CFSM at the Exeter River gauge (01073587) and with 3-day rainfall totals between 0.08 and 1.76 inches.


NORTON BROOK
(NHRIV600030901-06)
DO (mg/L)
"Current" Line for 2016
DO Min
DO Min- (Magex)
DO-PPM-GRAB-NCT-NCP
DO-PPM-GRAB-NCT-CP
DO-PPM-GRAB-CT-CP

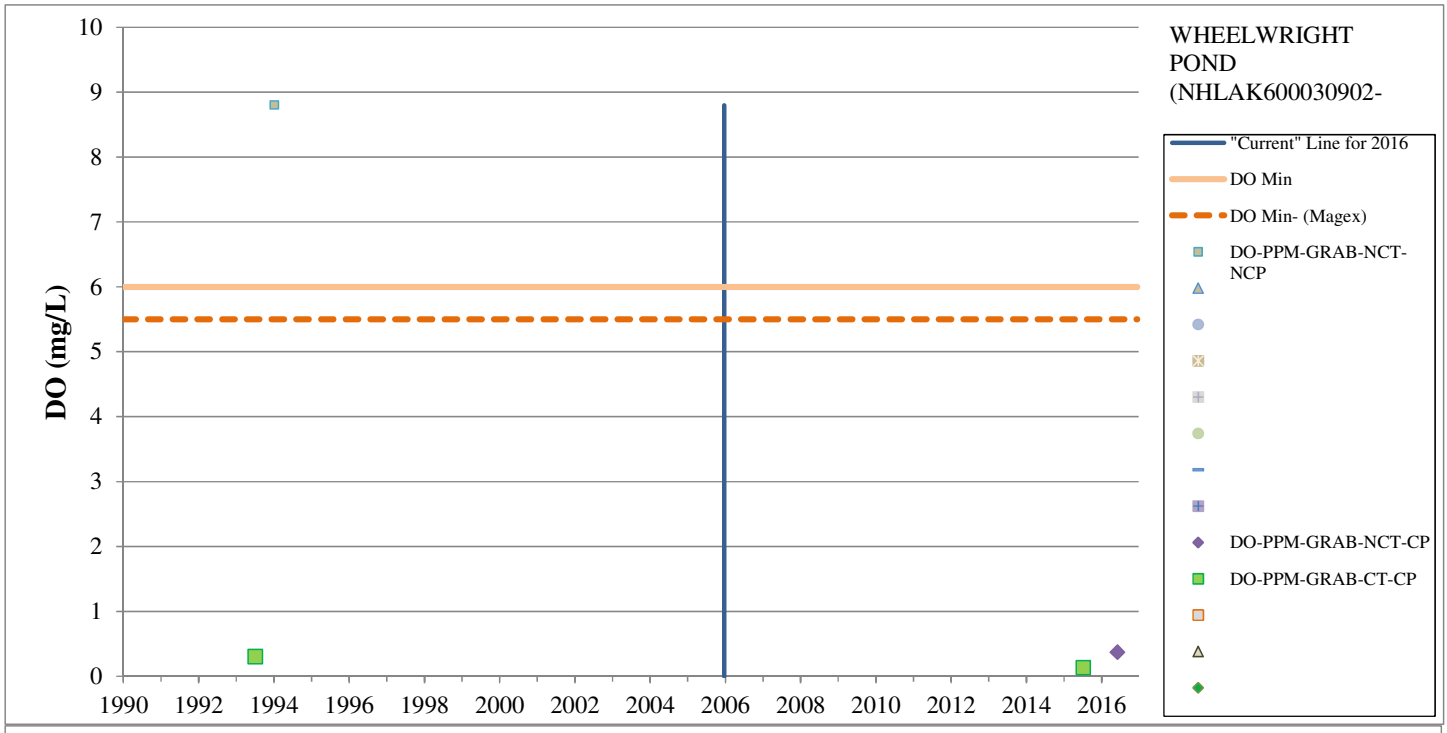

NORTON BROOK
(NHRIV600030901-06)
Water Temperature (C)
"Current" Line for 2016
Water Temperature (at DO samples)
Water Temperature on Exceedence Days

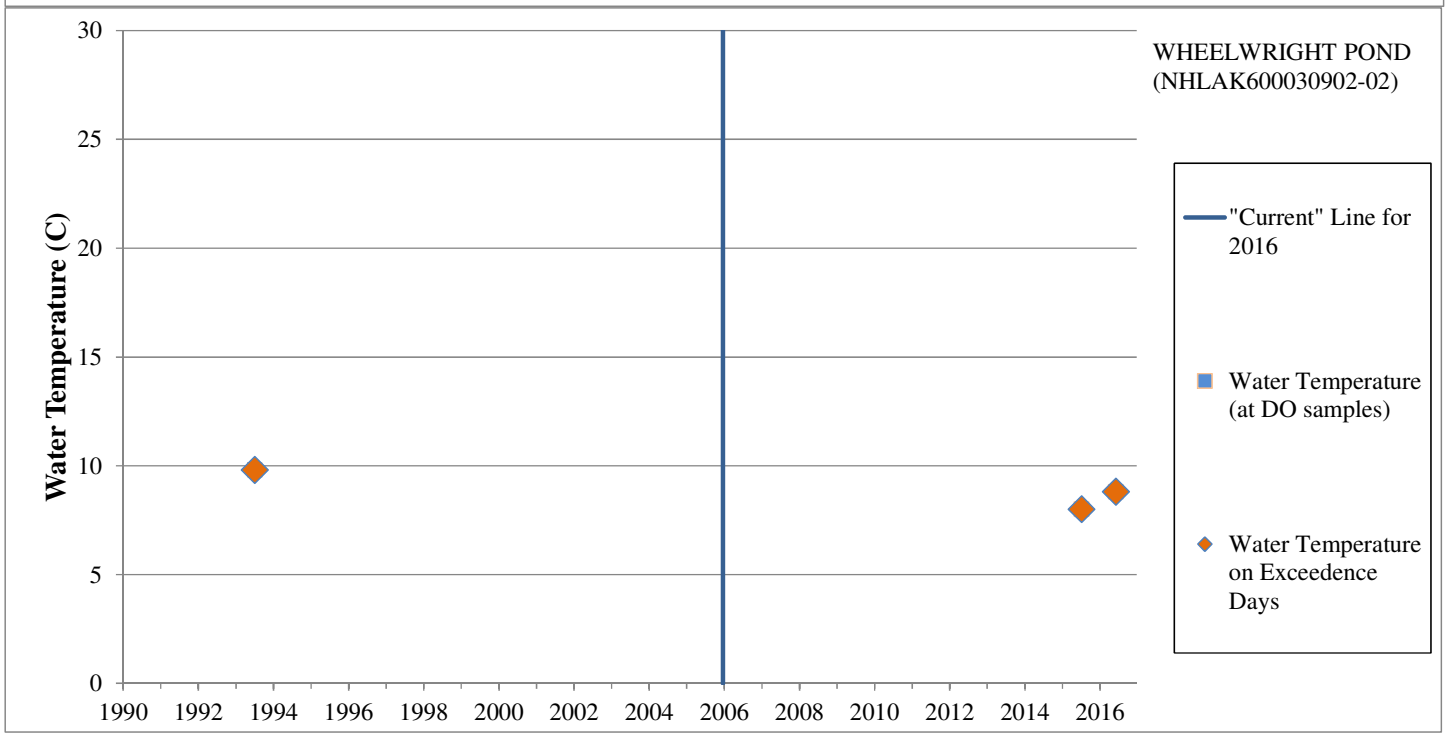


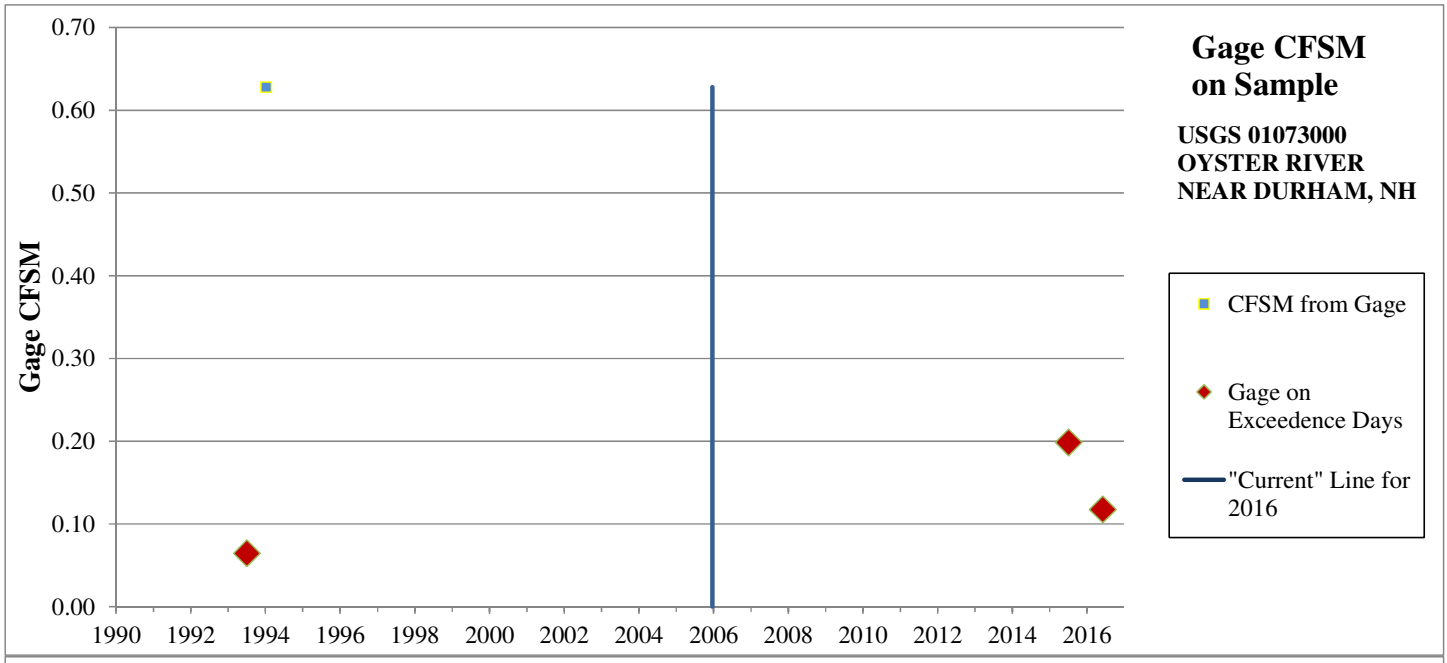
WHEELWRIGHT POND (NHLAK600030902-02)

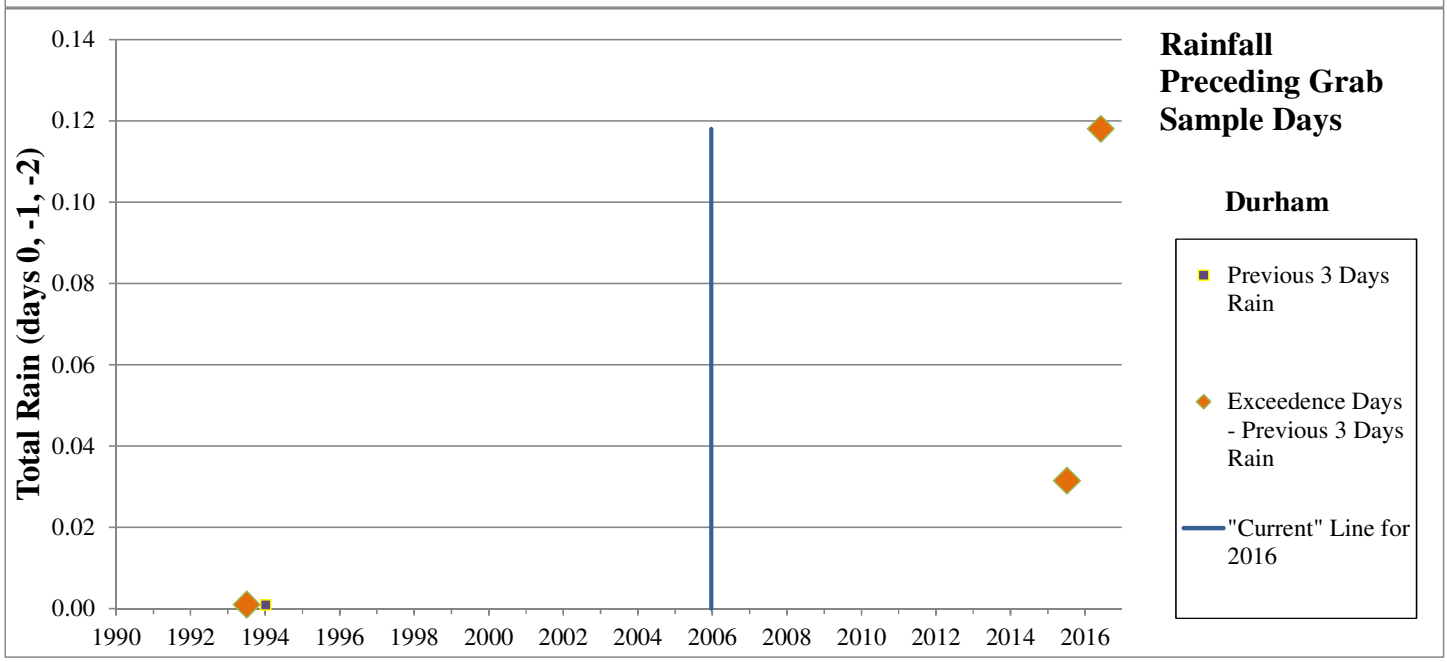
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WHEELWRIGHT POND	NHLAK600030902-02	Dissolved Oxygen (mg/L)	LEE	3-ND	5-P

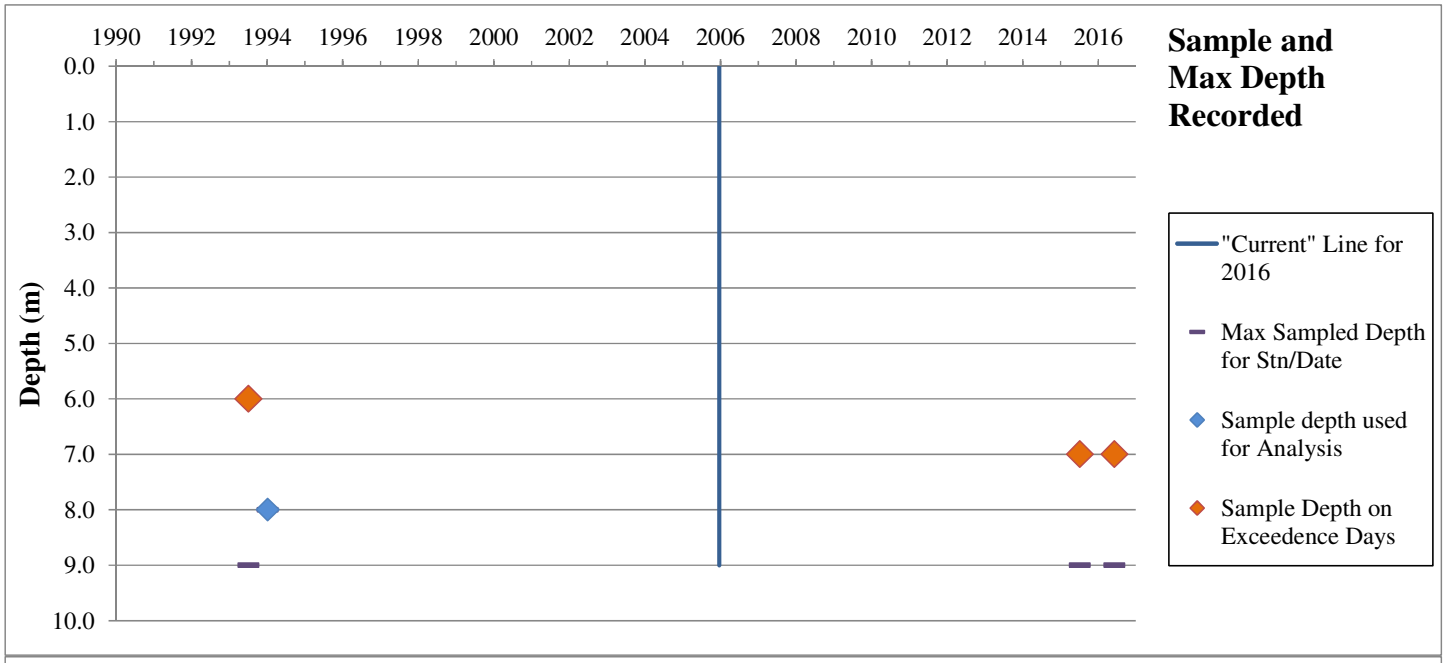
Class A waterbody. Two recent data sets for this site that fall within the 10 year timeline for data used for this reporting period, one from 2015 and one from 2016. Both are MagEx in this Class A waterbody, and are in similar range to a historical data point from early 1990s. One of the sample rounds was conducted in the critical period, but not in the critical time, though it was only 22 minutes earlier than start of critical time.

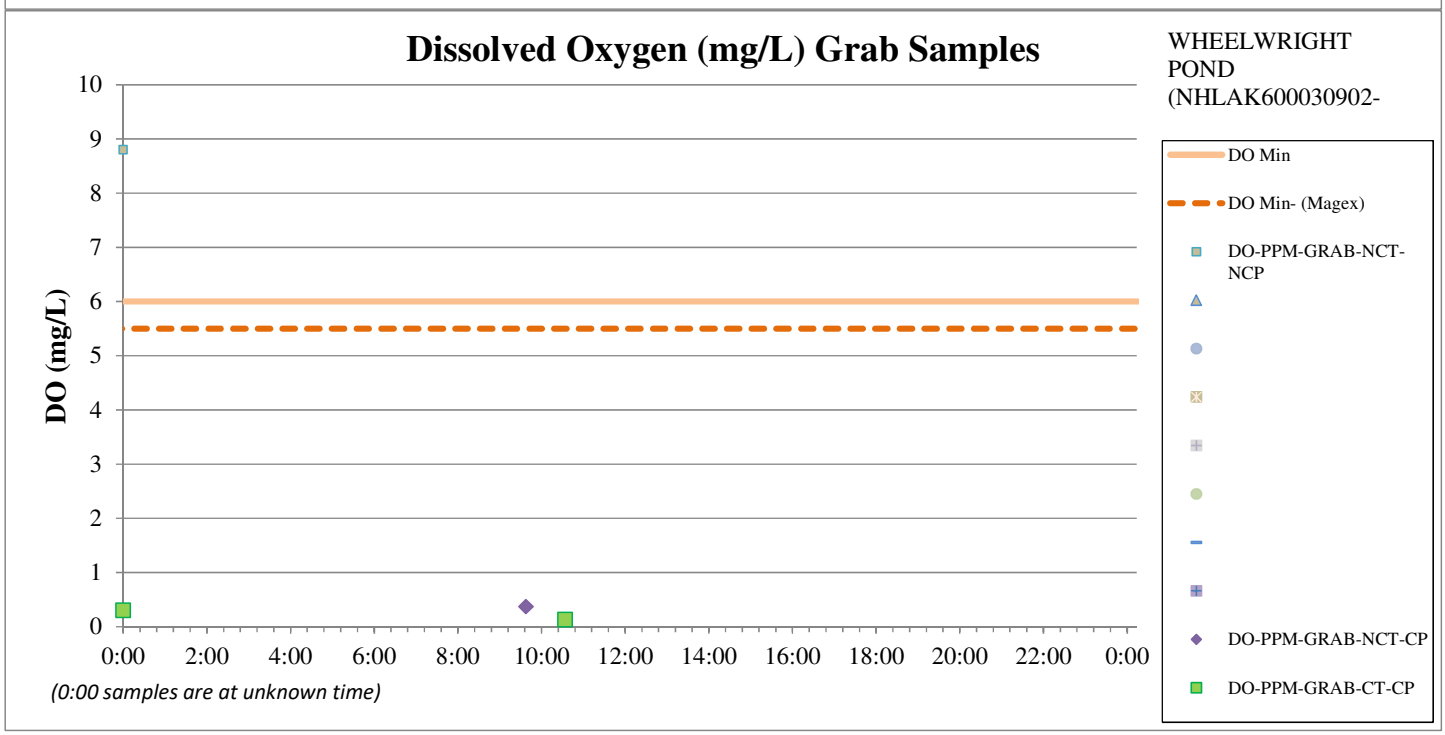

WHEELWRIGHT POND (NHLAK600030902-
DO (mg/L)
10
9
8
7
6
5
4
3
2
1
0
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
"Current" Line for 2016
DO Min
DO Min- (Magex)
DO-PPM-GRAB-NCT-NCP
DO-PPM-GRAB-NCT-CP
DO-PPM-GRAB-CT-CP


WHEELWRIGHT POND (NHLAK600030902-02)
Water Temperature (C)
30
25
20
15
10
5
0
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
"Current" Line for 2016
Water Temperature (at DO samples)
Water Temperature on Exceedence Days


Gage CFSM on Sample
USGS 01073000 OYSTER RIVER NEAR DURHAM, NH
Gage CFSM
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
CFSM from Gage
Gage on Exceedence Days
"Current" Line for 2016


Rainfall Preceding Grab Sample Days
Durham
Total Rain (days 0, -1, -2)
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain
"Current" Line for 2016



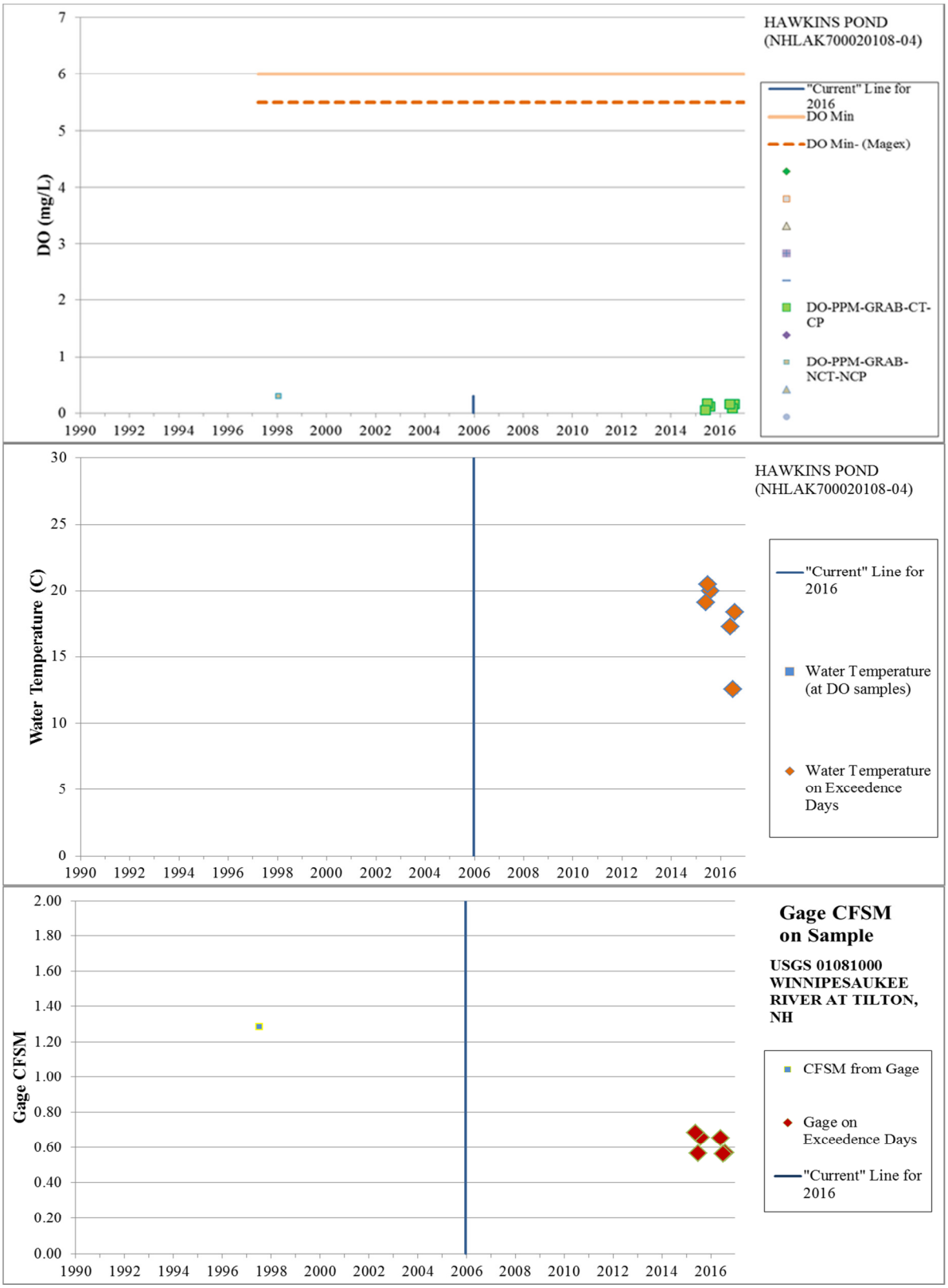


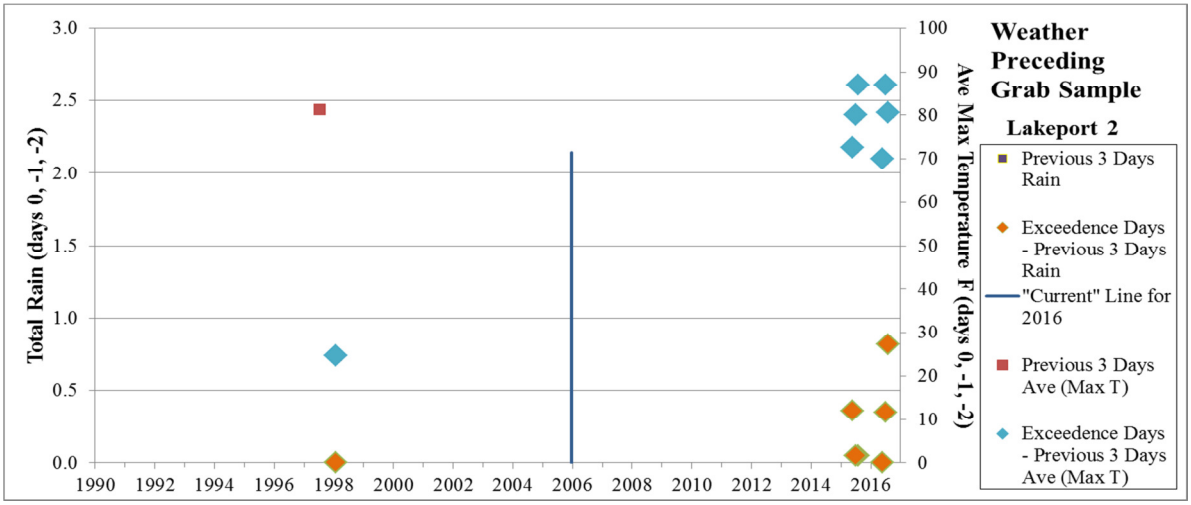
HAWKINS POND (NHLAK700020108-04)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HAWKINS POND	NHLAK700020108-04	Dissolved Oxygen (mg/L)	CENTER HARBOR	3-ND	5-P

2016: Class A waterbody. New data collected in 2015 and 2016 (three site visits each year during the Critical Period and Critical Time) to collect data for this assessment round, due to lack of historical data for this site. While the data from the epilimnion are fine, the zone of low DO in hypolimnion grows larger and more pronounced over the course of the growing season, extending further up into the water column off the bottom of the lake. Hawkins Pond

(NHLAK700020108-04) changed assessment category from 3-ND to 5-P.





Notes:

DO-PPM-GRAB-CT-CP = Grab samples of dissolved oxygen during the early morning hours of the summer critical period.

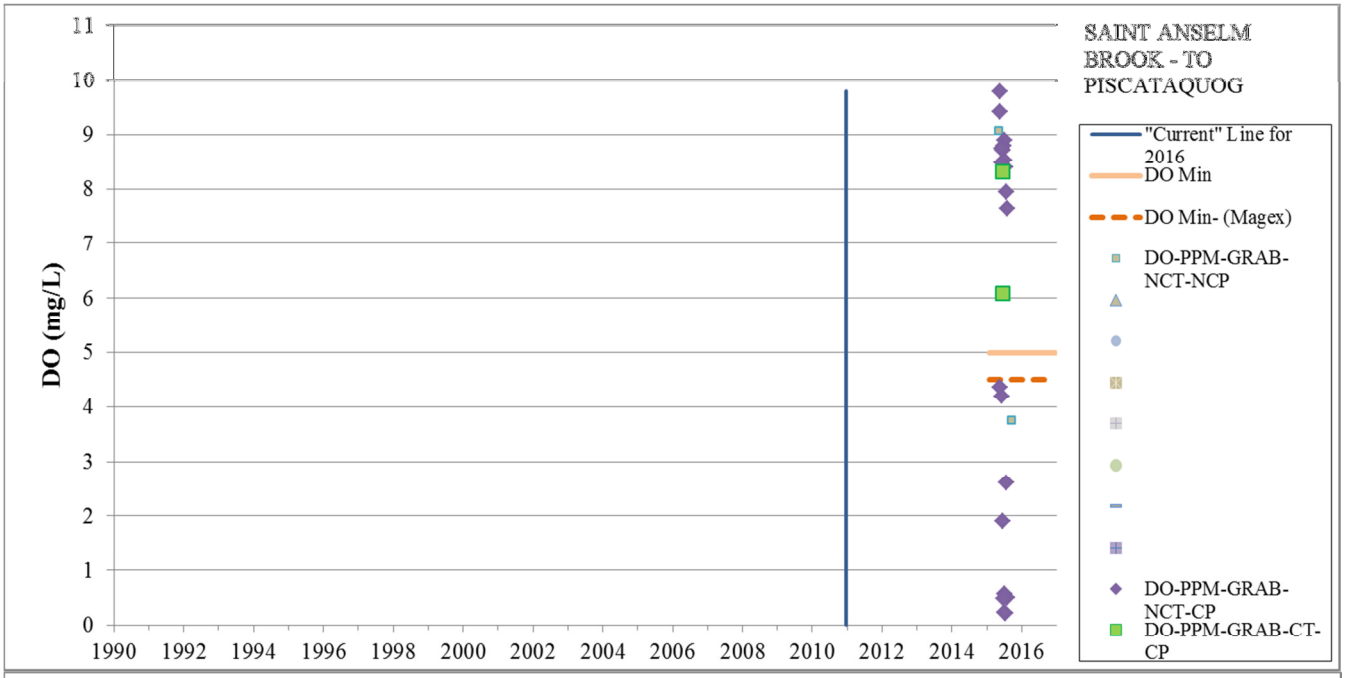
DO-PPM-GRAB-NCT-NCP = Grab samples of dissolved oxygen not in the early morning hours and outside the summer critical period.

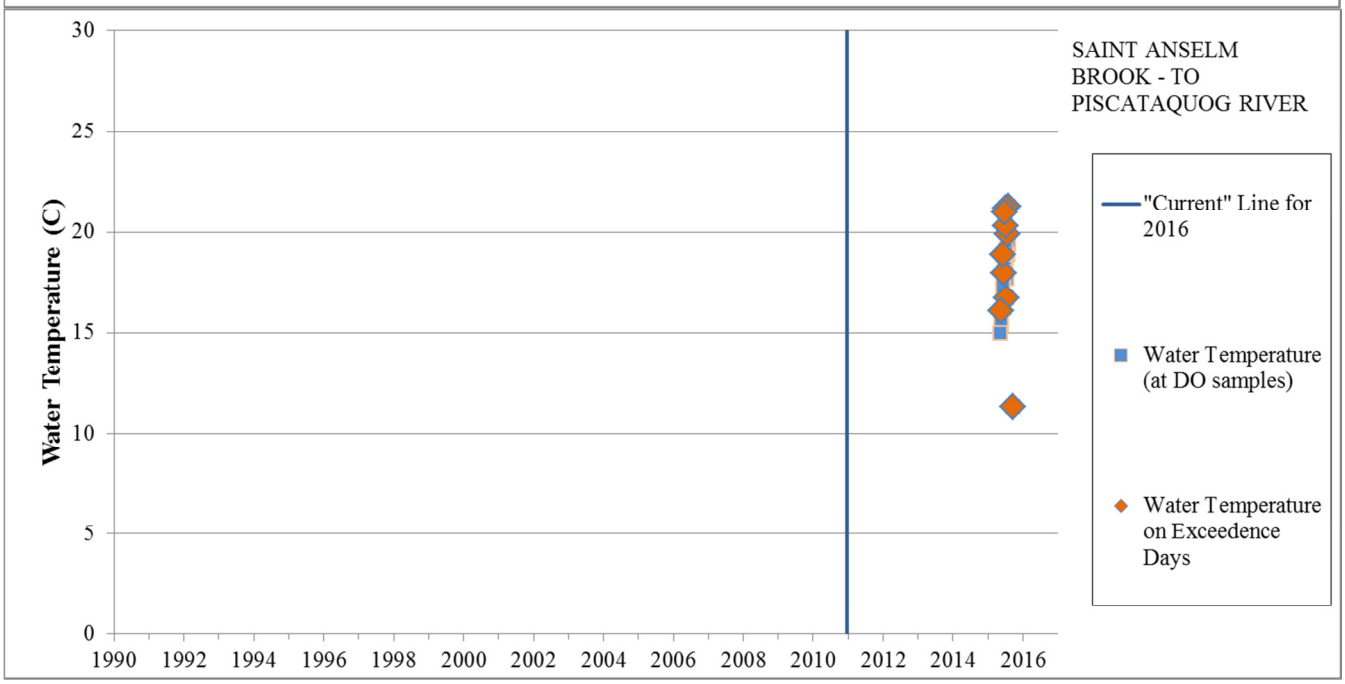
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

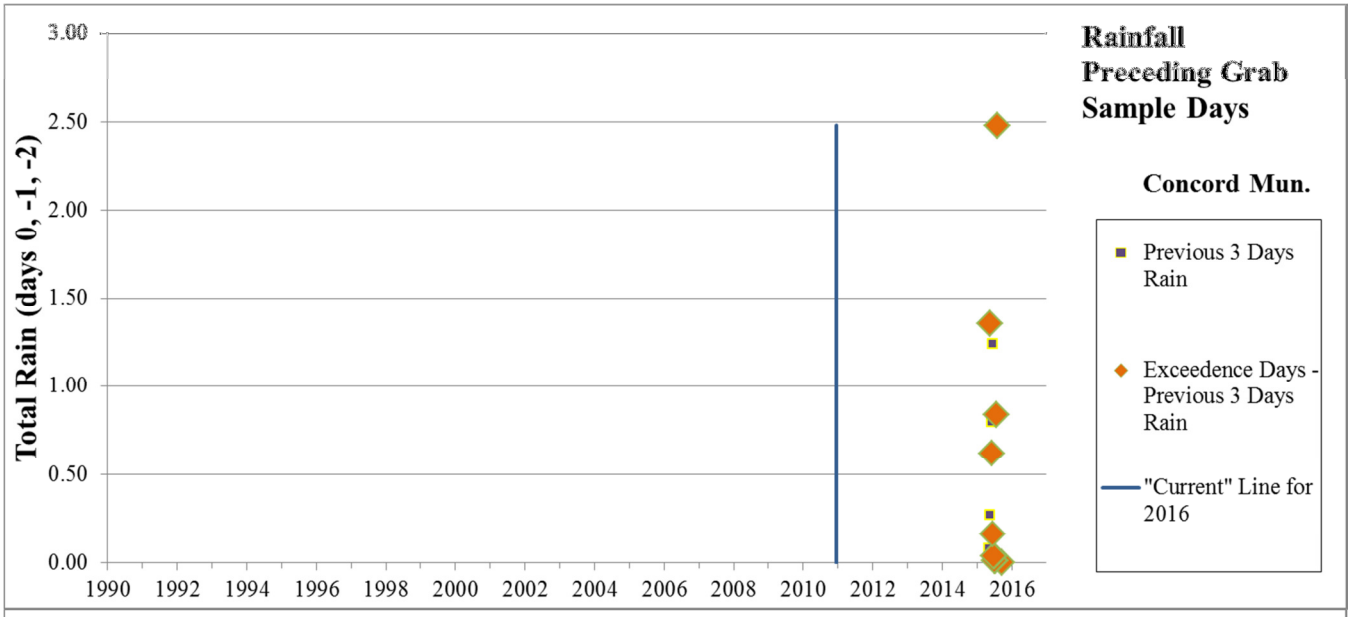
SAINT ANSELM BROOK - TO PISCATAQUOG RIVER (NHRIV700060607-35)

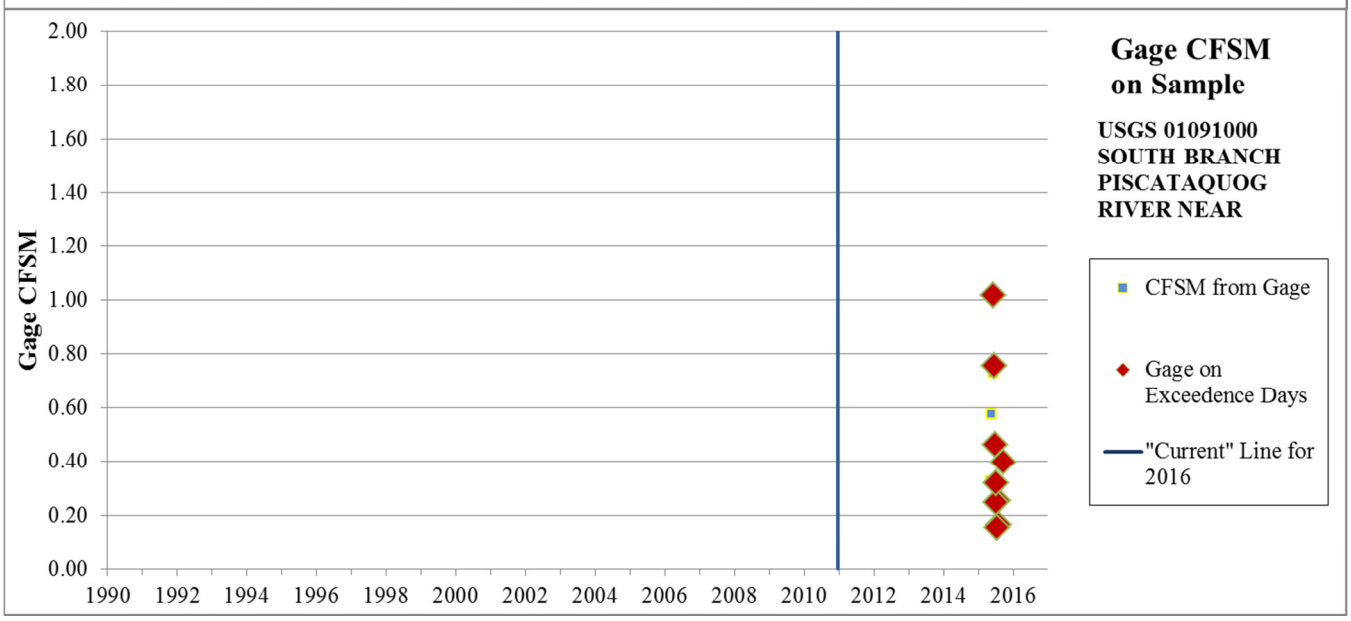
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SAINT ANSELM BROOK - TO PISCATAQUOG RIVER	NHRIV700060607-35	Dissolved Oxygen (mg/L)	MANCHESTER	3-ND	5-P

2016: New data collected in 2016 at stations 03-SAB and 05-SAB indicate that the brook consistently has dissolved oxygen concentrations below 4.5 mg/L, and on occasion the concentrations fall below 3.0 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 1.02 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.01 and 2.48 inches.


SAINT ANSELM BROOK - TO PISCATAQUOG
DO (mg/L)
"Current" Line for 2016
DO Min
DO Min- (Magex)
DO-PPM-GRAB-NCT-NCP
DO-PPM-GRAB-NCT-CP
DO-PPM-GRAB-CT-CP


SAINT ANSELM BROOK - TO PISCATAQUOG RIVER
Water Temperature (C)
"Current" Line for 2016
Water Temperature (at DO samples)
Water Temperature on Exceedence Days

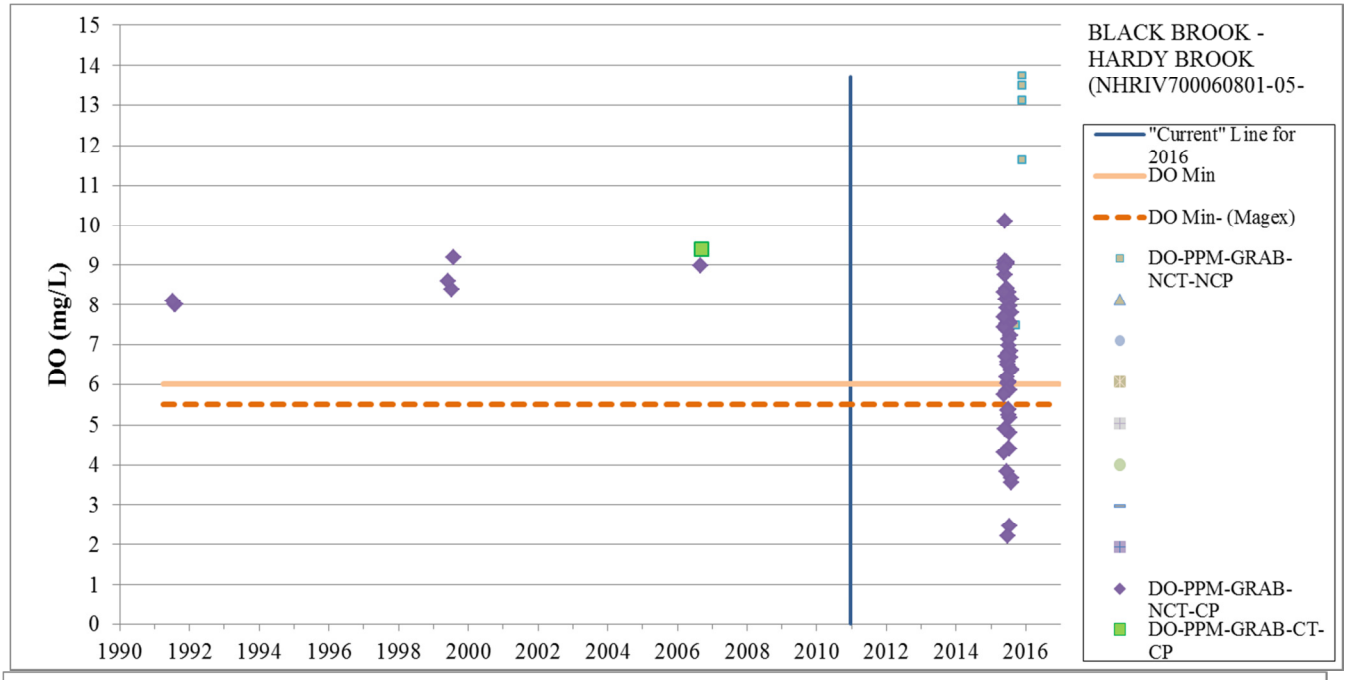


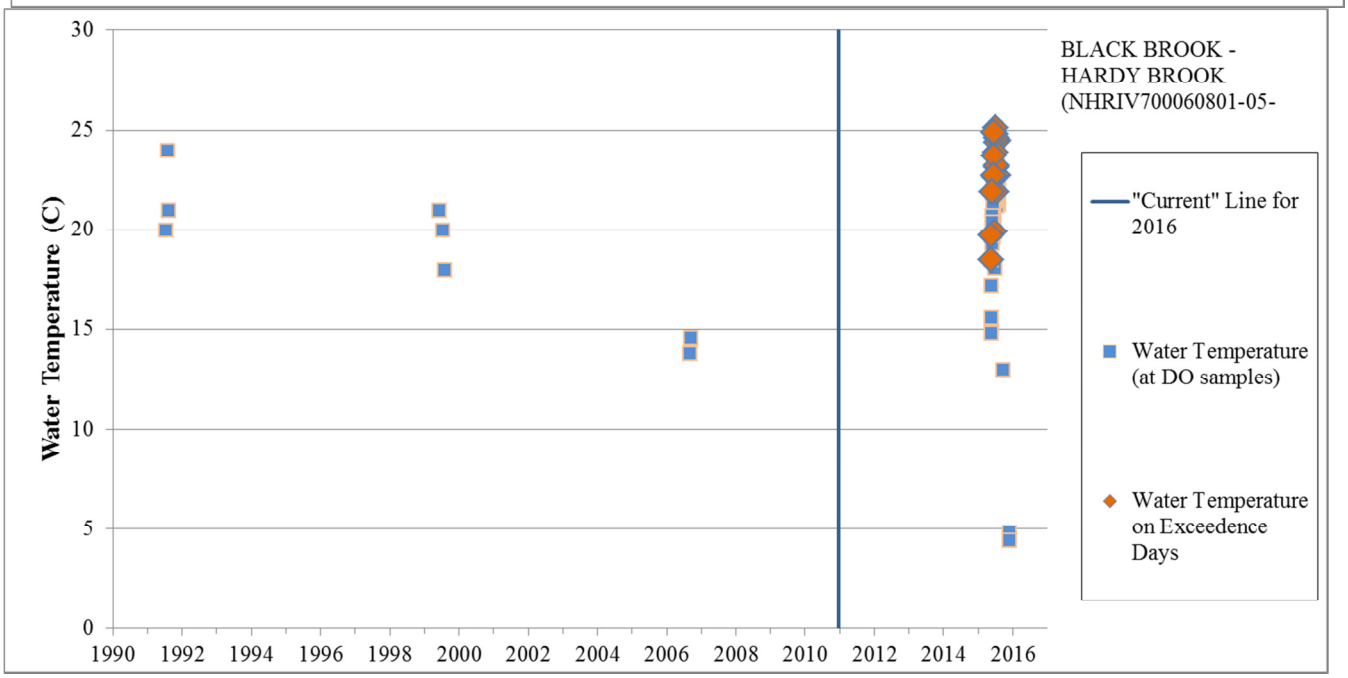


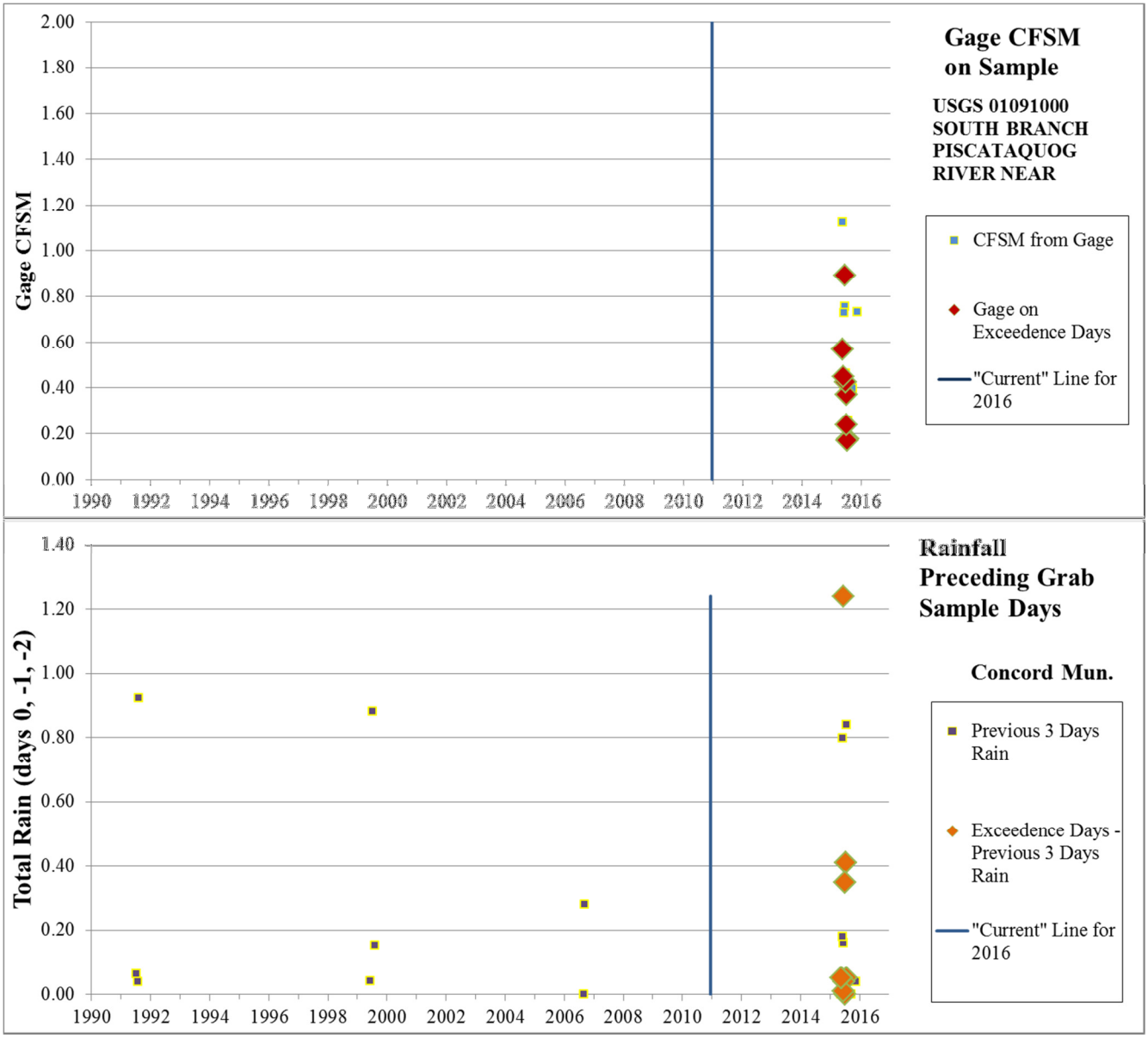
BLACK BROOK - HARDY BROOK (NHRIV700060801-05-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BLACK BROOK - HARDY BROOK	NHRIV700060801-05-01	Dissolved Oxygen (mg/L)	GOFFSTOWN	3-PAS	5-P

2016: New data collected in 2015 at stations 03-BKB, 04-BKB, 05-BKB, 09-HRG, 10-HRG and 11-HRG indicate that the brook consistently has dissolved oxygen concentrations below 4.5 mg/L, and on occasion the concentrations fall below 3.0 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.18 and 0.89 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.05 and 1.24 inches.


