

## **APPENDIX F**

### **MERRIMACK RIVER WATERSHED**

(HUC8: 01070006)

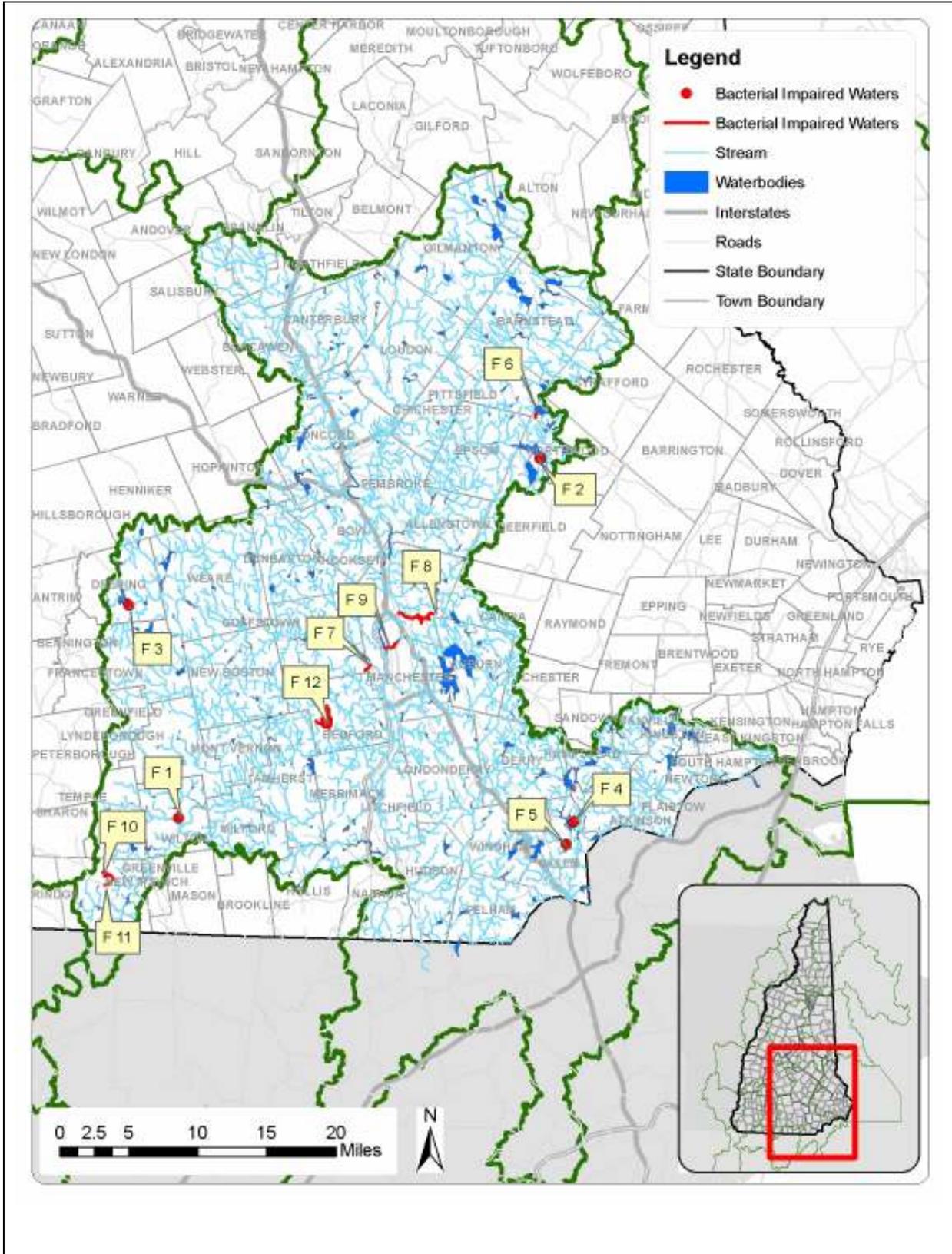
#### **I. WATERSHED DESCRIPTION AND MAPS**

The Merrimack River Watershed covers an area of approximately 1,671 square miles in the southeast section of New Hampshire. A very small percentage of the watershed, including a coastal section, is located in Massachusetts. There are 71 towns located at least partially within the watershed, extending from the Massachusetts border to the northern-most town of Gilford; west to east the town boundaries are Greenfield and South Hampton, respectively. The primary watercourse in the region is the Merrimack River which is the outflow from the Franklin Falls Dam in Franklin. North of the dam the watercourse is the Pemigewasset River. Notable lakes in the area are Everett Lake, Suncook Lake, and Massabesic Lake. Much of the Merrimack River Watershed is rolling hills and urban areas with a few mountain ranges such as the Blue Hills Range on the eastern border, the Belknap Mountains to the north, and the Wapack Range along the southwest border. There is a US Military Reservation on the town intersection of New Boston, Amherst, and Mont Vernon.