BLACK BROOK - HARDY BROOK (NHRIV700060801-05-
DO (mg/L)
"Current" Line for 2016
DO Min
DO Min- (Magex)
DO-PPM-GRAB-NCT-NCP
DO-PPM-GRAB-NCT-CP
DO-PPM-GRAB-CT-CP

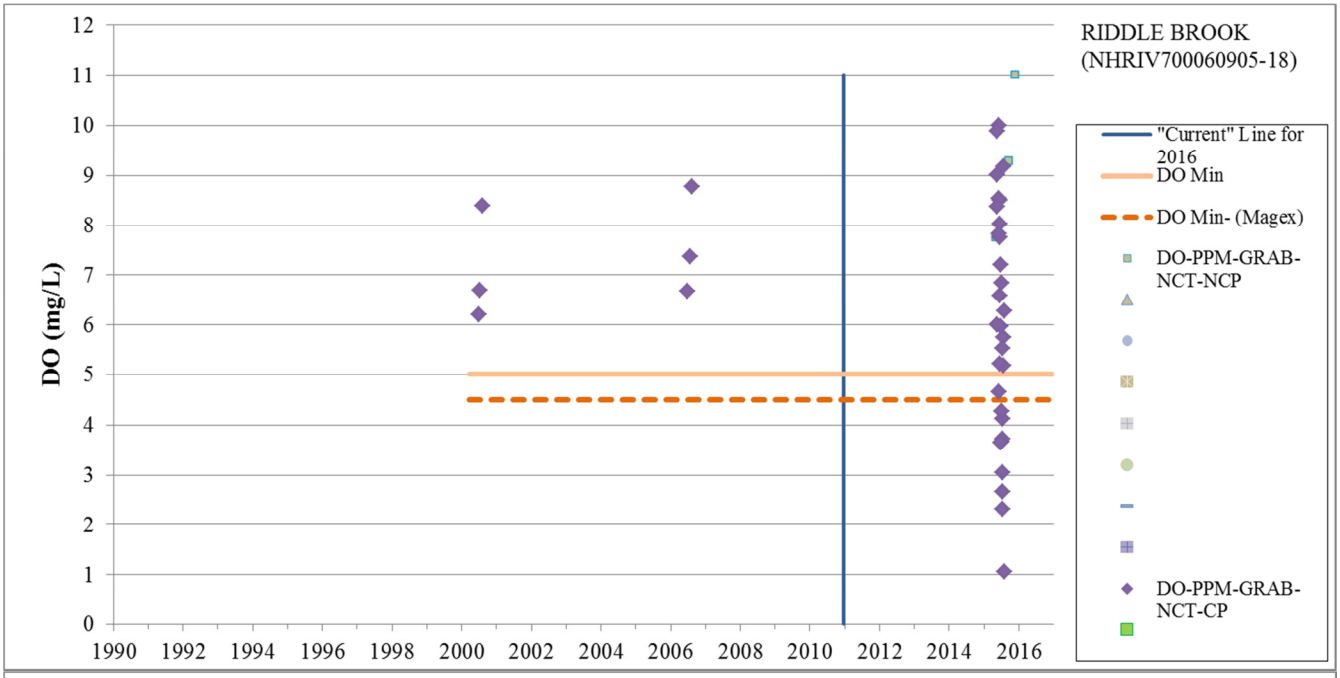

BLACK BROOK - HARDY BROOK (NHRIV700060801-05-
Water Temperature (C)
"Current" Line for 2016
Water Temperature (at DO samples)
Water Temperature on Exceedence Days

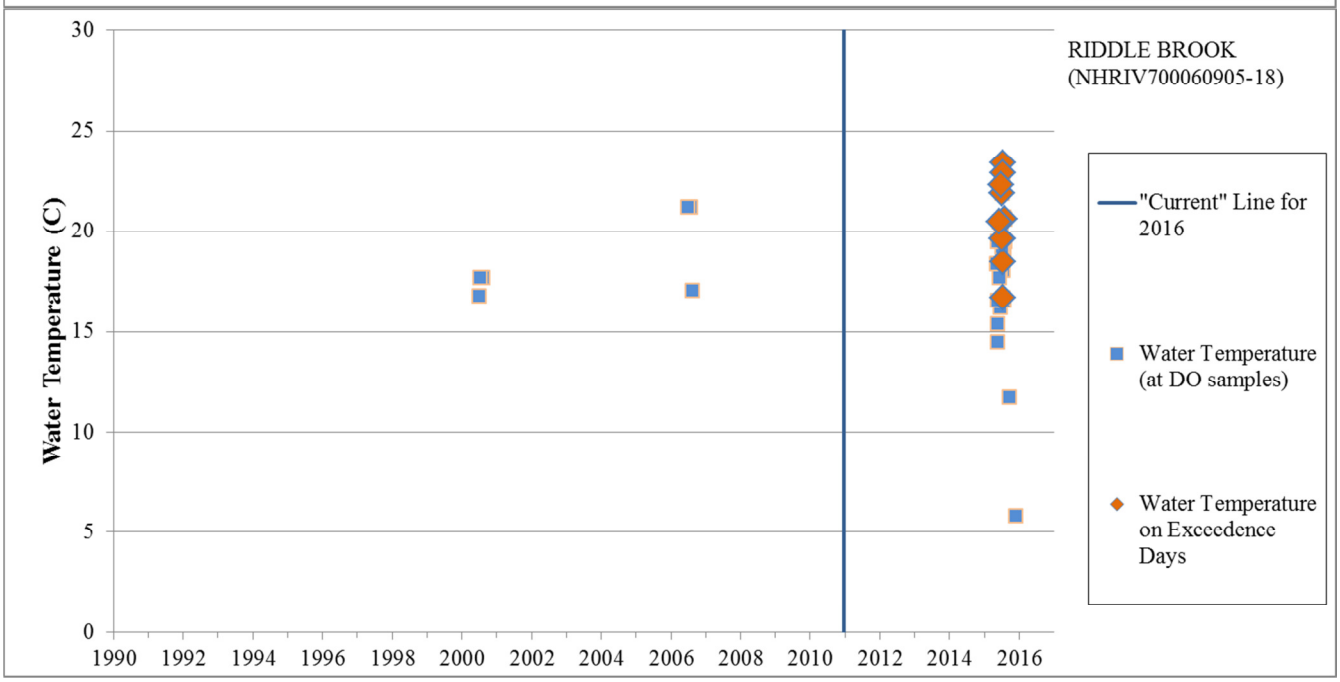


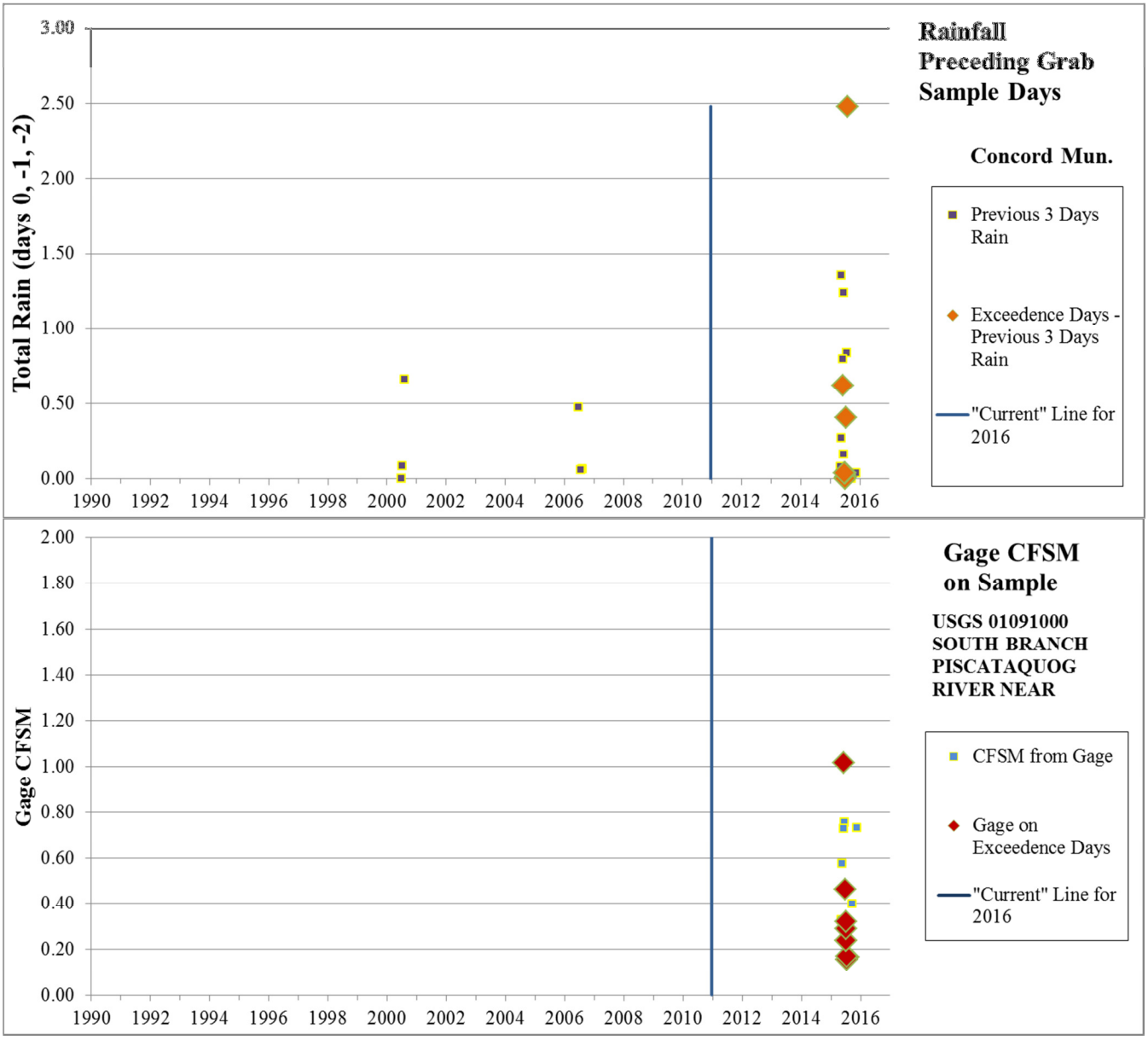
RIDDLE BROOK (NHRIV700060905-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
RIDDLE BROOK	NHRIV700060905-18	Dissolved Oxygen (mg/L)	BEDFORD	3-PAS	5-P

2016: New data collected in 2015 at stations 15P-RID, 17-RID, and 16-RIP indicates that the brook consistently has dissolved oxygen concentrations below 4.5 mg/L, and on occasion the concentrations fall below 3.0 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 1.02 CFSM at the South Branch Piscataquog River gauge (01091000) and with 3-day rainfall totals between 0.01 and 2.48 inches.


RIDDLE BROOK
(NHRIV700060905-18)
DO (mg/L)
"Current" Line for 2016
DO Min
DO Min- (Magex)
DO-PPM-GRAB-NCT-NCP
DO-PPM-GRAB-NCT-CP

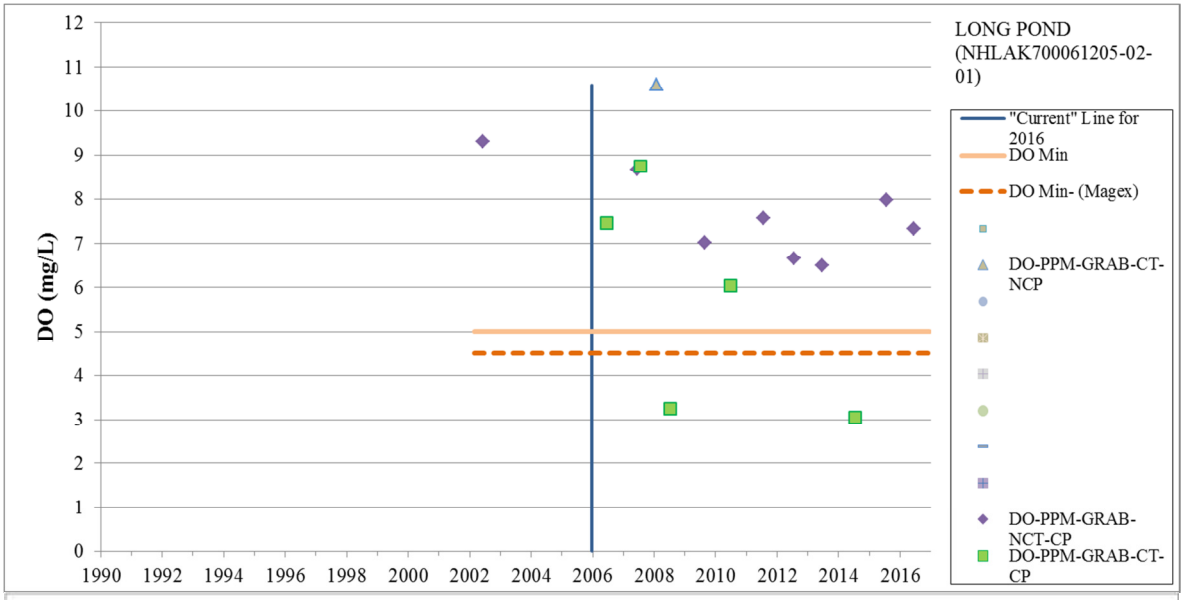

RIDDLE BROOK
(NHRIV700060905-18)
Water Temperature (C)
"Current" Line for 2016
Water Temperature (at DO samples)
Water Temperature on Exceedence Days

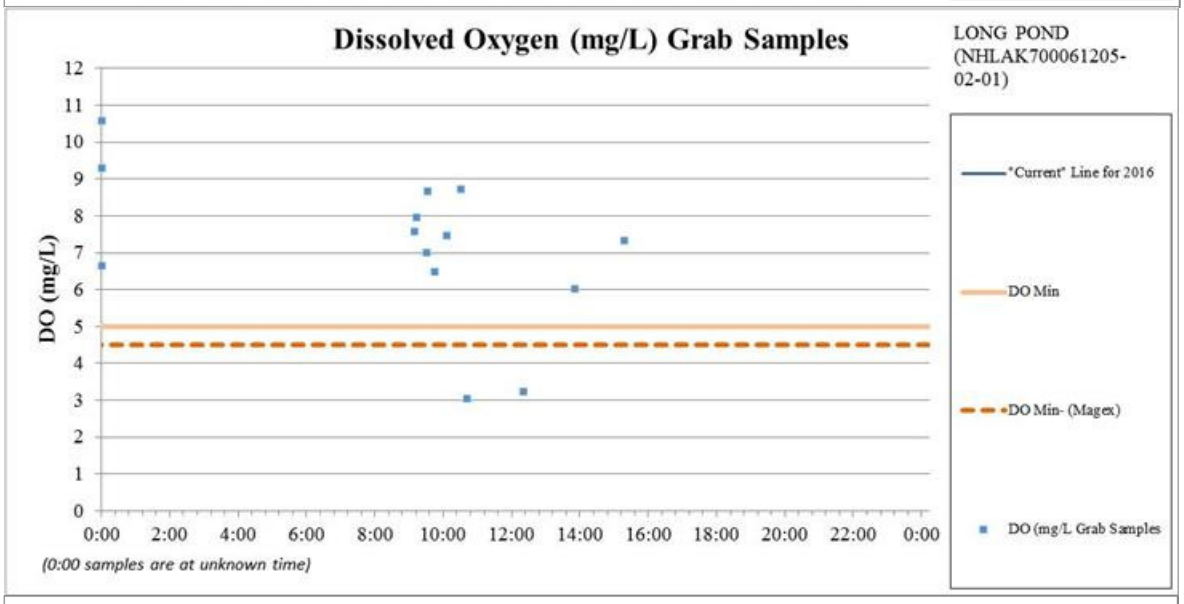


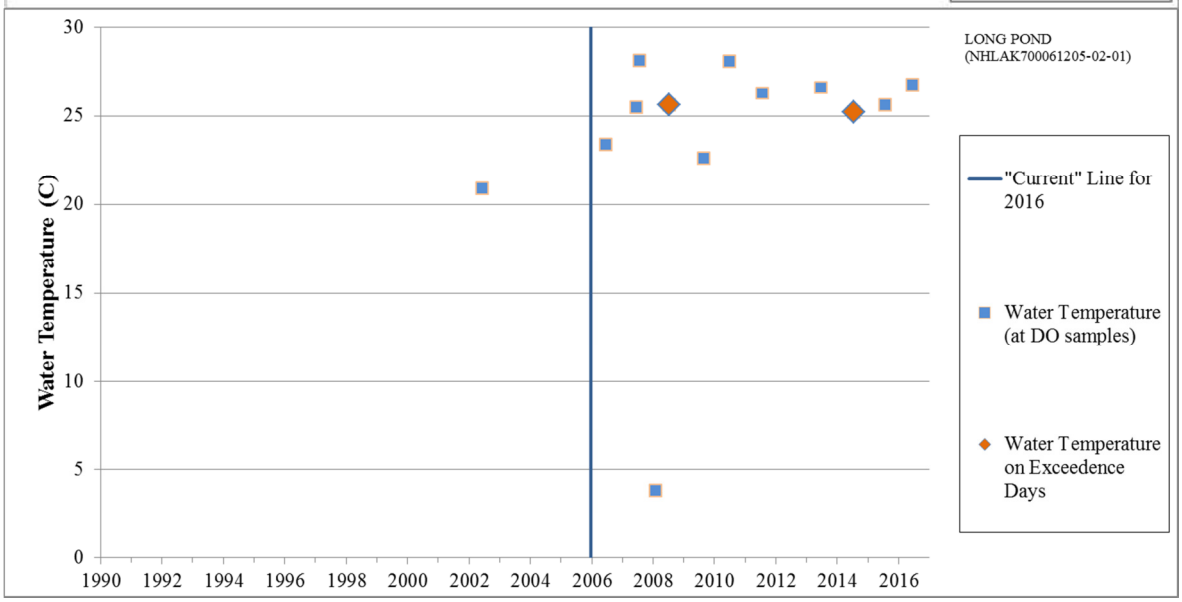
LONG POND (NHLAK700061205-02-01)

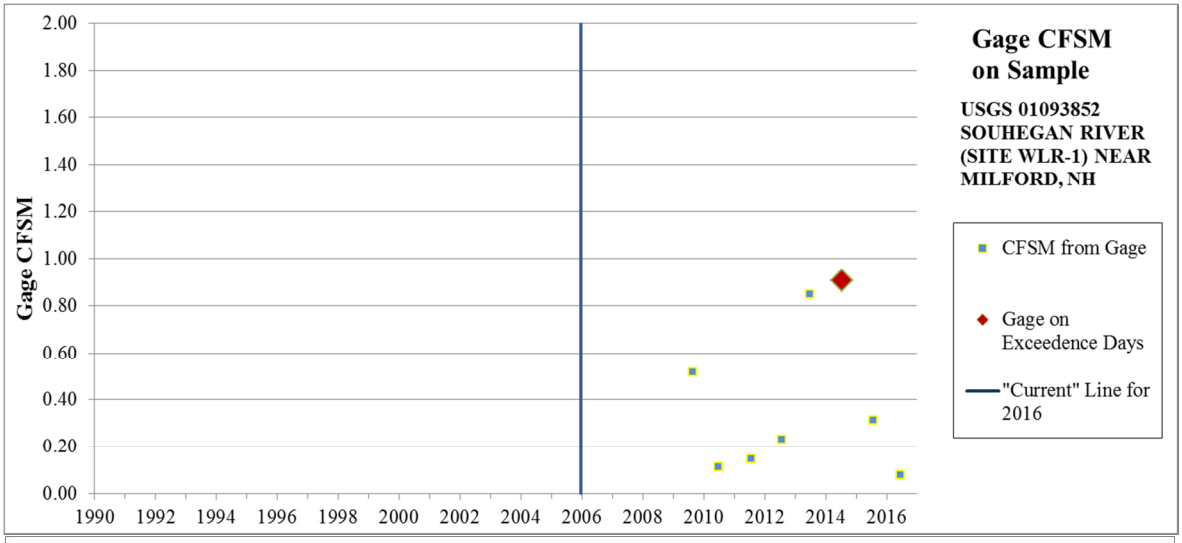
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LONG POND	NHLAK700061205-02-01	Dissolved Oxygen (mg/L)	PELHAM	3-PNS	5-P

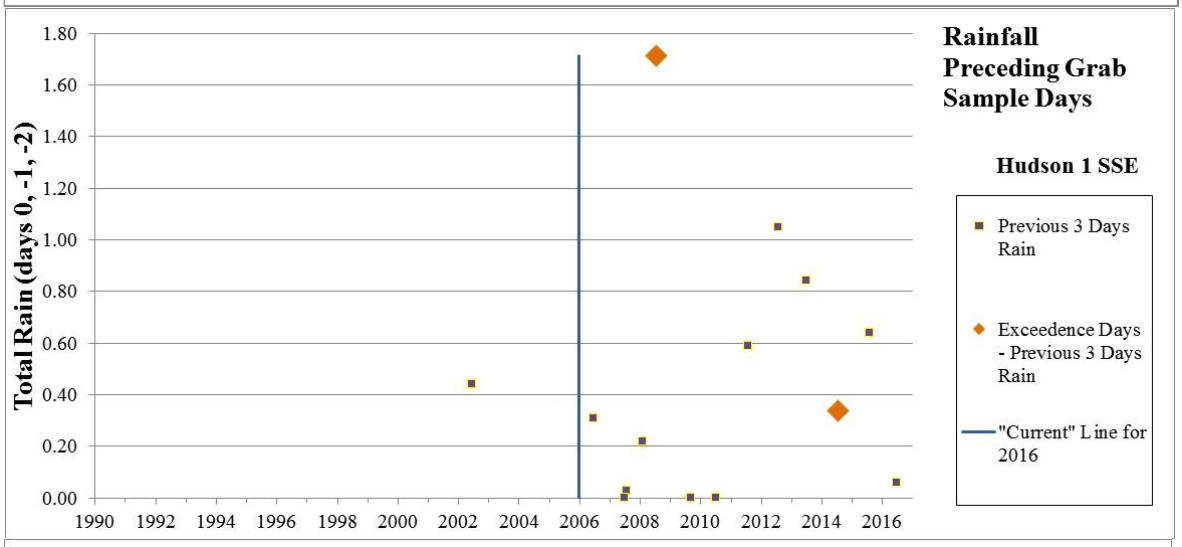
2016: Class B waterbody. Most samples meet standards however n=2 MAGEX results from within the CP and CT exceed the 10% limit for this waterbody. Stratification does occasionally extend deep into the water column in this waterbody. The July 31, 2014, sample from 5 meters was checked against the temperature profile and it reflects the DO samples from the bottom of the epilimnion, which extended as deep as 5 meters in this 6.5 meter deep waterbody. There was a quick transition to lower temperatures below this depth level.

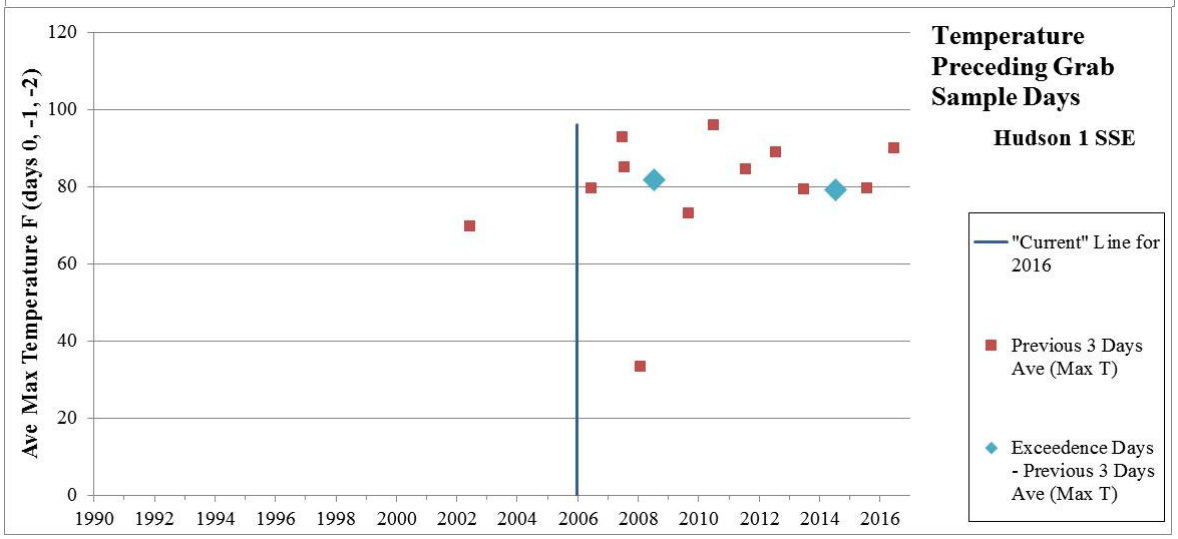

LONG POND (NHLAK700061205-02-01)
DO (mg/L)
"Current" Line for 2016
DO Min
DO Min- (Magex)
DO-PPM-GRAB-CT-NCP
DO-PPM-GRAB-NCT-CP
DO-PPM-GRAB-CT-CP

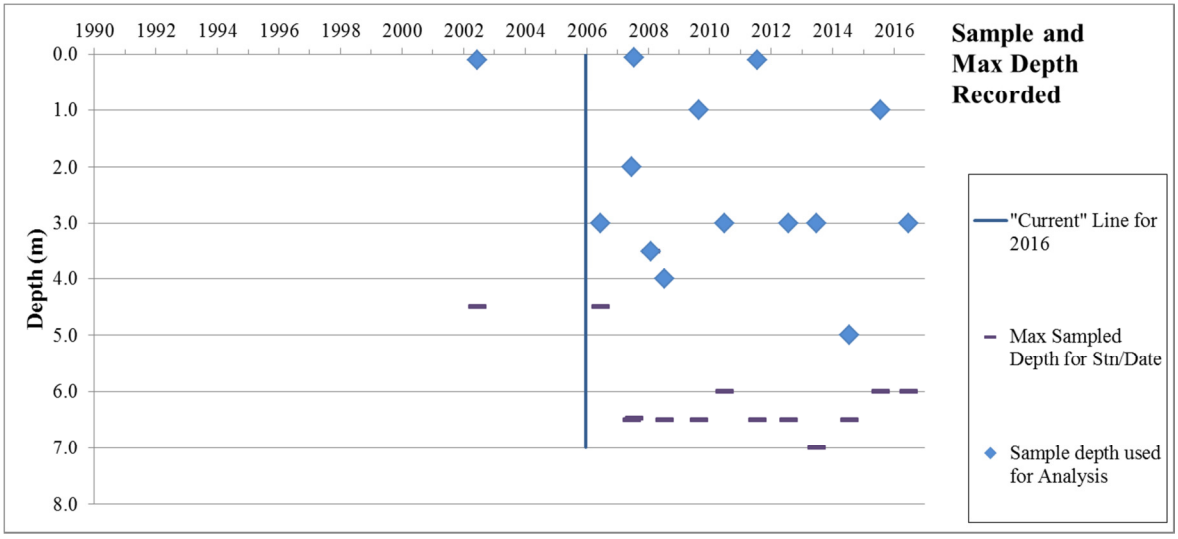

Dissolved Oxygen (mg/L) Grab Samples
LONG POND (NHLAK700061205-02-01)
DO (mg/L)
"Current" Line for 2016
DO Min
DO Min- (Magex)
DO (mg/L Grab Samples
(0:00 samples are at unknown time)


LONG POND (NHLAK700061205-02-01)
Water Temperature (C)
"Current" Line for 2016
Water Temperature (at DO samples)
Water Temperature on Exceedence Days


Gage CFSM on Sample
USGS 01093852 SOUHEGAN RIVER (SITE WLR-1) NEAR MILFORD, NH
Gage CFSM
CFSM from Gage
Gage on Exceedence Days
"Current" Line for 2016


Rainfall Preceding Grab Sample Days
Hudson 1 SSE
Total Rain (days 0, -1, -2)
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain
"Current" Line for 2016

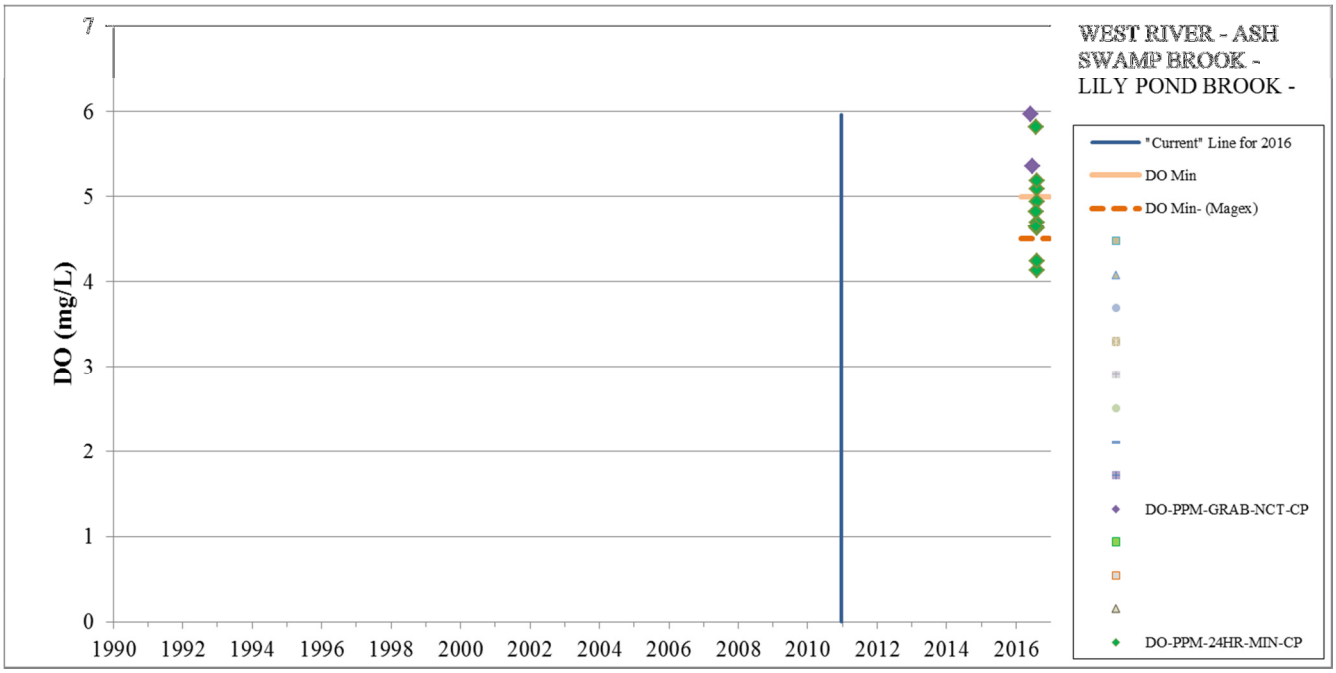

Temperature Preceding Grab Sample Days
Hudson 1 SSE
Ave Max Temperature F (days 0, -1, -2)
"Current" Line for 2016
Previous 3 Days Ave (Max T)
Exceedence Days - Previous 3 Days Ave (Max T)

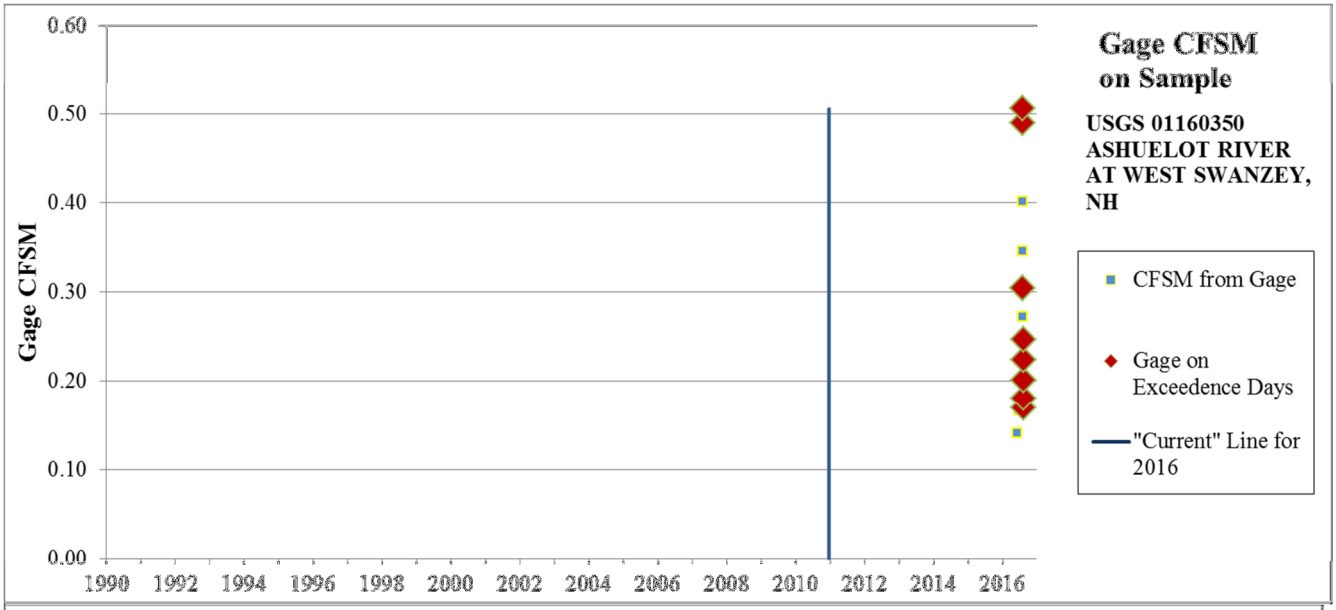


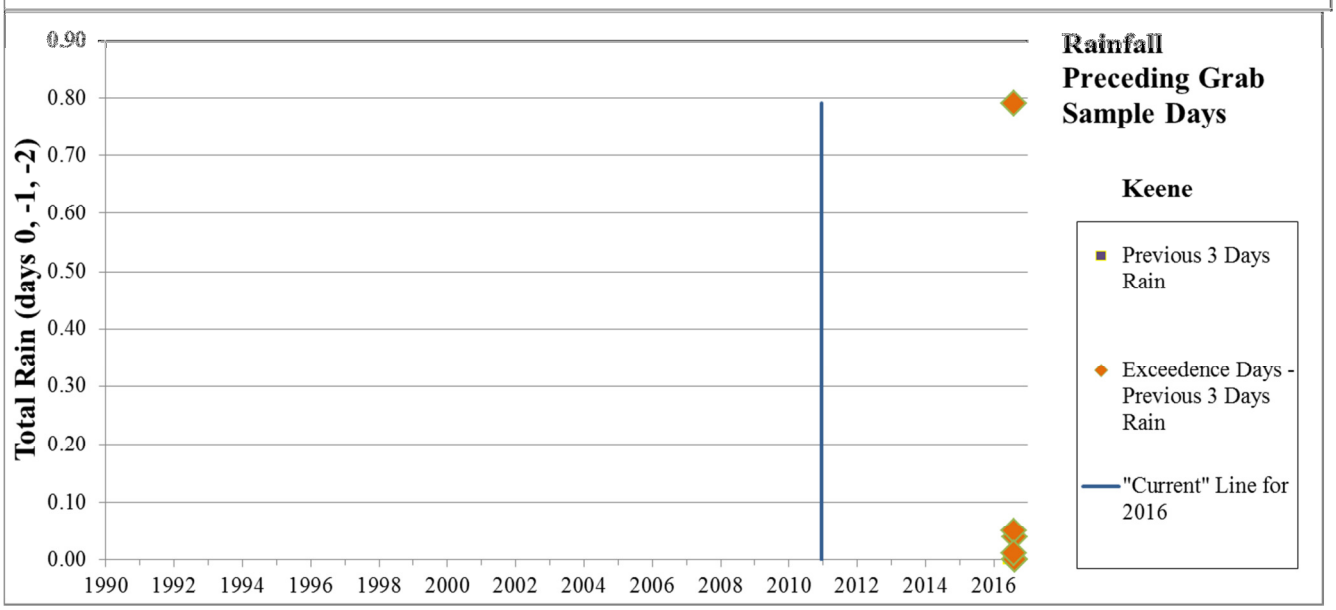
WEST RIVER - ASH SWAMP BROOK - LILY POND BROOK - UNNAMED BROOK (NHRIV801070507-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WEST RIVER - ASH SWAMP BROOK - LILY POND BROOK - UNNAMED BROOK	NHRIV801070507-01	Dissolved Oxygen (mg/L)	HINSDALE	3-ND	5-P

2016: New datalogger data collected in 2016 at station 03-ASW indicates that the brook consistently has 24-hour minimum dissolved oxygen concentrations below 5.0 mg/L, and on occasion the concentrations fall below 4.5 mg/L. The low dissolved oxygen samples collected during the current assessment period (2011-2016) were collected during flows between 0.17 and 0.49 CFSM at the Ashuelot River gauge (01160350) and with 3-day rainfall totals between 0.00 and 0.79 inches.







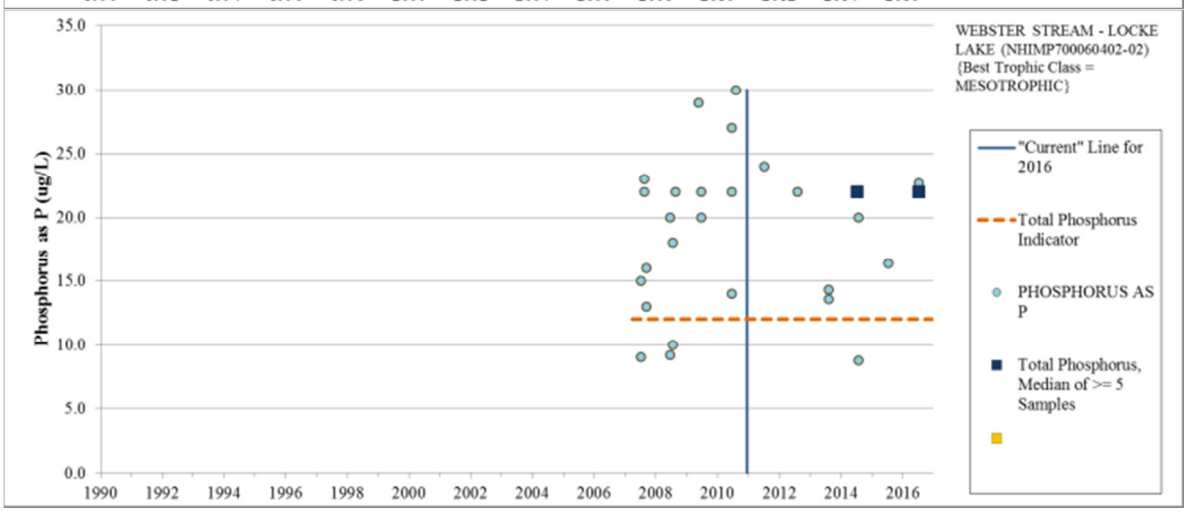
Lake – Chlorophyll-a/Total Phosphorus (Aquatic Life Use Support)

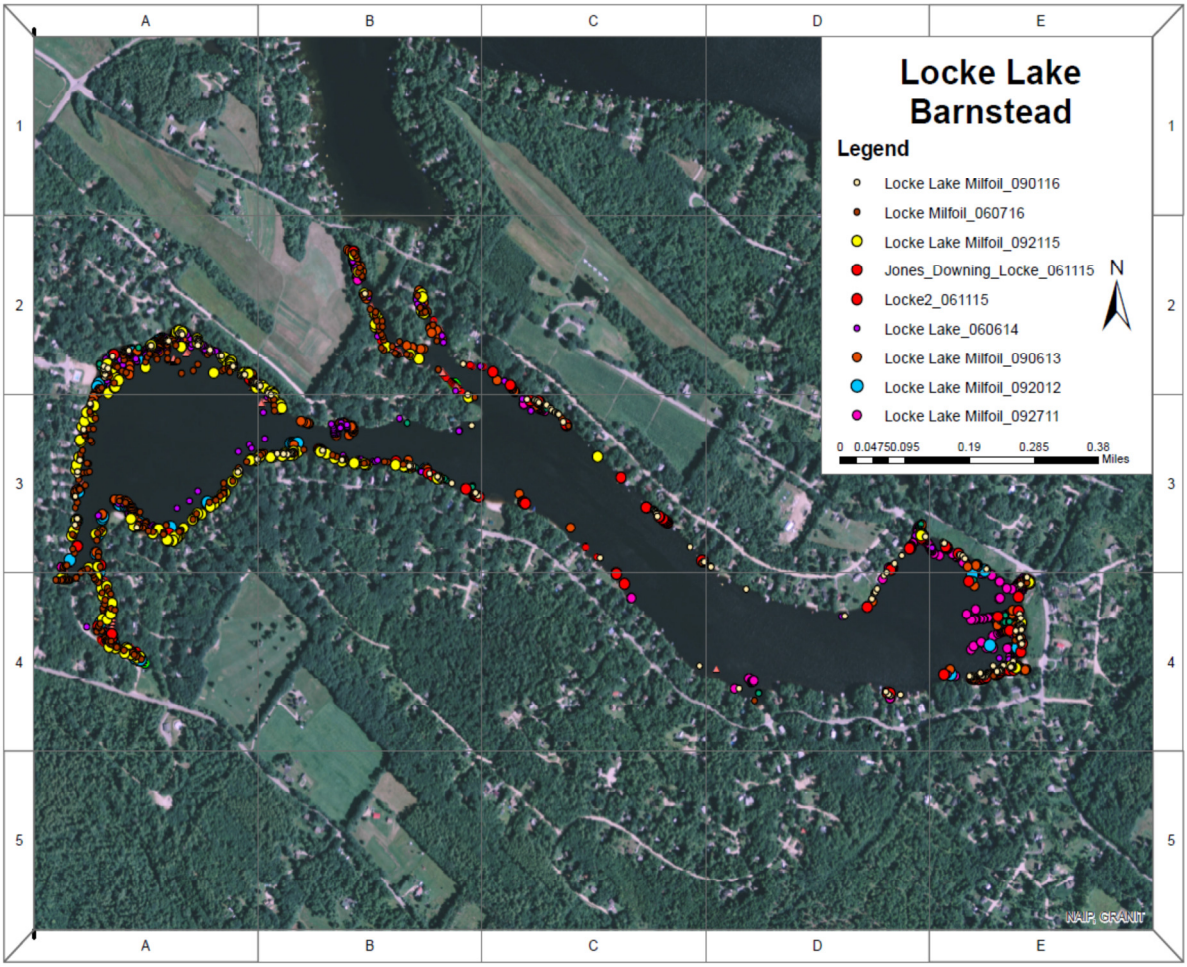
LOCKE LAKE (NHIMP700060402-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WEBSTER STREAM - LOCKE LAKE	NHIMP700060402-02	Chlorophyll a	Barnstead	3-PNS	5-M
		Total Phosphorus	Barnstead	3-PNS	5-M

Locke Lake was assessed as 3-PNS in 2014 although data supported impairment at that time. The decision to wait was in order to make the assessment based on a full 10 year data set. The target trophic class for Locke Lake is mesotrophic and the high median chlorophyll-a and total phosphorus support impairment. The quantity of invasive plants in this system has varied throughout the years, and reached a peak at 38 acres of infestation in June 2016 prior to herbicide treatment in September 2016. The lake management plan recommends continued herbicide treatment to knock back the bulk of the infestation. The association also plans to utilize diver assisted suction harvesting (DASH) as a management technique. While harvested plants will remove nutrients from the system, milfoil die-off from herbicide treatments combined with

sediment release from suction harvesting activities will likely release nutrient into the water column and increase the potential for algal blooms. Already the system has experienced short-term cyanobacteria blooms. Locke Lake has been assessed as impaired (5-M) for chlorophyll-a and total phosphorus in the 2016 assessment cycle.




Locke Lake
Barnstead
Legend
Locke Lake Milfoil_090116
Locke Milfoil_060716
Locke Lake Milfoil_092115
Jones_Downing_Locke_061115
Locke2_061115
Locke Lake_060614
Locke Lake Milfoil_090613
Locke Lake Milfoil_092012
Locke Lake Milfoil_092711
N
0 0.04750.095 0.19 0.285 0.38
Miles
NAIP, GRANIT
A
B
C
D
E
1
2
3
4
5

JENNESS POND (NHLAK700060502-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
JENNESS POND	NHLAK700060502-06	Chlorophyll-a	Northwood	3-PNS	5-M
		Total Phosphorus		2-M	5-M

The chlorophyll-a median has exceeded the threshold for oligotrophic lakes in the last two assessment cycles with no indication that levels are decreasing. Monthly VLAP monitoring suggests chlorophyll-a levels more frequently exceed the threshold since 2009. The total phosphorus median hovers at the threshold but has not exceeded it; however total phosphorus will be listed at impaired due to the stressor response matrix.

Cyanobacteria (Primary Contact recreation [i.e. Swimming])

SUNRISE LAKE (NHLAK600030601-05-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SUNRISE LAKE	NHLAK600030601-05-01	Cyanobacteria hepatotoxic microcystins	MIDDLETON	3-ND	5-M

Multiple blooms some of which were spatially widely documented. Sunrise Lake, Beach #1 Middleton 5/27/2016 *Anabaena* 200,000 cells/mL; Sunrise Lake, Main Beach Middleton 5/27/2016 *Anabaena* 2.5 million cells/mL; Sunrise

Lake, Dowling Cove Middleton 6/2/2016 *Anabaena* 5,000 cells/mL; Sunrise Lake 8/6/2014 *Anabaena circinalis* 540,000 cells/mL.

DOWNING POND (NHLAK700020102-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
DOWNING POND	NHLAK700020102-02	Cyanobacteria hepatotoxic microcystins	NEW DURHAM	3-ND	5-M

Multiple documented *Anabaena* blooms; 6/30/2016, 120,000 cells/mL; 7/15/2016, 170,000 cells/mL; 7/21/2016, 142,200 cells/mL; 8/25/2015, 150,000 cells/mL; 8/17/2015, 4,100,000 cells/mL. This is part of the Merrymeeting River issues.

JONES POND (NHIMP700020102-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
JONES POND	NHIMP700020102-01-01	Cyanobacteria hepatotoxic microcystins	NEW DURHAM	3-ND	5-M

8/12/2016 *Oscillatoria* 2.3 million cells/mL. This is part of the Merrymeeting River issues.

HOTHOLE POND (NHLAK700060302-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HOTHOLE POND	NHLAK700060302-05	Cyanobacteria hepatotoxic microcystins	LOUDON	3-ND	5-M

12 samples were collected and counted in 2016. One sample (8/25/2016) was 72,000 cells/ml of *Anabaena*. Cyanobacteria was present in every sample from August 12 to October 16 (last sample of season) at 4,000 to 72,000 cells/ml. There is limited other water quality data for this waterbody but the 2004 dissolved oxygen showed that the entire 8 meters of the hypolimnion was less than 1 mg/L dissolved oxygen indicating likely phosphorus regenerations from the sediments.

DARRAH POND (NHLAK700061002-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
DARRAH POND	NHLAK700061002-01-01	Cyanobacteria hepatotoxic microcystins	LITCHFIELD	3-ND	5-P

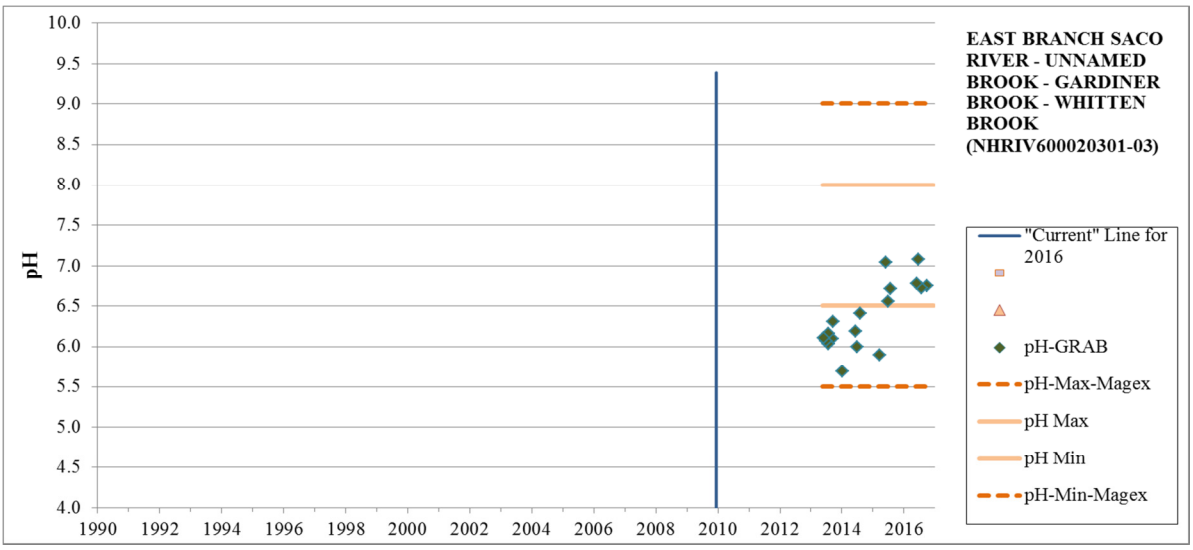
Multiple blooms documented; 7/26/2016, *Phormidium* 1,400,000 cells/mL; 7/28/2016, *Phormidium* 1,000,000 cells/mL; 8/3/2016 *Phormidium* and *Oscilltoria* 180,000 cells/mL; 8/10/2015 likely *Oscillatoria* 140,000 cells/mL; 8/14/2015 Unknown cyanobacteria 83,000 cells/mL; 8/21/2015 *Oscillatoria* 140,000 cells/mL.

pH (Aquatic Life Use Support)

EAST BRANCH SACO RIVER - UNNAMED BROOK - GARDINER BROOK - WHITTEN BROOK (NHRIV600020301-03

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
EAST BRANCH SACO RIVER - UNNAMED BROOK - GARDINER BROOK - WHITTEN BROOK	NHRIV600020301-03	pH	BARTLETT	3-ND	5-M

2016: 11 of 18 (61%) of the samples collected between 2013 and 2016 were below 6.5, which triggered new impairment for 2016 cycle. All samples were collected at station 06-EBS under varying weather and flow conditions during the summer/fall.



Notes:

pH-GRAB = pH value from a grab sample.

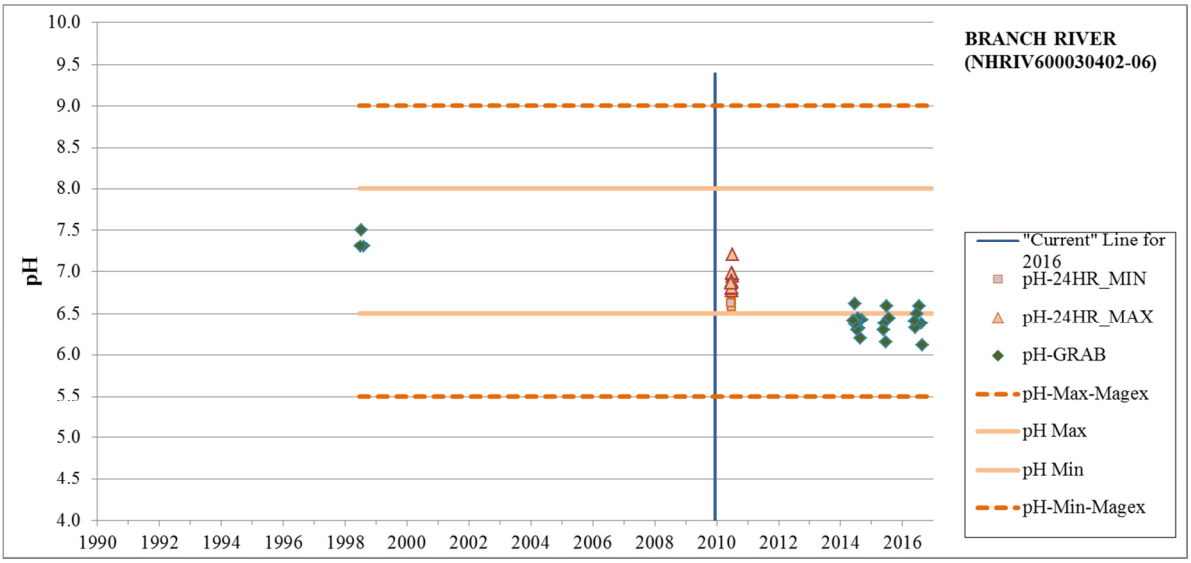
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

BRANCH RIVER (NHRIV600030402-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BRANCH RIVER	NHRIV600030402-06	pH	MILTON	2-G	5-M

2016: New grab sample data collected in 2014, 2015 and 2016 at station 01-BRA triggered new impairment. 17 of the last 21 samples were non-supports (low pH between 6.15 - 6.44) collected in June through September of each year. The non-supporting samples were collected at flows between 0.04 - 1.51 cfsm on the Cocheco River gage (01072800) and during varying weather conditions (0-2" 3 day total). Datalogger at station 00G-BRA in 2010 showed all full support.



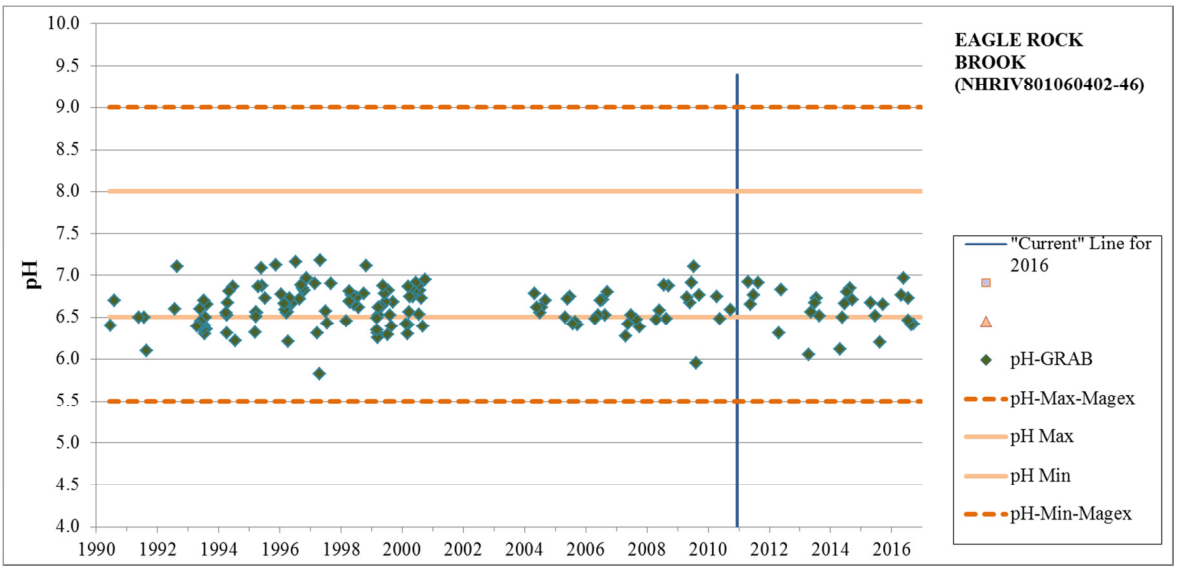
Notes:

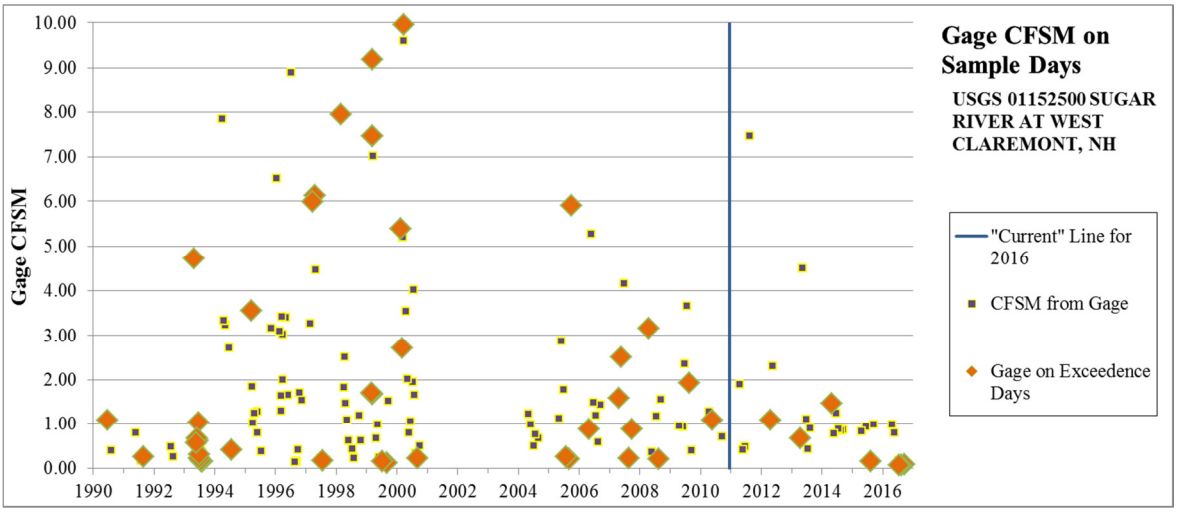
pH-24HR_MIN = pH minimum value from a datalogger deployment.
pH-24HR_MAX = pH maximum value from a datalogger deployment.
pH-GRAB = pH value from a grab sample.
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
"Current" Line for 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.

EAGLE ROCK BROOK (NHRIV801060402-46)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
EAGLE ROCK BROOK	NHRIV801060402-46	pH	SUNAPEE	3-PNS	5-M

2016: 8 of 30 (27%) grab samples collected between 2010 – 2016 were non-supports due to being below 6.5, which triggered the new impairment for the 2016 cycle. All samples were collected at station SUNSUN5151 with flows between 0.07 – 1.47 cfsm on the Sugar River gage (01152500) from May to October.





Notes:

pH-GRAB = pH value from a grab sample.

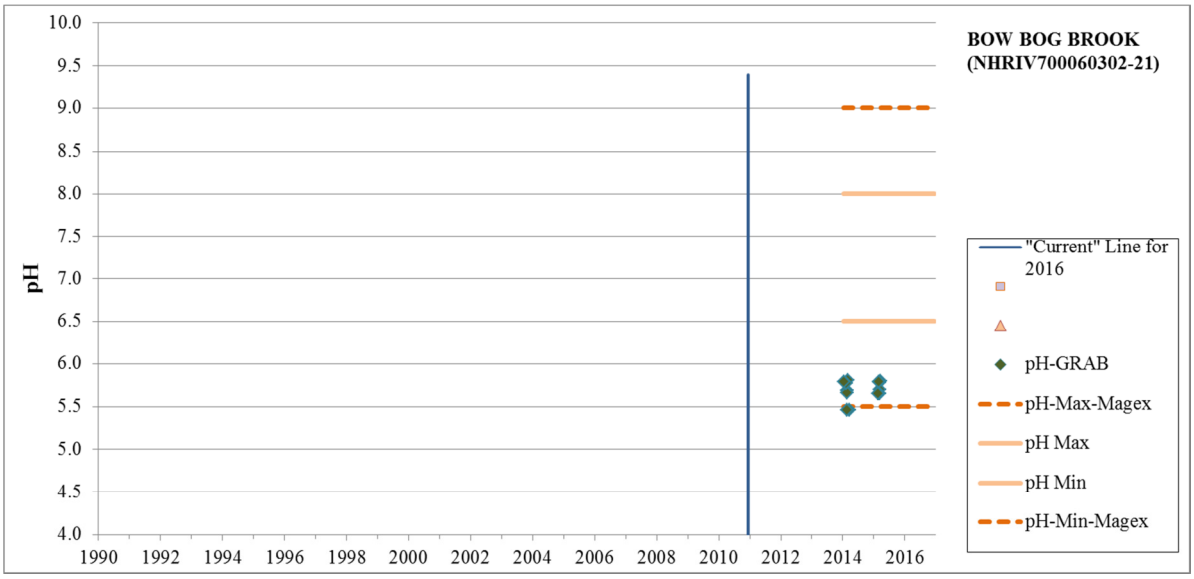
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

BOW BOG BROOK (NHRIV700060302-21)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BOW BOG BROOK	NHRIV700060302-21	pH	Bow	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at station 02-BBB triggered the new impairment in the 2016 cycle. All 13 grab samples were non-supports collected in February through April. Two of the non-supports were just below the pH minimum magex of 5.5 with readings of 5.46. The non-supporting samples were collected at flows of 0.72 and 7.28 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 and 0.93" preceding three day precipitation). The river has been categorized as 5-M for the 2016 cycle.



Notes:

pH-GRAB = pH value from a grab sample.

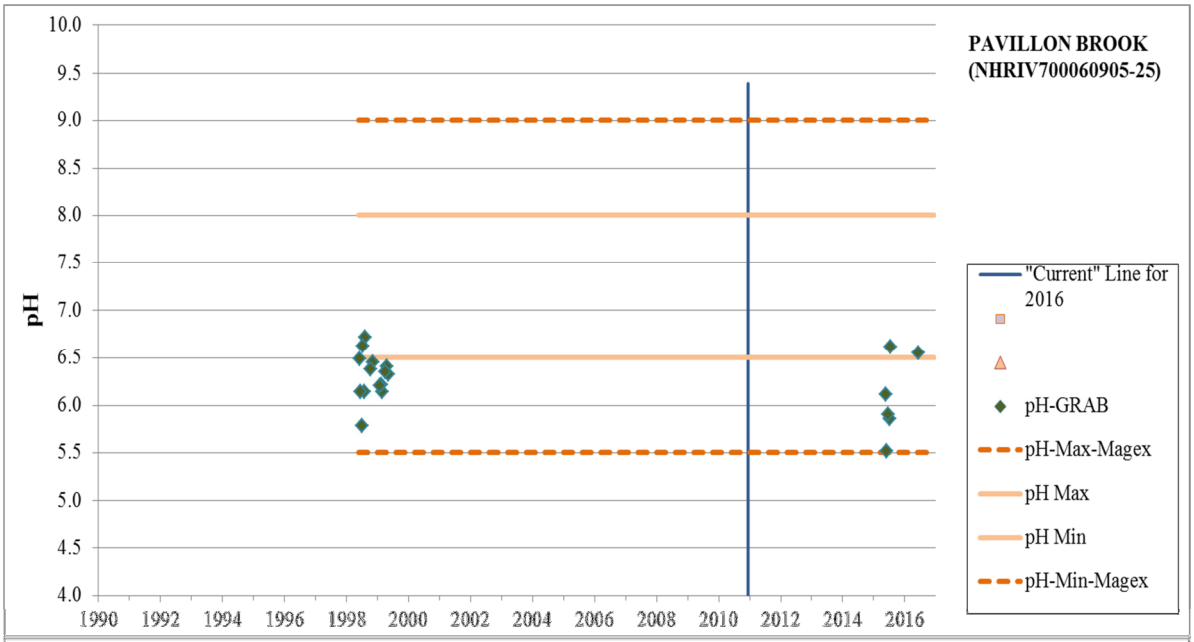
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

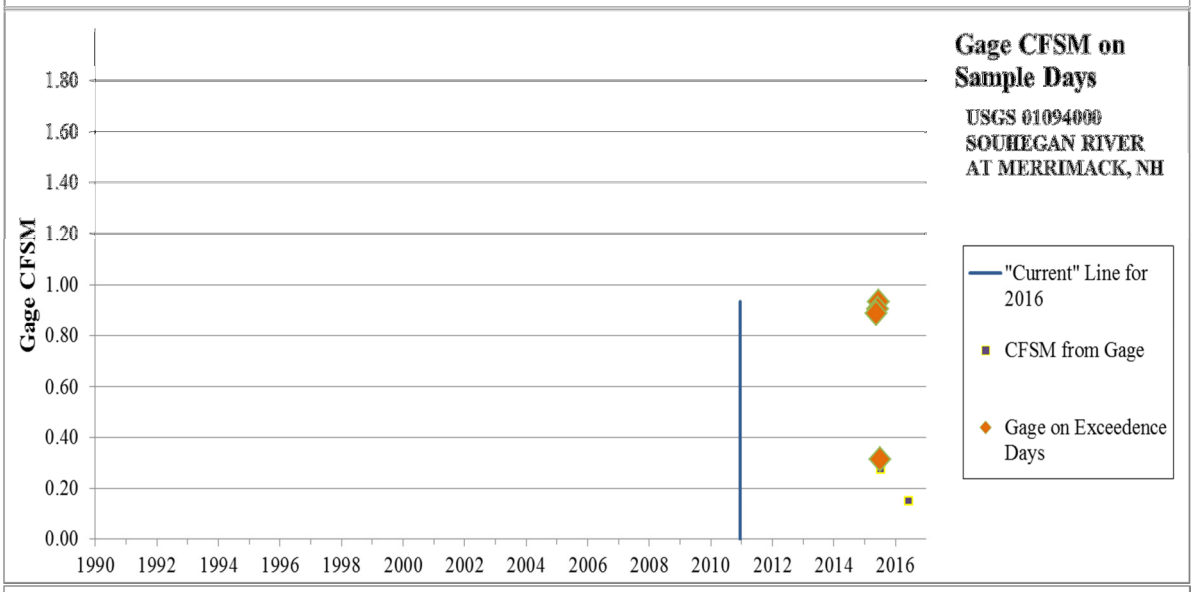
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

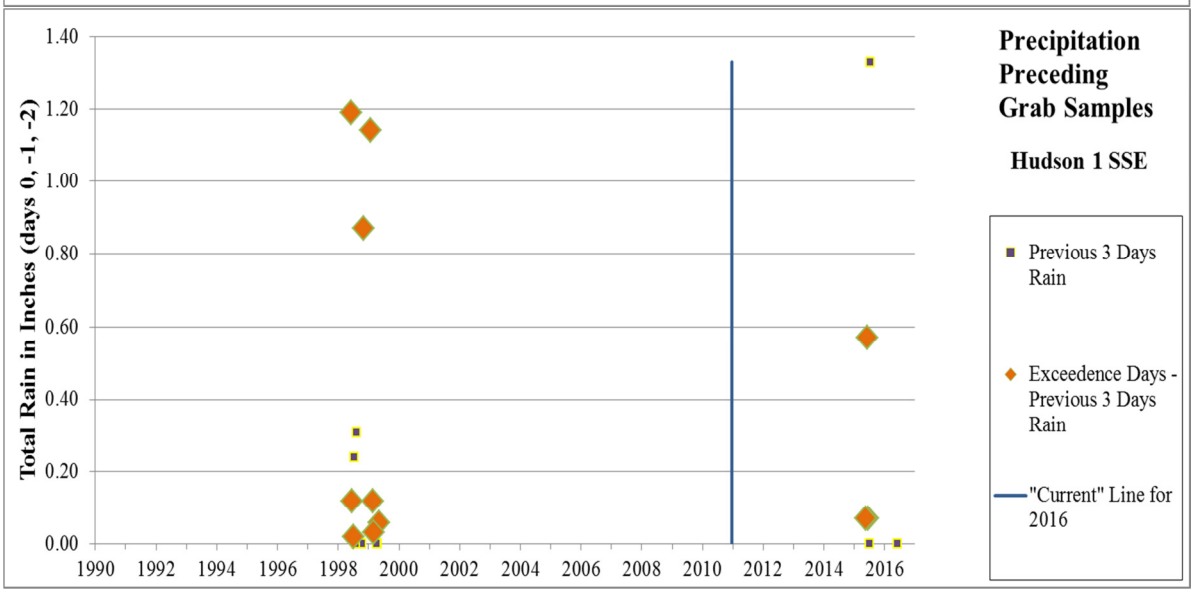
PAVILLON BROOK (NHRIV700060905-25)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
PAVILLON BROOK	NHRIV700060905-25	pH	AMHERST	3-ND	5-M

2016: Grab sample data collected in 2015 and 2016 at station BABAMHPB triggered the impairment for the 2016 cycle. 4 of 6 (67%) samples were non-supports (low pH between 5.51 – 6.12) collected in June and July. The non-supporting samples were collected at flows between 0.31 – 0.94 cfsm on the Souhegan River gage (01094000) and during varying weather conditions (0.00-0.57" preceding three day precipitation).


PAVILLON BROOK
(NHRIV700060905-25)
pH
"Current" Line for 2016
pH-GRAB
pH-Max-Magex
pH Max
pH Min
pH-Min-Magex


Gage CFSM on Sample Days
USGS 01094000
SOUHEGAN RIVER
AT MERRIMACK, NH
Gage CFSM
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days


Precipitation Preceding Grab Samples
Hudson 1 SSE
Total Rain in Inches (days 0, -1, -2)
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain
"Current" Line for 2016

Notes:

pH-GRAB = pH value from a grab sample.

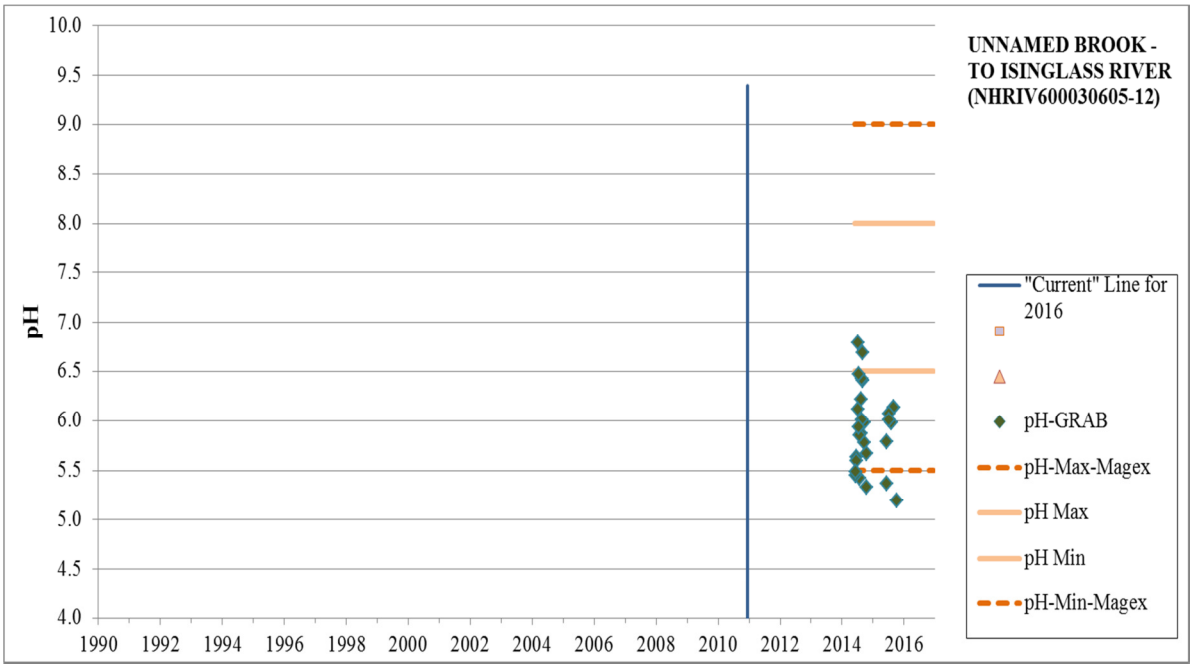
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

UNNAMED BROOK - TO ISINGLASS RIVER (NHRIV600030605-12)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - TO ISINGLASS RIVER	NHRIV600030605-12	pH	STRAFFORD	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 02-XIG and 02D-XIG triggered the new impairment in the 2016 cycle. 27 of 29 (93%) grab samples were non-supports (low pH between 5.19 – 6.47) collected in June through October. The non-supporting samples were collected at flows between 0.11 – 5.92 cfsm on the Cocheco River gage (01072800) and during varying weather conditions (0.00 - 2.78" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

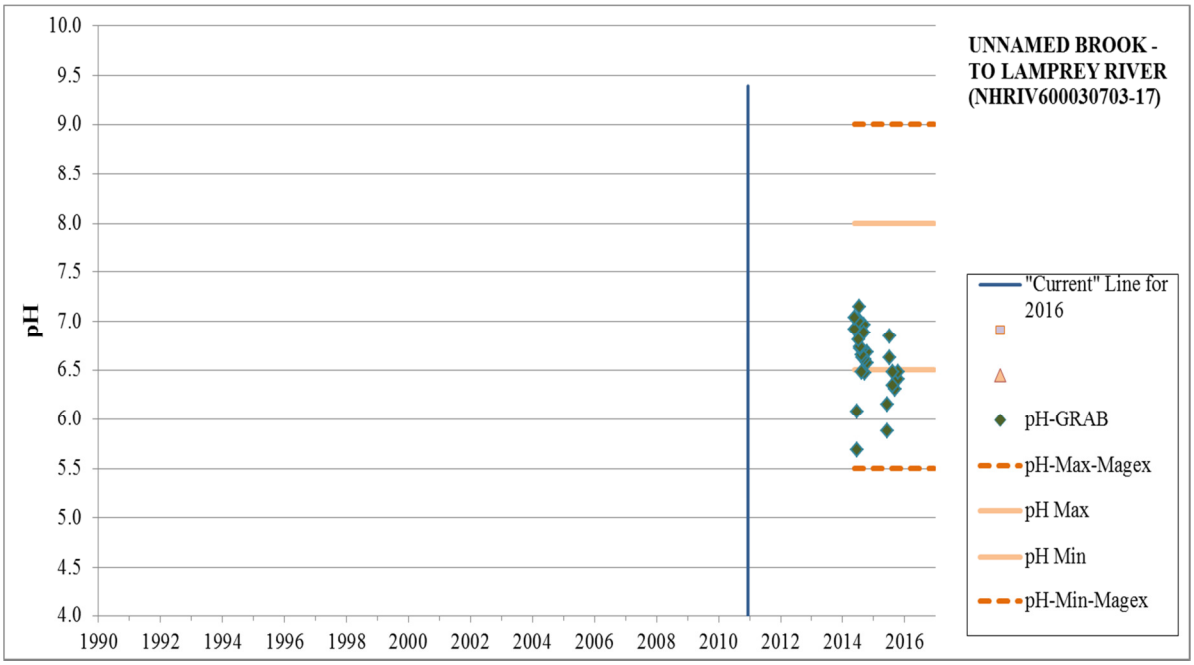
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

UNNAMED BROOK - TO LAMPREY RIVER (NHRIV600030703-17)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - TO LAMPREY RIVER	NHRIV600030703-17	pH	EPPING	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at stations 04-XLP and 05-XLP triggered the new impairment in the 2016 cycle. 11 of 29 (38%) grab samples were non-supports (low pH between 5.69 – 6.48) collected in June through November. The non-supporting samples were collected at flows between 0.08 – 1.37 cfsm on the Lamprey River gage (01073500) and during varying weather conditions (0.00 – 0.85" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

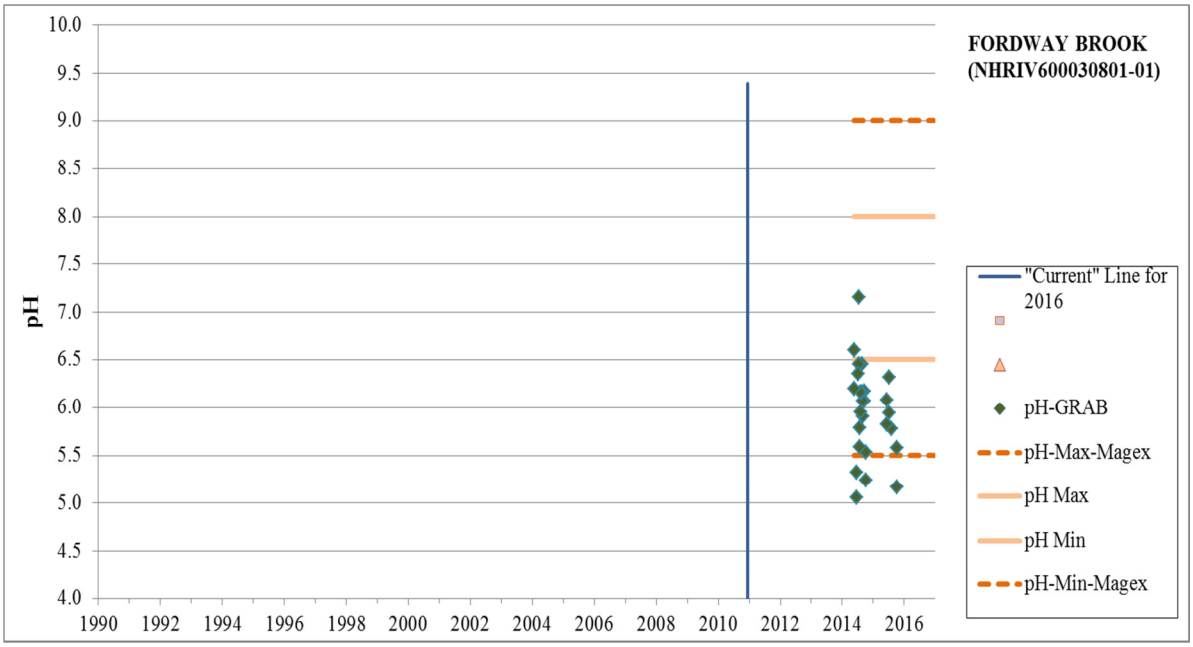
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

FORDWAY BROOK (NHRIV600030801-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
FORDWAY BROOK	NHRIV600030801-01	pH	RAYMOND	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 06-FDW and 06F-FDW triggered the new impairment in the 2016 cycle. 24 of 26 (92%) grab samples were non-supports (low pH between 5.06 – 6.45) collected in June through October. The non-supporting samples were collected at flows between 0.41 – 3.78 cfsm on the Merrimack River gage (01092000) and during varying weather conditions (0.00 – 2.12" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

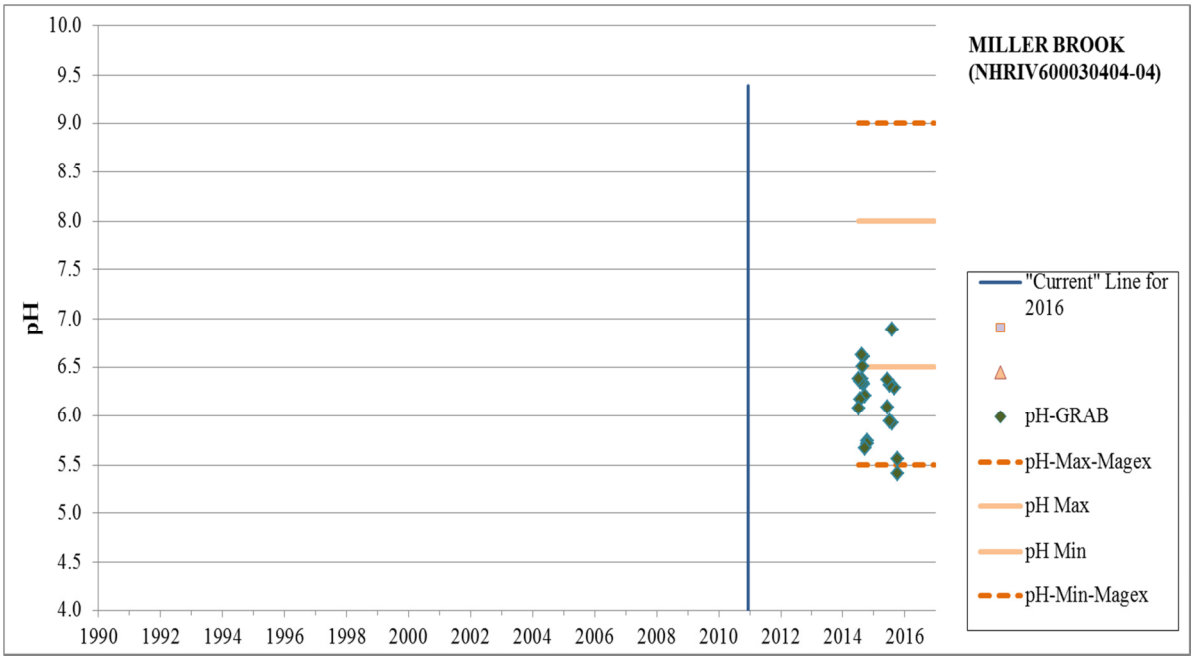
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

MILLER BROOK (NHRIV600030404-04)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
MILLER BROOK	NHRIV600030404-04	pH	MILTON	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015, at stations 04-XML and 04T-XML triggered the new impairment in the 2016 cycle. 19 of 23 (83%) grab samples were non-supports (low pH between 5.41 – 6.38) collected in June through October. The non-supporting samples were collected at flows between 0.11 – 5.92 cfsm on the Cocheco River gage (01072800) and during varying weather conditions (0.00-2.94" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

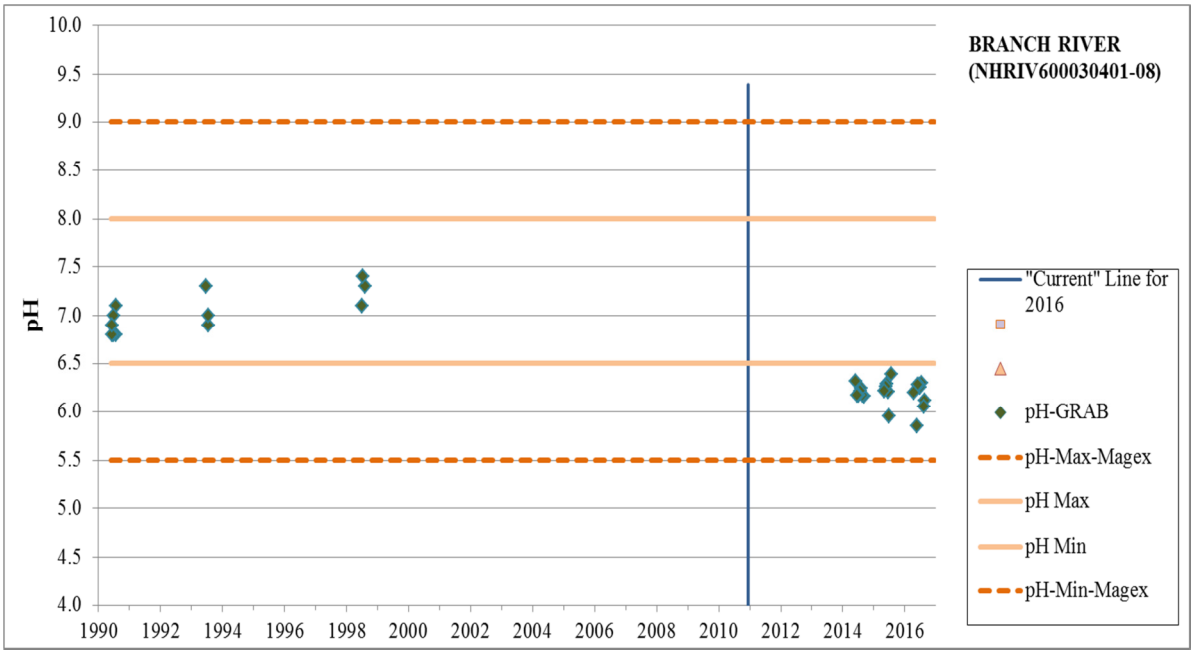
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

BRANCH RIVER (NHRIV600030401-08)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BRANCH RIVER	NHRIV600030401-08	pH	WAKEFIELD	3-ND	5-M

2016: Grab sample data collected in 2014, 2015, and 2016 at station 06-BRA triggered the new impairment in the 2016 cycle. All 21 grab samples were non-supports (low pH between 5.85 – 6.39) collected in June through September. The non-supporting samples were collected at flows between 0.04 – 1.51 cfsm on the Cocheco River gage (01072800) and during varying weather conditions (0.02-1.73" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

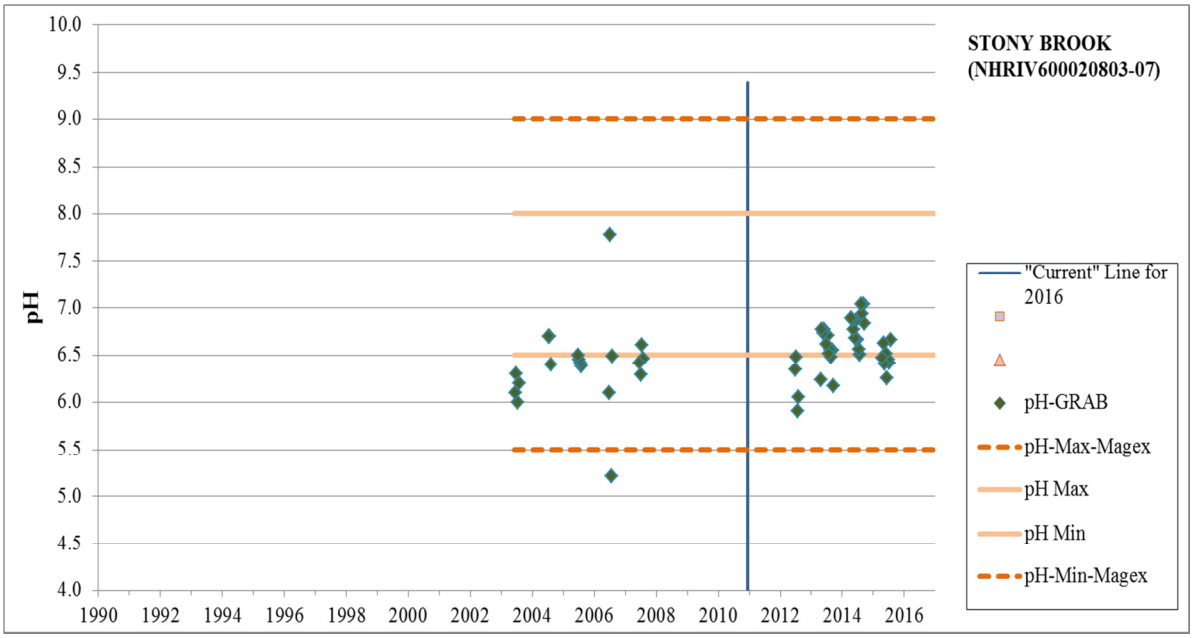
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

STONY BROOK (NHRIV600020803-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
STONY BROOK	NHRIV600020803-07	pH	FREEDOM	3-ND	5-M

2016: Grab sample data collected in 2015 at station OL-10 triggered the new impairment in the 2016 cycle. 12 of 36 (33%) grab samples were non-supports (low pH between 5.91 – 6.48) collected in May through October. The non-supporting samples were collected at flows between 0.15 – 11.24 cfsm on the Bearcamp River gage (01064801) and during varying weather conditions (0.01-1.12" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

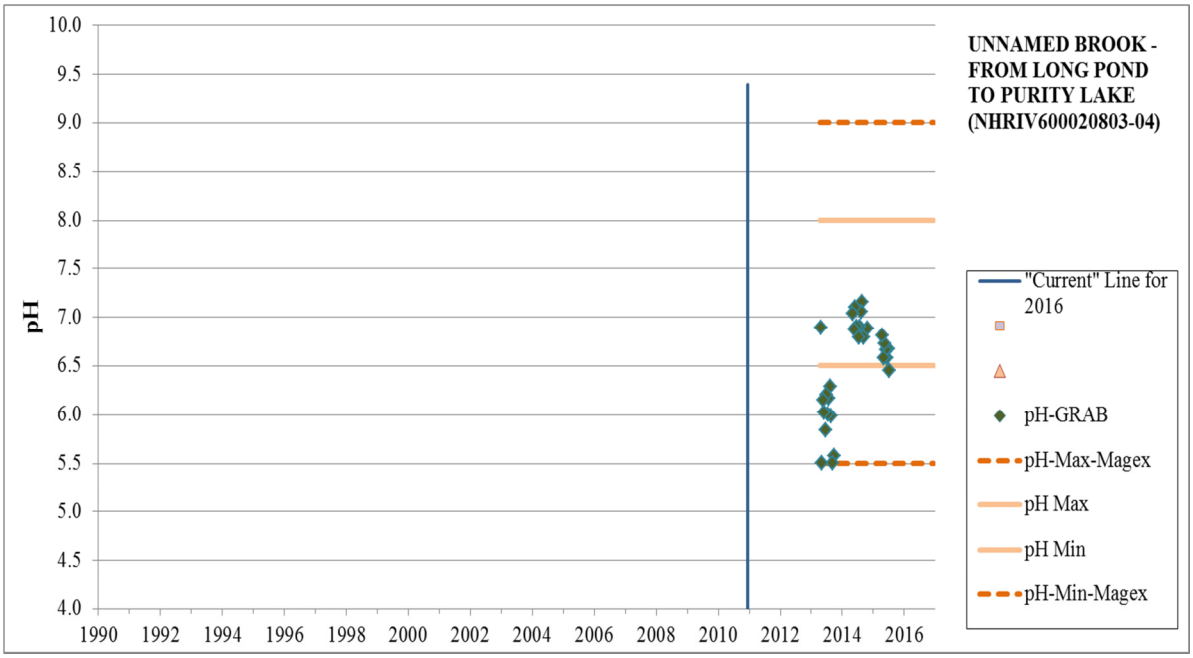
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

UNNAMED BROOK - FROM LONG POND TO PURITY LAKE (NHRIV600020803-04)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - FROM LONG POND TO PURITY LAKE	NHRIV600020803-04	pH	EATON	3-ND	5-M

2016: Grab sample data collected in 2013 at station GEA-1 triggered the new impairment in the 2016 cycle. 12 of 29 (41%) samples were non-supports (low pH between 5.51 – 6.46) collected in May through October. The non-supporting samples were collected at flows between 0.93 – 4.78 cfsm on the Saco River gage (01064500) and during varying weather conditions (0.01 - 1.45" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

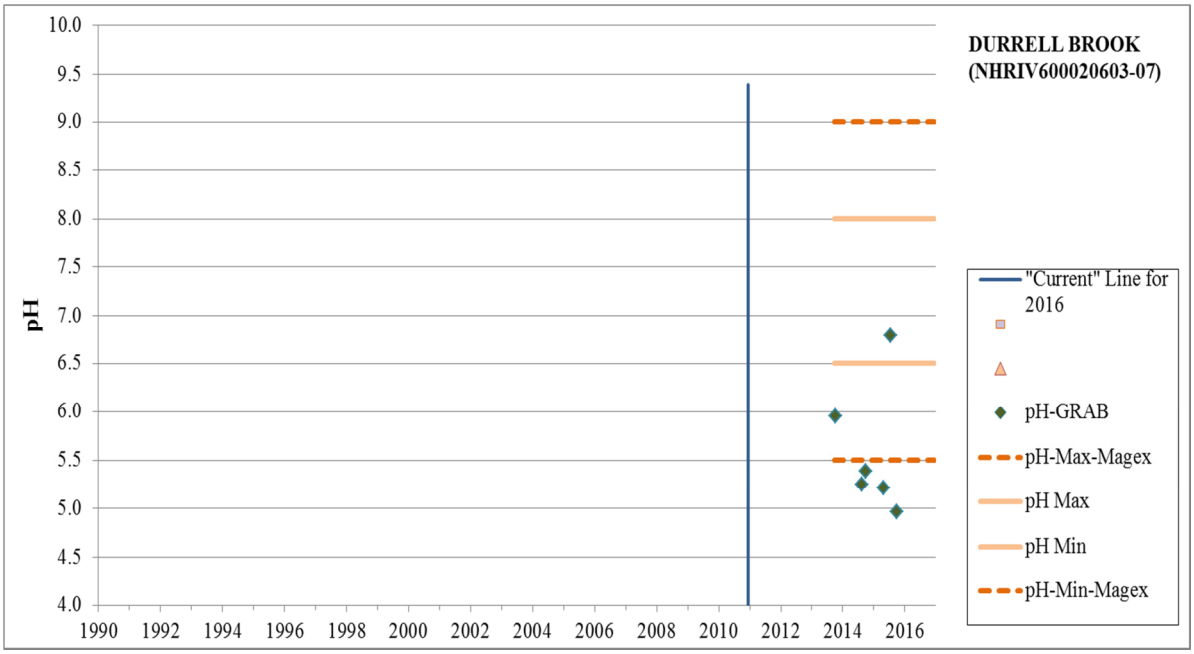
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

DURRELL BROOK (NHRIV600020603-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
DURRELL BROOK	NHRIV600020603-07	pH	TAMWORTH	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at station 00E-PGS triggered the new impairment in the 2016 cycle. 5 of 6 (83%) grab samples were non-supports (low pH between 4.97 – 5.95) collected in May through October. The non-supporting samples were collected at flows between 0.38 – 0.83 cfsm on the Bearcamp River gage (01064801) and during varying weather conditions (0.02-0.15" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

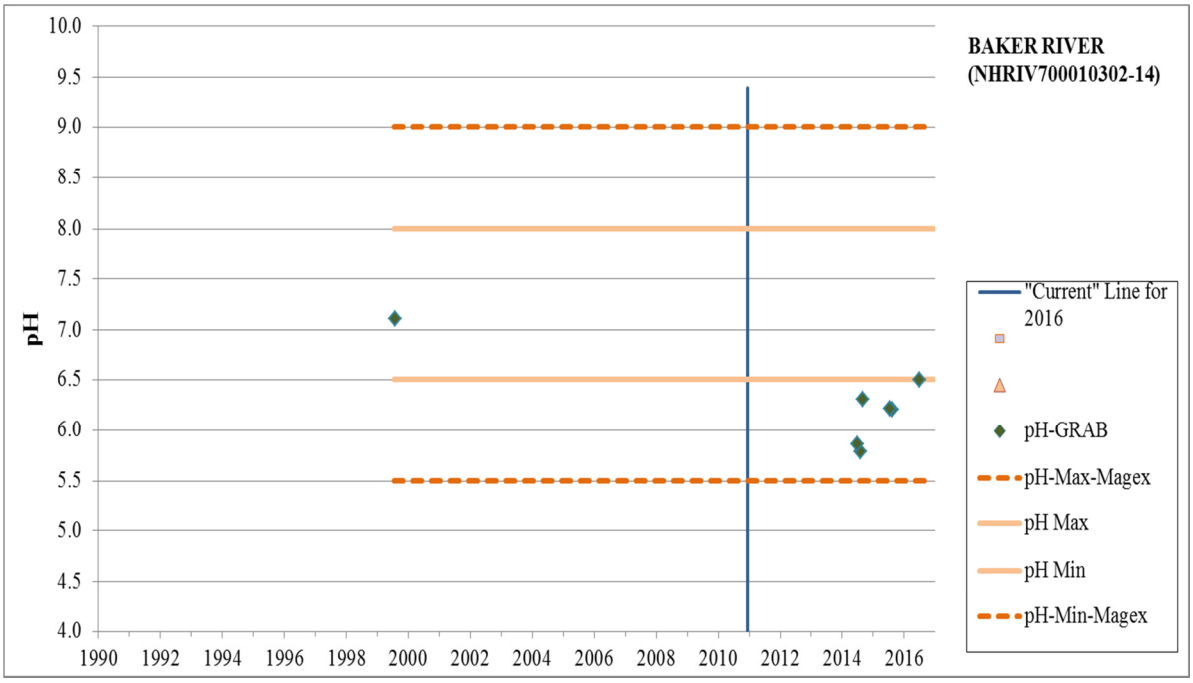
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

BAKER RIVER (NHRIV700010302-14)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010302-14	pH	WENTWORTH	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at station 08-BKR triggered the new impairment in the 2016 cycle. 5 of 6 (83%) grab samples were non-supports (low pH between 5.79 – 6.31) collected in July through September. The non-supporting samples were collected at flows between 0.23 – 0.75 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.54" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

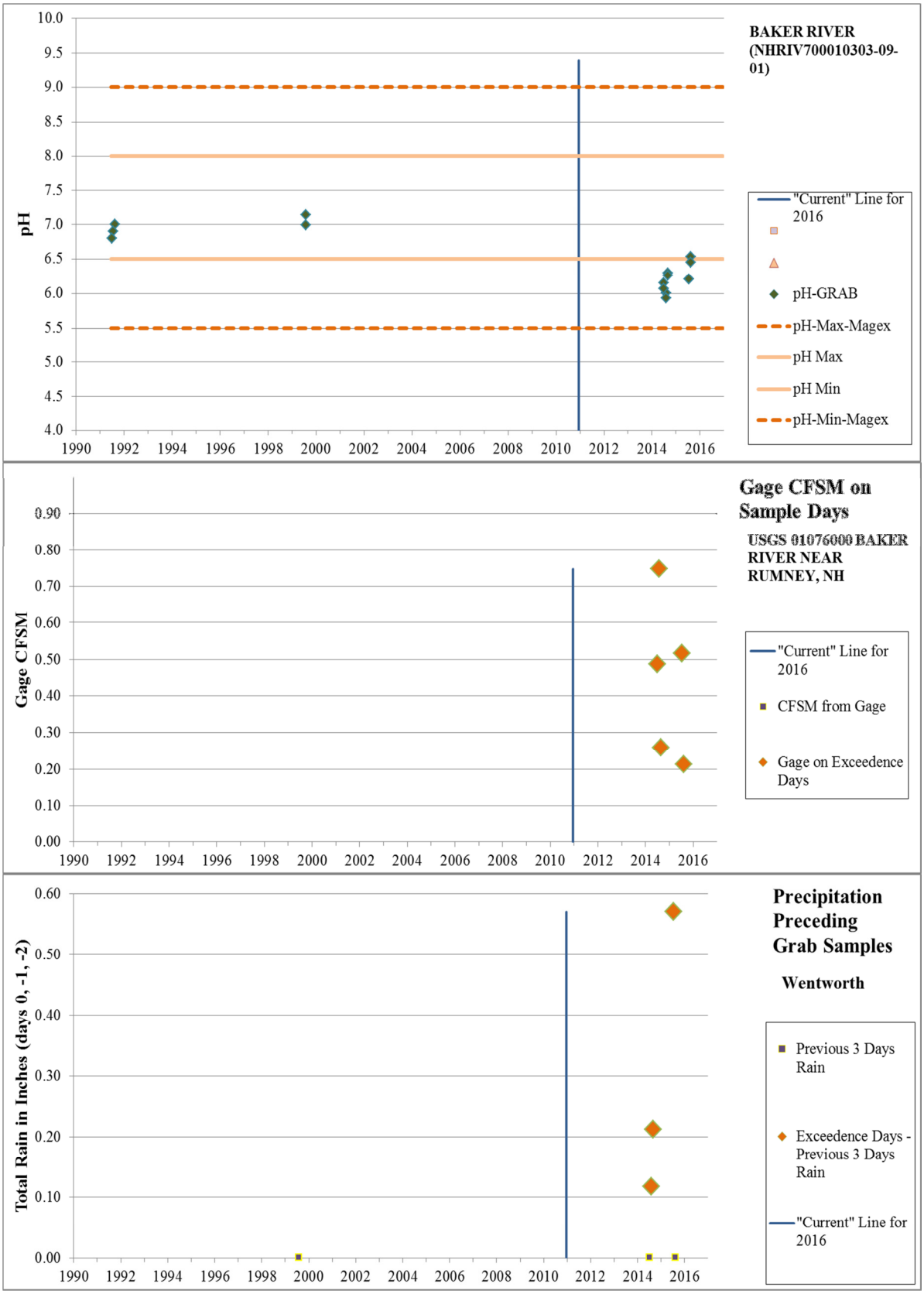
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

BAKER RIVER (NHRIV700010303-09-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010303-09-01	pH	WENTWORTH	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at stations 07-BKR and 07A-BKR triggered the new impairment in the 2016 cycle. 9 of 10 (90%) grab samples were non-supports (low pH between 5.93 – 6.45) collected in July through September. The non-supporting samples were collected at flows between 0.21 – 0.75 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.57" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

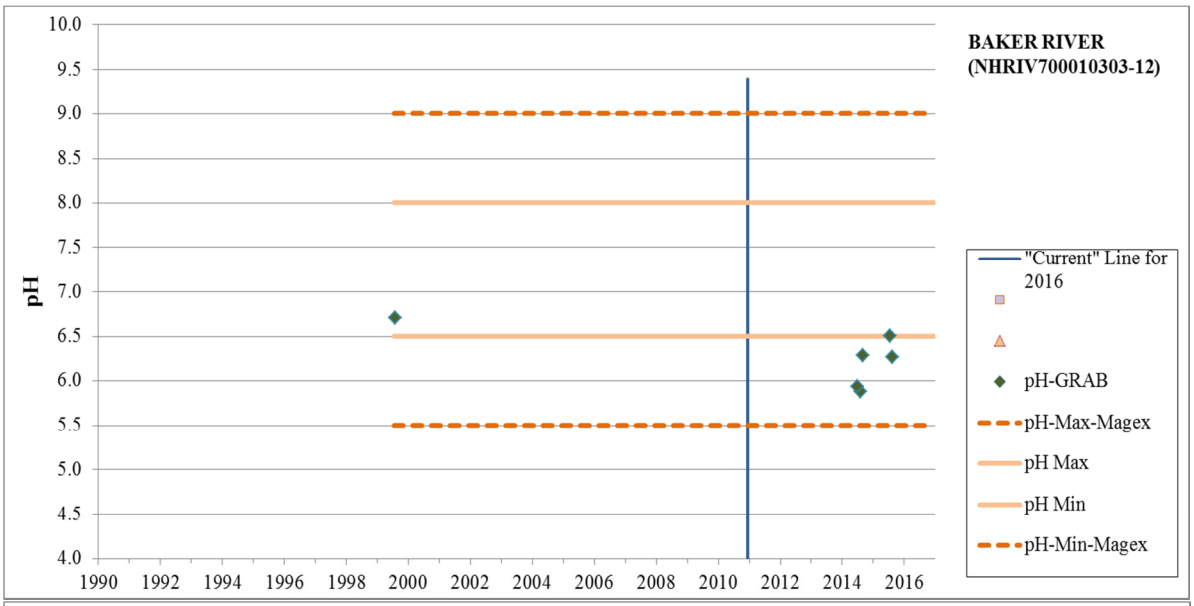
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

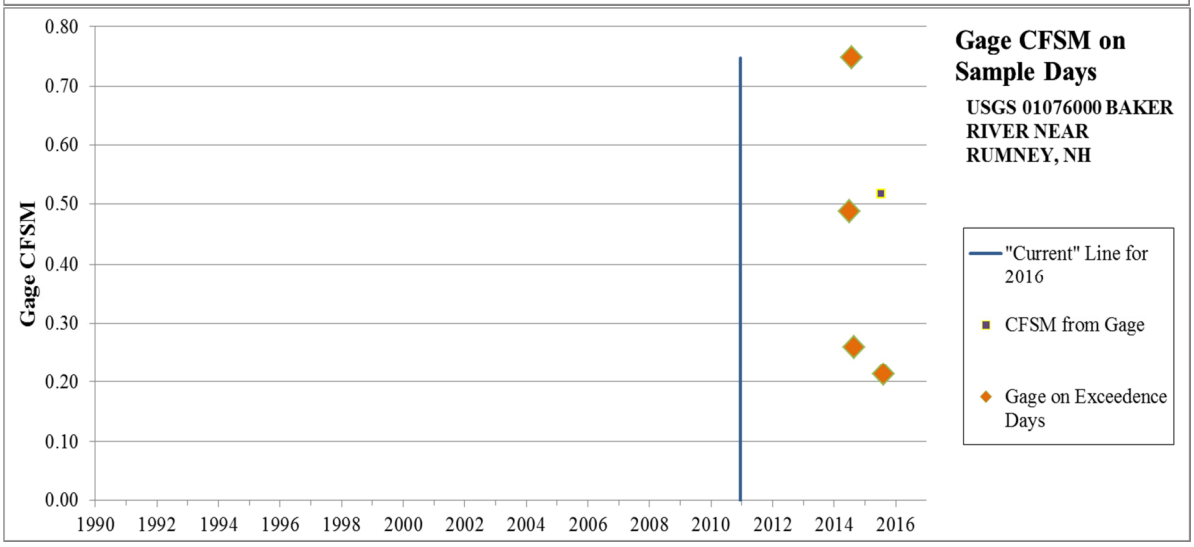
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

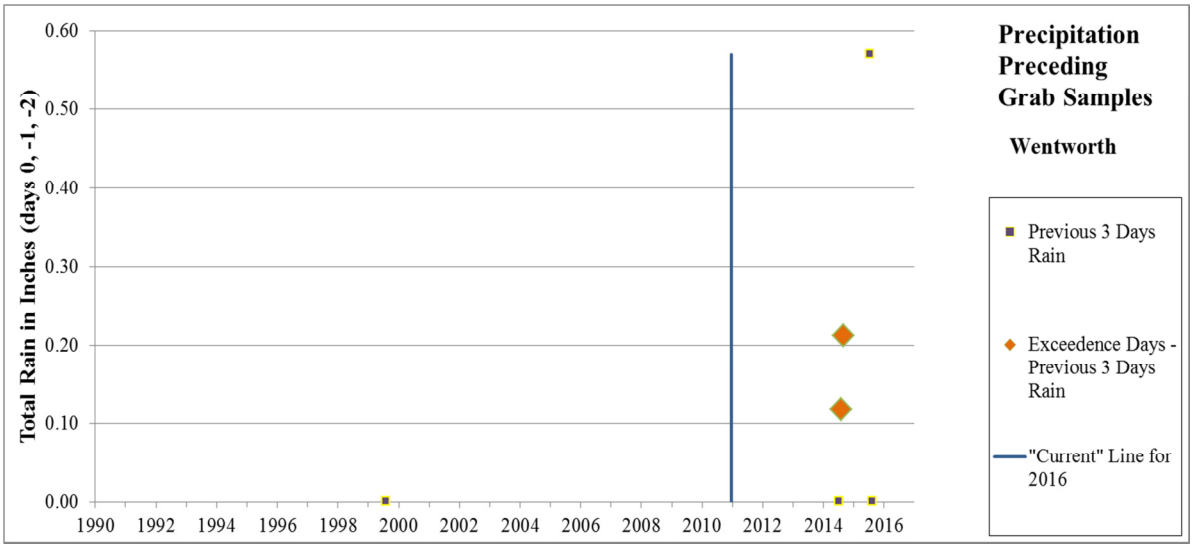
BAKER RIVER (NHRIV700010303-12)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010303-12	pH	WENTWORTH	3-ND	5-M

2016: Grab sample data collected in 2014 and 2015 at station 06A-BKR triggered the new impairment in the 2016 cycle. 4 of 5 (80%) grab samples were non-supports (low pH between 5.88 – 6.28) collected in July through September. The non-supporting samples were collected at flows between 0.21 – 0.75 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.21" preceding three day precipitation).







Notes:

pH-GRAB = pH value from a grab sample.

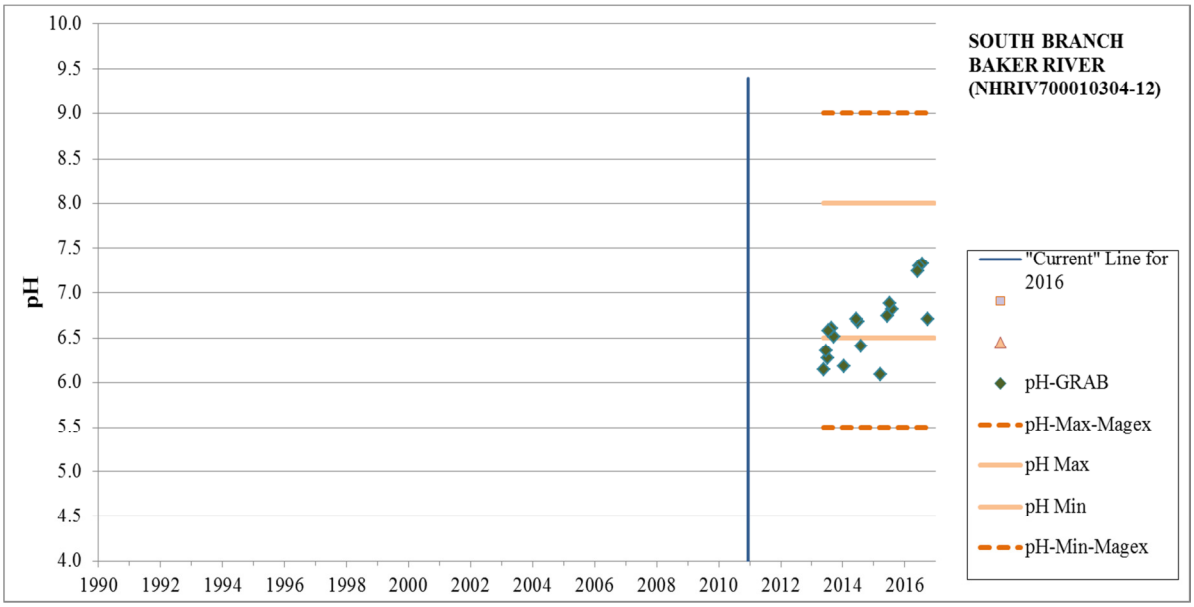
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

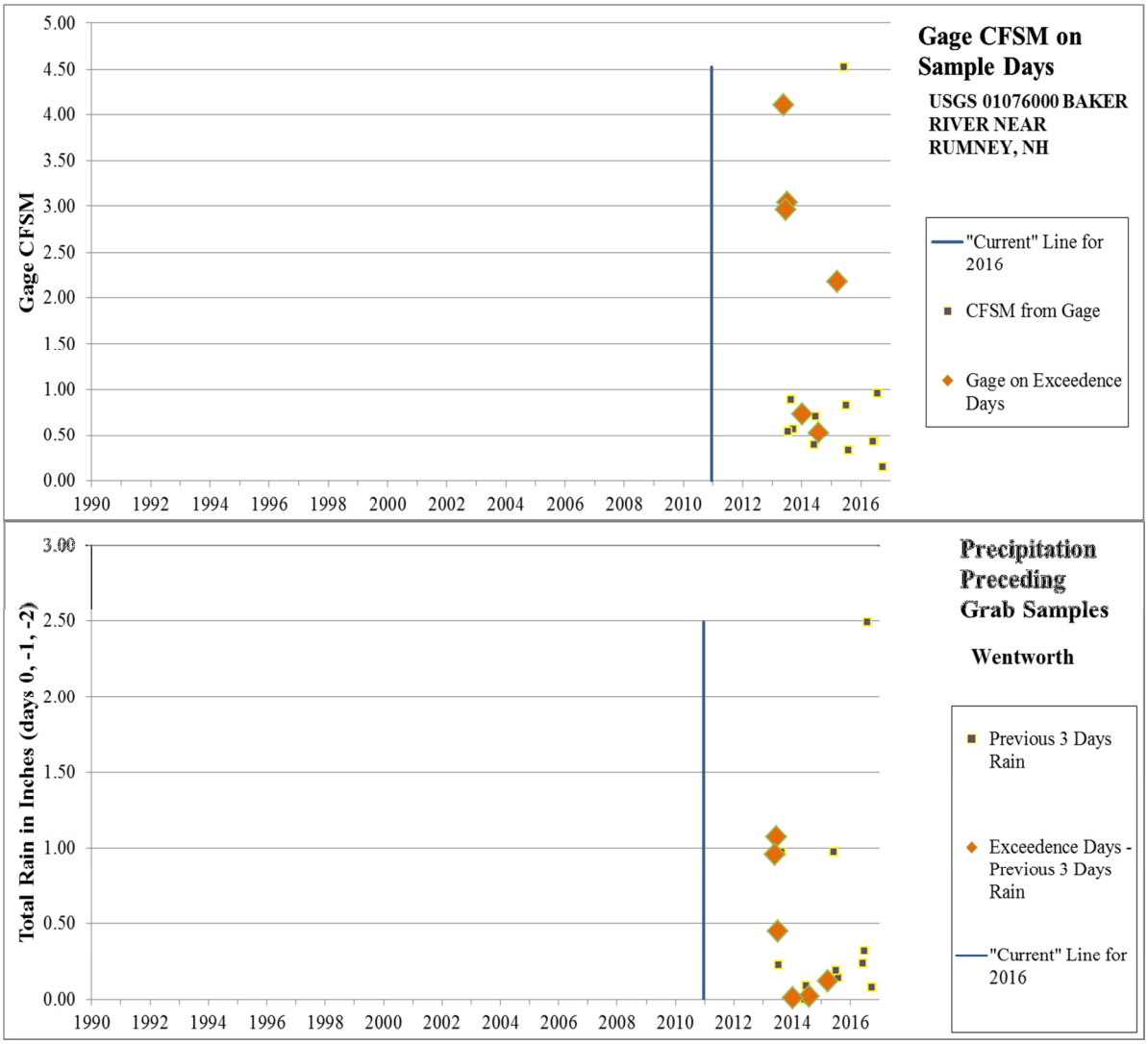
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

SOUTH BRANCH BAKER RIVER (NHRIV700010304-12)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SOUTH BRANCH BAKER RIVER	NHRIV700010304-12	pH	WENTWORTH	3-PNS	5-M

2016: Grab sample data collected in 2013 through 2015 at station 06-SBR triggered the new impairment in the 2016 cycle. 6 of 18 (33%) grab samples were non-supports (low pH between 6.09 – 6.41) collected in January through August. The non-supporting samples were collected at flows between 0.52 – 4.10 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.01 – 1.07" preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

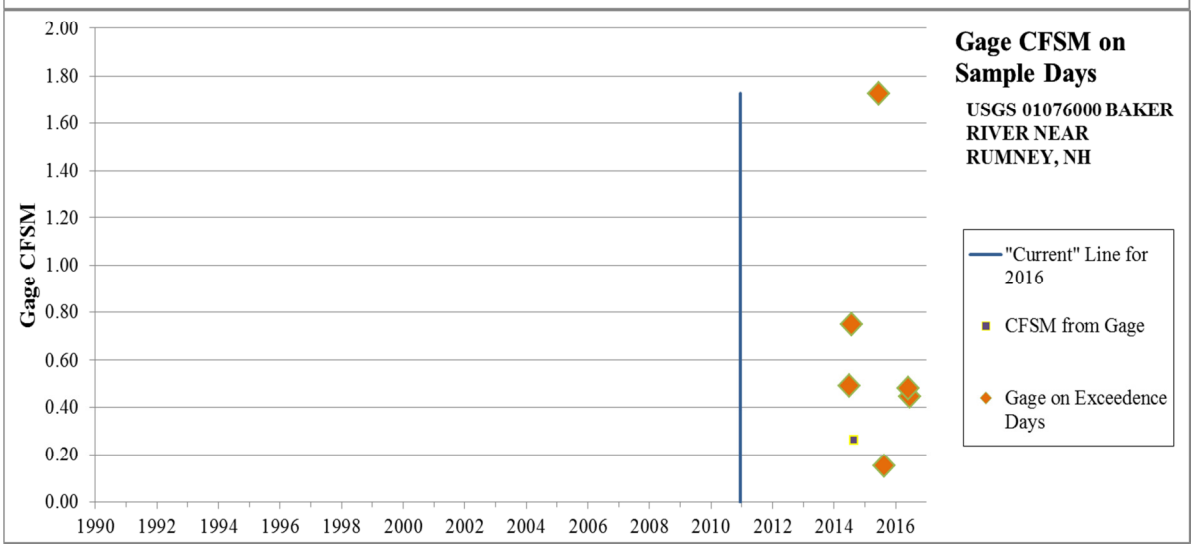
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

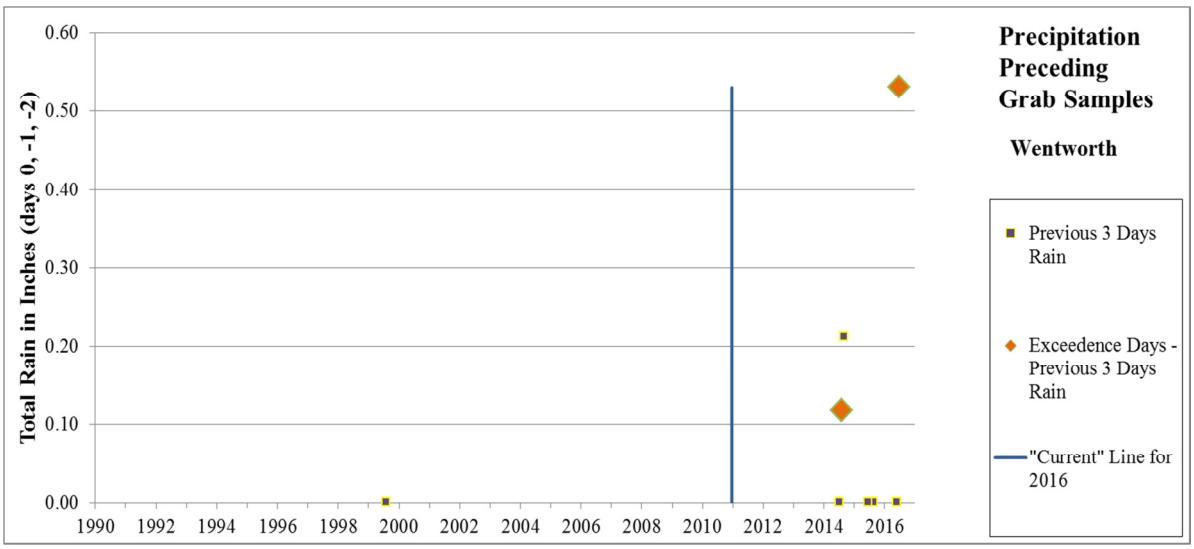
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

BAKER RIVER (NHRIV700010305-11)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010305-11	pH	RUMNEY	3-ND	5-M

2016: Grab sample data collected in 2014 through 2016 at stations 04-BKR, 04G-BKR, and 05-BKR triggered the new impairment in the 2016 cycle. 17 of 21 (81%) grab samples were non-supports (low pH between 5.86 – 6.49) collected in June through September. The non-supporting samples were collected at flows between 0.15 – 1.73 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.53" preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

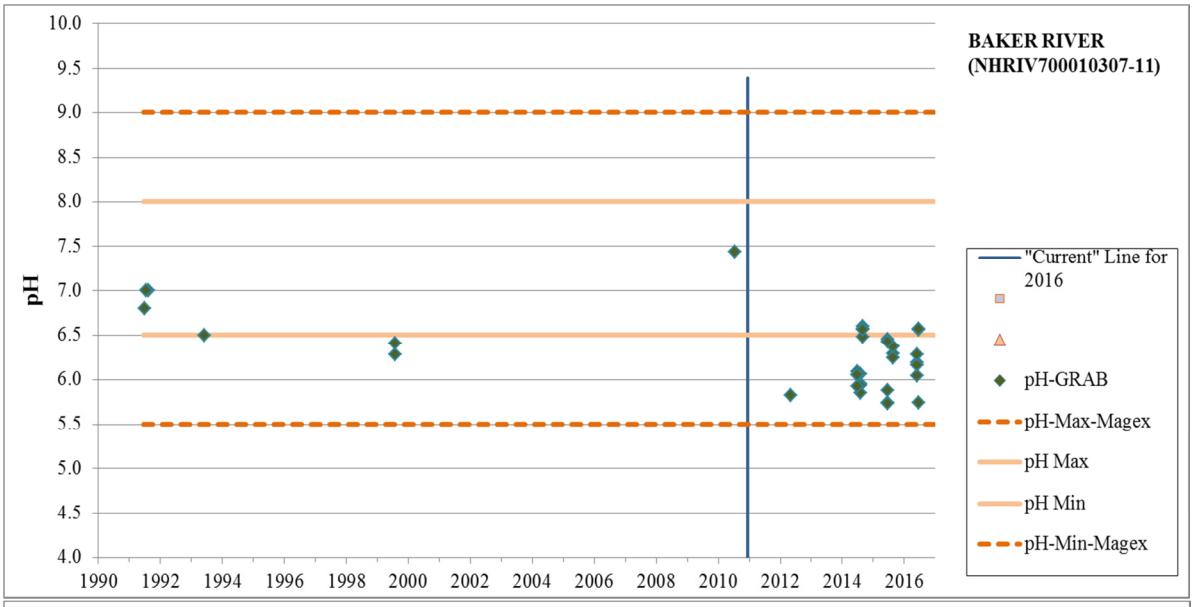
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing

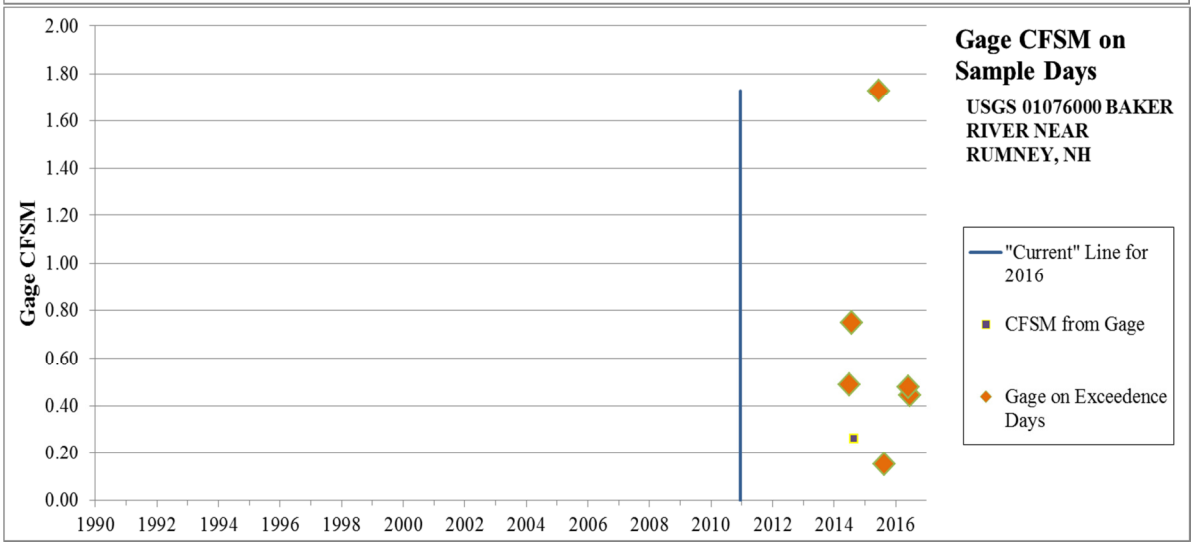
Methodology.
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

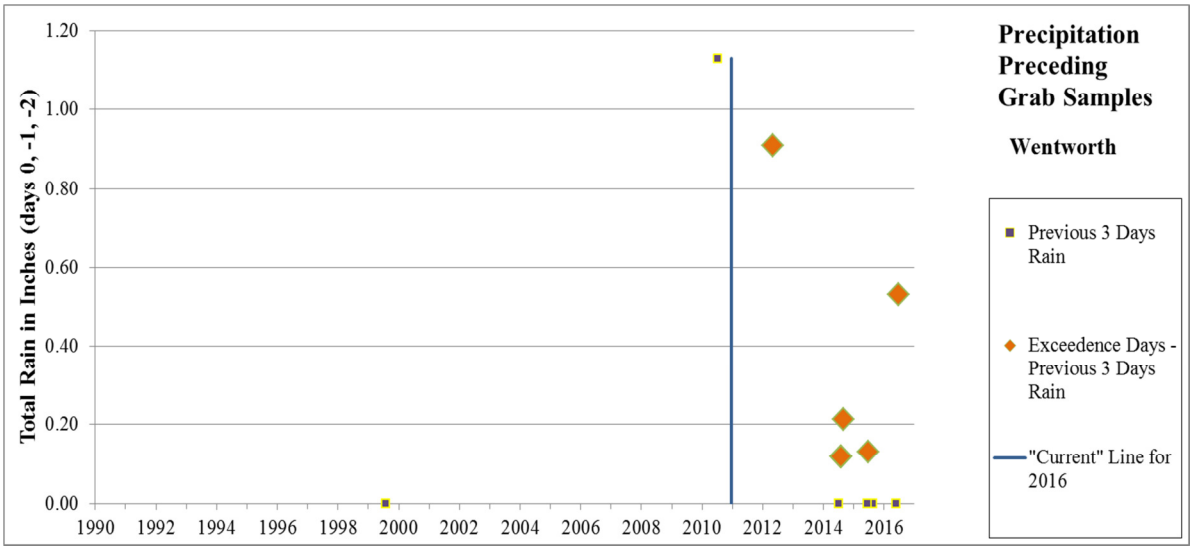
BAKER RIVER (NHRIV700010307-11)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAKER RIVER	NHRIV700010307-11	pH	PLYMOUTH	3-PNS	5-M

2016: Grab sample data collected in 2014 through 2016 at stations 01-BKR, 02-BKR, 03-BKR, and 01A-BKR triggered the new impairment in the 2016 cycle. 24 of 29 (83%) grab samples were non-supports (low pH between 5.74 – 6.48) collected in May through September. The non-supporting samples were collected at flows between 0.15 – 4.12 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.00 – 0.91" preceding three day precipitation).







Notes:

pH-GRAB = pH value from a grab sample.

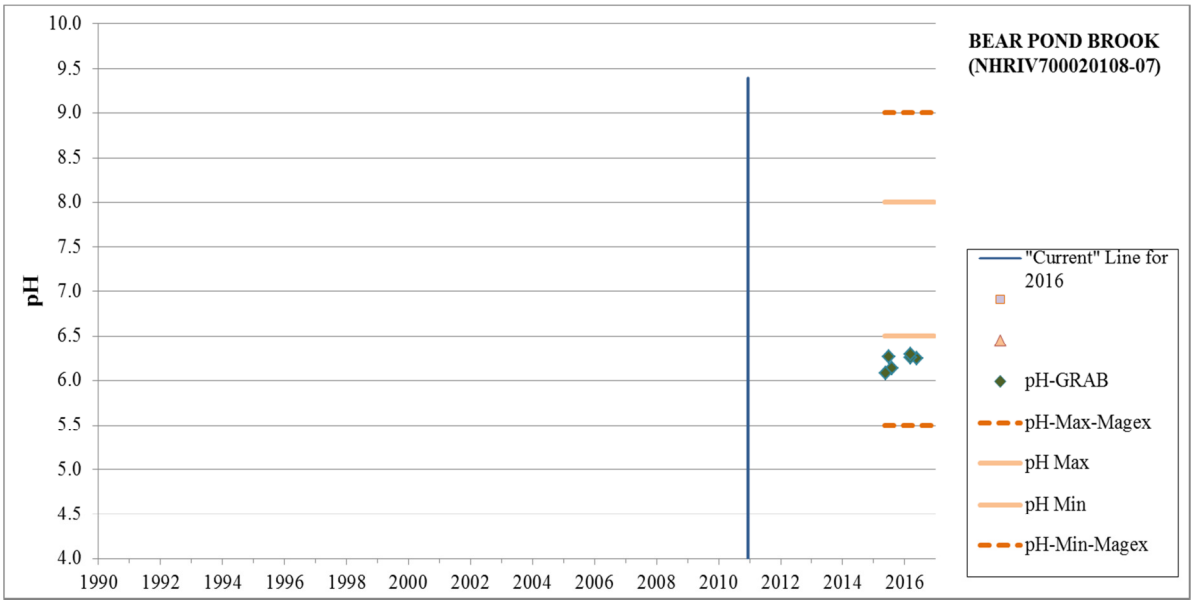
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

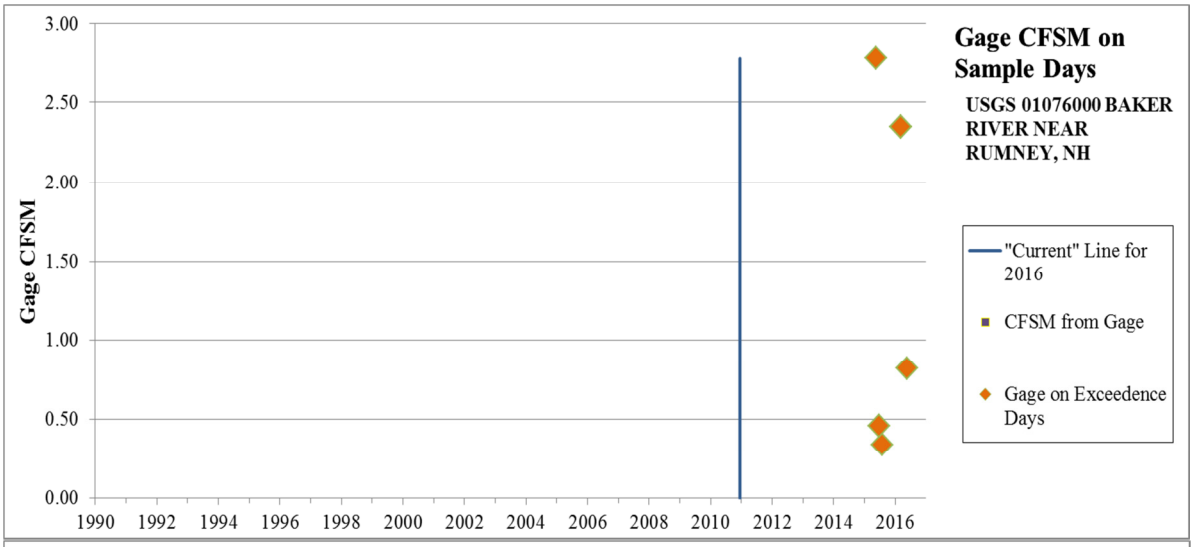
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

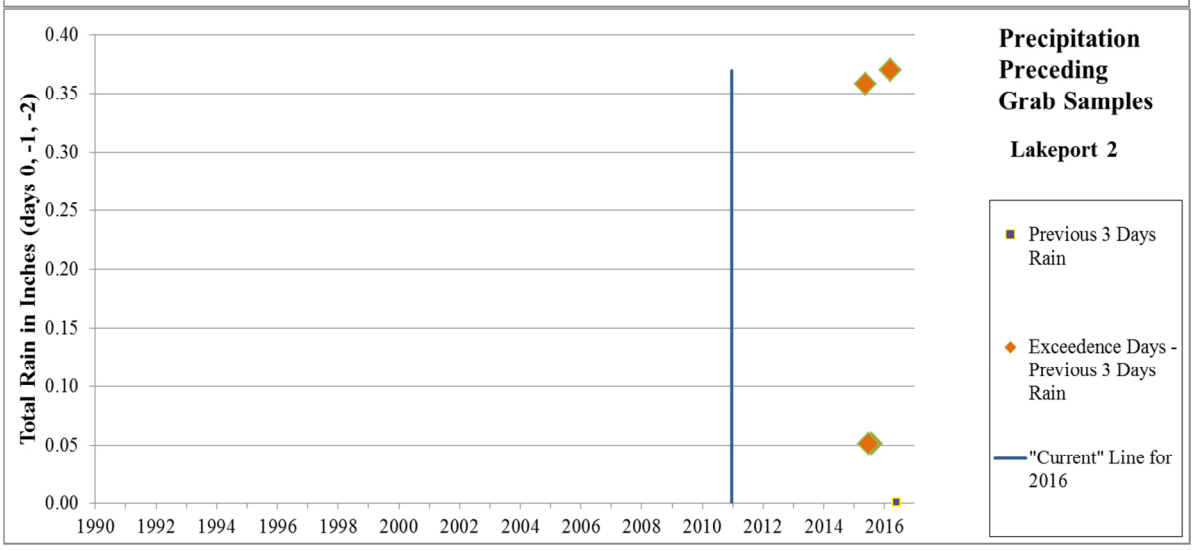
BEAR POND BROOK (NHRIV700020108-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BEAR POND BROOK	NHRIV700020108-07	pH	CENTER HARBOR	3-ND	5-M

2016: Grab sample data collected in 2015 and 2016 at stations BEACENO and HAWCENBPI triggered the new impairment in the 2016 cycle. All six of the grab samples were non-supports (low pH between 6.08 – 6.29) collected in March through August. The non-supporting samples were collected at flows between 0.34 – 2.78 cfsm on the Baker River gage (01076000) and during varying weather conditions (0.05 – 0.37" preceding three day precipitation).







Notes:

pH-GRAB = pH value from a grab sample.

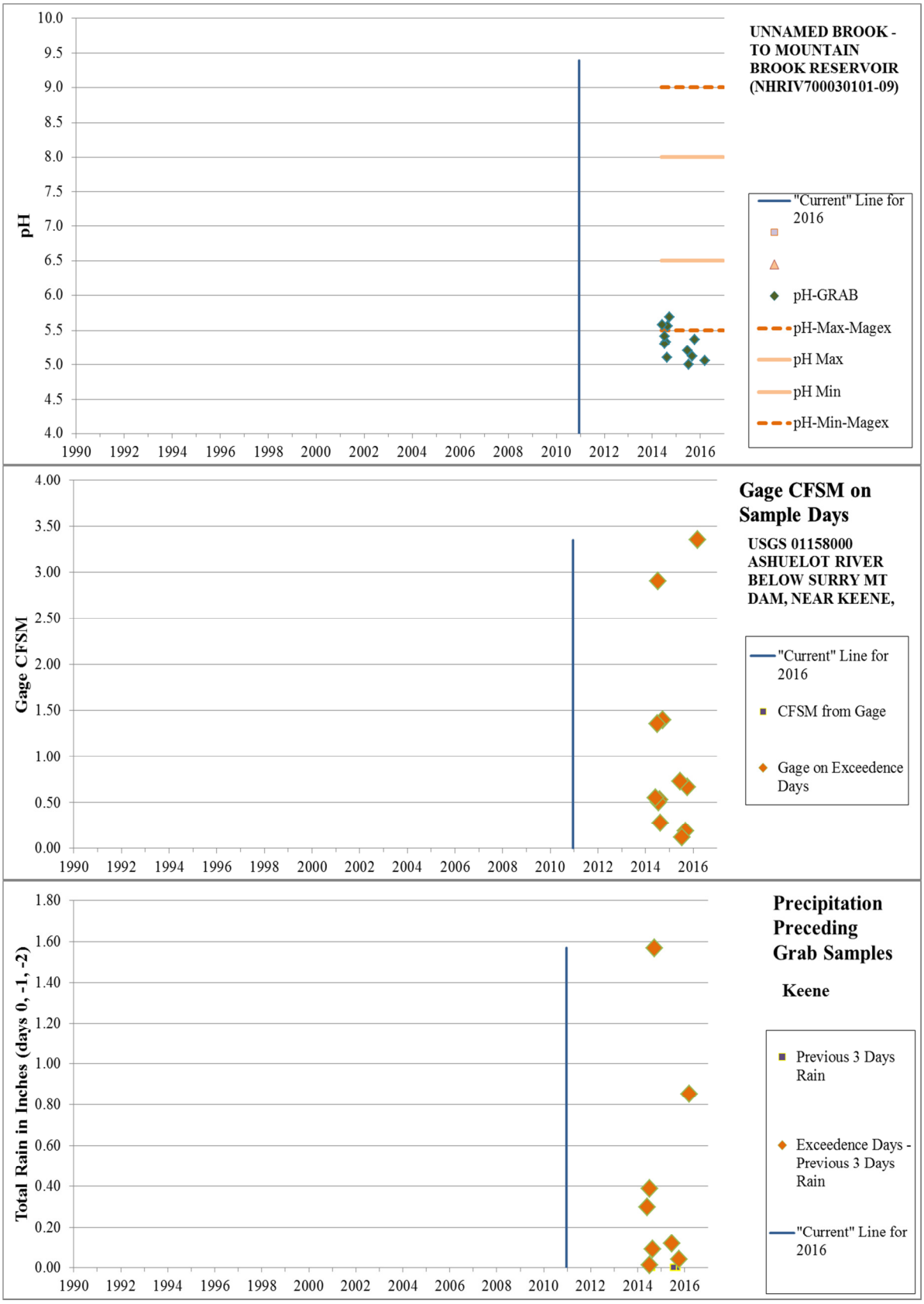
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

UNNAMED BROOK - TO MOUNTAIN BROOK RESERVOIR (NHRIV700030101-09)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - TO MOUNTAIN BROOK RESERVOIR	NHRIV700030101-09	pH	JAFFREY	3-ND	5-P

2016: Grab sample data collected in 2014, 2015, and 2016 at station 08C-XMT triggered the new impairment in the 2016 cycle. All 12 of the grab samples were non-supports (low pH between 5.00 – 5.69) collected in March through October. The non-supporting samples were collected at flows between 0.12 – 3.36 cfsm on the Ashuelot River gage (01158000) and during varying weather conditions (0.00 – 1.57" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

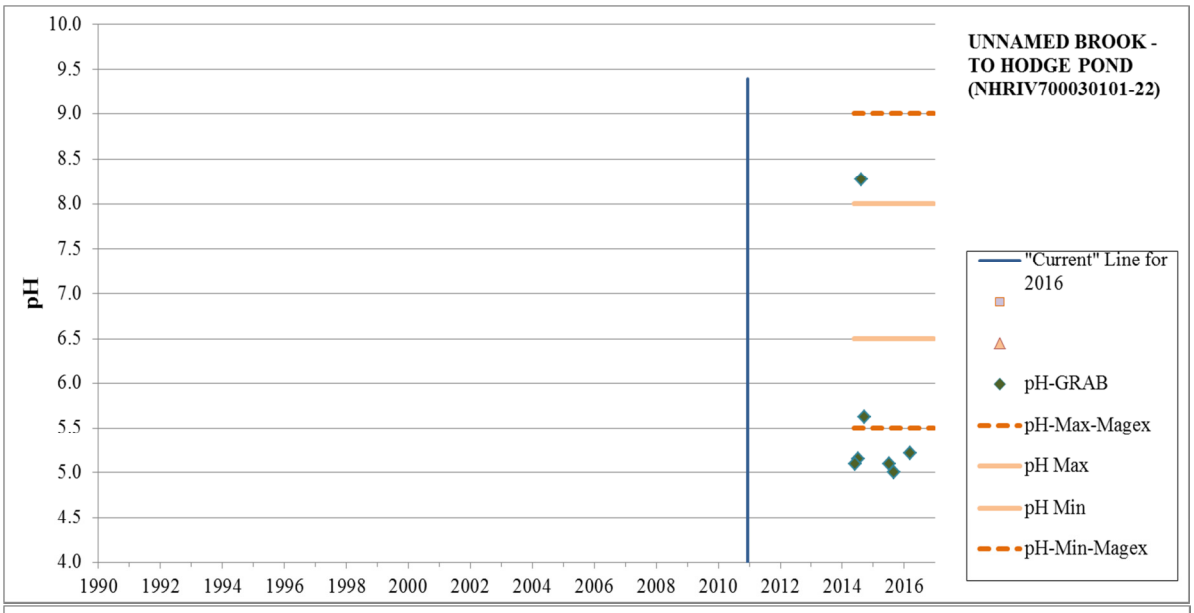
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

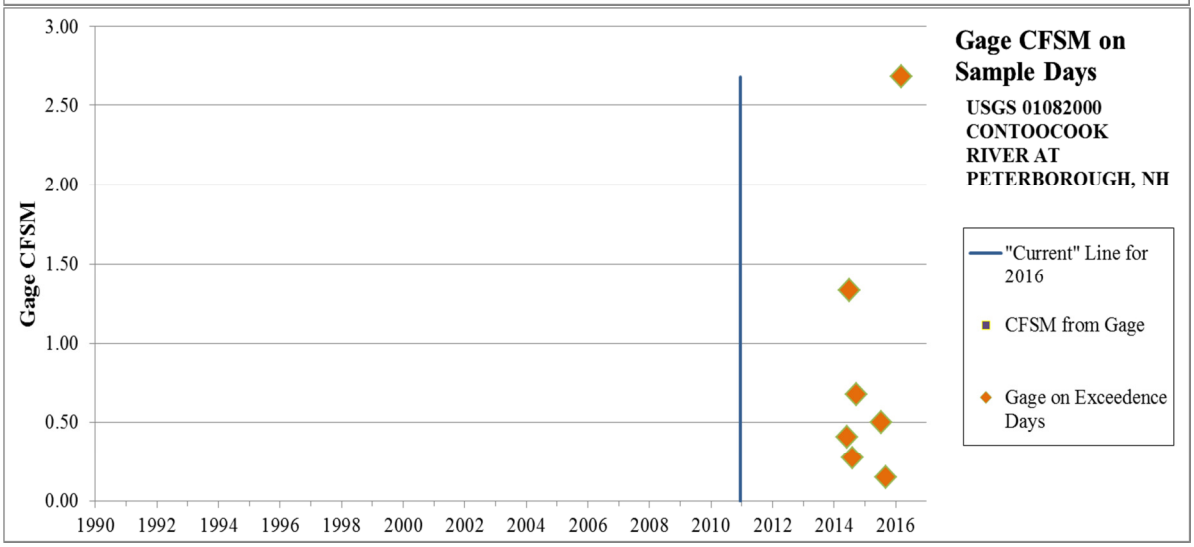
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

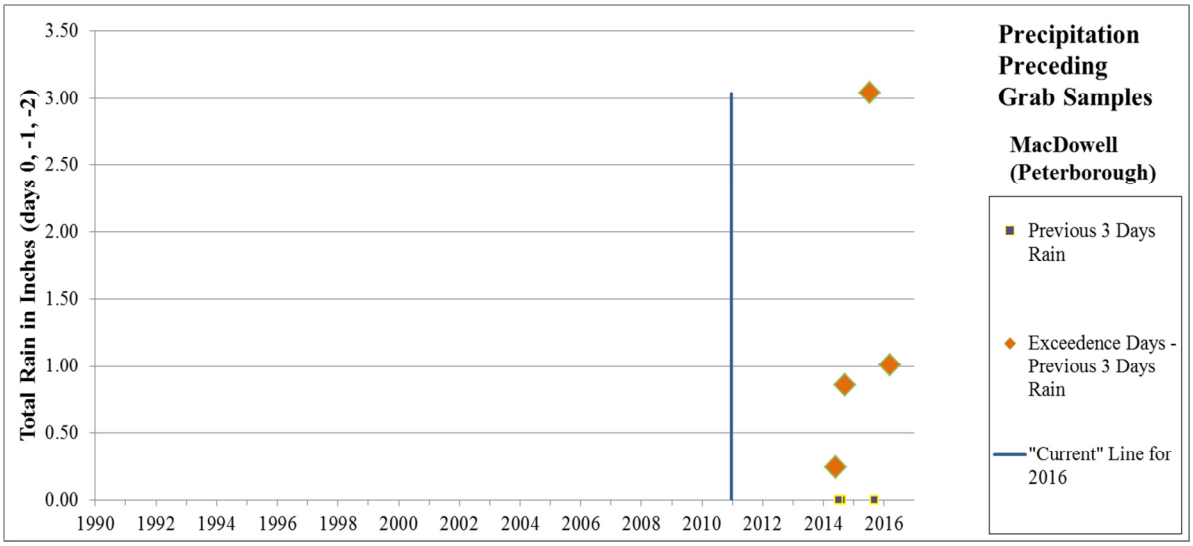
UNNAMED BROOK - TO HODGE POND (NHRIV700030101-22)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - TO HODGE POND	NHRIV700030101-22	pH	JAFFREY	3-ND	5-P

2016: Grab sample data collected in 2014, 2015, and 2016 at station 03-XHG triggered the new impairment in the 2016 cycle. 6 of 7 (86%) grab samples were non-supports (pH between 5.00 – 8.27) collected in March through October. The non-supporting samples were collected at flows between 0.15 – 2.73 cfsm on the Contoocook River gage (01082000) and during varying weather conditions (0.00 – 3.04"preceding three day precipitation).







Notes:

pH-GRAB = pH value from a grab sample.

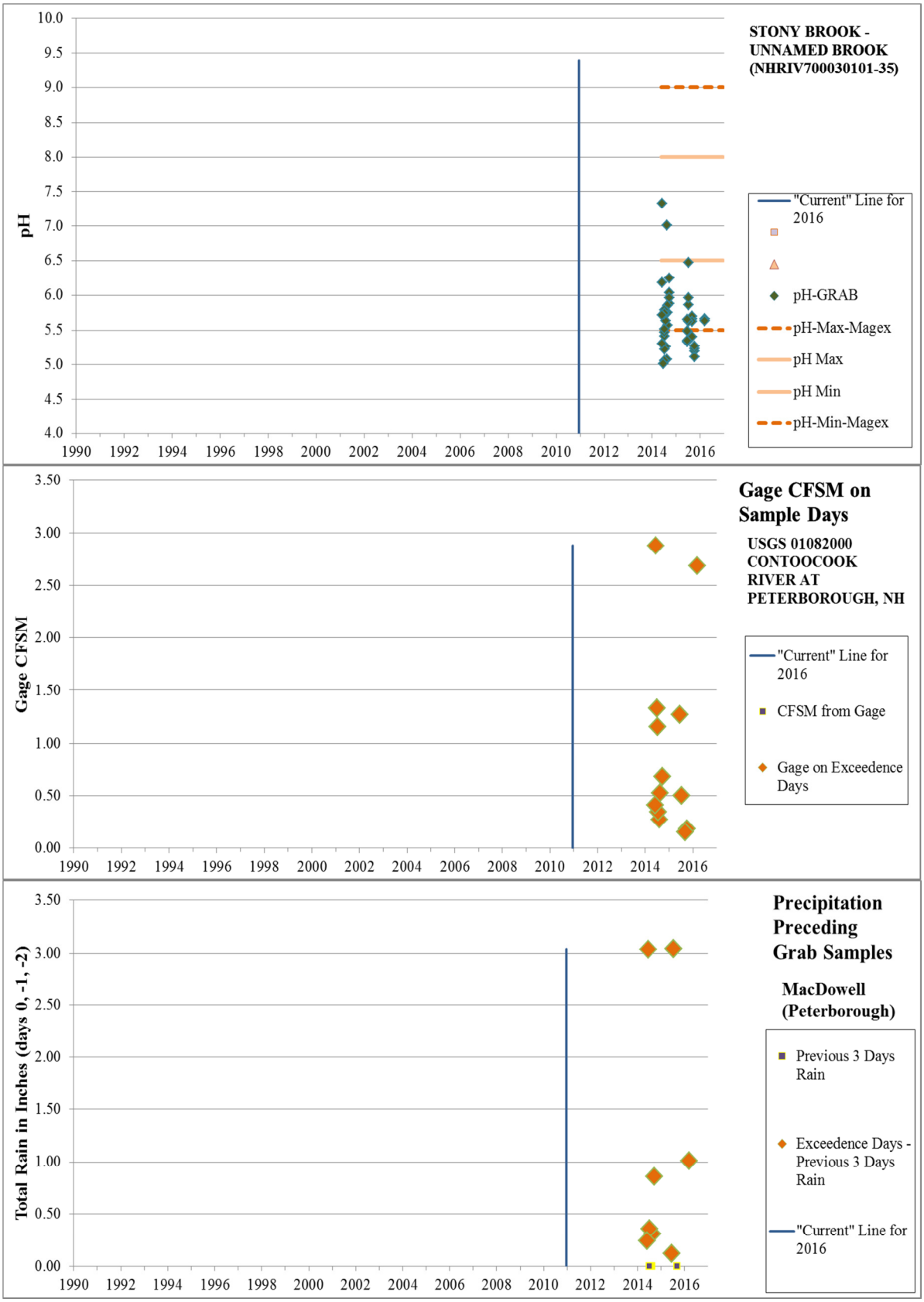
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

STONY BROOK - UNNAMED BROOK (NHRIV700030101-35)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
STONY BROOK - UNNAMED BROOK	NHRIV700030101-35	pH	JAFFREY	3-ND	5-P

2016: Grab sample data collected in 2014, 2015, and 2016 at stations 02-STO, 02-XST, 05-STO, and 06-STO triggered the new impairment in the 2016 cycle. 42 of 44 (95%) grab samples were non-supports (low pH between 5.01 – 6.47) collected in March through October. The non-supporting samples were collected at flows between 0.15 – 2.88 cfsm on the Contoocook River gage (01082000) and during varying weather conditions (0.00 – 3.04" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

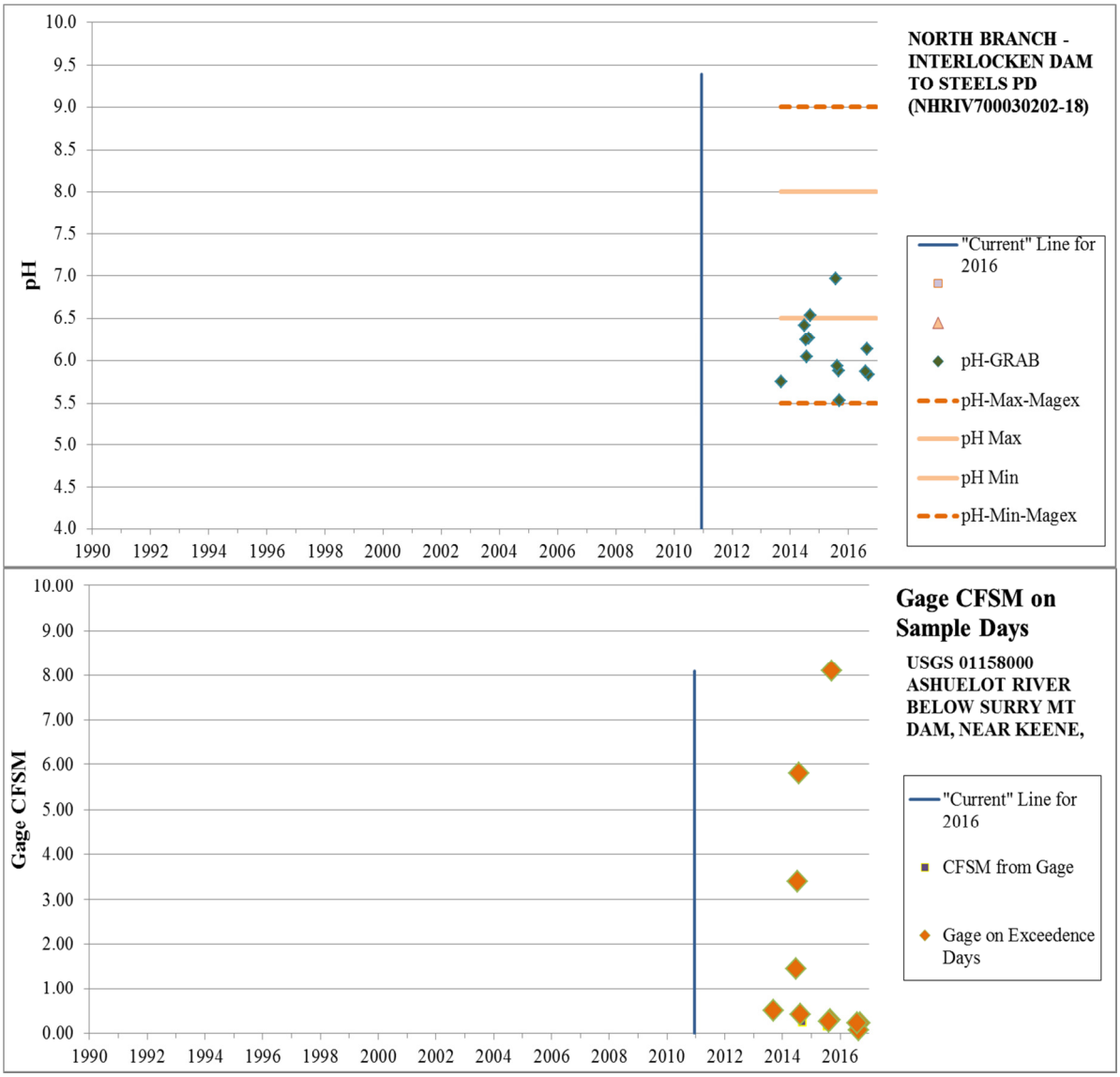
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

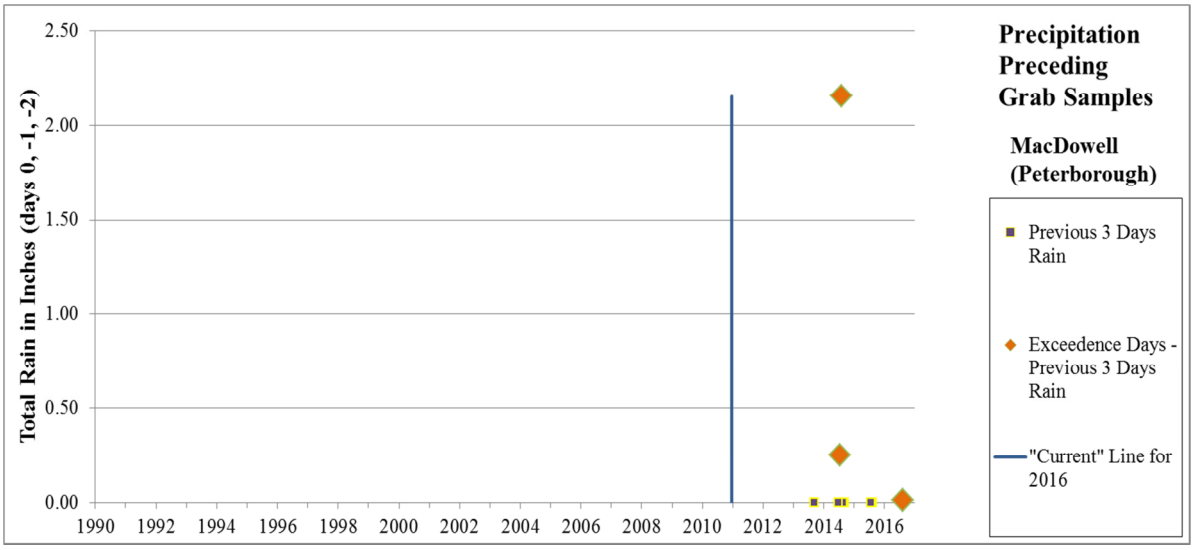
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

NORTH BRANCH - INTERLOCKEN DAM TO STEELS PD (NHRIV700030202-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTH BRANCH - INTERLOCKEN DAM TO STEELS PD	NHRIV700030202-18	pH	ANTRIM	3-PNS	5-M

2016: Grab sample data collected in 2014, 2015, and 2016 at station 04-NBC triggered the new impairment in the 2016 cycle. 11 of 13 (85%) grab samples were non-supports (low pH between 5.53 – 6.42) collected in July through October. The non-supporting samples were collected at flows between 0.07 – 8.10 cfsm on the Ashuelot River gage (01158000) and during varying weather conditions (0.00 – 2.15" preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

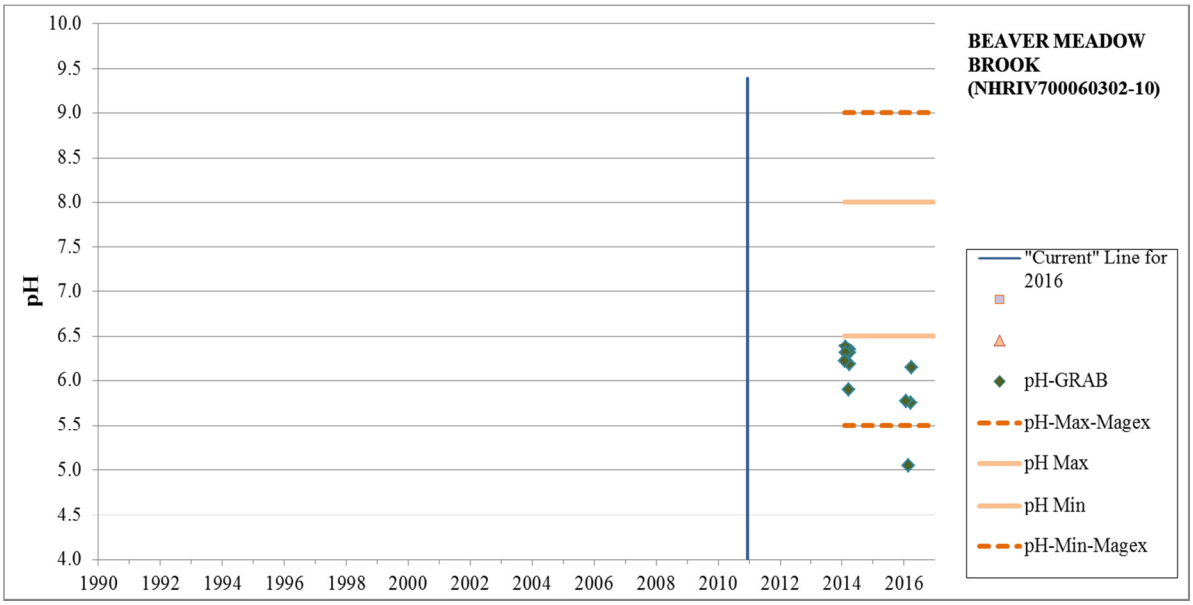
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

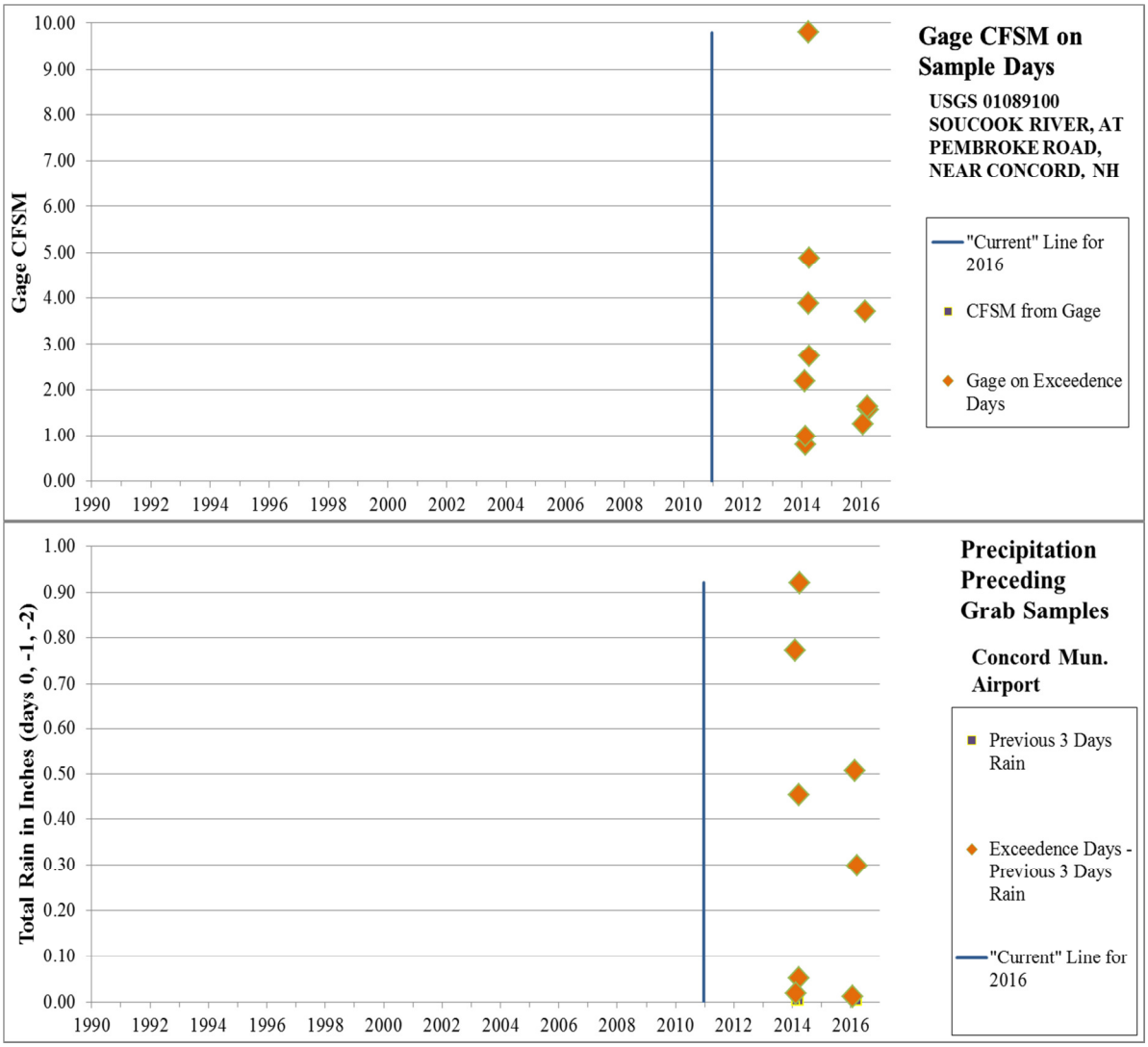
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

BEAVER MEADOW BROOK (NHRIV700060302-10)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BEAVER MEADOW BROOK	NHRIV700060302-10	pH	CONCORD	3-ND	5-P

2016: Grab sample data collected in 2014 and 2016 at station 01-BMW triggered the new impairment in the 2016 cycle. All 11 grab samples were non-supports (low pH between 5.05 – 6.38) collected in February through April. The non-supporting samples were collected at flows between 0.80 – 9.80 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 – 0.92" preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

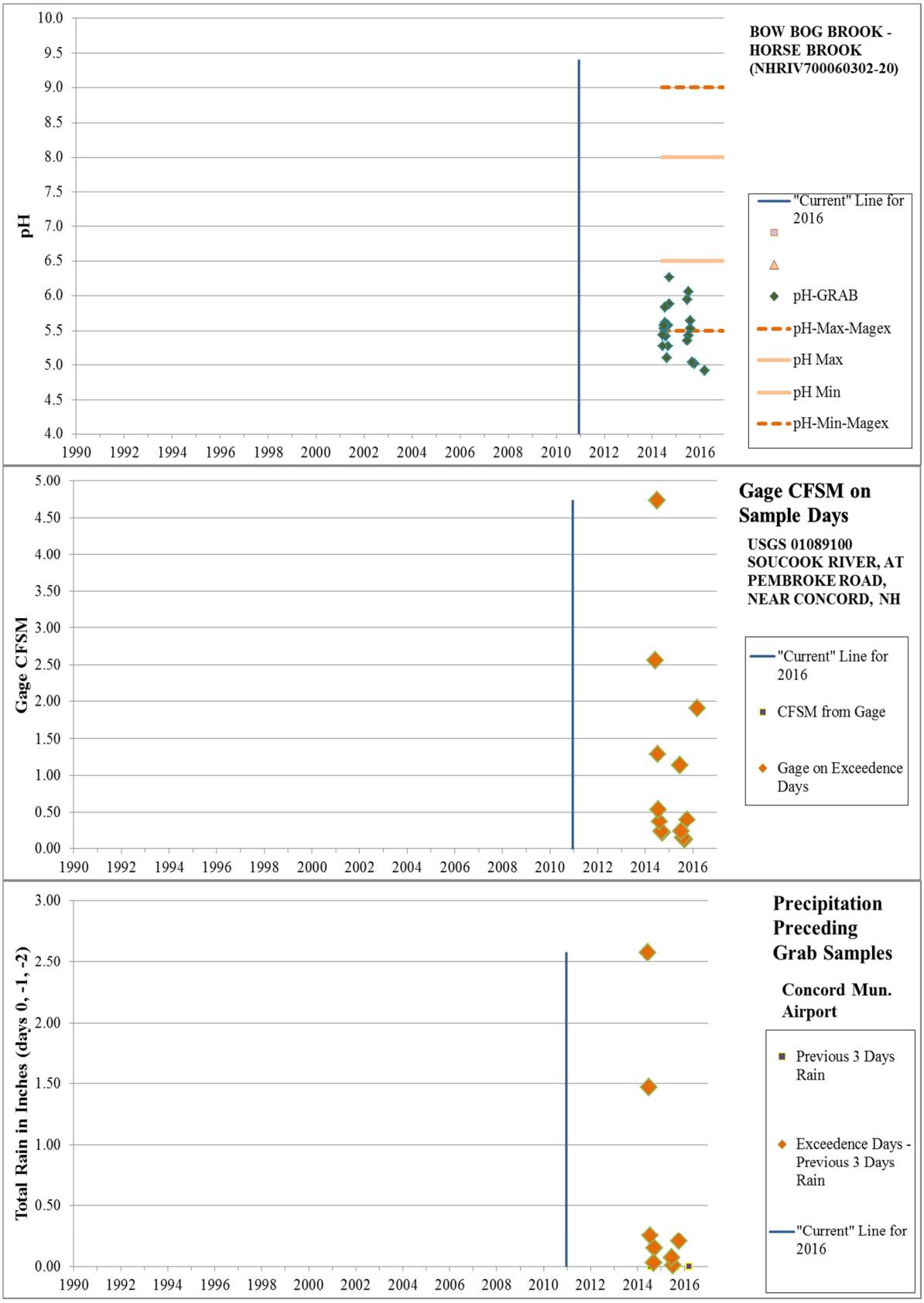
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

BOW BOG BROOK - HORSE BROOK (NHRIV700060302-20)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BOW BOG BROOK - HORSE BROOK	NHRIV700060302-20	pH	BOW	3-ND	5-P

2016: Grab sample data collected in 2014, 2015, and 2016 at stations 25G-BBB and 25T-BBB triggered the new impairment in the 2016 cycle. All 22 grab samples were non-supports (low pH between 4.92– 6.26) collected in February through October. The non-supporting samples were collected at flows between 0.12 – 4.73 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 – 2.58" preceding three day precipitation).



Notes:

pH-GRAB = pH value from a grab sample.

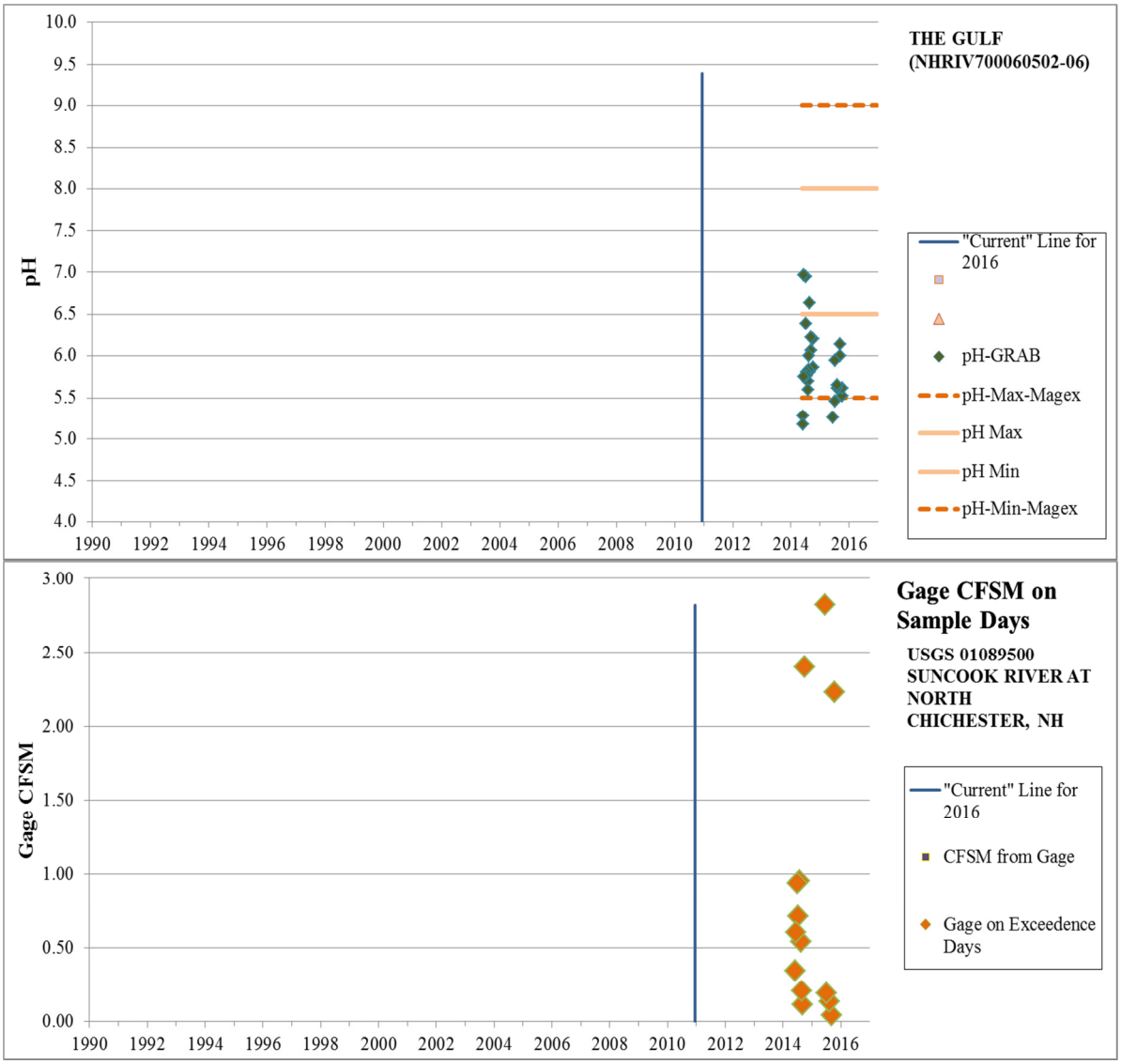
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

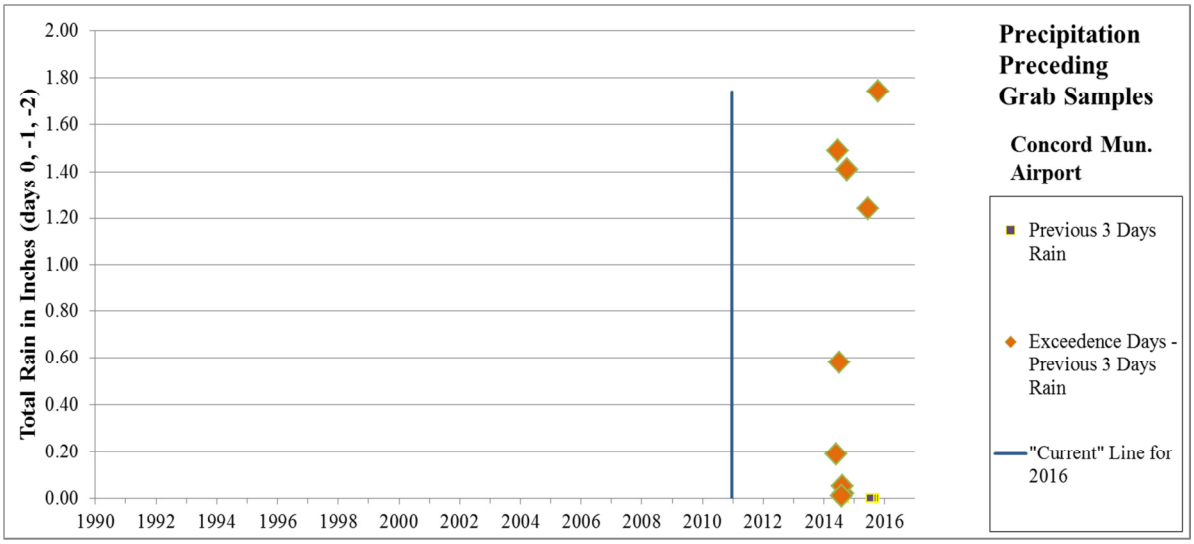
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

THE GULF (NHRIV700060502-06)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
THE GULF	NHRIV700060502-06	pH	NORTHWOOD	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 01-NWG and 03-NWG triggered the new impairment in the 2016 cycle. 24 of 27 (89%) grab samples were non-supports (low pH between 5.18– 6.39) collected in June through October. The non-supporting samples were collected at flows between 0.11 – 2.82 cfsm on the Suncook River gage (01089500) and during varying weather conditions (0.00 – 1.74" preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

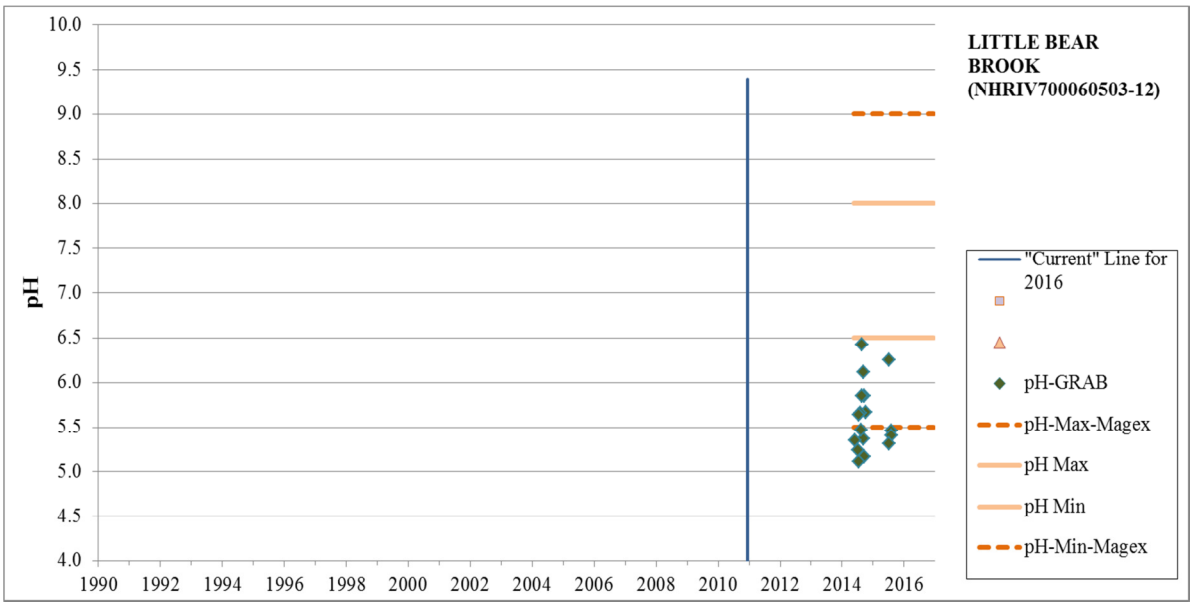
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

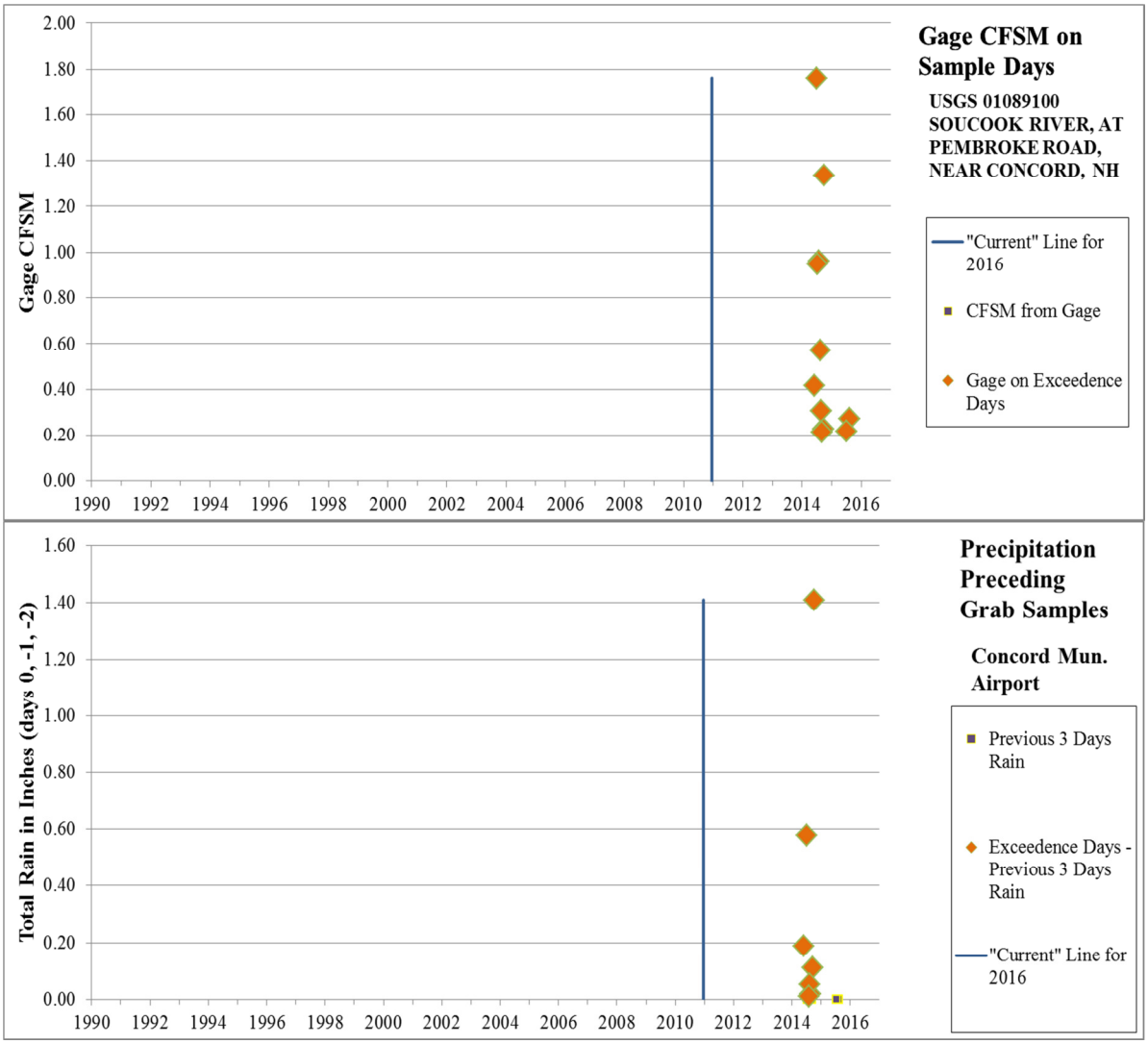
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

LITTLE BEAR BROOK (NHRIV700060503-12)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LITTLE BEAR BROOK	NHRIV700060503-12	pH	ALLENSTOWN	3-ND	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 12-LBB and 12G-LBB triggered the new impairment in the 2016 cycle. All 17 grab samples were non-supports (low pH between 5.11– 6.43) collected in June through October. The non-supporting samples were collected at flows between 0.21 – 1.76 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 – 1.41" preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

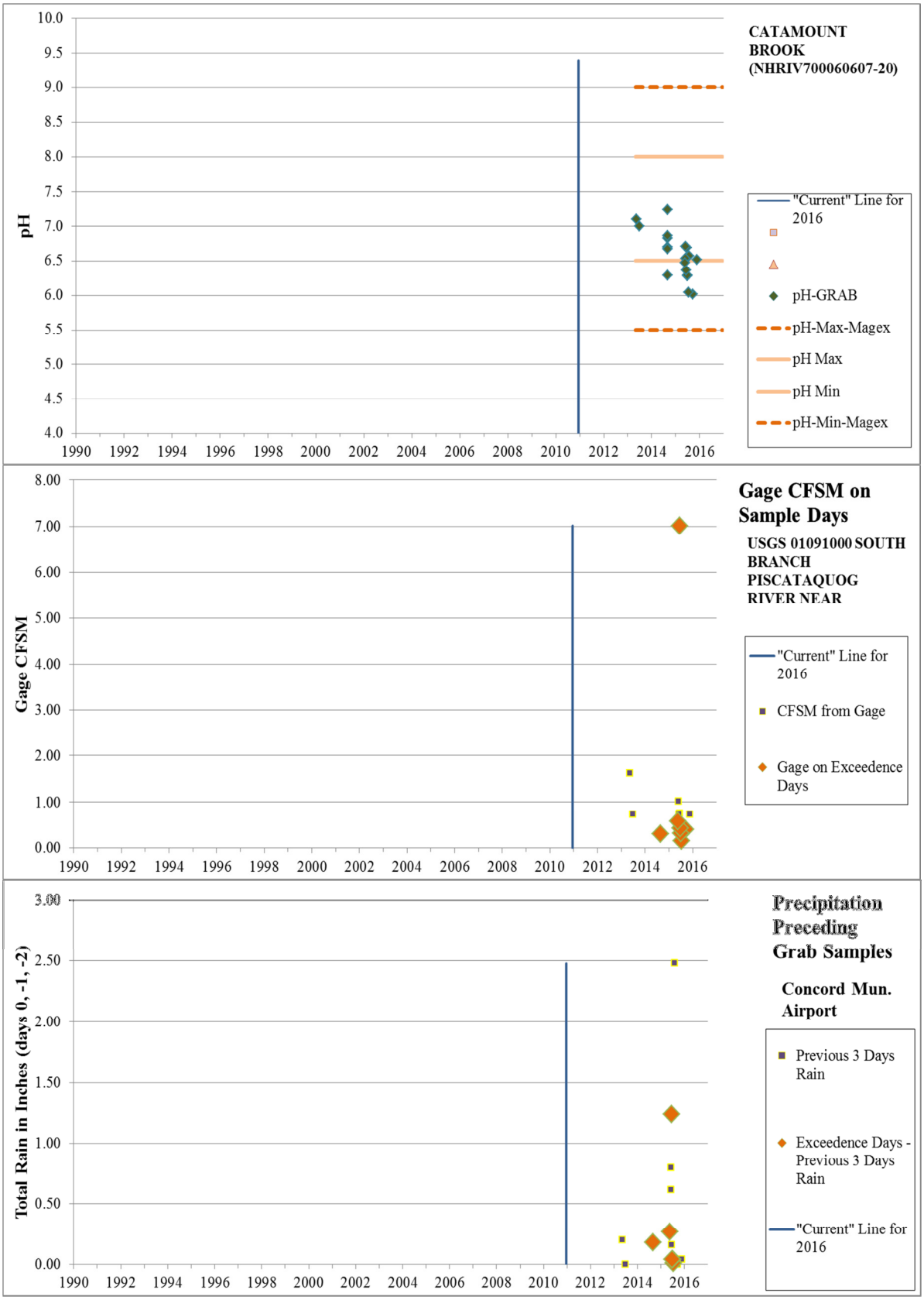
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

CATAMOUNT BROOK (NHRIV700060607-20)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
CATAMOUNT BROOK	NHRIV700060607-20	pH	GOFFSTOWN	3-PAS	5-M

2016: Grab sample data collected in 2014 and 2015 at stations 848-017 and 848-030 triggered the new impairment in the 2016 cycle. 7 of 19 (37%) grab samples were non-supports (low pH between 6.02– 6.47) collected in June through October. The non-supporting samples were collected at flows between 0.15 – 7.02 cfsm on the Piscataquog River gage (01091000) and during varying weather conditions (0.00 – 1.24" preceding three day precipitation). Stations 848-001, 848-009, 848-018, and 848-020 in full support.



Notes:

pH-GRAB = pH value from a grab sample.

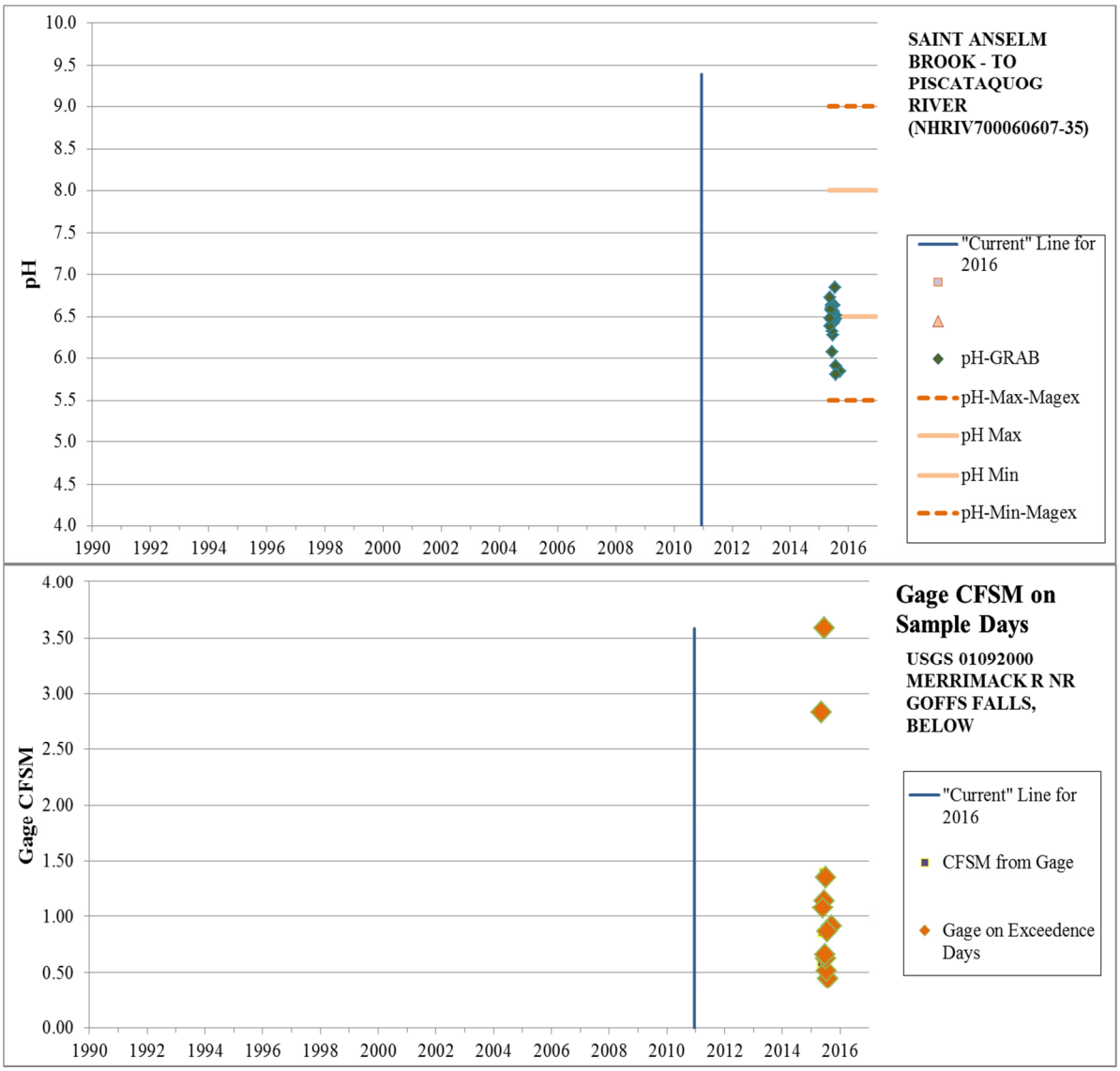
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

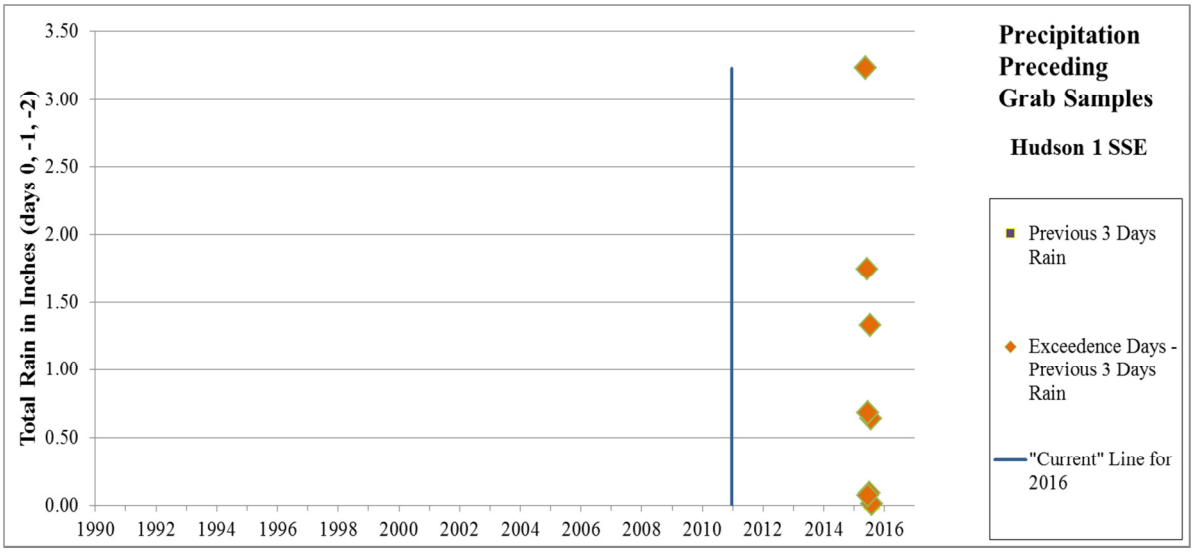
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

SAINT ANSELM BROOK - TO PISCATAQUOG RIVER (NHRIV700060607-35)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SAINT ANSELM BROOK - TO PISCATAQUOG RIVER	NHRIV700060607-35	pH	MANCHESTER	3-ND	5-M

2016: Grab sample data collected in 2015 at stations 03-SAB and 05-SAB triggered the new impairment in the 2016 cycle. 14 of 24 (58%) grab samples were non-supports (low pH between 5.81– 6.48) collected in June through October. The non-supporting samples were collected at flows between 0.45 – 3.59 cfsm on the Merrimack River gage (01092000) and during varying weather conditions (0.00 – 3.23"preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

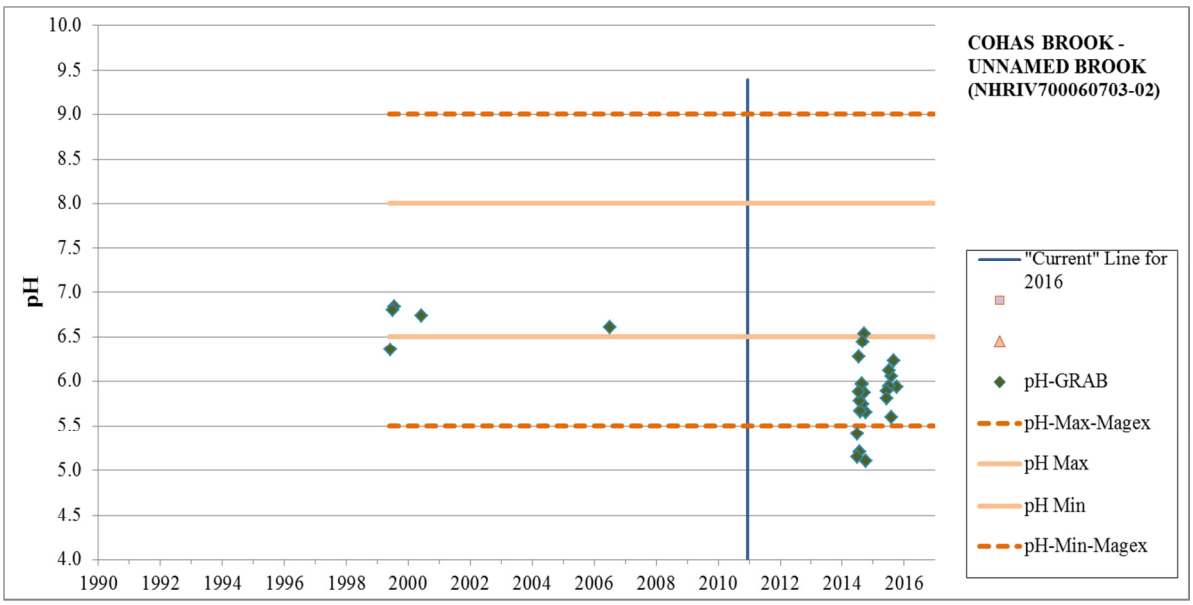
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

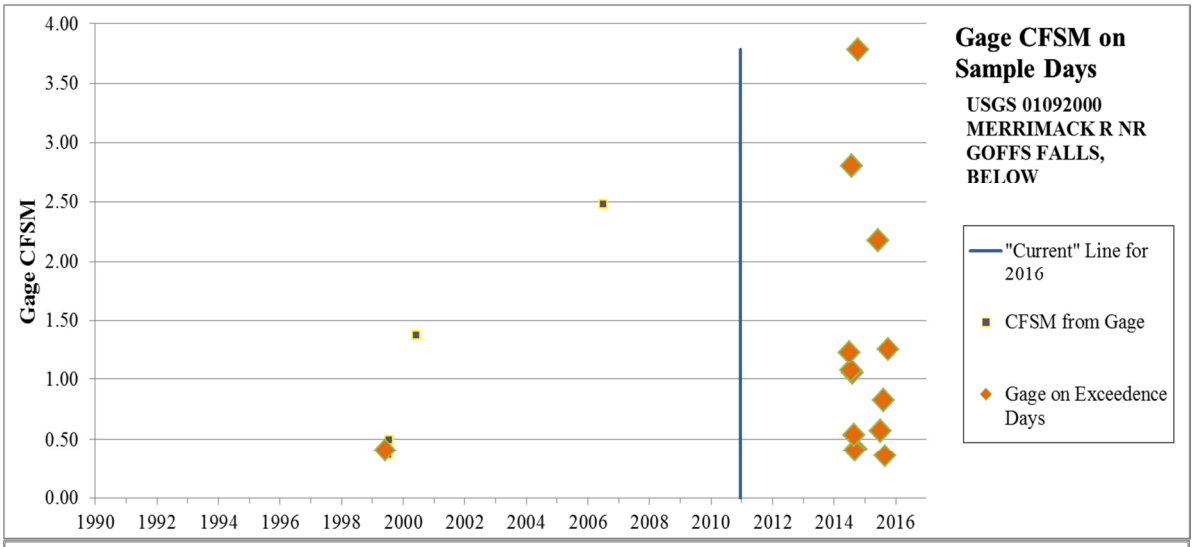
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

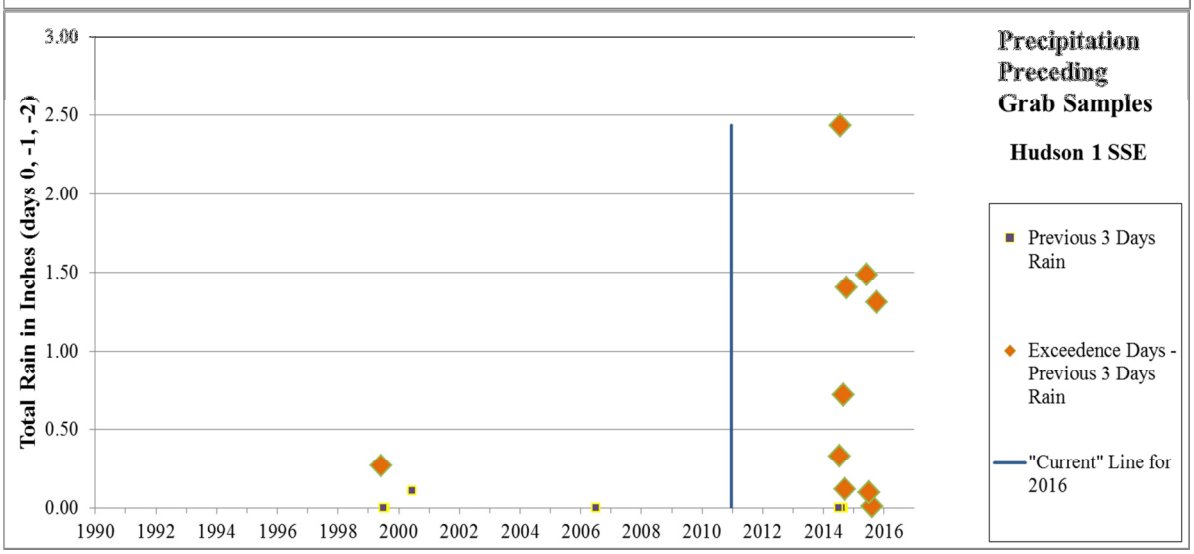
COHAS BROOK - UNNAMED BROOK (NHRIV700060703-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
COHAS BROOK - UNNAMED BROOK	NHRIV700060703-02	pH	AUBURN	3-PAS	5-P

2016: Grab sample data collected in 2014 and 2015 at stations 01-XCO and 02T-XCO triggered the new impairment in the 2016 cycle. 23 of 24 (96%) grab samples were non-supports (low pH between 5.10– 6.44) collected in June through October. The non-supporting samples were collected at flows between 0.36 – 3.78 cfsm on the Merrimack River gage (01092000) and during varying weather conditions (0.00 – 2.44" preceding three day precipitation).







Notes:

pH-GRAB = pH value from a grab sample.

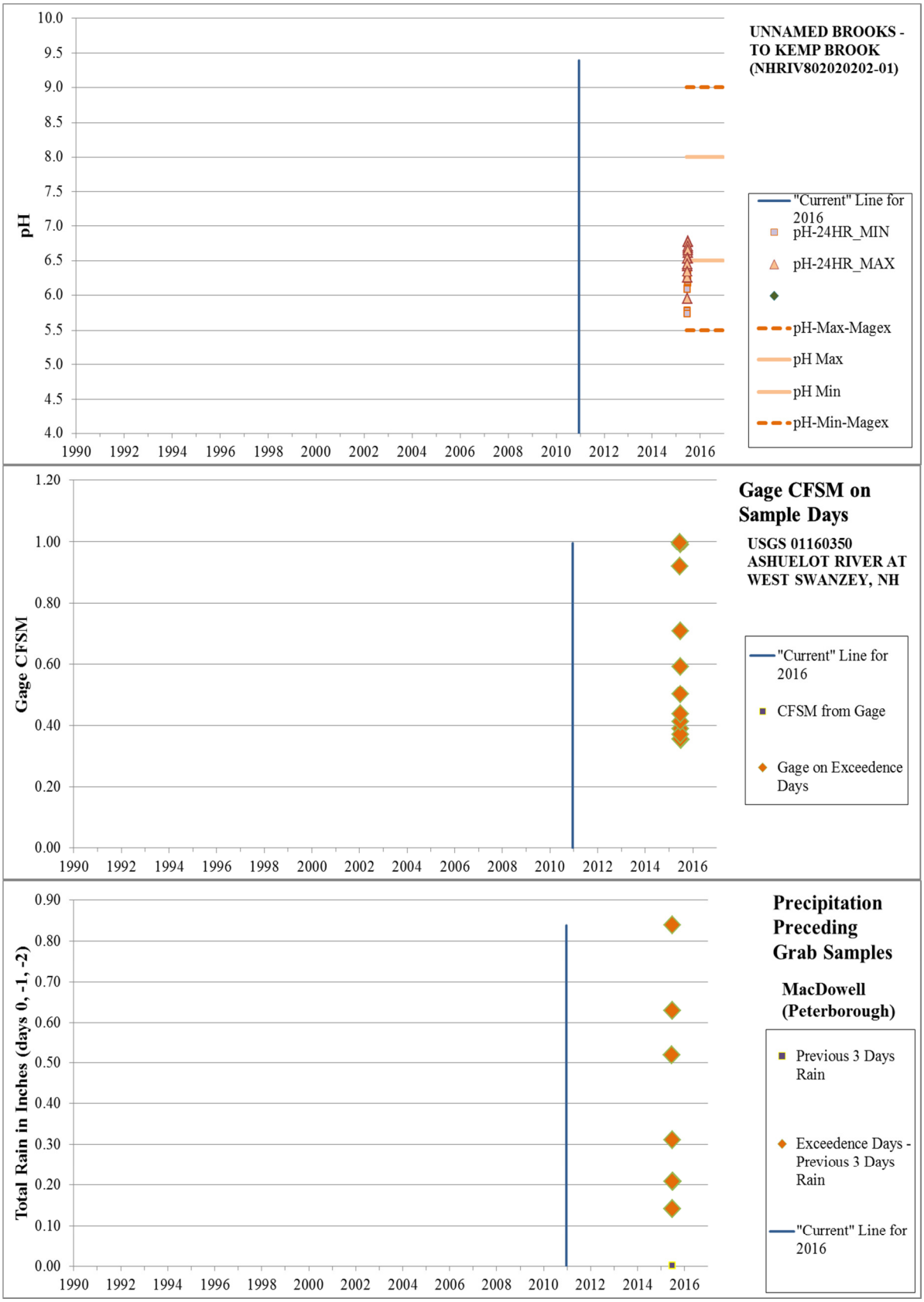
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

UNNAMED BROOKS - TO KEMP BROOK (NHRIV802020202-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOKS - TO KEMP BROOK	NHRIV802020202-01	pH	FITZWILLIAM	3-ND	5-M

2016: Datalogger data collected in 2015 at station 02-XKB triggered the new impairment in the 2016 cycle. 18 of 26 (69%) of the daily minimum and maximum logger values were non-supports (low pH of 5.73 - 6.45) collected in July. The non-supporting samples were collected at flows between 0.35 – 1.00 cfsm on the Ashuelot River gage (01160350) and during varying weather conditions (0.00 – 0.84"preceding three day precipitation).



Notes:

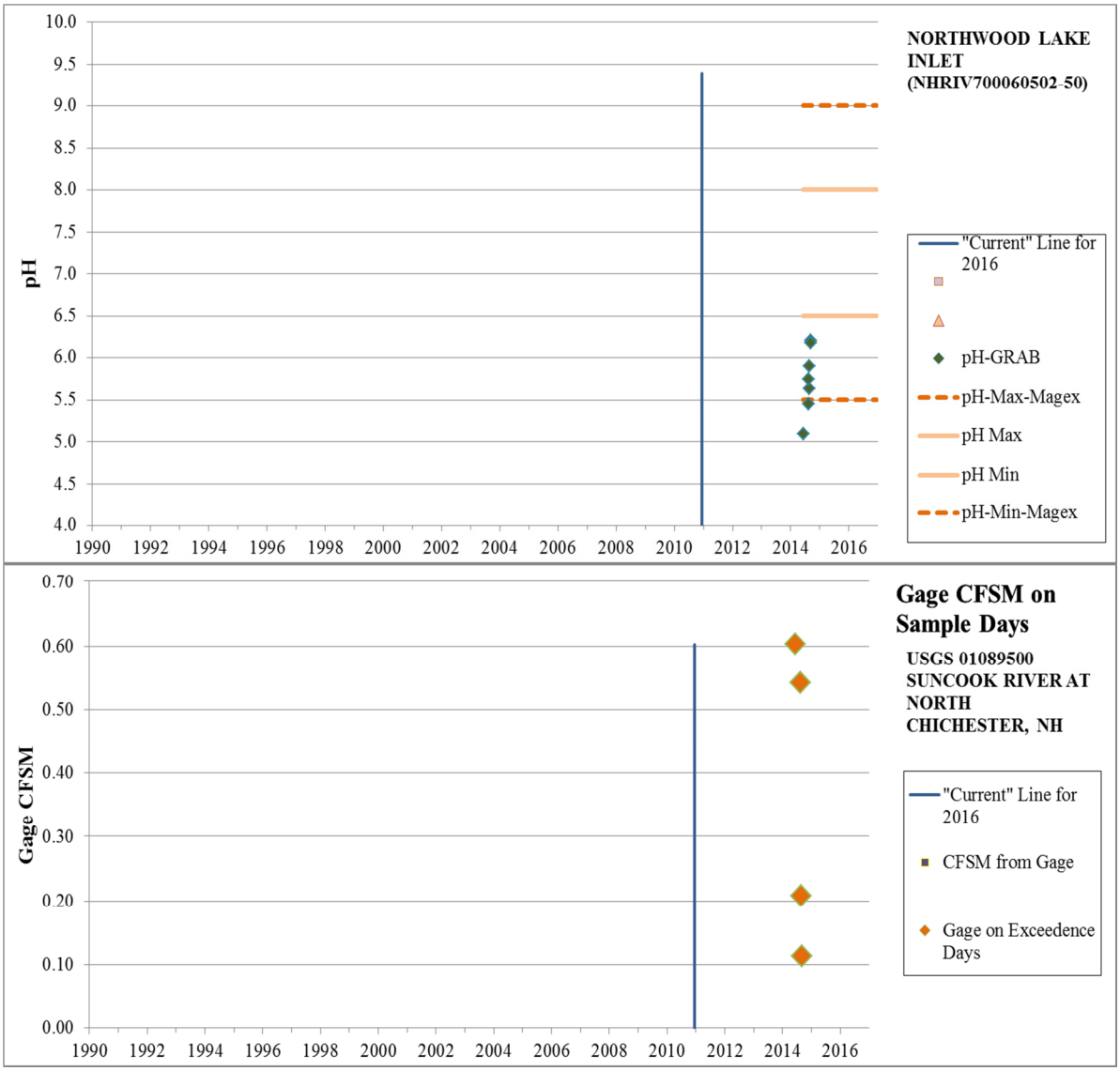
pH-24HR_MIN = pH minimum value from a datalogger deployment.
pH-24HR_MAX = pH maximum value from a datalogger deployment.
pH-GRAB = pH value from a grab sample.

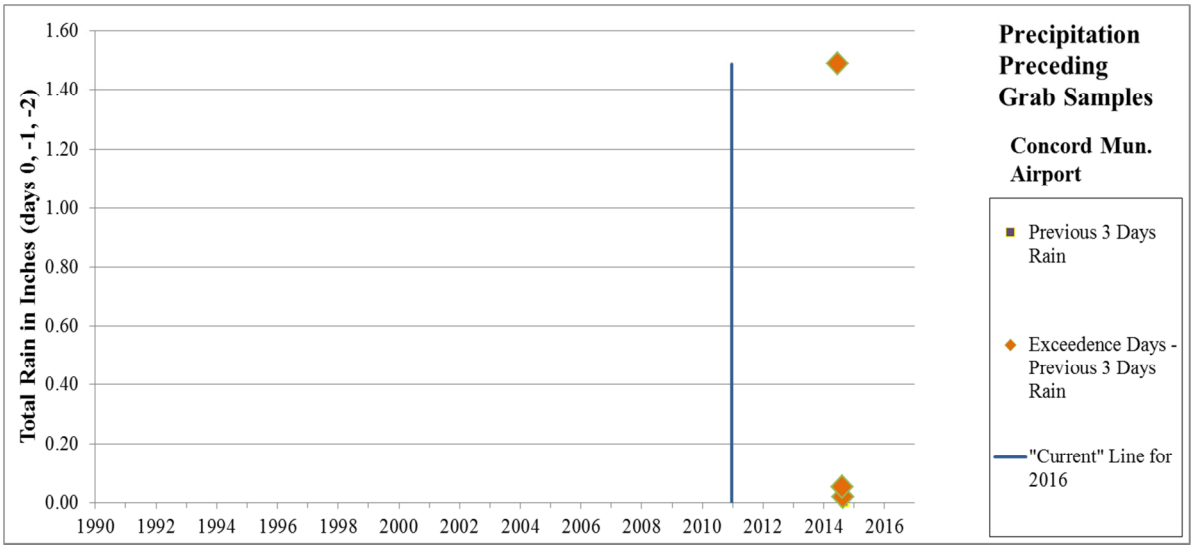
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
"Current" Line for 2014 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for addition details.

NORTHWOOD LAKE INLET (NHRIV700060502-50)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTHWOOD LAKE INLET	NHRIV700060502-50	pH	Northwood	3-ND	5-M

2016: Grab sample data collected in 2014 at stations 02-NWI and 03-NWI triggered new impairment for the 2016 cycle. All 7 grab samples were non-supports (low pH between 5.09 – 6.20) collected in July and September. The non-supporting samples were collected at flows between 0.11 – 0.60 cfsm on the Suncook River gage (01089500) and during varying weather conditions (0.00-1.49" preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

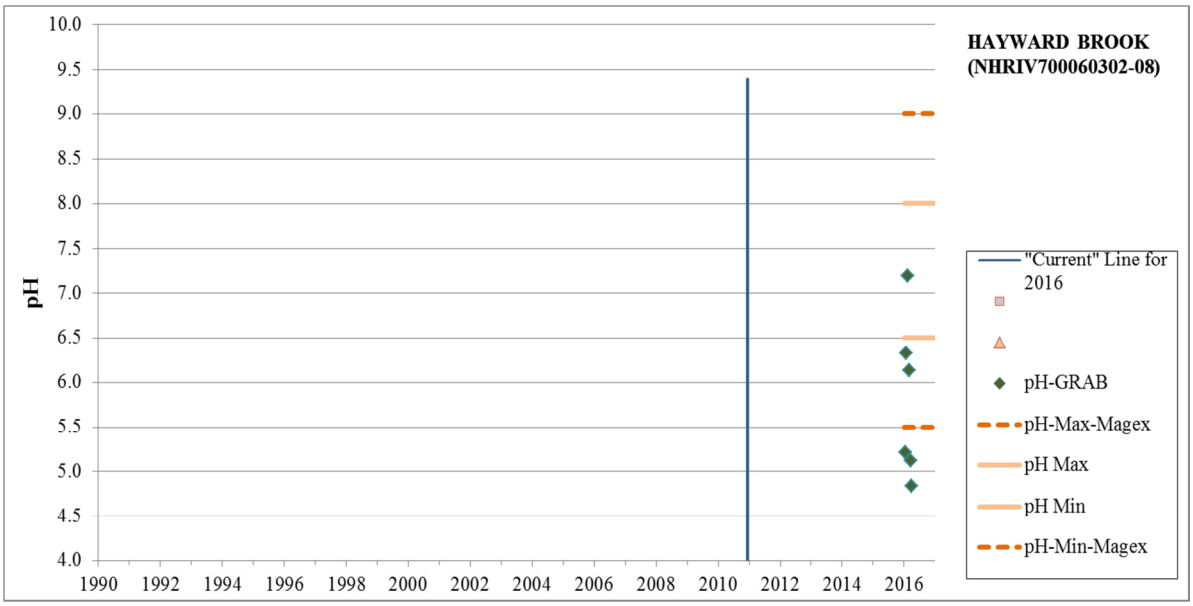
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

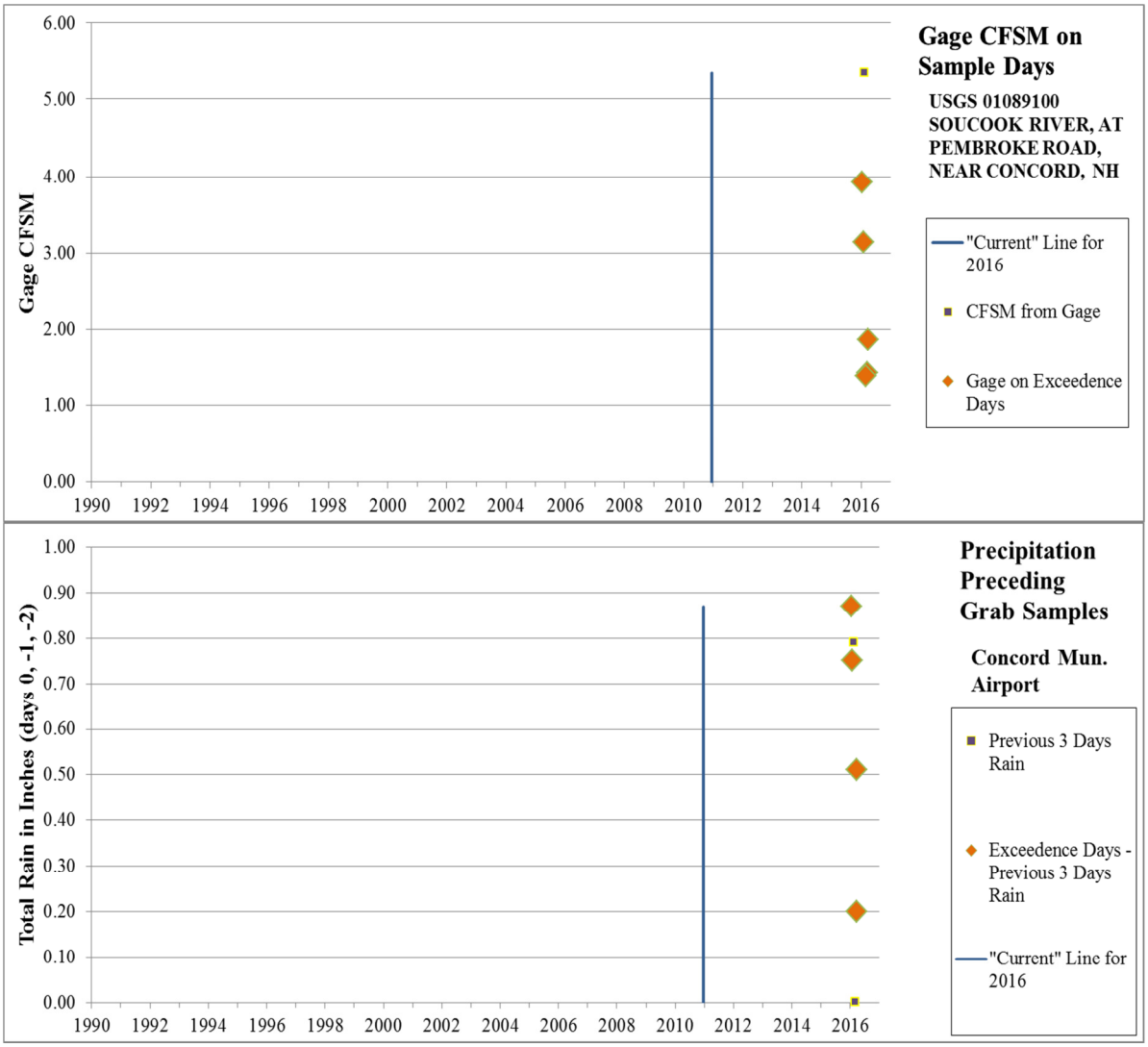
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

HAYWARD BROOK (NHRIV700060302-08)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HAYWARD BROOK	NHRIV700060302-08	pH	CONCORD	3-ND	5-M

2016: Grab sample data collected in 2016 at station 02-HYW triggered category 5-M in the 2016 cycle. Five of 6 (83%) grab samples were non-supports (low pH between 4.84 and 6.33) collected in February through April. The non-supporting samples were collected at flows between 1.38 – 3.93 cfsm on the Soucook River gage (01089100) and during varying weather conditions (0.00 – 0.87" preceding three day precipitation).





Notes:

pH-GRAB = pH value from a grab sample.

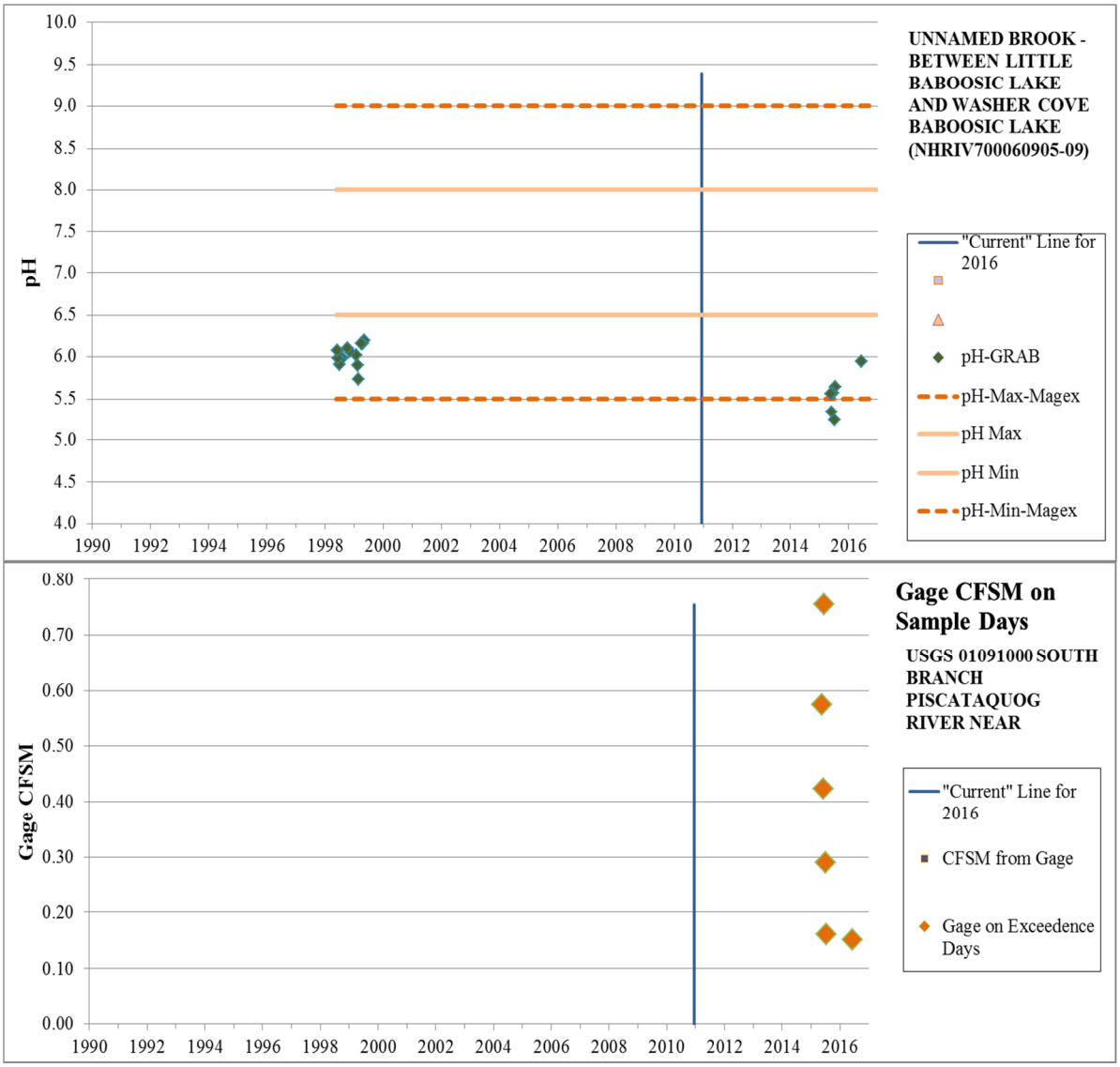
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

UNNAMED BROOK - BETWEEN LITTLE BABOOSIC LAKE AND WASHER COVE BABOOSIC LAKE (NHRIV700060905-09)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
UNNAMED BROOK - BETWEEN LITTLE BABOOSIC LAKE AND WASHER COVE BABOOSIC LAKE	NHRIV700060905-09	pH	AMHERST	3-ND	5-P

2016: Grab sample data collected in 2015 and 2016 at station BABAMHBB triggered review in the 2016 cycle. All 6 grab samples were non-supports (low pH between 5.24– 5.94) collected in June through August. The non-supporting samples were collected at flows between 0.15 – 0.76 cfsm on the Piscataquog River gage (01091000). The historic non-support data coupled with the new non-support data from this cycle support the new category 5-P.



Notes:

pH-GRAB = pH value from a grab sample.

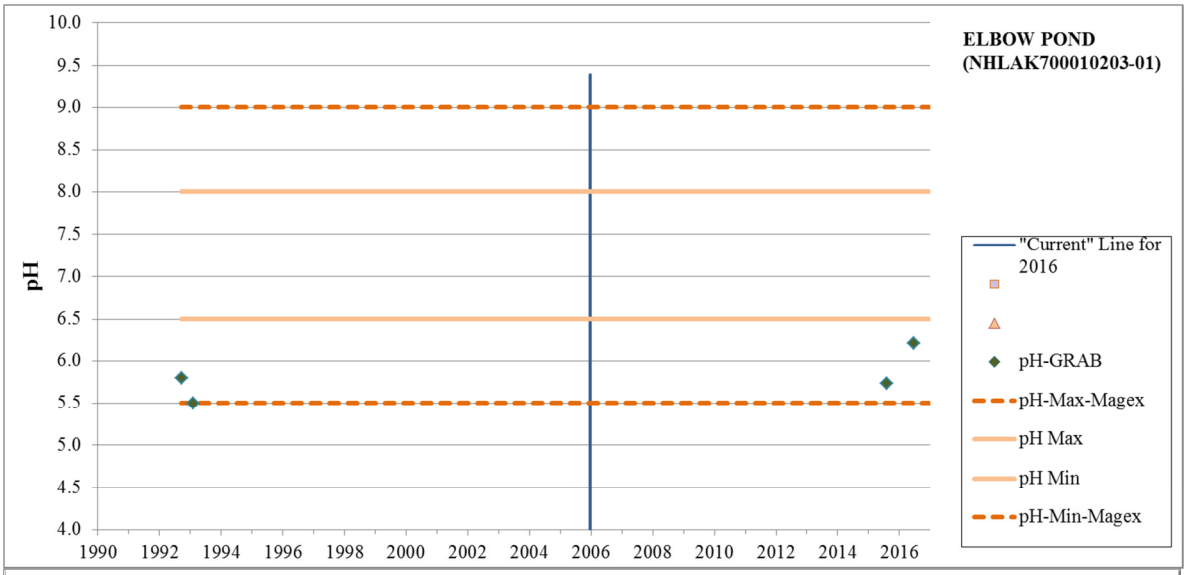
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

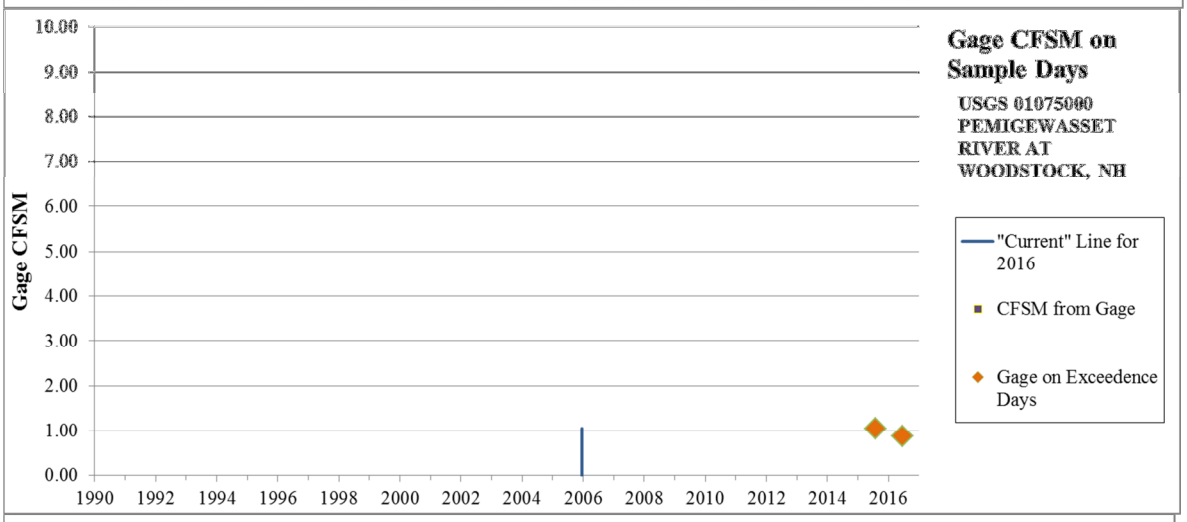
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

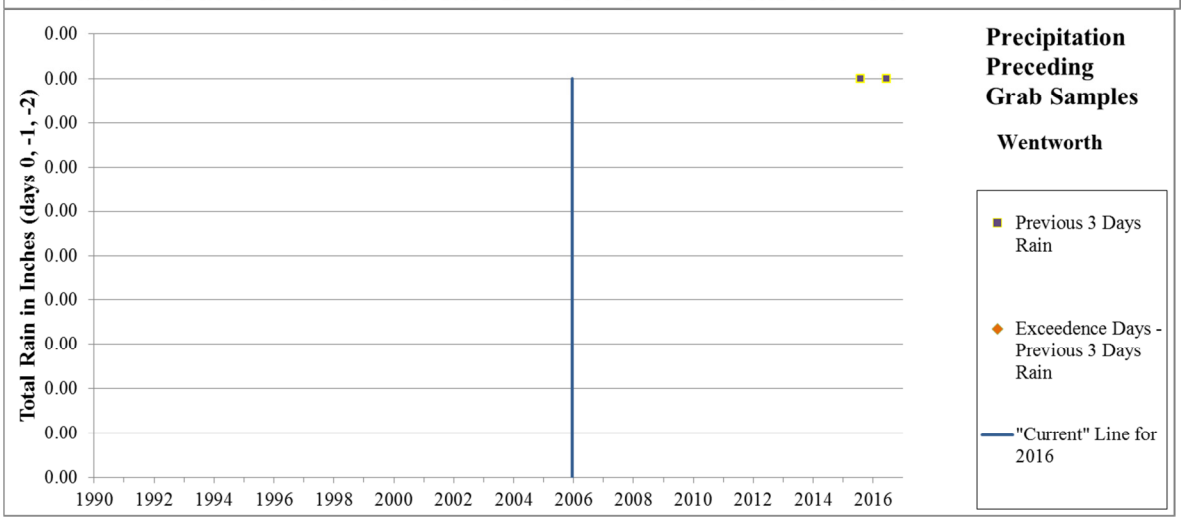
ELBOW POND (NHLAK700010203-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
ELBOW POND	NHLAK700010203-01	pH	Woodstock	3-ND	5-M

2016: Grab samples from station ELBWOOD, indicate impairment for the 2016 cycle. 2 of 2 (100%) of grab samples were below pH 6.5 (pH values between 6.21 - 5.73). Samples were collected over different months and years under normal weather conditions.







Notes:

pH-GRAB = pH value from a grab sample.

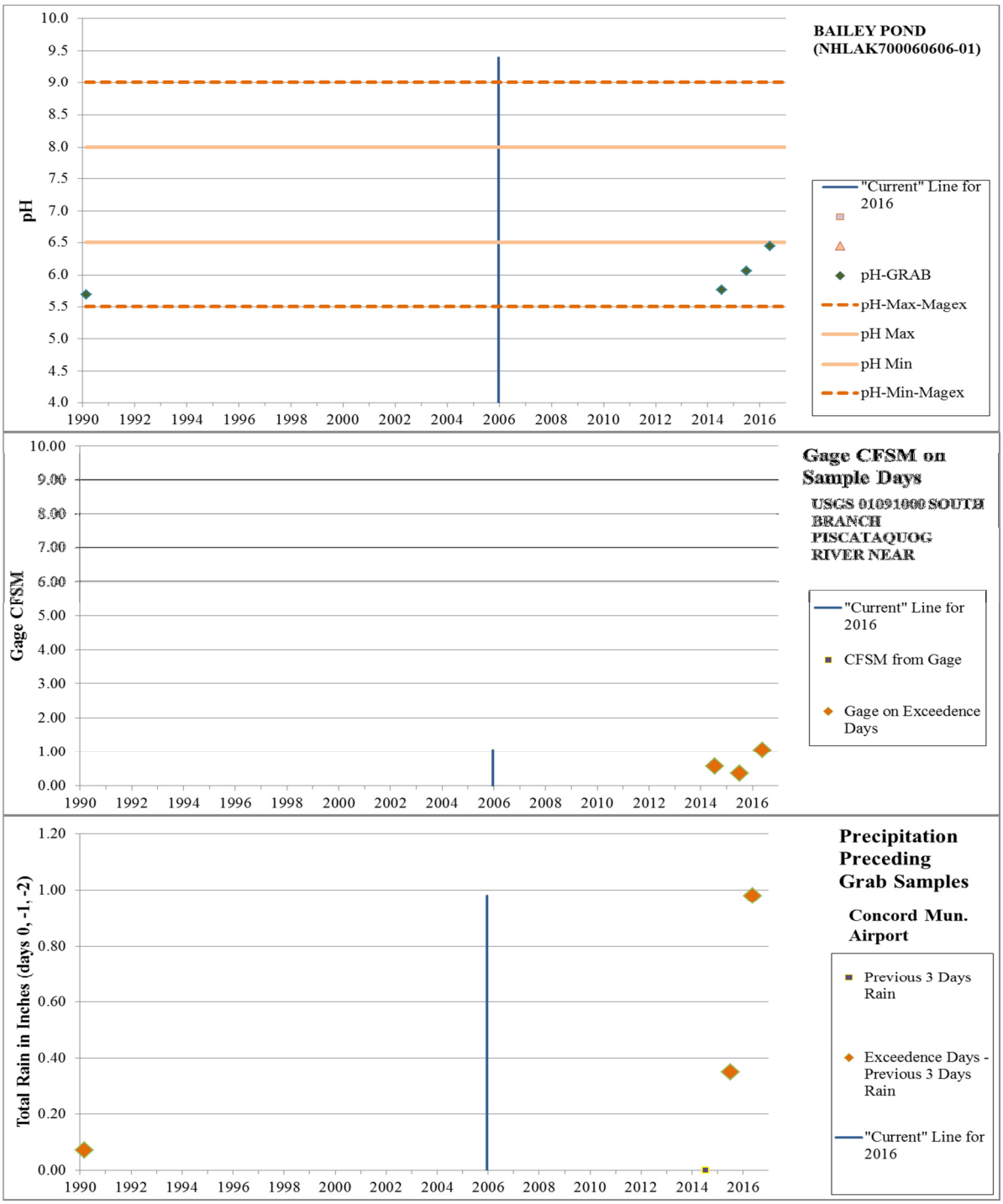
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

BAILEY POND (NHLAK700060606-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BAILEY POND	NHLAK700060606-01	pH	New Boston	3-ND	5-M

2016: Grab samples from station BAINWBD caused the initial impairment of the 2016 cycle. Three of 3 (100%) were below pH 6.4 (Values ranged from 6.44 - 5.77). Samples were collected during June, July, and August and from various weather conditions (0.00 - 0.98" rain in a 3 day period).



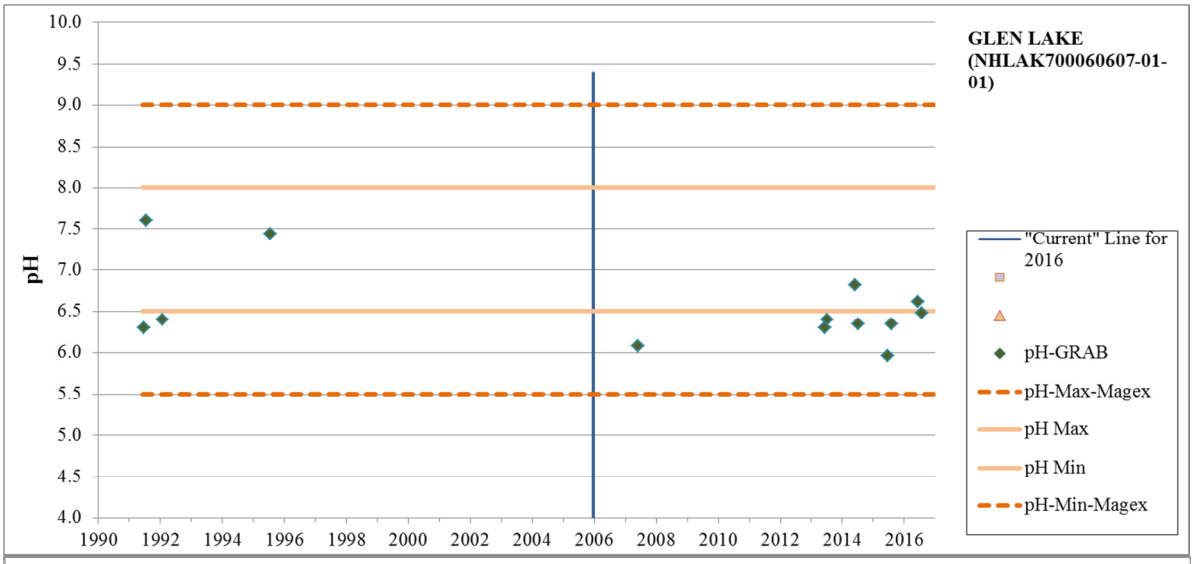
Notes:

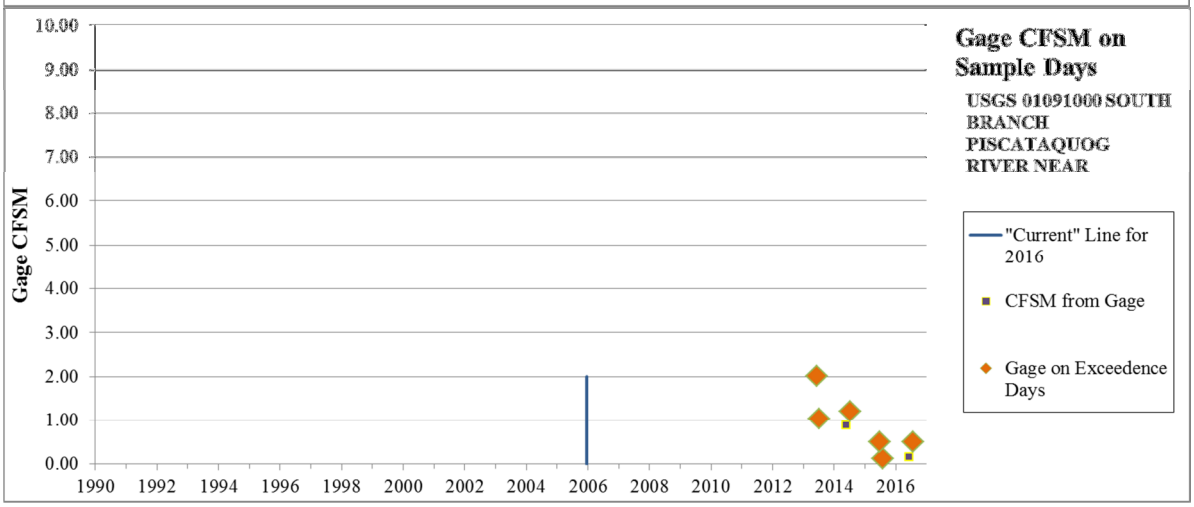
pH-GRAB = pH value from a grab sample.
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

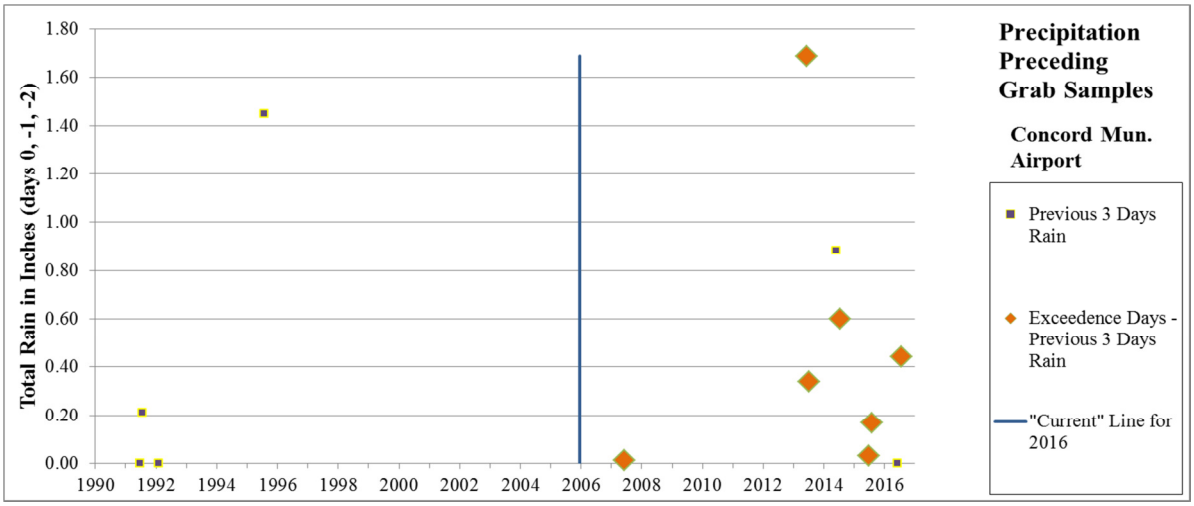
GLEN LAKE (NHLAK700060607-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
GLEN LAKE	NHLAK700060607-01-01	pH	Someplace or other	3-PNS	5-M

2016: Grab samples from station GLEGOFD indicated impairment for the 2016 cycle. Seven of 9 (78%) were below pH 6.5 (values ranged from 6.48 - 5.96). Sampled were collected June, July, August and under various weather conditions (0.01 - 1.69" rain in a 3 day period).







Notes:

pH-GRAB = pH value from a grab sample.

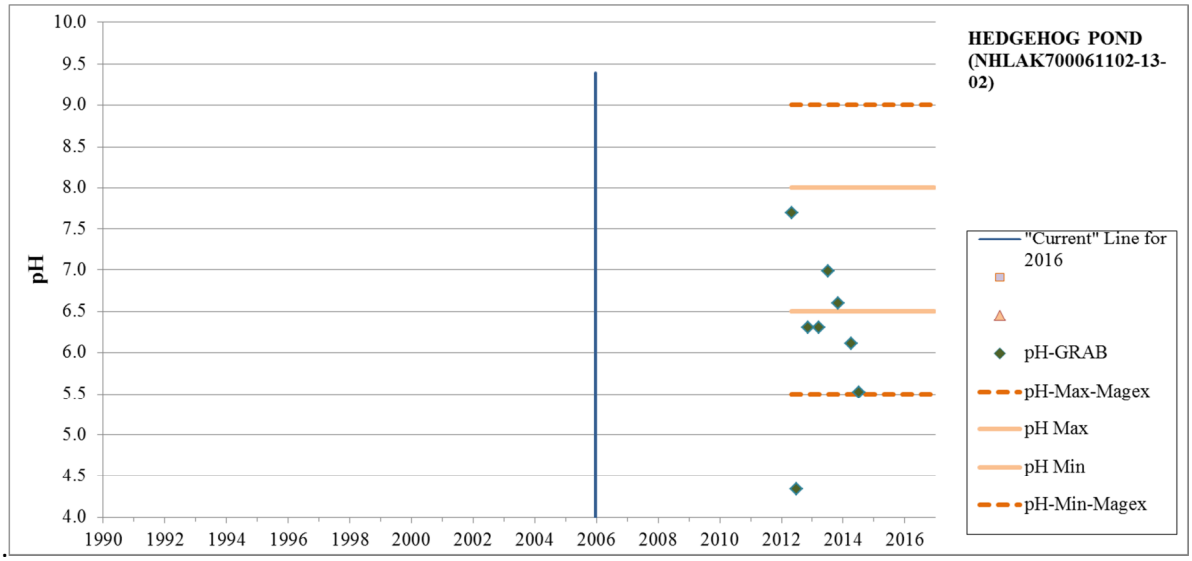
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

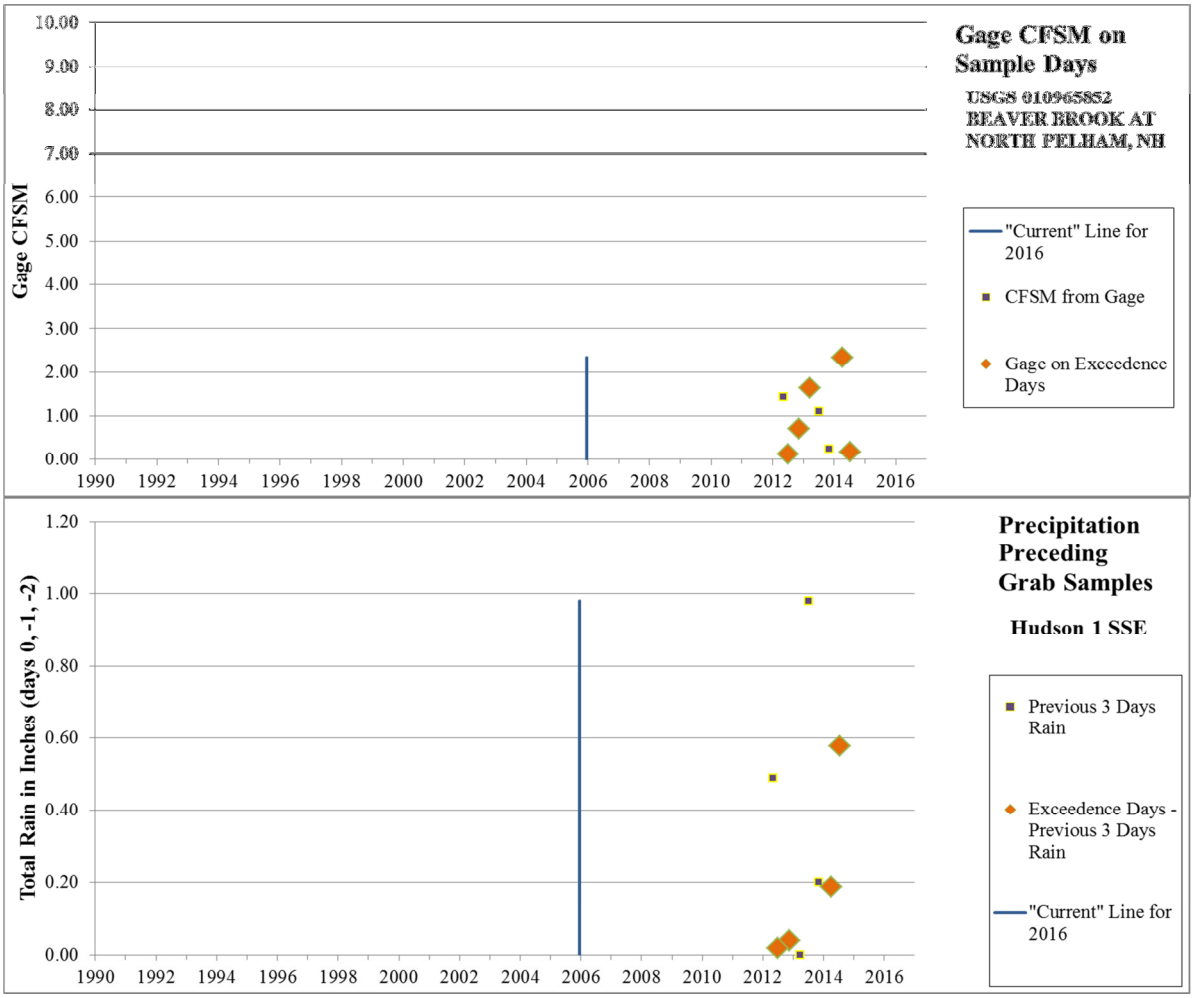
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

HEDGEHOG POND (NHLAK700061102-13-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
HEDGEHOG POND	NHLAK700061102-13-02	pH	Salem	3-PNS	5-M

2016: Grab samples from station 199609008SW01, indicated impairment for the 2016 cycle. Five of 8 (63%) were below pH 6.5 (values ranged from 6.30 to 4.34). Collection was done during April, May, July, and November and under various weather conditions, (0.02 - 0.58" rain in 3 day period).





Notes:

pH-GRAB = pH value from a grab sample.

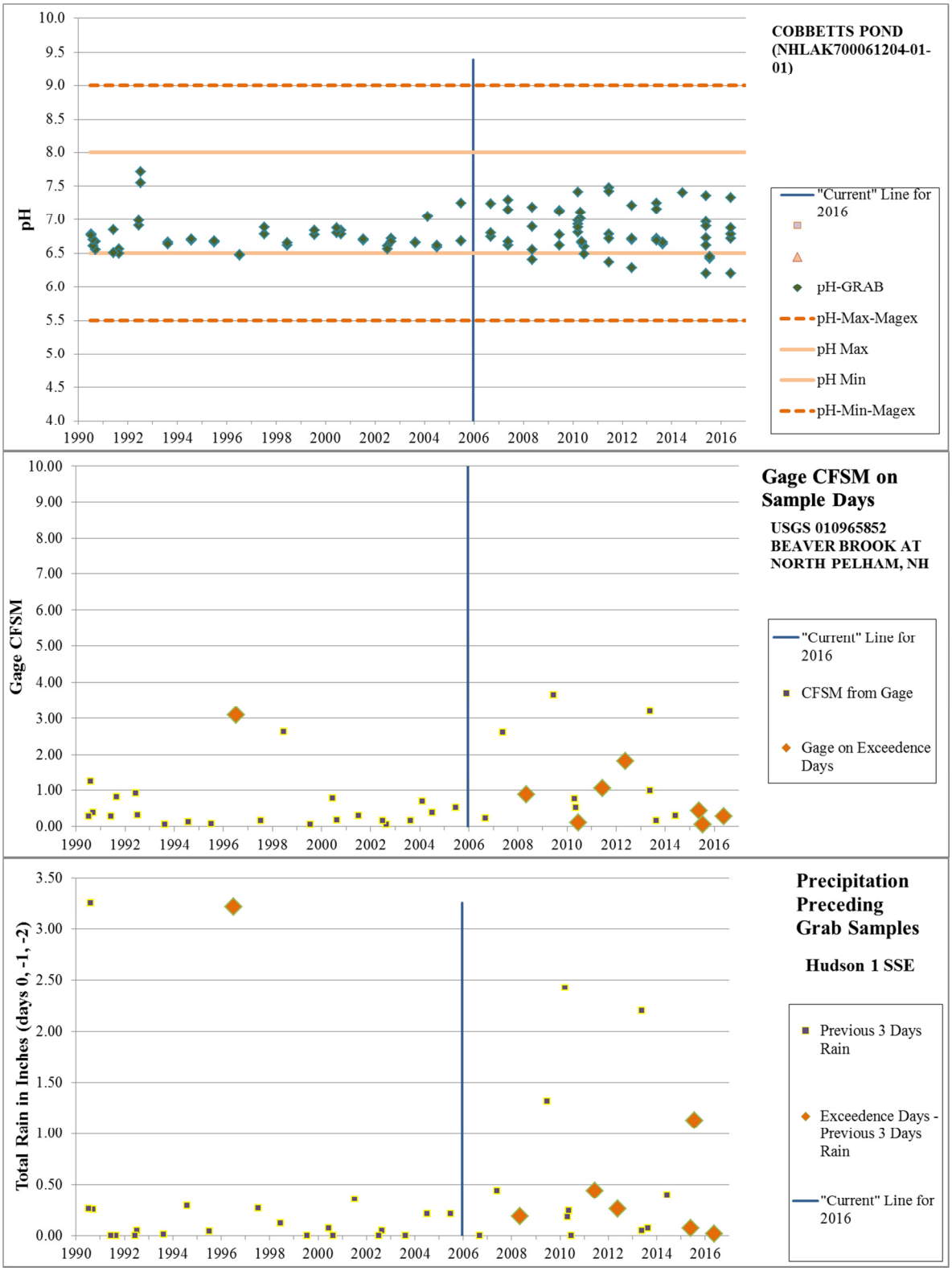
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

COBBETTS POND (NHLAK700061204-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
COBBETTS POND	NHLAK700061204-01-01	pH	Windham	2-M	5-M

2016: Grab samples from stations, COBWINND, COBWINSD, COBWINMESS indicated impairment for the 2016 cycle. Eight of 55 (15%) of samples were below pH 6.5, (values ranged from 6.49 - 6.21). Samples were taken during May, June, July, and August in varying weather conditions, (0.02 -1.13" rain in a 3 day period).



Notes:

pH-GRAB = pH value from a grab sample.

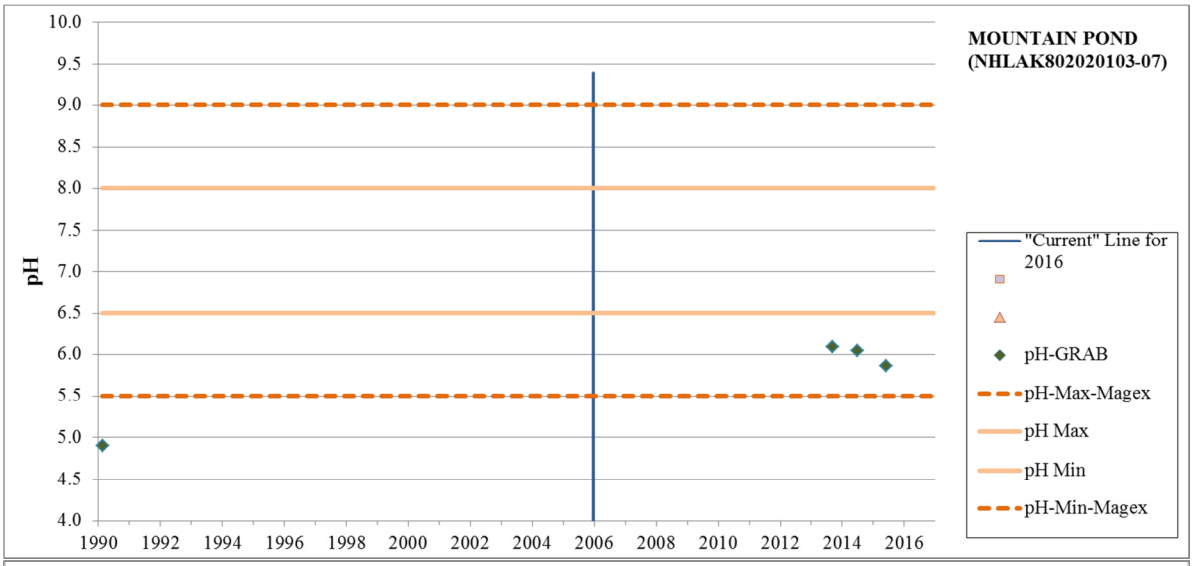
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

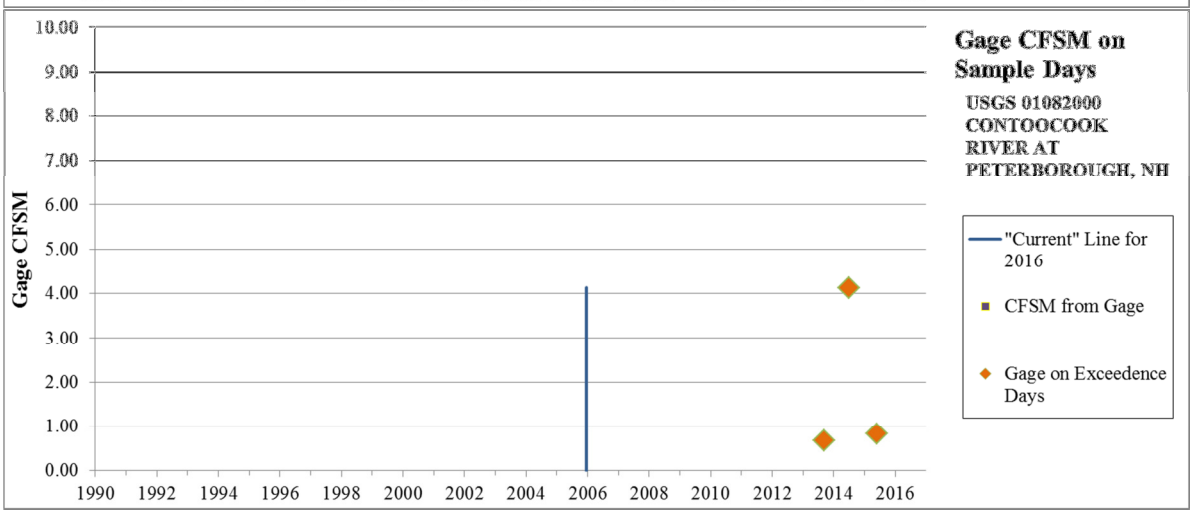
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

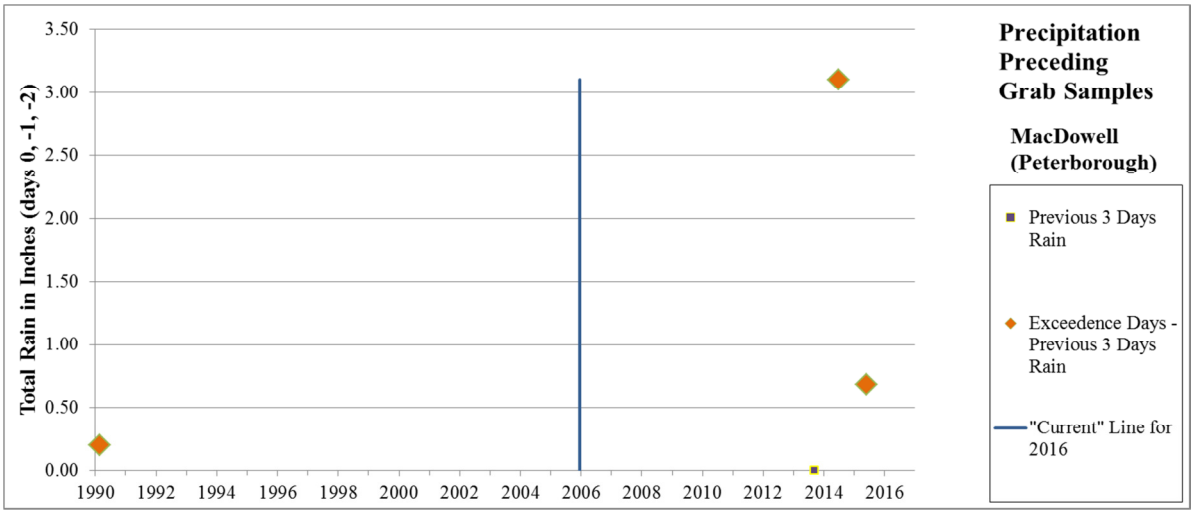
MOUNTAIN POND (NHLAK802020103-07)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
MOUNTAIN POND	NHLAK802020103-07	pH	New Ipswich	3-PNS	5-M

2016: Grab samples from station MOUNWID indicate impairment for the 2016 cycle. Three of 3 samples 100% were below pH 6.45 (values 5.86-6.09). Samples were taken in June through September under varying weather conditions, (0.00 -3.10"preceding three day precipitation) during variable flow conditions (067 cfs - 4.13 cfs) USGS 01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH.







Notes:

pH-GRAB = pH value from a grab sample.

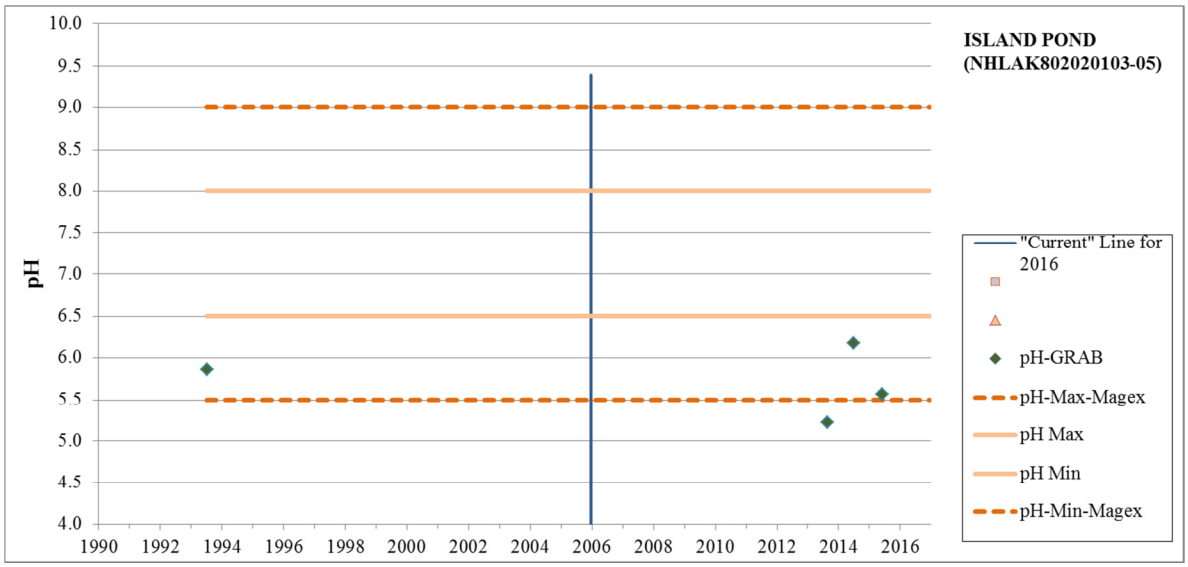
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

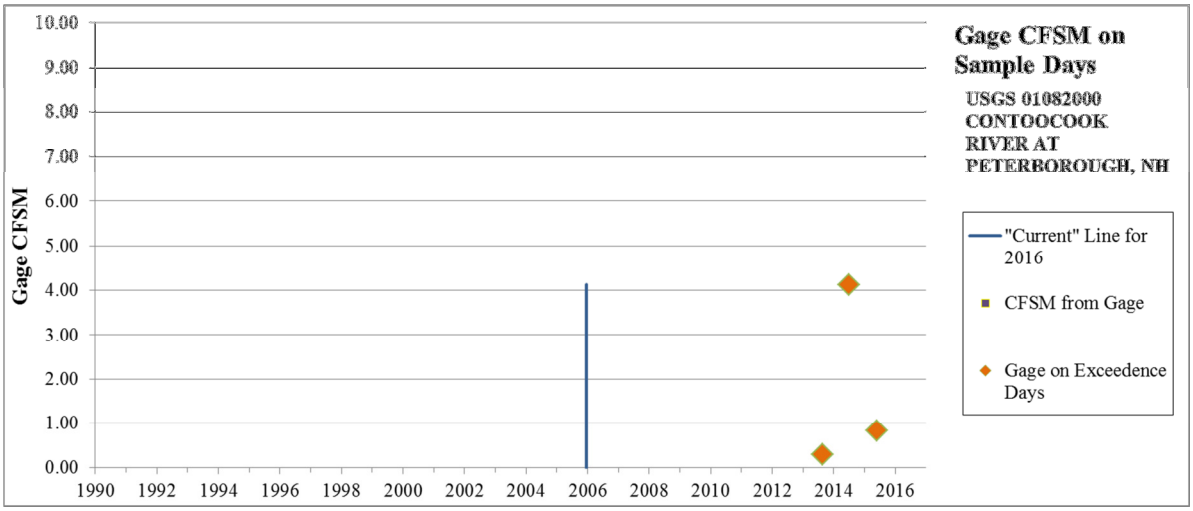
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

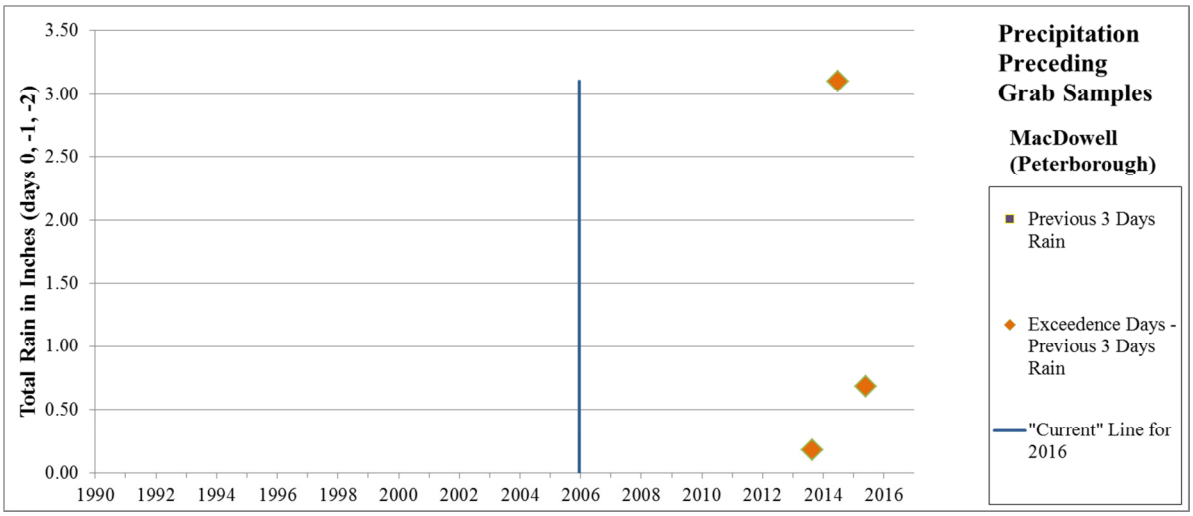
ISLAND POND (NHLAK802020103-05)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
ISLAND POND	NHLAK802020103-05	pH	New Ipswich	3-PNS	5-M

2016: Grab sample data collected in 2013through 2015 at station ISLNWID triggered the new impairment in the 2016 cycle. All three grab samples were non-supports collected in June through September. Two of the non-supports were just below the pH minimum magex of 5.5 with readings of 5.22. Collected at flows of 0.29 and 4.13 cfsm on the USGS 01082000 CONTOOCOOK RIVER AT PETERBOROUGH (NH and during varying weather conditions (0.29 and 4.13"preceding three day precipitation). Due to 5.7 being so close to the pH minimum magex threshold of 5.5, they will not count as magex non-supports. The river has been categorized as 5-M for the 2016 cycle.







Notes:

pH-GRAB = pH value from a grab sample.

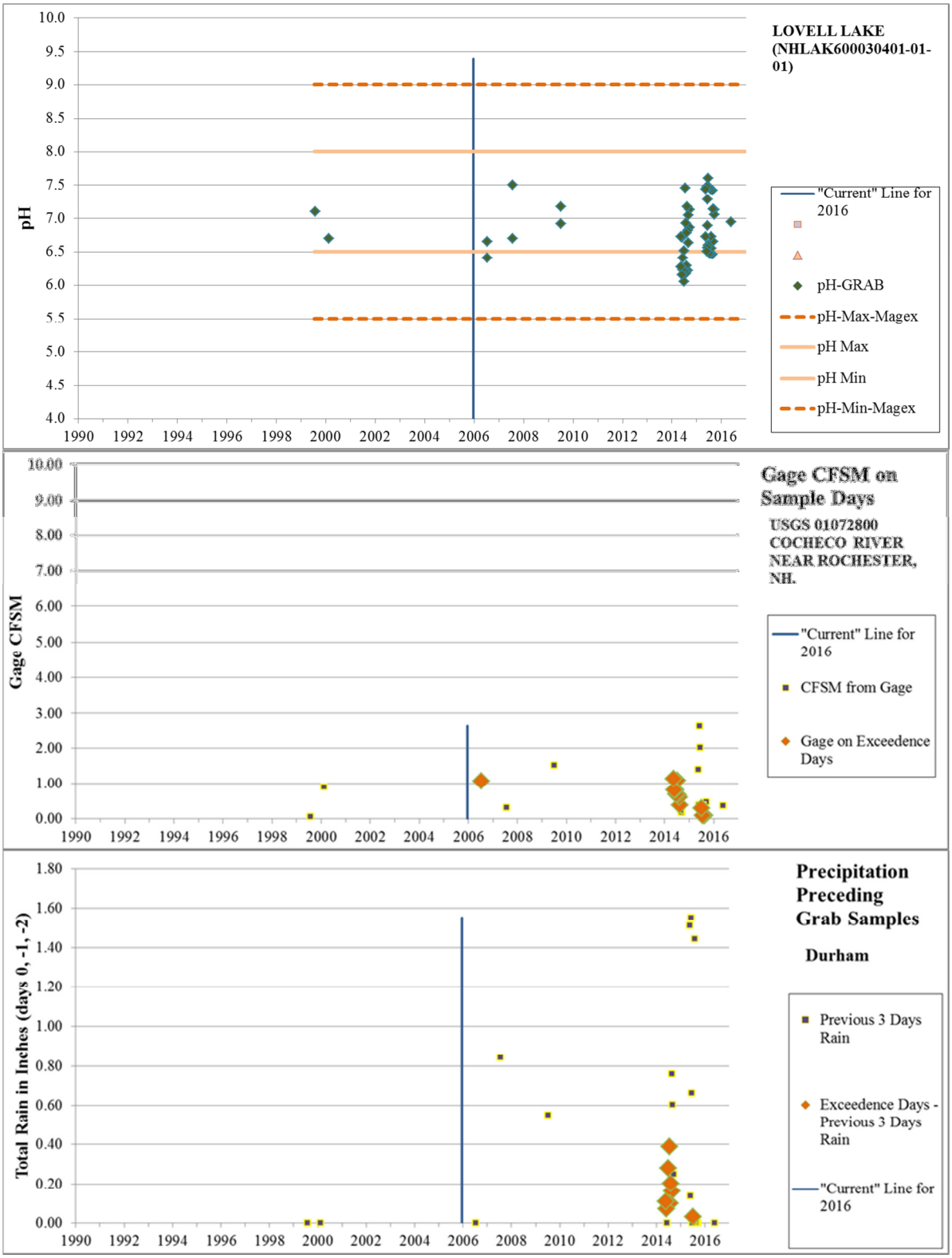
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

"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.

LOVELL LAKE (NHLAK600030401-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
LOVELL LAKE	NHLAK600030401-01-01	pH	Wakefield	3-PNS	5-M

2016: Grab sample data collected from stations, LOV01NL, and LOV02SL indicated impairment for the 2016 cycle. 14 of 49 (27%) grab samples were below 6.5 (low pH between 6.15– 6.48). Collected in June through September during varying weather conditions (0.00 – 0.39" 3 day total).



Notes:

pH-GRAB = pH value from a grab sample.

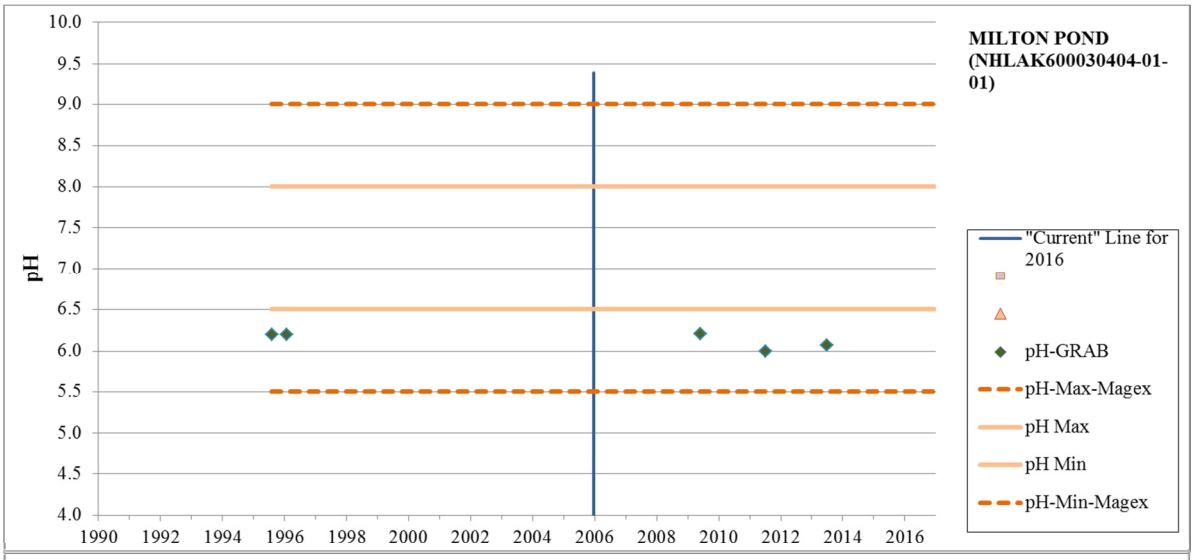
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

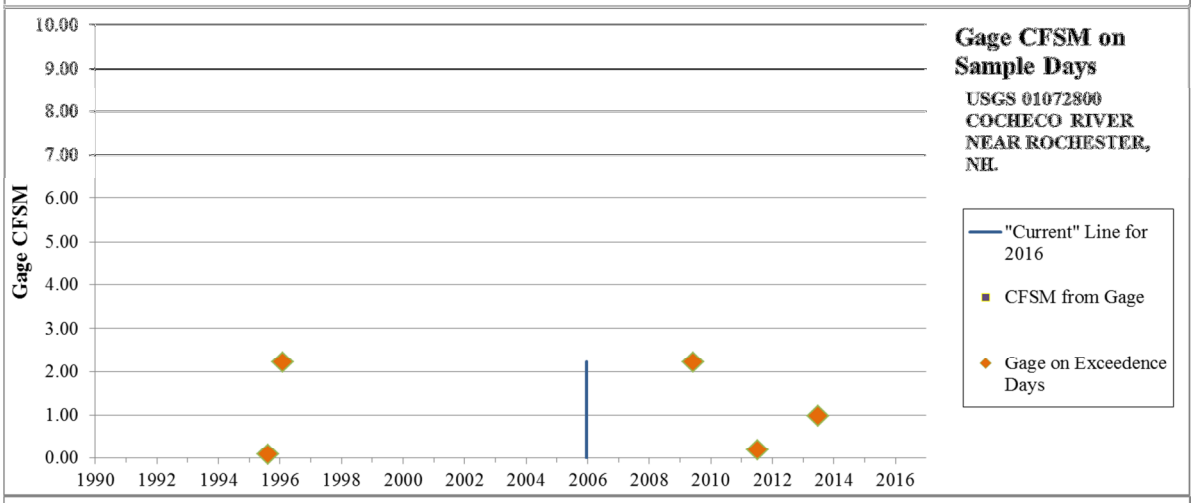
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

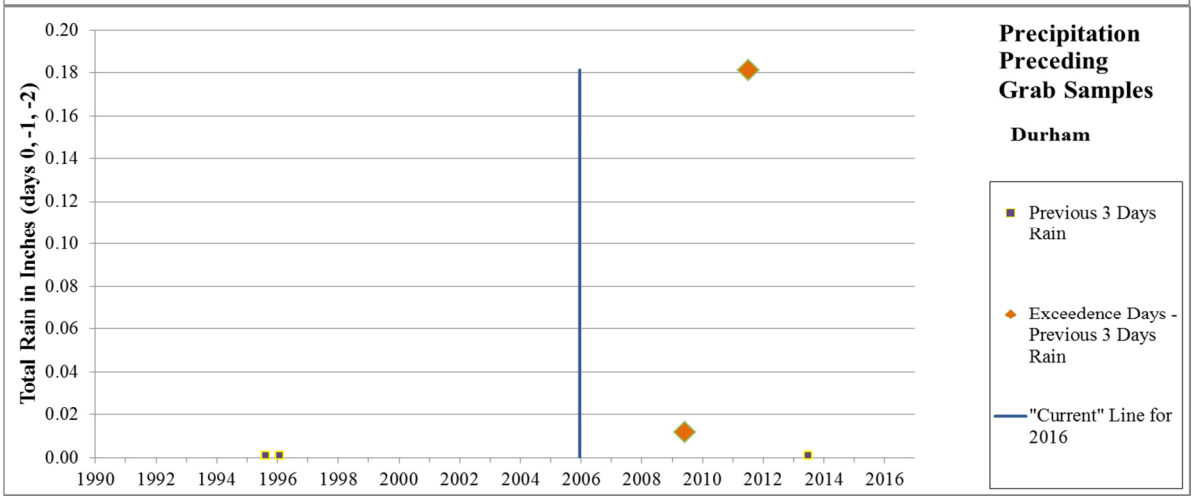
MILTON POND (NHLAK600030404-01-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
MILTON POND	NHLAK600030404-01-01	pH	Milton	3-ND	5-M

2016 Grab sample data collected at stations DEP02ML, and MILMILD, indicate impairment for the 2016 cycle. Three of 3 (100%) of grab samples were below 6.5 (low pH between 6.21 -6.00). Collected in June and July during varying weather conditions (0.00 - 0.18" 3 days total).







Notes:

pH-GRAB = pH value from a grab sample.

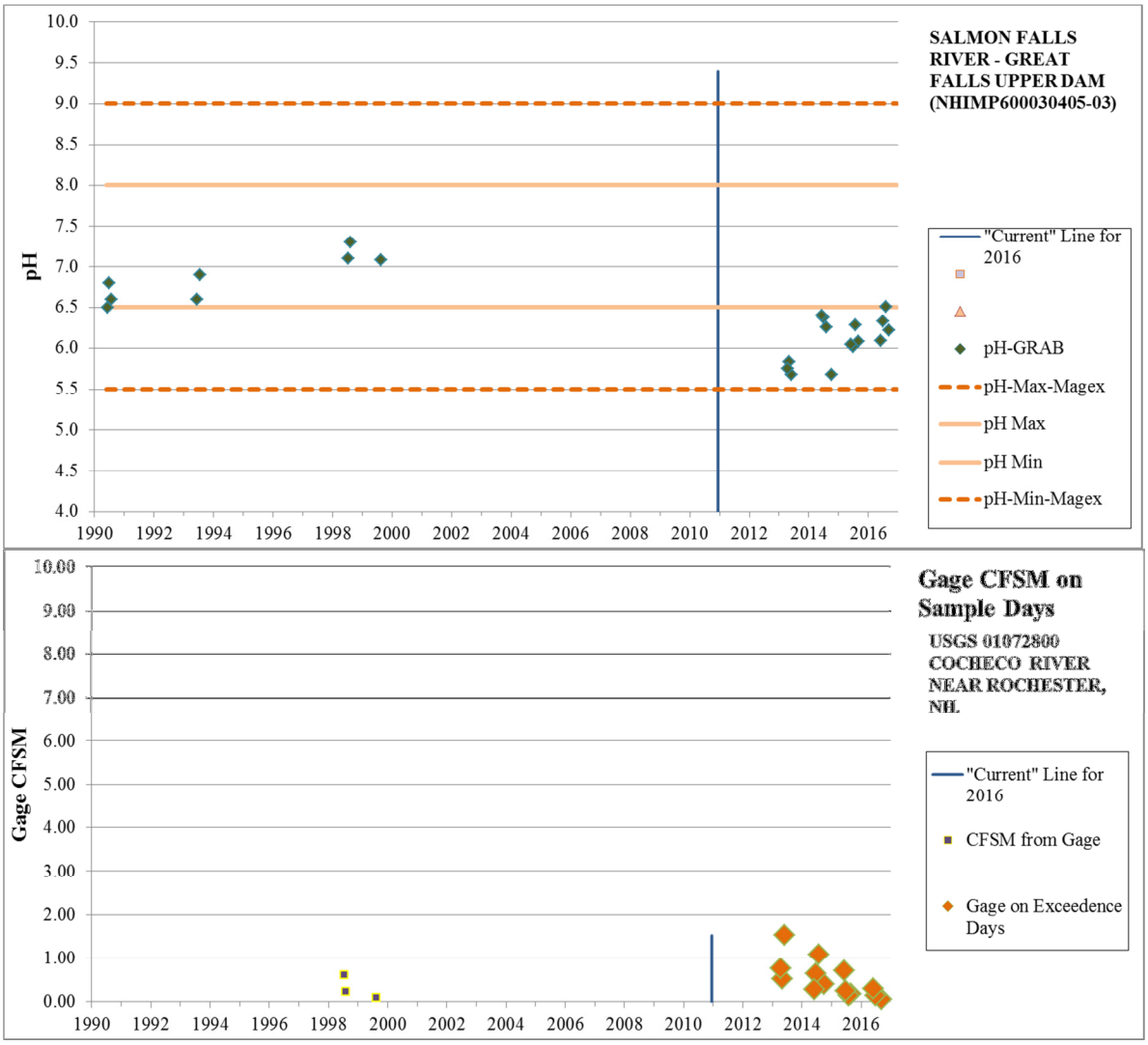
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

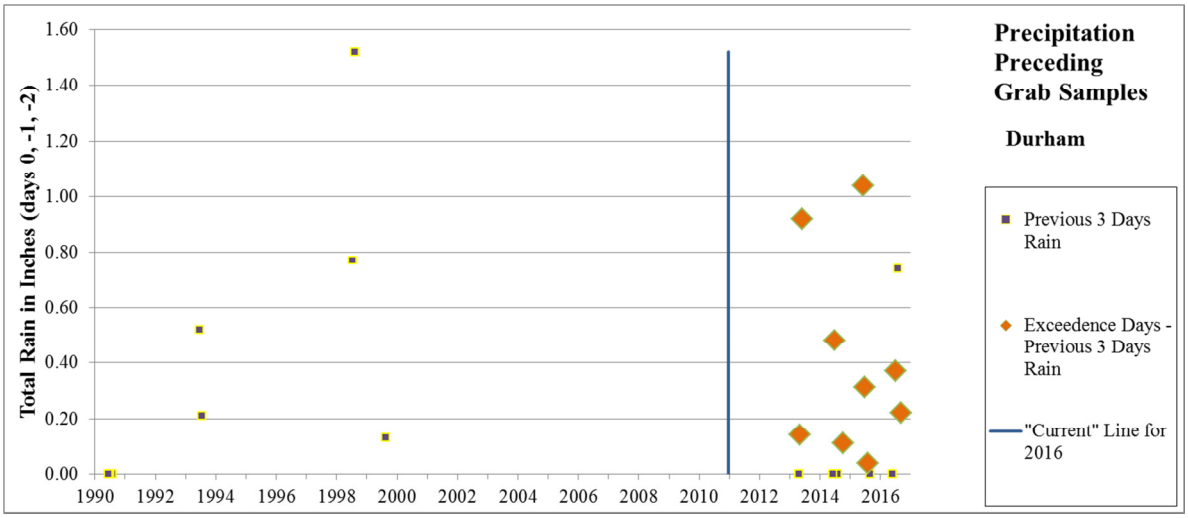
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

SALMON FALLS RIVER - GREAT FALLS UPPER DAM (NHIMP600030405-03)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
SALMON FALLS RIVER - GREAT FALLS UPPER DAM	NHIMP600030405-03	pH	Somersworth	3-ND	5-M

2016: Grab samples from station 12-SFR, indicated impairment for the 2016 cycle. 14 of15 (93%) were below pH 6.5 (values ranged from 6.40 to 5.68). Collection was done during May, June, July, September and November and under various weather conditions, (0.00 - 1.04" rain in 3 day period).





Notes:

pH-GRAB = pH value from a grab sample.

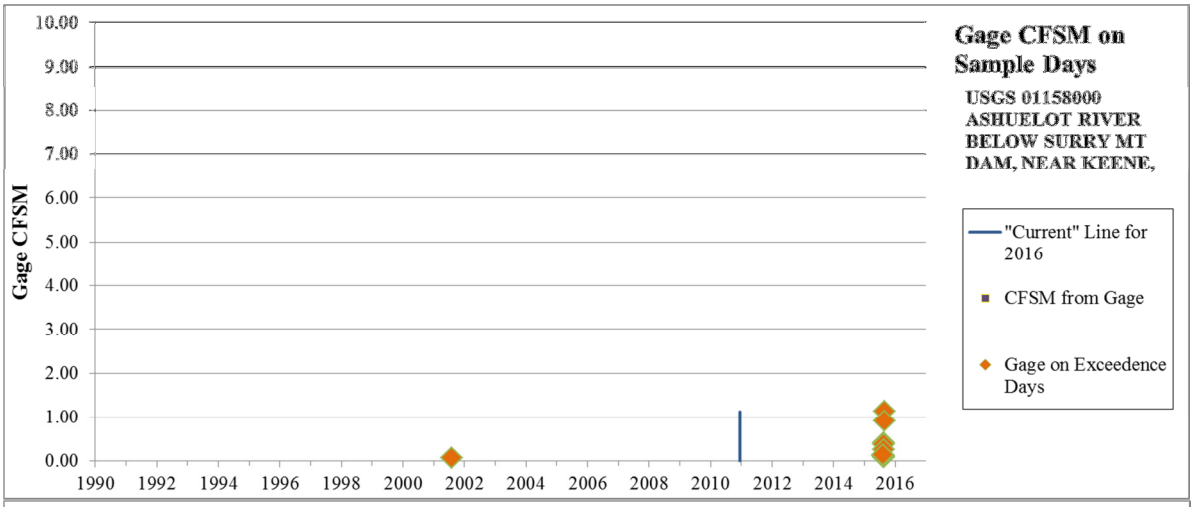
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

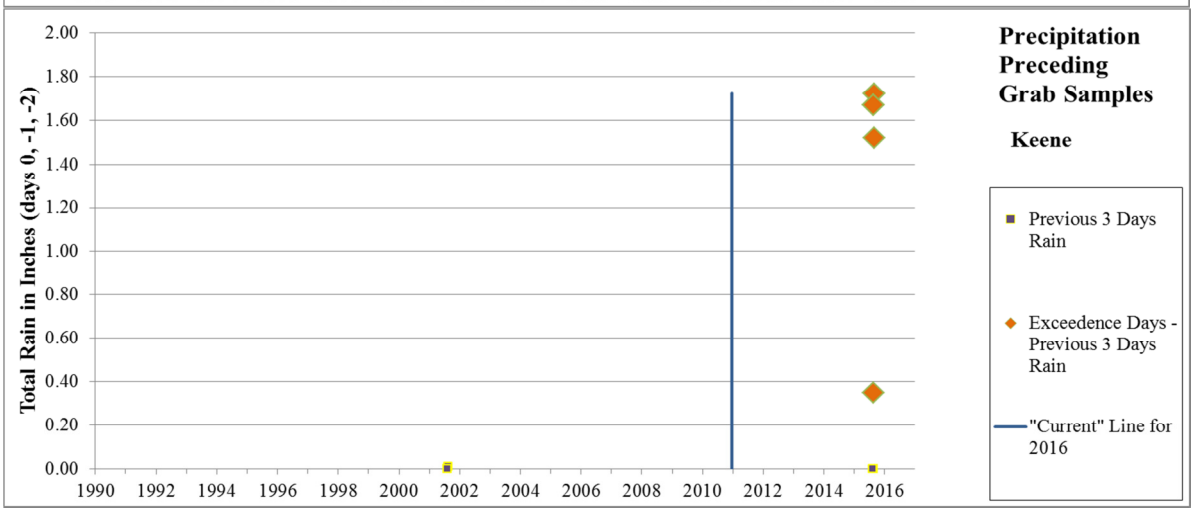
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

ASHUELOT RIVER DAM POND (NHIMP802010301-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
ASHUELOT RIVER DAM POND	NHIMP802010301-02	pH	Keene	3-ND	5-M

2016: Grab and Datalogger day samples from station 19A-ASH indicate impairment for the 2016 cycle. 13 of 13 (100%) were below pH 6.5 (values ranged from 6.30 to 6.14). Collection was done in August and September under various weather conditions (0.00 to 1.72)" of rain in a three day period.





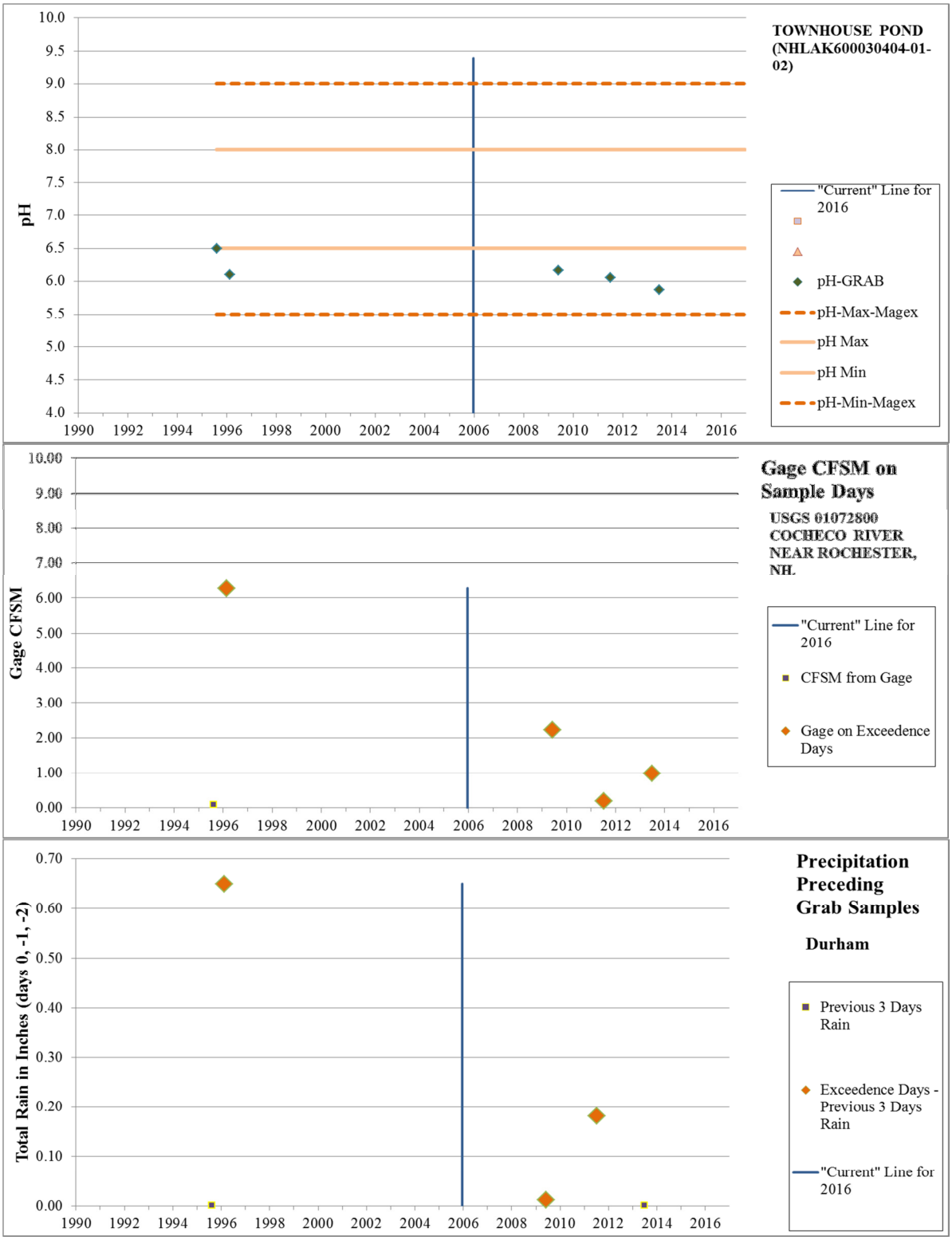
Notes:

pH-24HR_MIN = pH minimum value from a datalogger deployment.
pH-24HR_MAX = pH maximum value from a datalogger deployment.
pH-GRAB = pH value from a grab sample.
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.
"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.

TOWNHOUSE POND (NHLAK600030404-01-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
TOWNHOUSE POND	NHLAK600030404-01-02	pH	Milton	3-ND	5-M

2016: Grab sample data collected at station THP03ML, indicate impairment for the 2016 cycle. Three of 3 (100%) of grab samples were below 6.5 (pH values between 6.16 and 5.87). Collected in June and July during varying weather conditions (0.00 - 0.18" rain 3 days total).



Notes:

pH-GRAB = pH value from a grab sample.

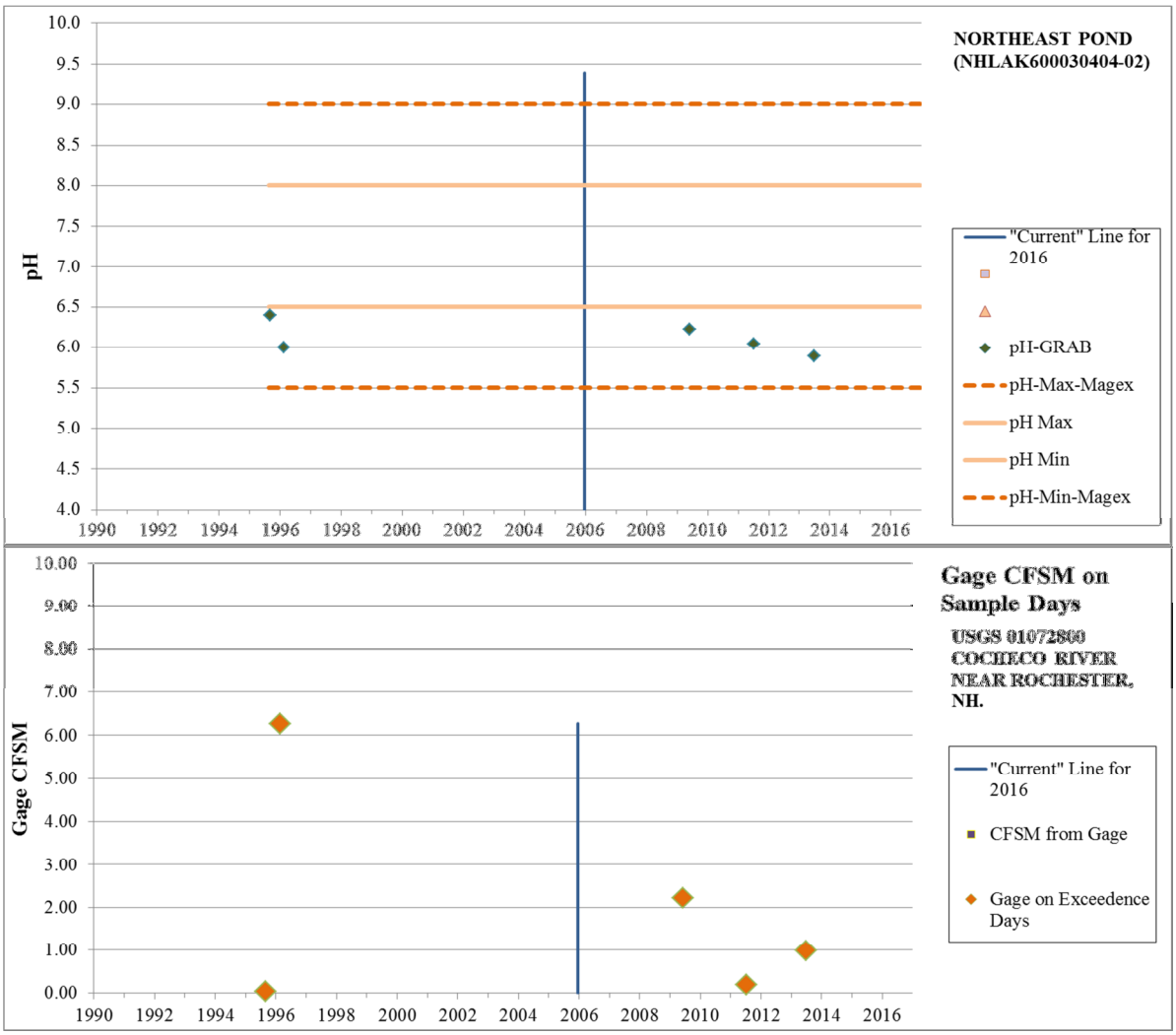
"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

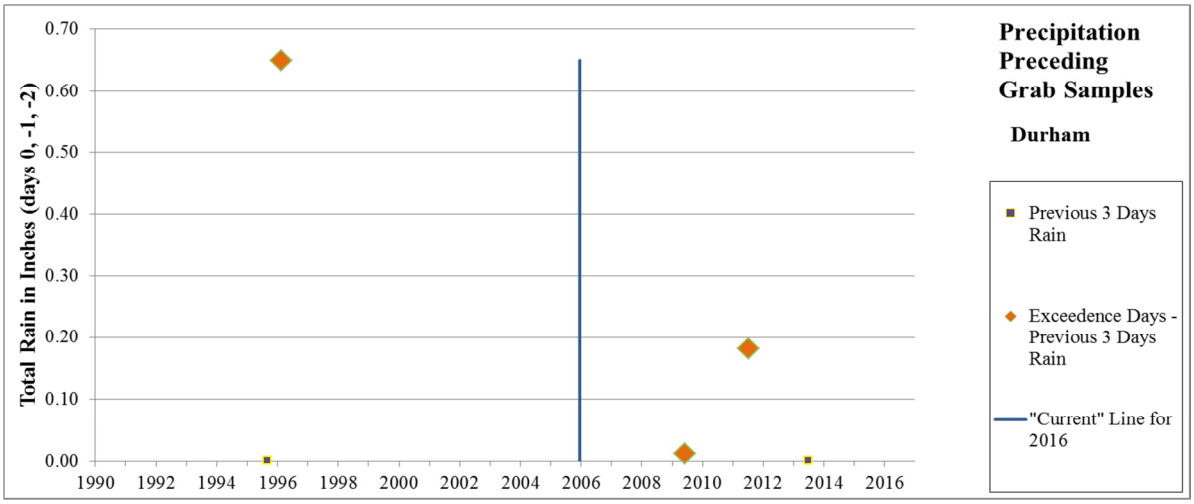
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

NORTHEAST POND (NHLAK600030404-02)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
NORTHEAST POND	NHLAK600030404-02	pH	Milton	3-ND	5-M

2016: Grab sample data from station NEL01ML indicates impairment for the 2016 cycle. Three of 3 (100%) of grab samples were below 6.5 (pH values between 6.23 -5.89). Collected in June and July under varying weather conditions (0.00 - 0.18" rain 3 days total).





Notes:

pH-GRAB = pH value from a grab sample.

"Magex" refers to the magnitude of exceedence indicator described in the Consolidated Assessment and Listing Methodology.

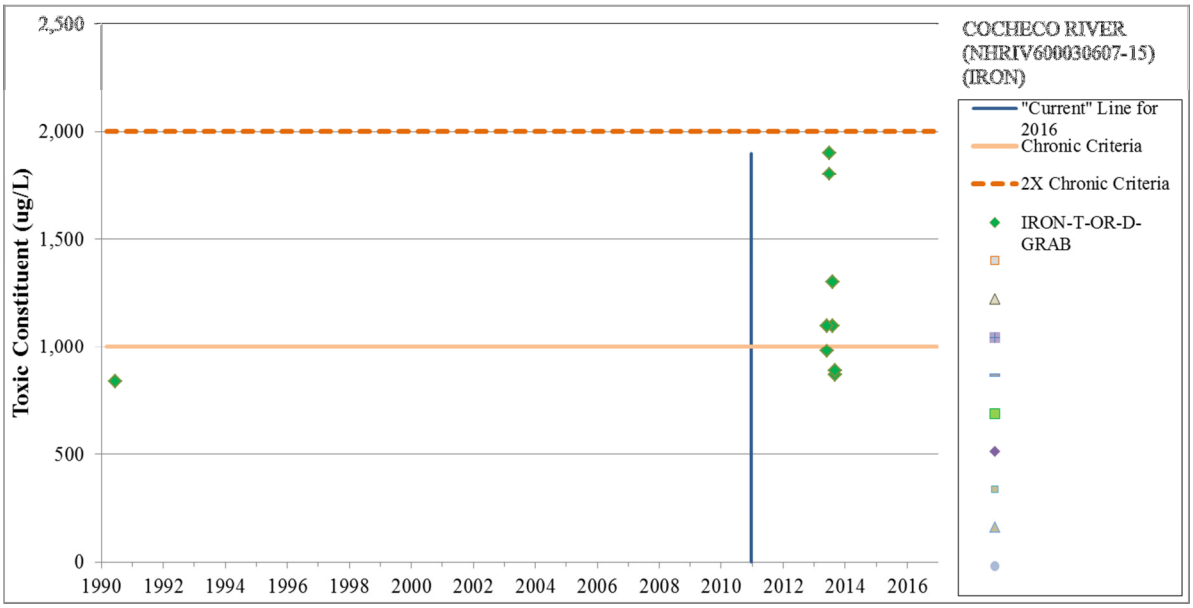
"Current" Line for 2016 – Per the methodology outlined in the CALM, all data from this referenced data is considered "current". Available older data is provided for context. See the 2016 CALM for additional details.

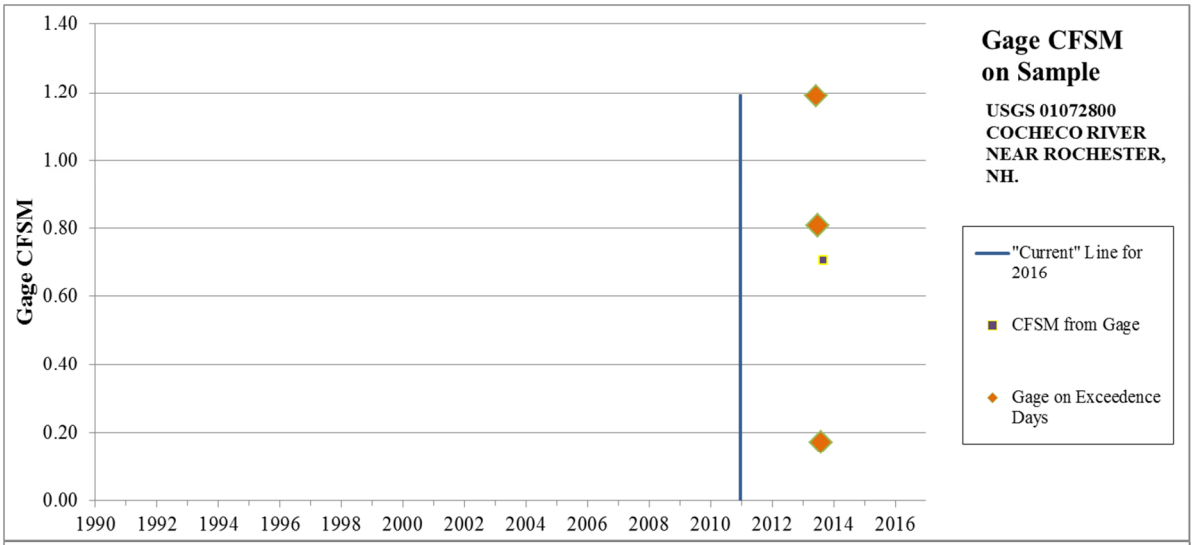
Toxics (Aquatic Life Use Support)

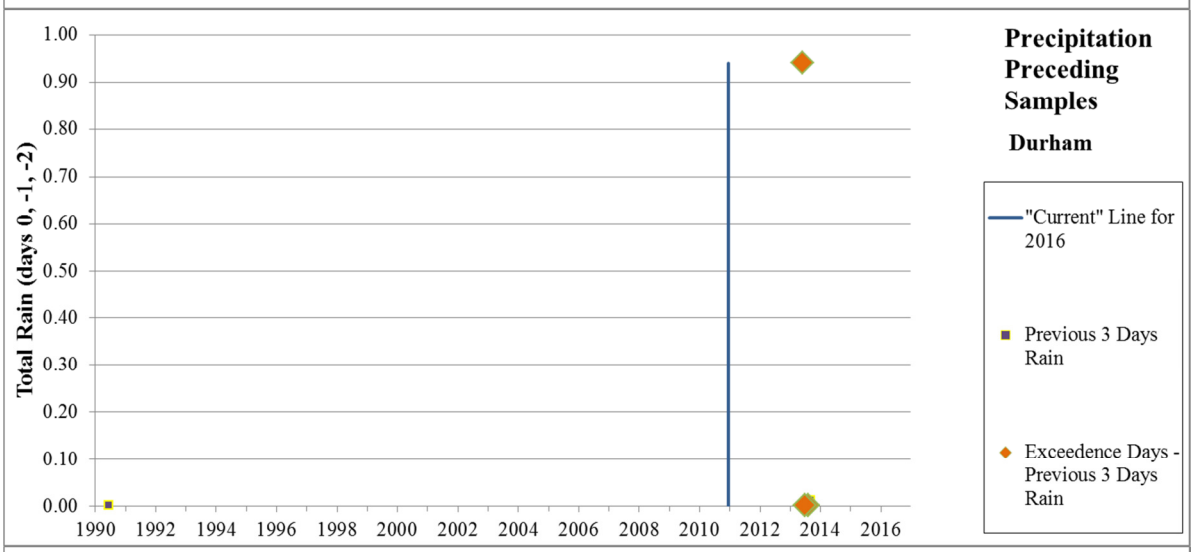
COCHECO RIVER (NHRIV600030607-15)

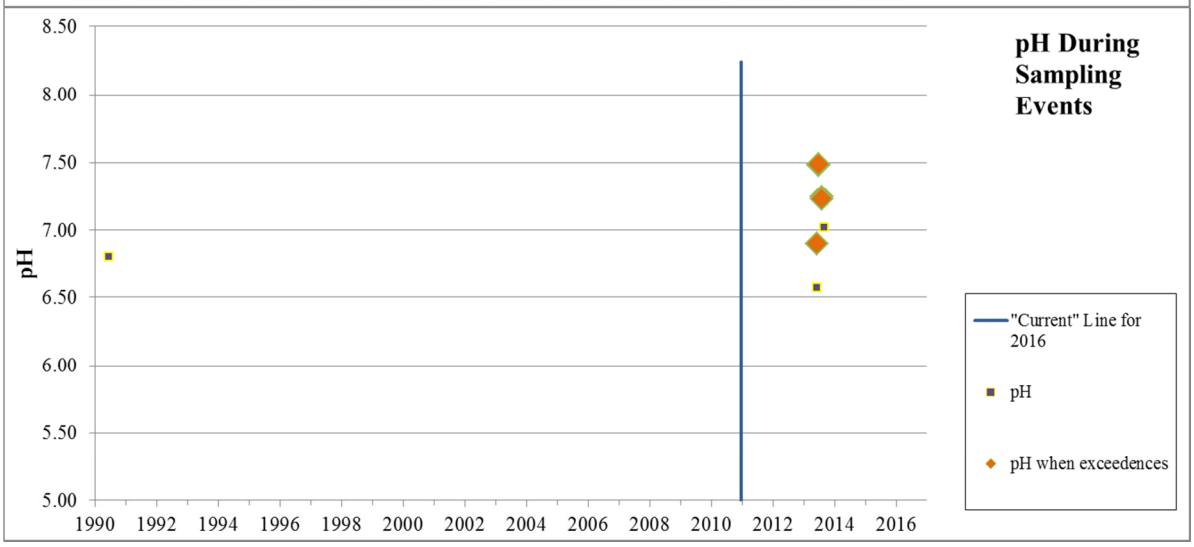
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
COCHECO RIVER	NHRIV600030607-15	Iron	ROCHESTER	3-ND	5-M

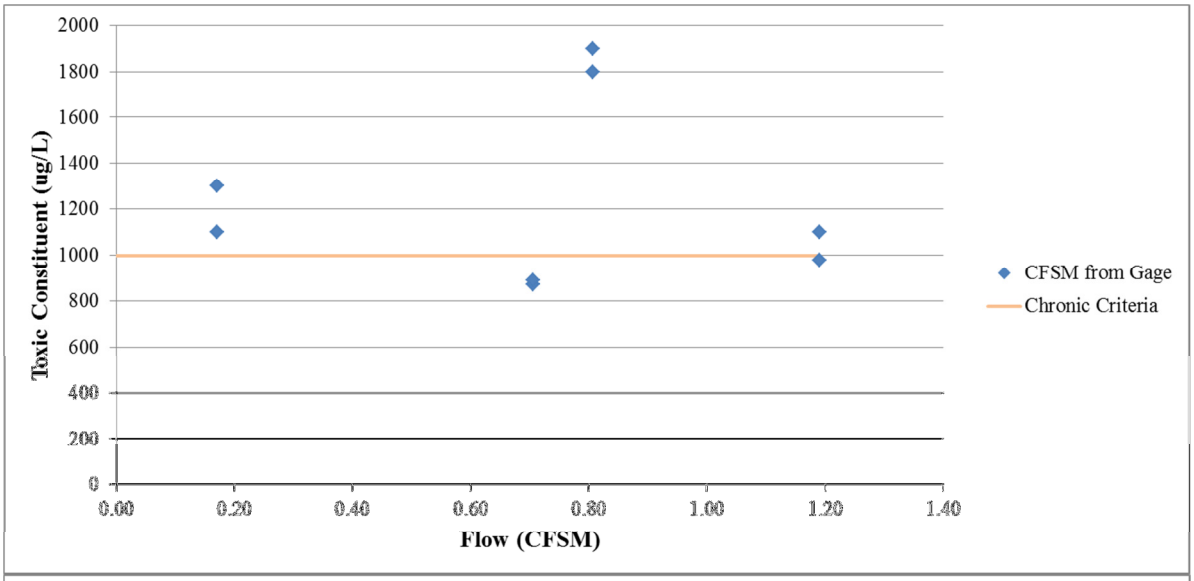
2016: Five of eight (63%) samples collected during the current assessment period from 2011 to 2016, at both stations 15P-CCH (below the WWTF outfall) and 16-CCH (above the WWTF outfall) were above the chronic criteria (1,000 ug/L) resulting in a new impairment for this assessment unit during the 2016 cycle. The non-support samples collected during the current assessment period were collected with 3-day rainfall totals between 0.00 – 0.94" and with flows ranging from 0.17 – 1.19 cfsm at the Cocheco River gage (01072800) in June through September.

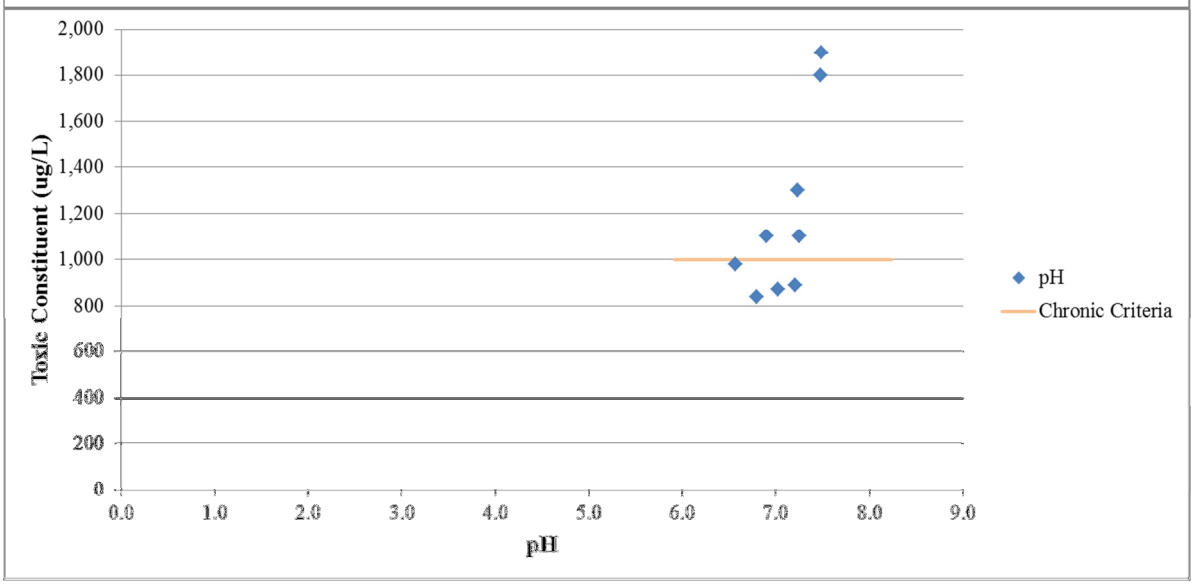



Gage CFSM on Sample
USGS 01072800 COCHECO RIVER NEAR ROCHESTER, NH.
Gage CFSM
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days


Precipitation Preceding Samples
Durham
Total Rain (days 0, -1, -2)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain


pH During Sampling Events
pH
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
pH
pH when exceedences

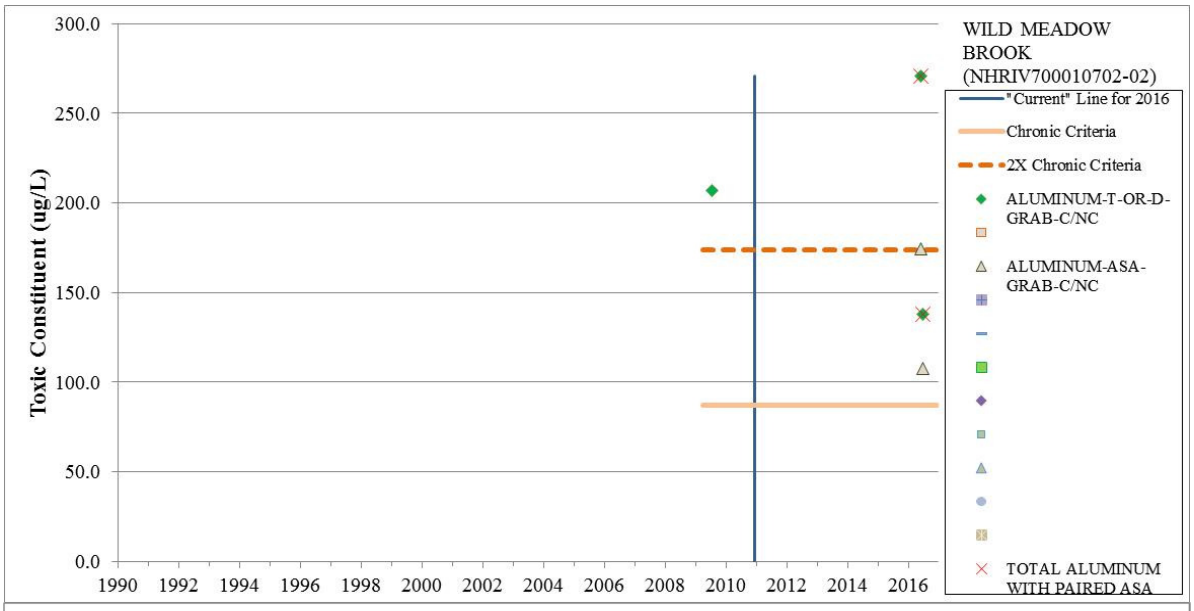


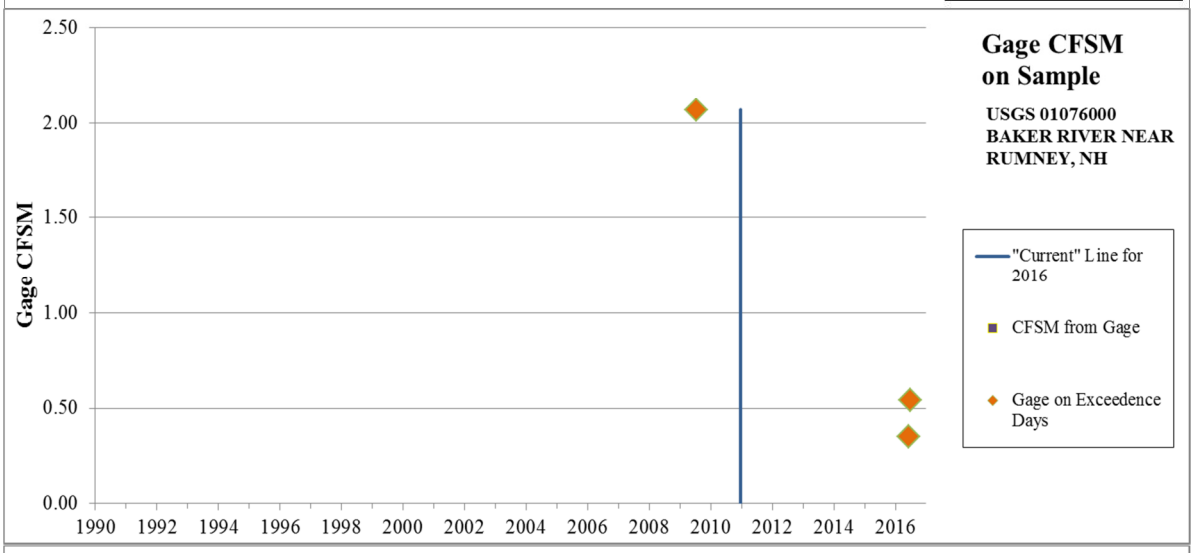


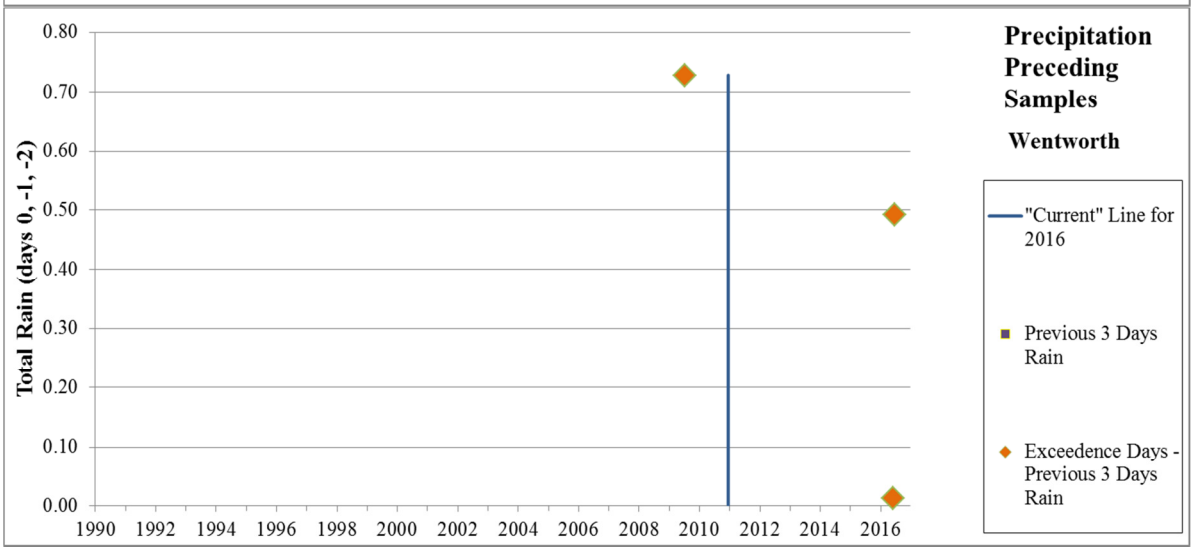
WILD MEADOW BROOK (NHRIV700010702-02)

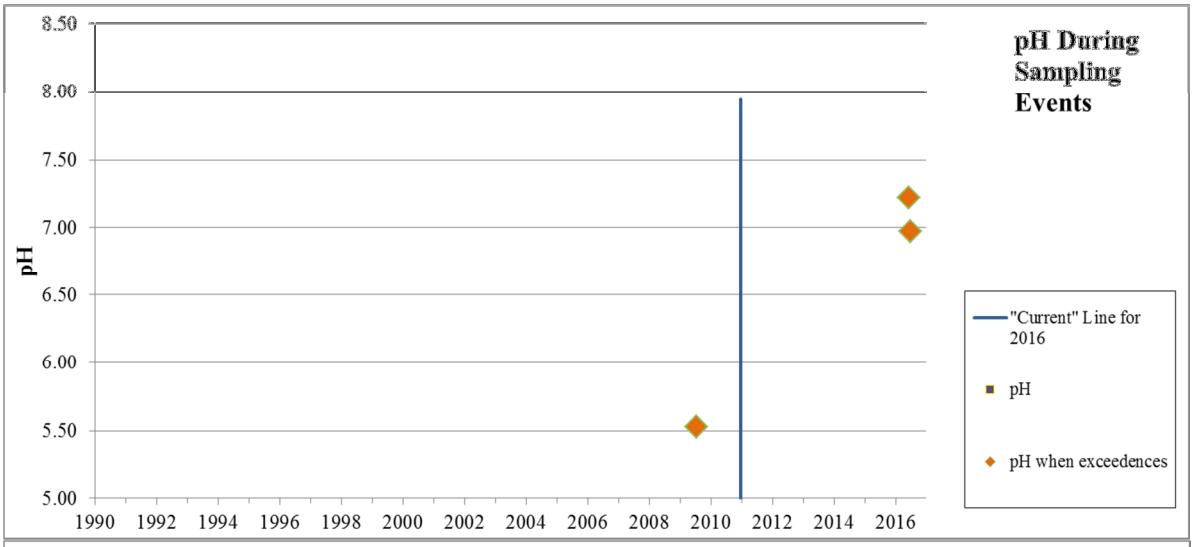
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
WILD MEADOW BROOK	NHRIV700010702-02	Aluminum	GRAFTON	3-PNS	5-M

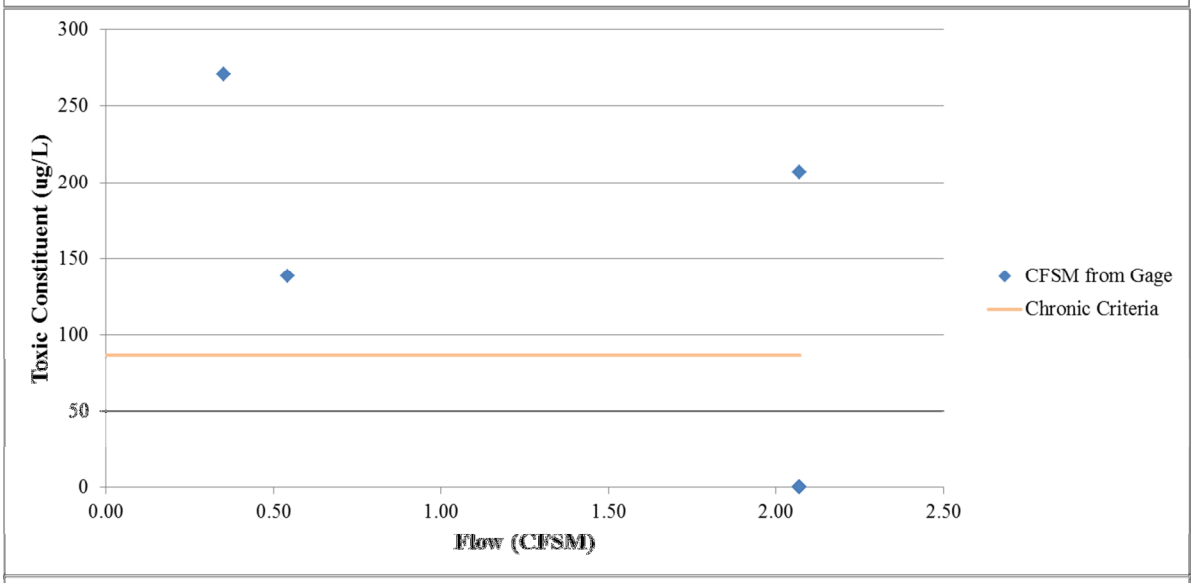
2016: 100% (two) of the total aluminum samples collected during the current assessment period from 2011 to 2016, at stations 03T-WIM, were above the chronic criteria (87 ug/L), which by themselves suggest an impairment should be added for this assessment unit during the 2016 cycle. However, on July 1, 2014 NHDES formally clarified to USEPA that the aluminum criteria in the NH surface water quality regulations is acid-soluble aluminum, consistent with USEPA's 1988 ambient water quality criteria document for aluminum. The 2016 station 03T-WIM sampling included concurrent acid-soluble aluminum analysis. The acid-soluble aluminum results were also above the chronic criteria. One of those acid-soluble aluminum samples was 2x the chronic criteria. The samples collected during the current assessment period were collected with 3-day rainfall totals between 0.01 – 0.49” and with flows ranging from 0.35 – 0.54 cfsm at the Baker River gage (01076000) in June and July. This assessment unit will be categorized as 5-M for aluminum for the 2016 cycle.

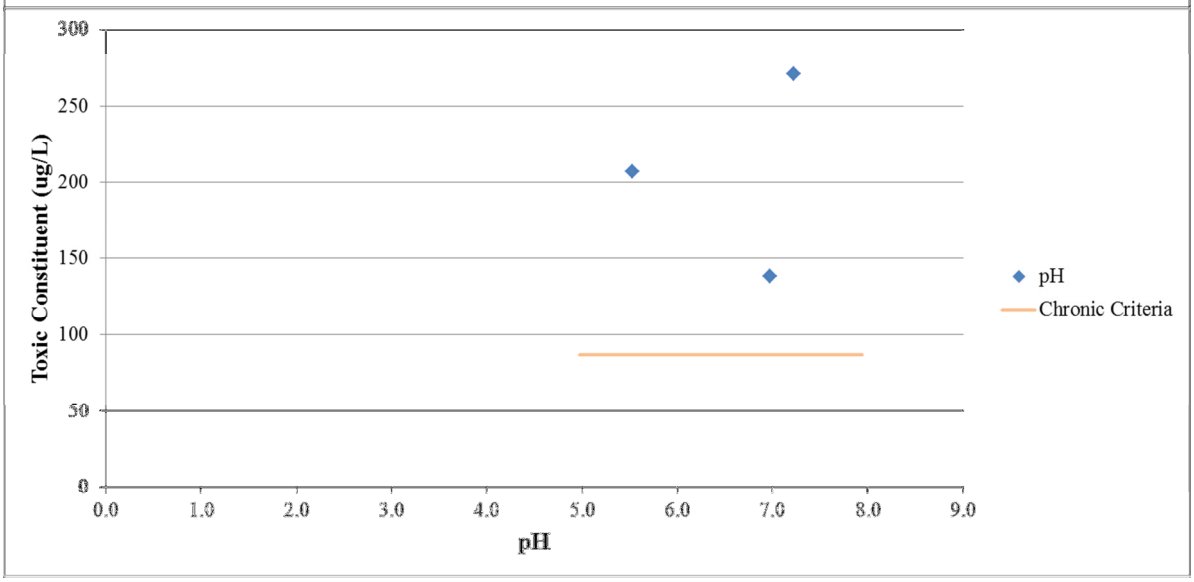

WILD MEADOW BROOK (NHRIV700010702-02)
Toxic Constituent (ug/L)
300.0
250.0
200.0
150.0
100.0
50.0
0.0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Chronic Criteria
2X Chronic Criteria
ALUMINUM-T-OR-D-GRAB-C/NC
ALUMINUM-ASA-GRAB-C/NC
TOTAL ALUMINUM WITH PAIRED ASA


Gage CFSM on Sample
USGS 01076000 BAKER RIVER NEAR RUMNEY, NH
Gage CFSM
2.50
2.00
1.50
1.00
0.50
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days


Precipitation Preceding Samples
Wentworth
Total Rain (days 0, -1, -2)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain


pH During Sampling Events
pH
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
"Current" Line for 2016
pH
pH when exceedences

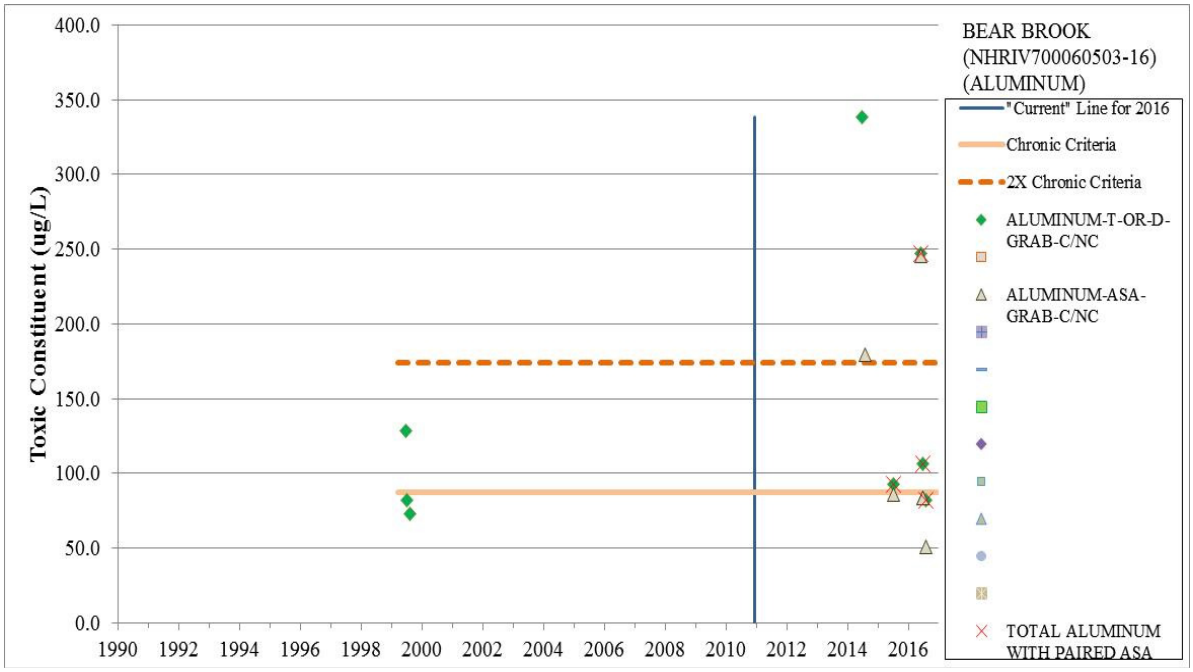

Toxic Constituent (ug/L)
300
250
200
150
100
50
0
0.00
0.50
1.00
1.50
2.00
2.50
Flow (CFSM)
CFSM from Gage
Chronic Criteria

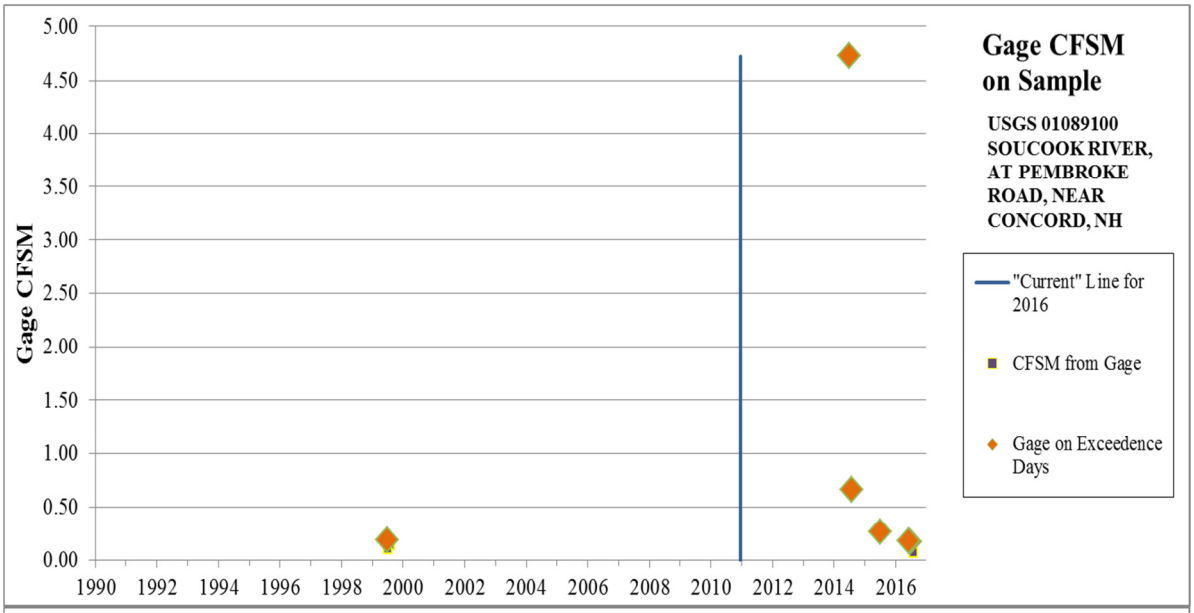

Toxic Constituent (ug/L)
300
250
200
150
100
50
0
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
pH
pH
Chronic Criteria

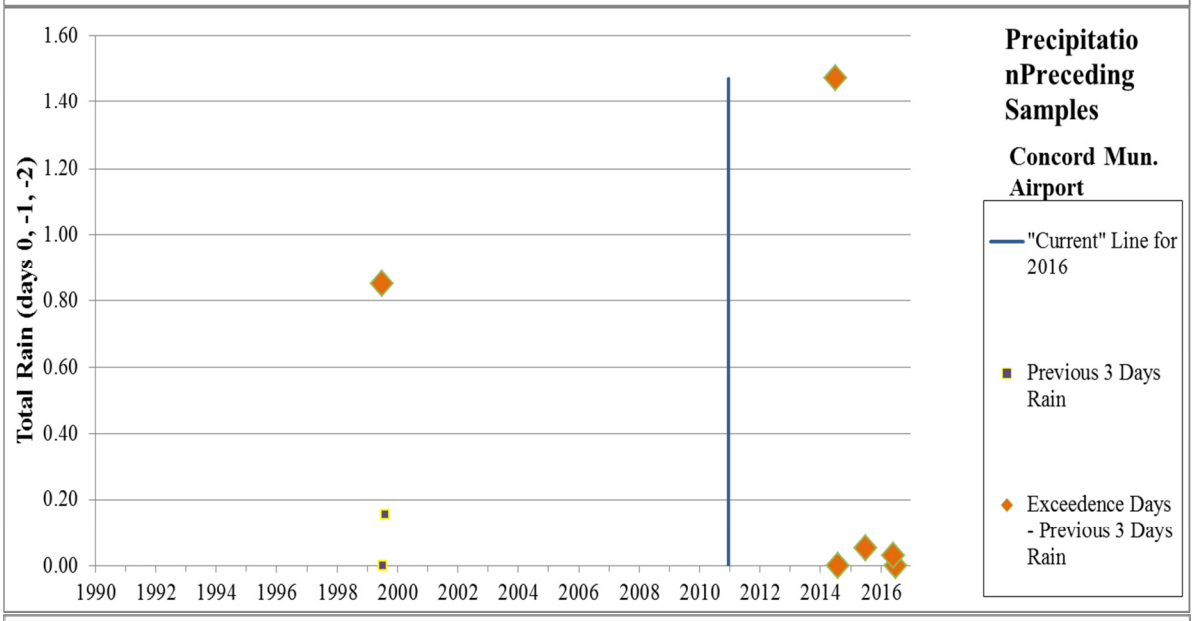
BEAR BROOK (NHRIV700060503-16)

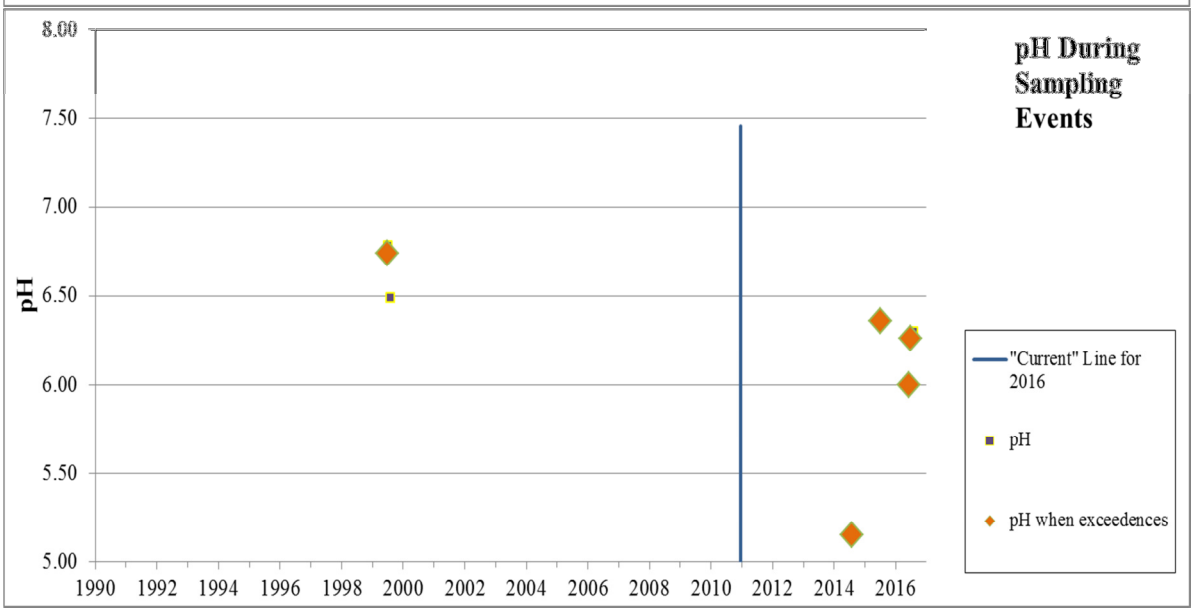
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
BEAR BROOK	NHRIV700060503-16	Aluminum	ALLENSTOWN	3-ND	5-P

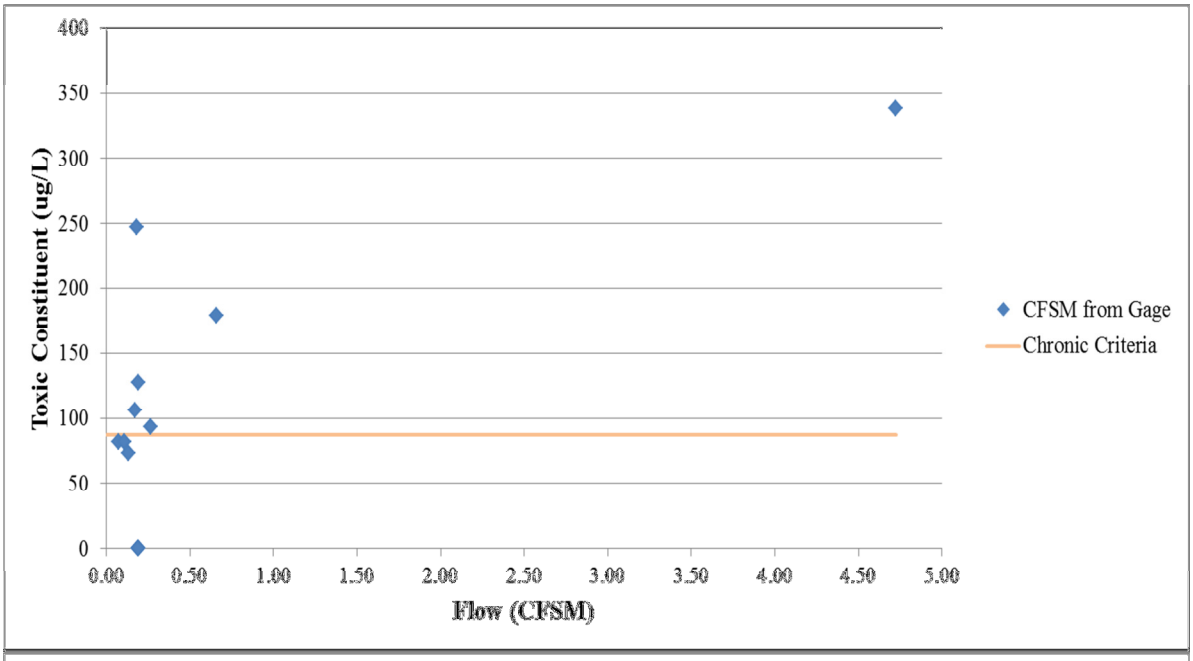
2016: Five of six (83%) of the total aluminum samples collected during the current assessment period from 2011 to 2016, at station 02-BBO, were above the chronic criteria (87 ug/L), which by themselves suggest an impairment should be added for this assessment unit during the 2016 cycle. However, on July 1, 2014 NHDES formally clarified to USEPA that the aluminum criteria in the NH surface water quality regulations is acid-soluble aluminum, consistent with USEPA's 1988 ambient water quality criteria document for aluminum. Station 02-BBO analysis included concurrent acid-soluble aluminum samples and two of those samples were more than 2x the chronic criteria. Of the two acid-soluble samples that were more than 2x the chronic criteria in 2014 one was collected after a storm event and under elevated flow condition (4.73 cfsm respectively). Both samples occurred during low pH (5.2 and 4.7). The samples collected during the current assessment period were collected with 3-day rainfall totals between 0.00 – 1.47" and with flows ranging from 0.17 – 4.37 cfsm at the Soucook River gage (01089100) in June, July and August. The assessment unit will be categorized as 5-P for the 2016 cycle.

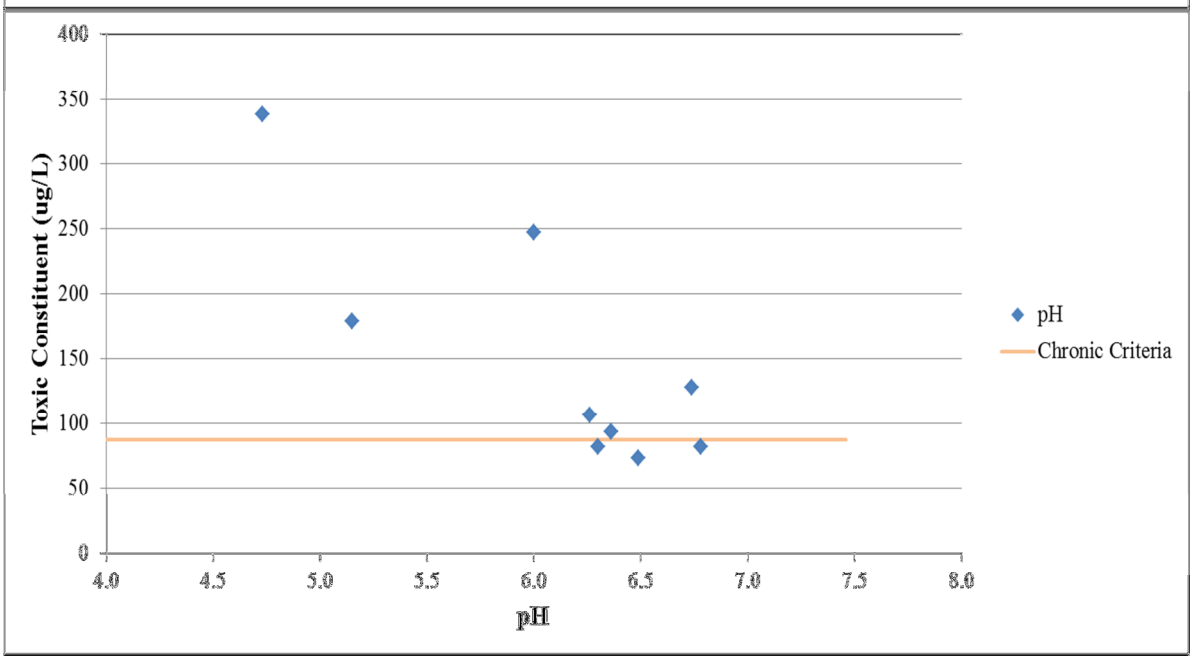



Gage CFSM on Sample
USGS 01089100 SOUCOOK RIVER, AT PEMBROKE ROAD, NEAR CONCORD, NH
Gage CFSM
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days


Precipitation Preceding Samples
Concord Mun. Airport
Total Rain (days 0, -1, -2)
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain


pH During Sampling Events
pH
8.00
7.50
7.00
6.50
6.00
5.50
5.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
pH
pH when exceedences

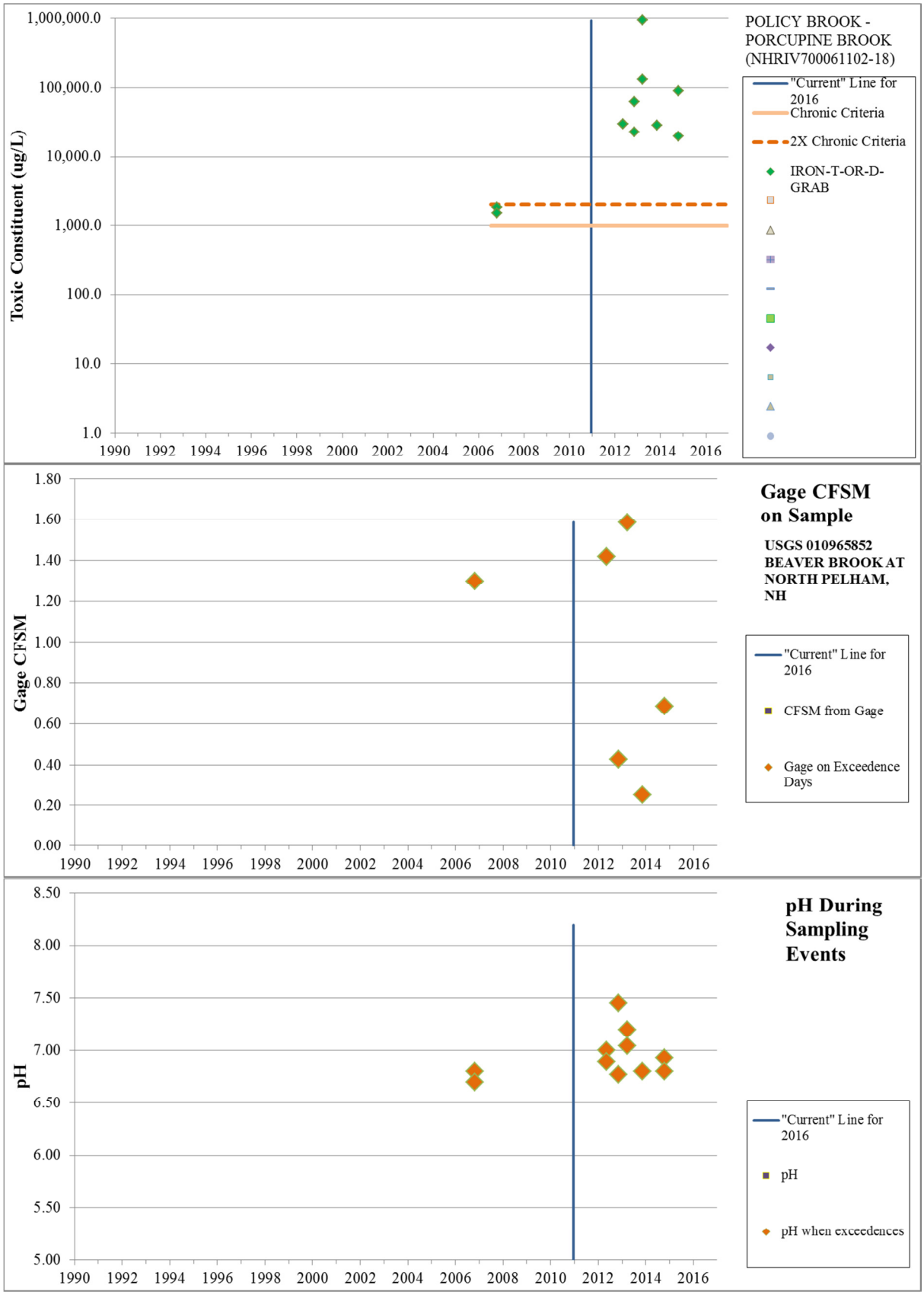


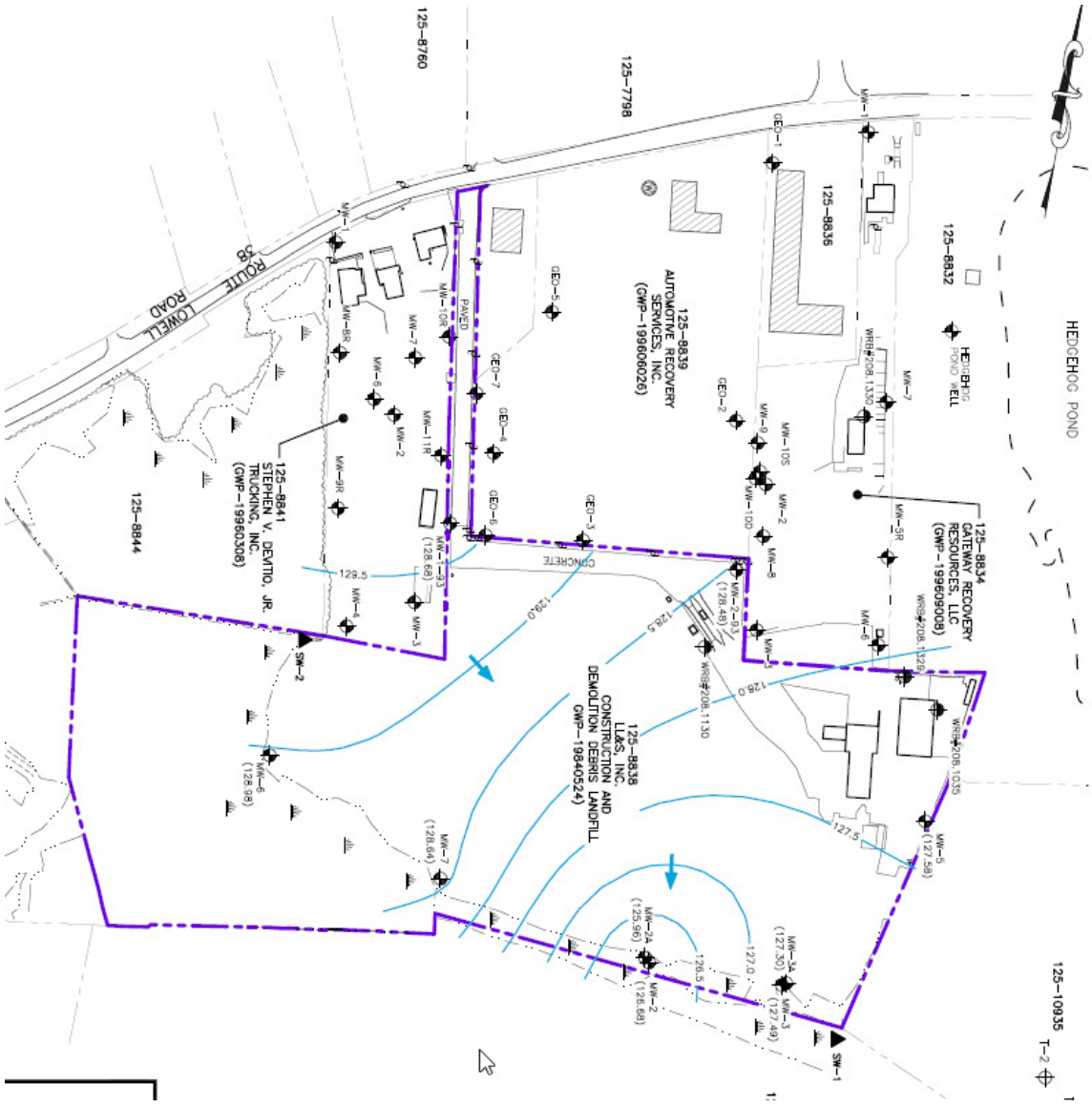


POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
POLICY BROOK - PORCUPINE BROOK	NHRIV700061102-18	Iron	SALEM	3-PNS	5-P

2016: Groundwater from the LL&S Construction and Demolition Debris Landfill appears to be impacting surface water, which is a violation of their permit requirements (Permit #: 198405024-S-004). 100% (nine) of the samples collected during the current assessment period from 2011 to 2016, at stations 198405024SW01 and 198405024SW02, were more than 2x above the chronic criteria (1,000 ug/L), some were more than 100x the chronic criteria, resulting in a new impairment for this assessment unit during the 2016 cycle. All of the samples were collected with a 3-day rainfall total of < 0.5" during spring (April/May) and fall (November). The non-support samples collected during the current assessment period were collected with flows ranging from 0.25 – 1.59 cfsm at the Beaver Brook gage (010965852) in April, May and November.

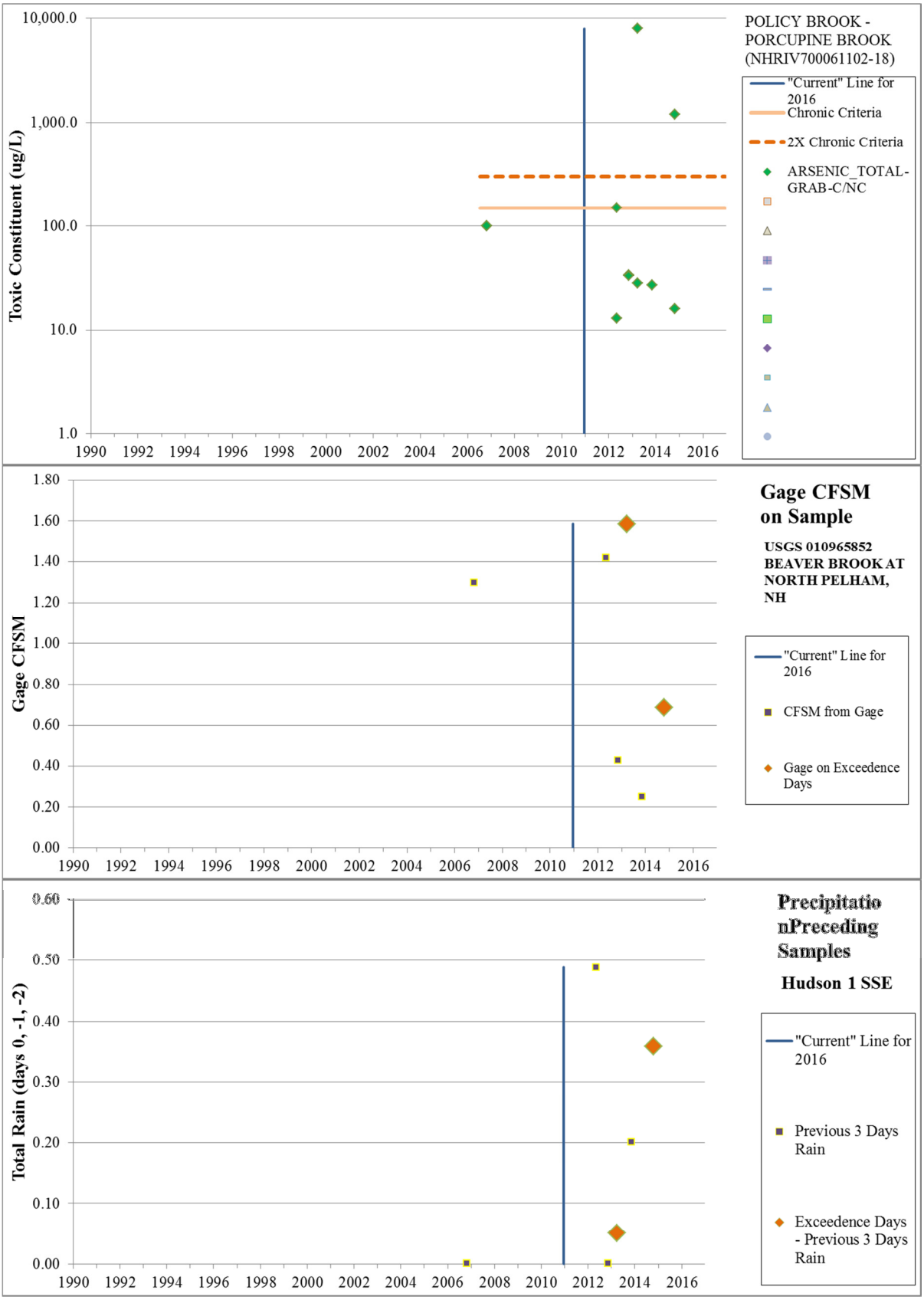

POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)
Toxic Constituent (ug/L)
1,000,000.0
100,000.0
10,000.0
1,000.0
100.0
10.0
1.0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Chronic Criteria
2X Chronic Criteria
IRON-T-OR-D-GRAB
Gage CFSM on Sample
USGS 010965852 BEAVER BROOK AT NORTH PELHAM, NH
Gage CFSM
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days
pH During Sampling Events
pH
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
"Current" Line for 2016
pH
pH when exceedences

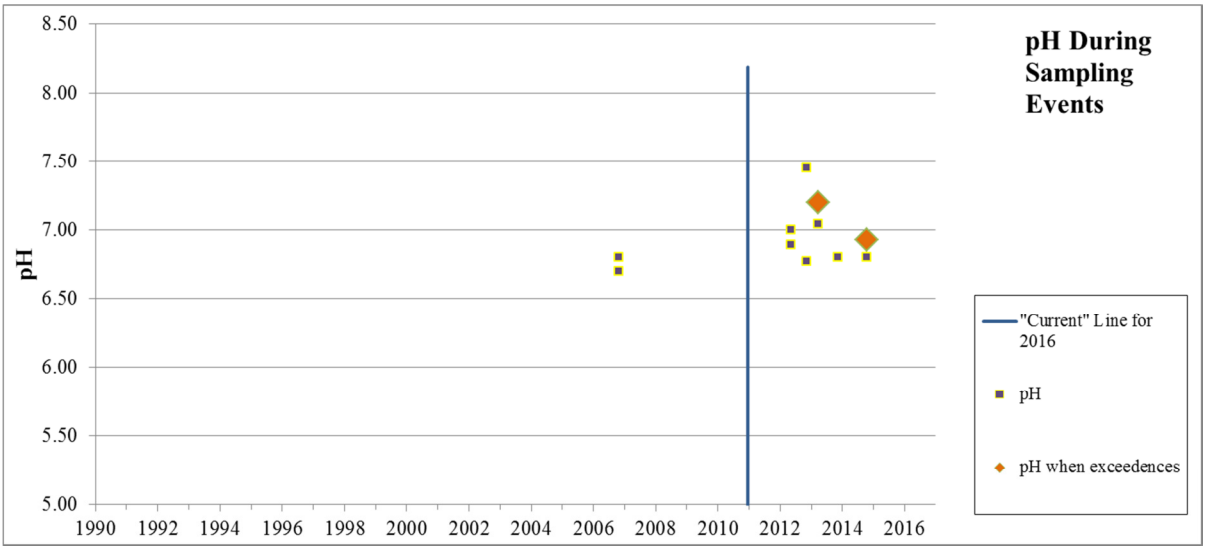

125-8760
125-7798
125-8836
125-8832
HEDGEHOG POND
HEDGEHOG POND WELL
125-8839
AUTOMOTIVE RECOVERY SERVICES, INC.
(GWP-199606026)
125-8834
GATEWAY RECOVERY RESOURCES, LLC
(GWP-199609008)
125-8841
STEPHEN V. DEVITIO, JR. TRUCKING, INC.
(GWP-19960308)
125-8844
125-8838
LL&S, INC.
CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL
GWP-19840524)
125-10935
ROUTE 38
LOWELL ROAD
PAVED
CONCRETE
SW-1
SW-2
129.5
129.0
128.5
128.0
127.5
127.0
126.5

POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
POLICY BROOK - PORCUPINE BROOK	NHRIV700061102-18	Arsenic	SALEM	3-PNS	5-P

2016: Groundwater from the LL&S Construction and Demolition Debris Landfill appears to be impacting surface water, which is a violation of their permit requirements (Permit #: 198405024-S-004). Two of nine (22%) of the samples collected during the current assessment period from 2011 to 2016, at station 198405024SW01, were more than 2x above the chronic criteria (150 ug/L), some were 10x to nearly 100x the chronic criteria, resulting in a new impairment for this assessment unit during the 2016 cycle. All of the non-support samples were collected with a 3-day rainfall total of < 0.5" during spring (April) and fall (November). The non-support samples collected during the current assessment period were collected with flows ranging from 0.69 – 1.59 cfsm at the Beaver Brook gage (010965852) in April, May and November.

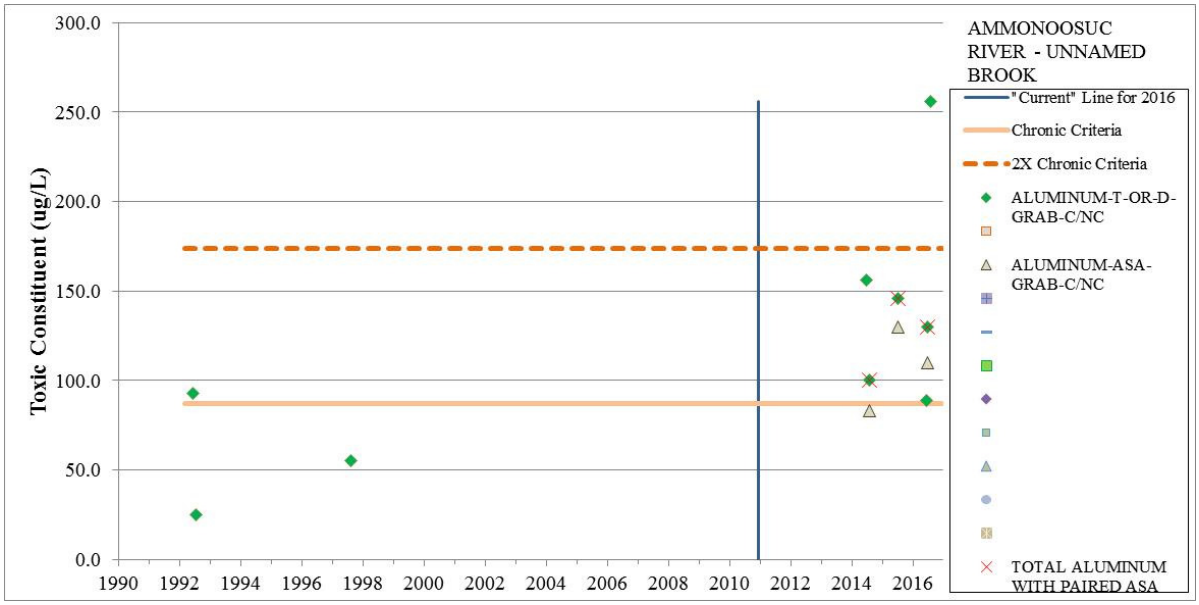

POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)
Toxic Constituent (ug/L)
10,000.0
1,000.0
100.0
10.0
1.0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Chronic Criteria
2X Chronic Criteria
ARSENIC_TOTAL-GRAB-C/NC
Gage CFSM on Sample
USGS 010965852 BEAVER BROOK AT NORTH PELHAM, NH
Gage CFSM
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days
Precipitation Preceding Samples
Hudson 1 SSE
Total Rain (days 0, -1, -2)
0.60
0.50
0.40
0.30
0.20
0.10
0.00
"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain

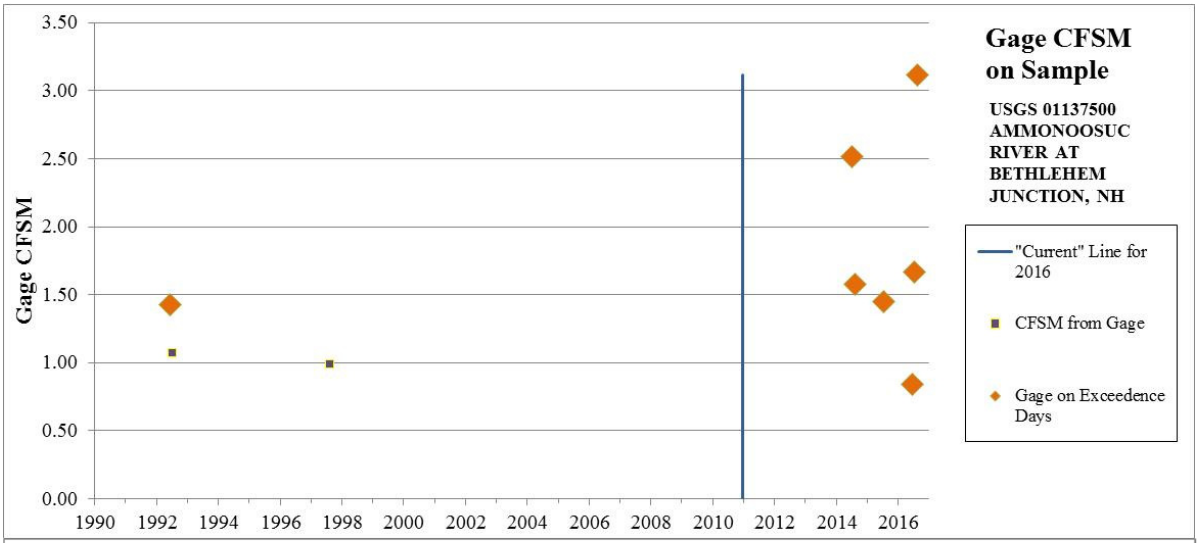


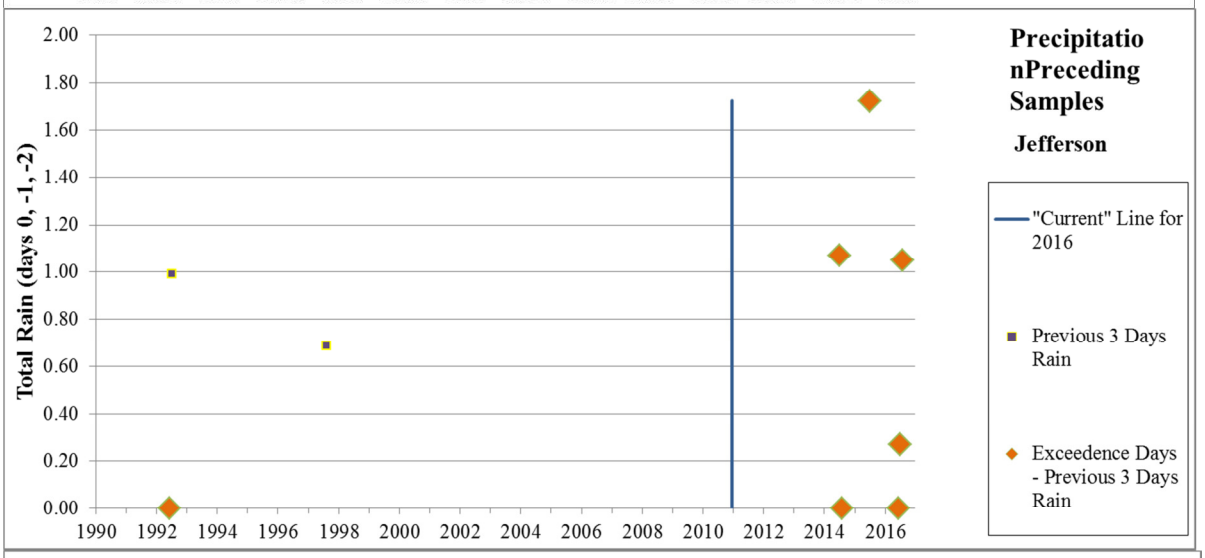
AMMONOOSUC RIVER - UNNAMED BROOK (NHRIV801030403-01)

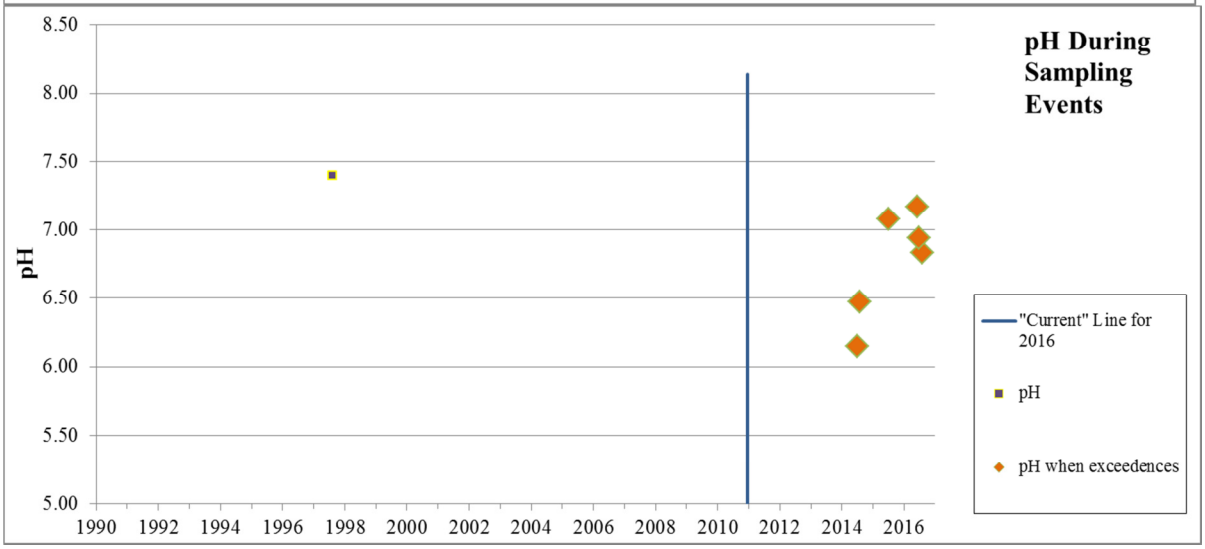
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
AMMONOOSUC RIVER - UNNAMED BROOK	NHRIV801030403-01	Aluminum	BETHLEHEM	3-ND	5-M

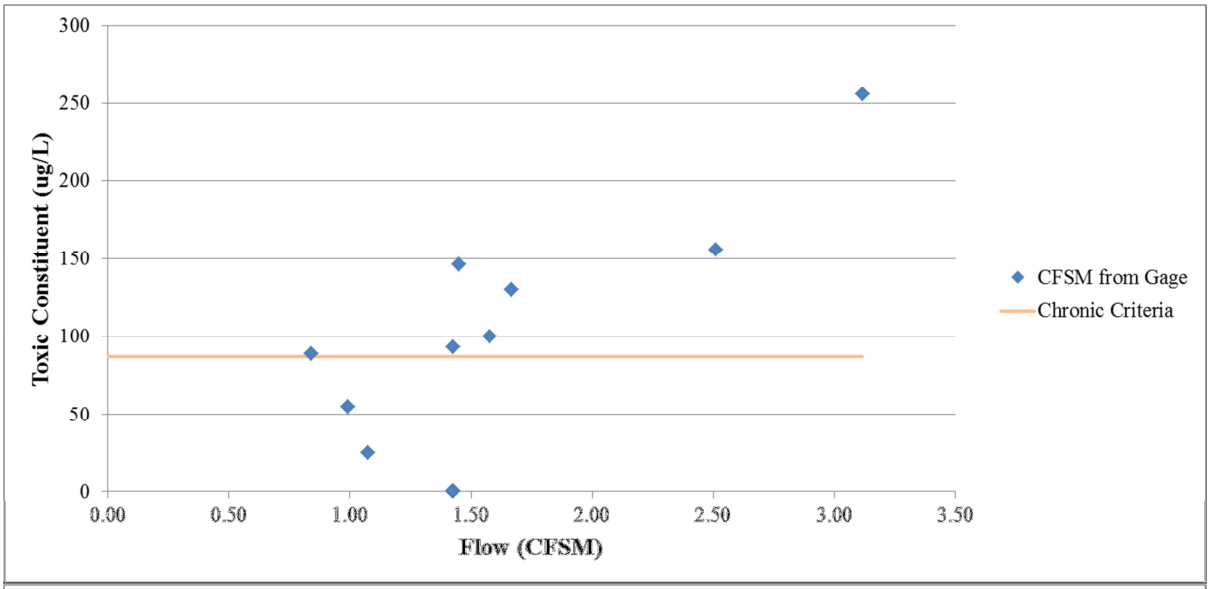
2016: 100% (six) of the total aluminum samples collected during the current assessment period from 2011 to 2016, at station 22-AMM, were above the chronic criteria (87 ug/L), which by themselves suggest an impairment should be added for this assessment unit during the 2016 cycle. However, on July 1, 2014, NHDES formally clarified to USEPA that the aluminum criteria in the NH surface water quality regulations is acid-soluble aluminum, consistent with USEPA's 1988 ambient water quality criteria document for aluminum. Station 22-AMM analysis included some concurrent acid-soluble aluminum samples and two were still above the chronic criteria. The samples collected during the current assessment period were collected with 3-day rainfall totals between 0.00 – 1.72" and with flows ranging from 0.84 – 3.12 cfsm at the Ammonoosuc River gage (01137500) in June, July and August. The assessment unit will be categorized as 5-M for the 2016 cycle.

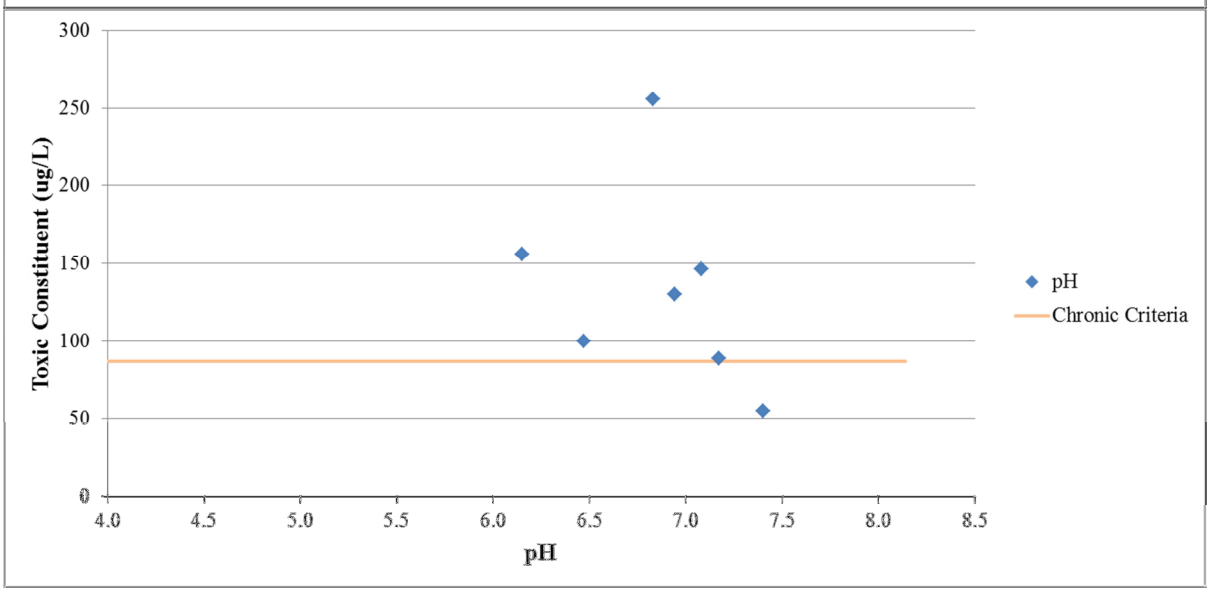



Gage CFSM on Sample
USGS 01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH
Gage CFSM
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days


Precipitation Preceding Samples
Jefferson
Total Rain (days 0, -1, -2)
"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain


pH During Sampling Events
pH
"Current" Line for 2016
pH
pH when exceedences

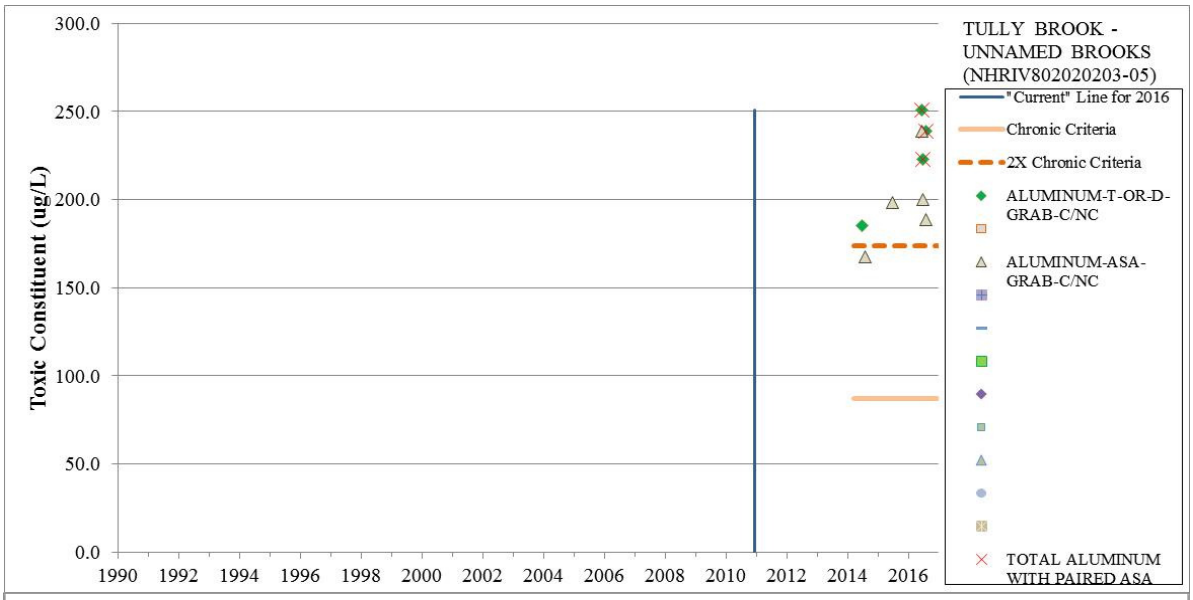


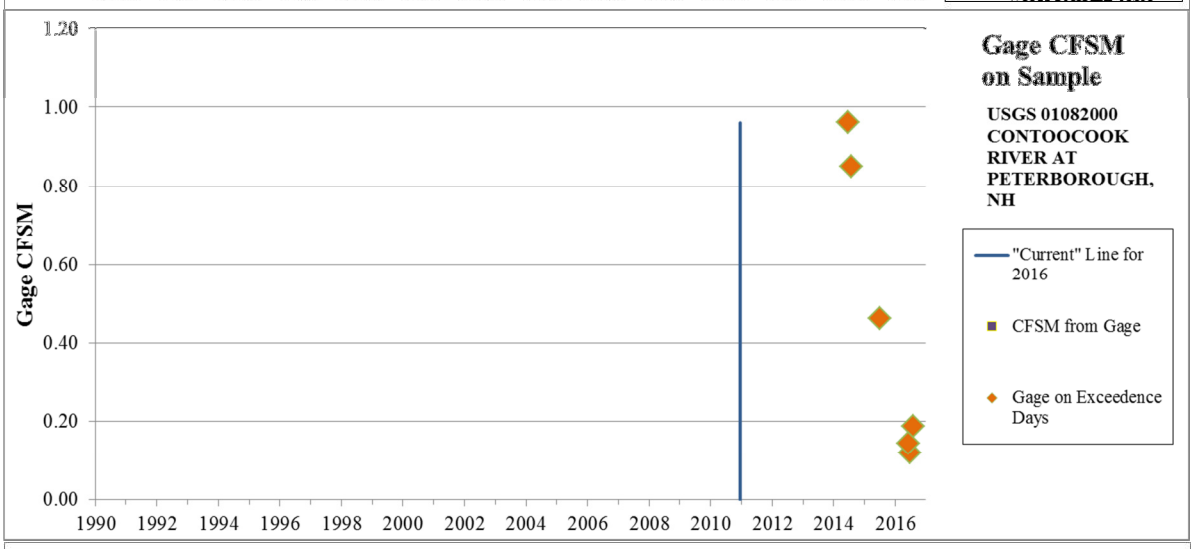


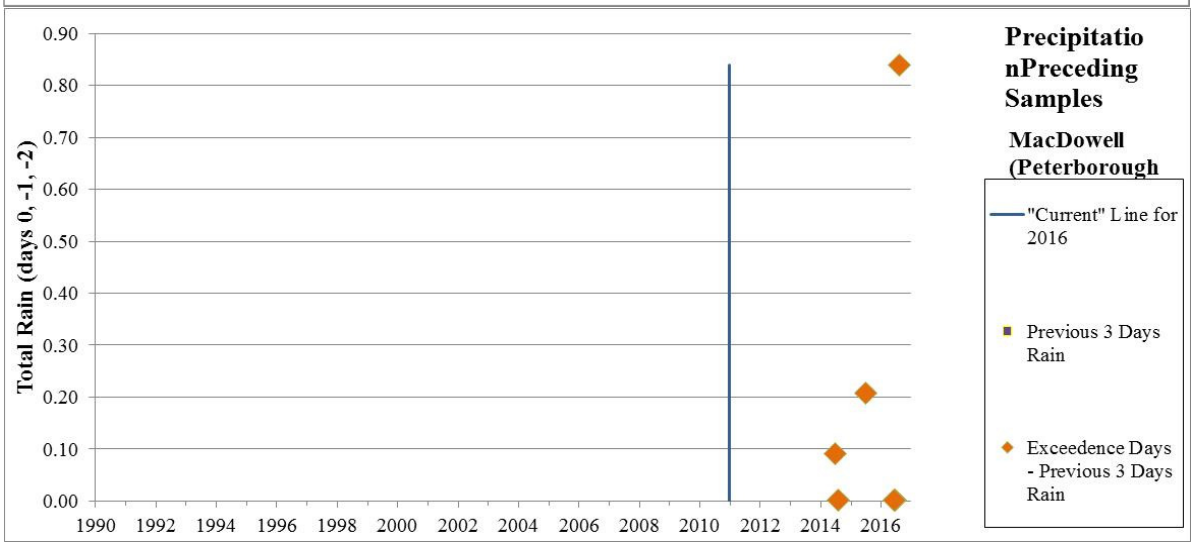
TULLY BROOK - UNNAMED BROOKS (NHRIV802020203-05)

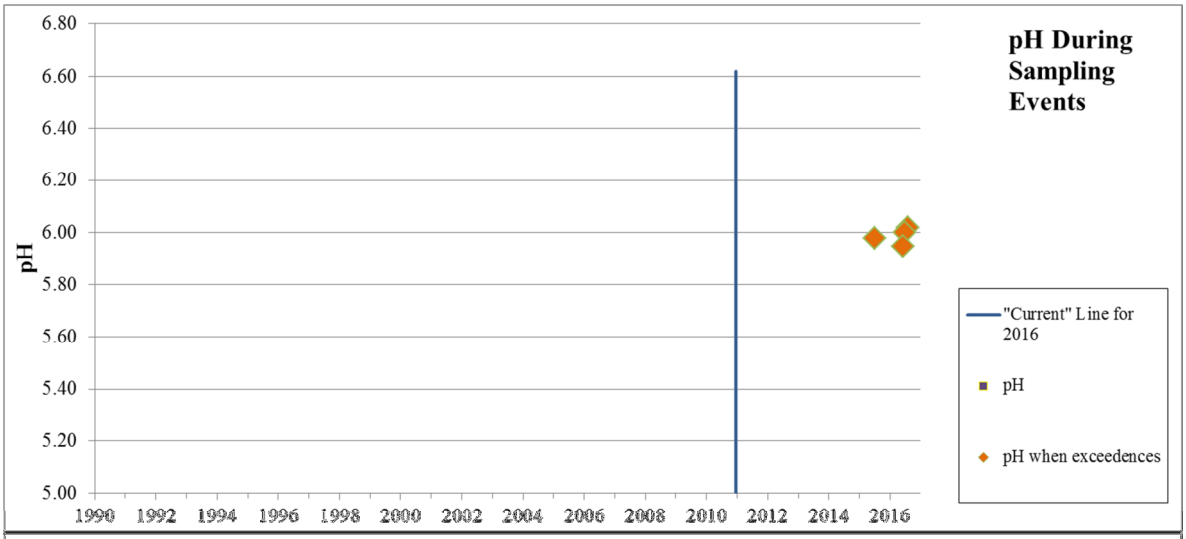
Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
TULLY BROOK - UNNAMED BROOKS	NHRIV802020203-05	Aluminum	RICHMOND	3-ND	5-P

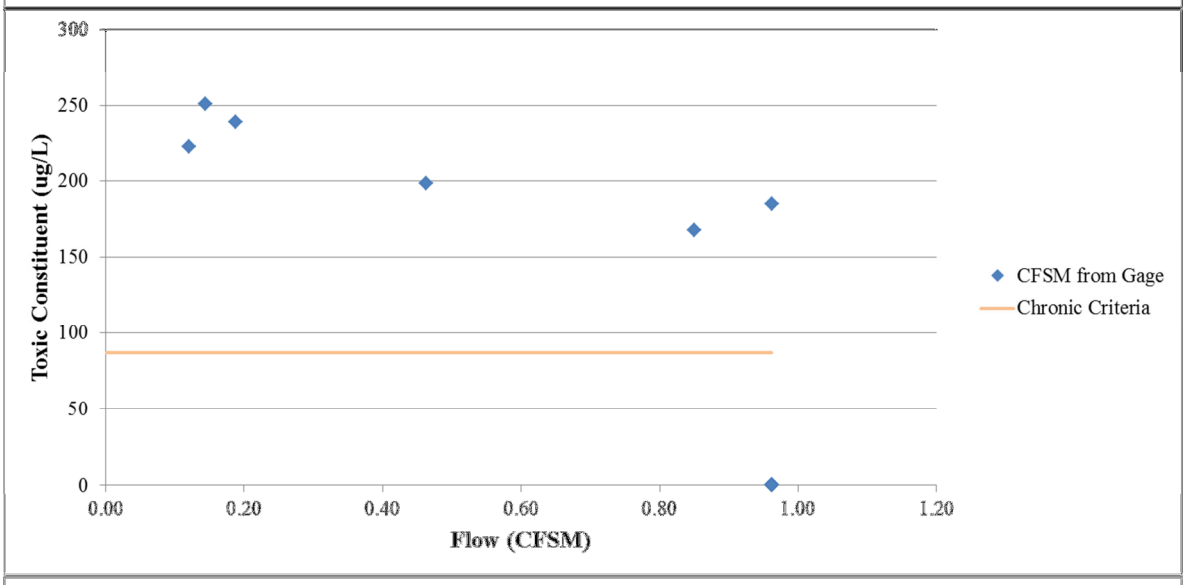
2016: 100% (six) of the total aluminum samples collected during the current assessment period from 2011 to 2016, at station 01-TYB, were above the chronic criteria (87 ug/L), which by themselves suggest an impairment should be added for this assessment unit during the 2016 cycle. However, on July 1, 2014 NHDES formally clarified to USEPA that the aluminum criteria in the NH surface water quality regulations is acid-soluble aluminum, consistent with USEPA's 1988 ambient water quality criteria document for aluminum. Station 01-TYB analysis included some concurrent acid-soluble aluminum samples that were above chronic criteria. Four of those acid-soluble aluminum samples were more than 2x the chronic criteria. The samples collected during the current assessment period were collected with 3-day rainfall totals between 0.00 – 0.84” and with flows ranging from 0.12 – 0.96 cfsm at the Contoocook River gage (01082000) in June, July and August. The assessment unit will be categorized as 5-P for the 2016 cycle.

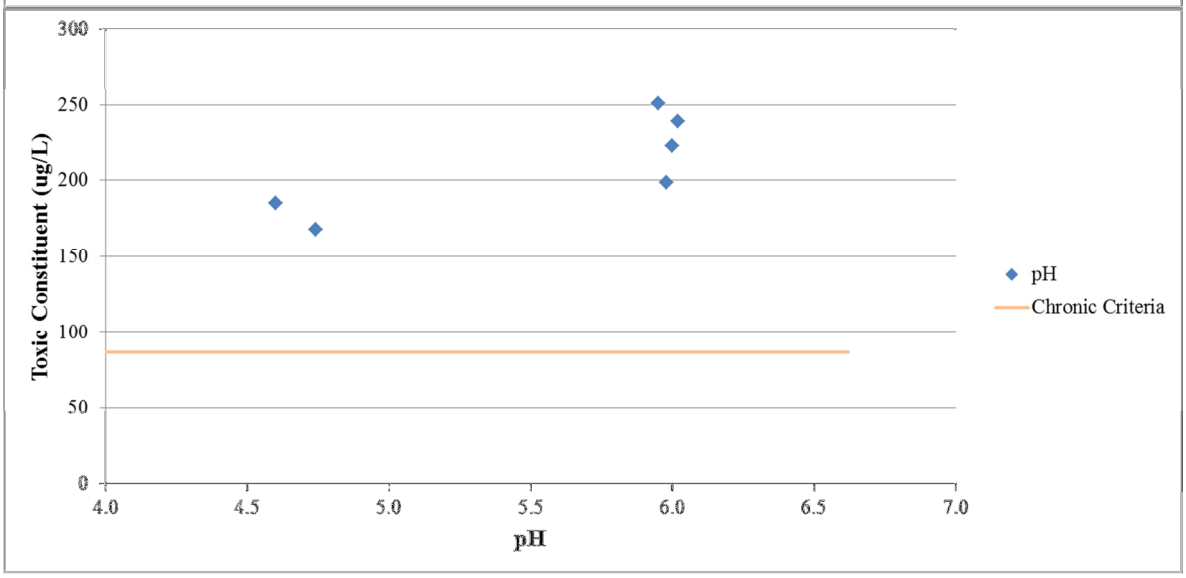

TULLY BROOK - UNNAMED BROOKS (NHRIV802020203-05)
Toxic Constituent (ug/L)
300.0
250.0
200.0
150.0
100.0
50.0
0.0
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Chronic Criteria
2X Chronic Criteria
ALUMINUM-T-OR-D-GRAB-C/NC
ALUMINUM-ASA-GRAB-C/NC
TOTAL ALUMINUM WITH PAIRED ASA


Gage CFSM on Sample
USGS 01082000 CONTOOCOOK RIVER AT PETERBOROUGH, NH
Gage CFSM
1.20
1.00
0.80
0.60
0.40
0.20
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
CFSM from Gage
Gage on Exceedence Days


Precipitation Preceding Samples
MacDowell (Peterborough
Total Rain (days 0, -1, -2)
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
"Current" Line for 2016
Previous 3 Days Rain
Exceedence Days - Previous 3 Days Rain


pH During Sampling Events
pH
6.80
6.60
6.40
6.20
6.00
5.80
5.60
5.40
5.20
5.00
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
"Current" Line for 2016
pH
pH when exceedences


Toxic Constituent (ug/L)
300
250
200
150
100
50
0
0.00
0.20
0.40
0.60
0.80
1.00
1.20
Flow (CFSM)
CFSM from Gage
Chronic Criteria


Toxic Constituent (ug/L)
300
250
200
150
100
50
0
4.0
4.5
5.0
5.5
6.0
6.5
7.0
pH
pH
Chronic Criteria

Macroinvertebrates (Aquatic Life Use Support)

ISINGLASS RIVER (NHRIV600030607-01)

Assessment Unit Name	Assessment Unit ID	Parameter Name	Primary Town	2014	2016
ISINGLASS RIVER	NHRIV600030607-01	Benthic-Macroinvertebrate Bioassessments (Streams)	BARRINGTON	3-PNS	5-M

Three macroinvertebrate samples were collected, one per year from 2013-2015, at station 07T-ISG on assessment unit NHRIV600030607-01. To meet water quality standards for aquatic life use, a benthic index of biotic integrity (B-IBI) threshold of 53.1 should be achieved. B-IBI scores were 41.6 (9/16/13), 52.9 (9/26/14) and 52.0 (9/29/15). Since all three B-IBI scores were below the B-IBI threshold, this segment of the Isinglass River has been assessed as impaired (5-M).

Station ID	Activity ID	Waterbody Name	Collection Date	Threshold	NH B-IBI Site Score
07T-ISG	BEN-07T-ISG-01	Isinglass River	16-Sep-13	59	41.6
07T-ISG	BEN-07T-ISG-02	Isinglass River	26-Sep-14	59	52.9
07T-ISG	BEN-07T-ISG-03	Isinglass River	29-Sep-15	59	52.0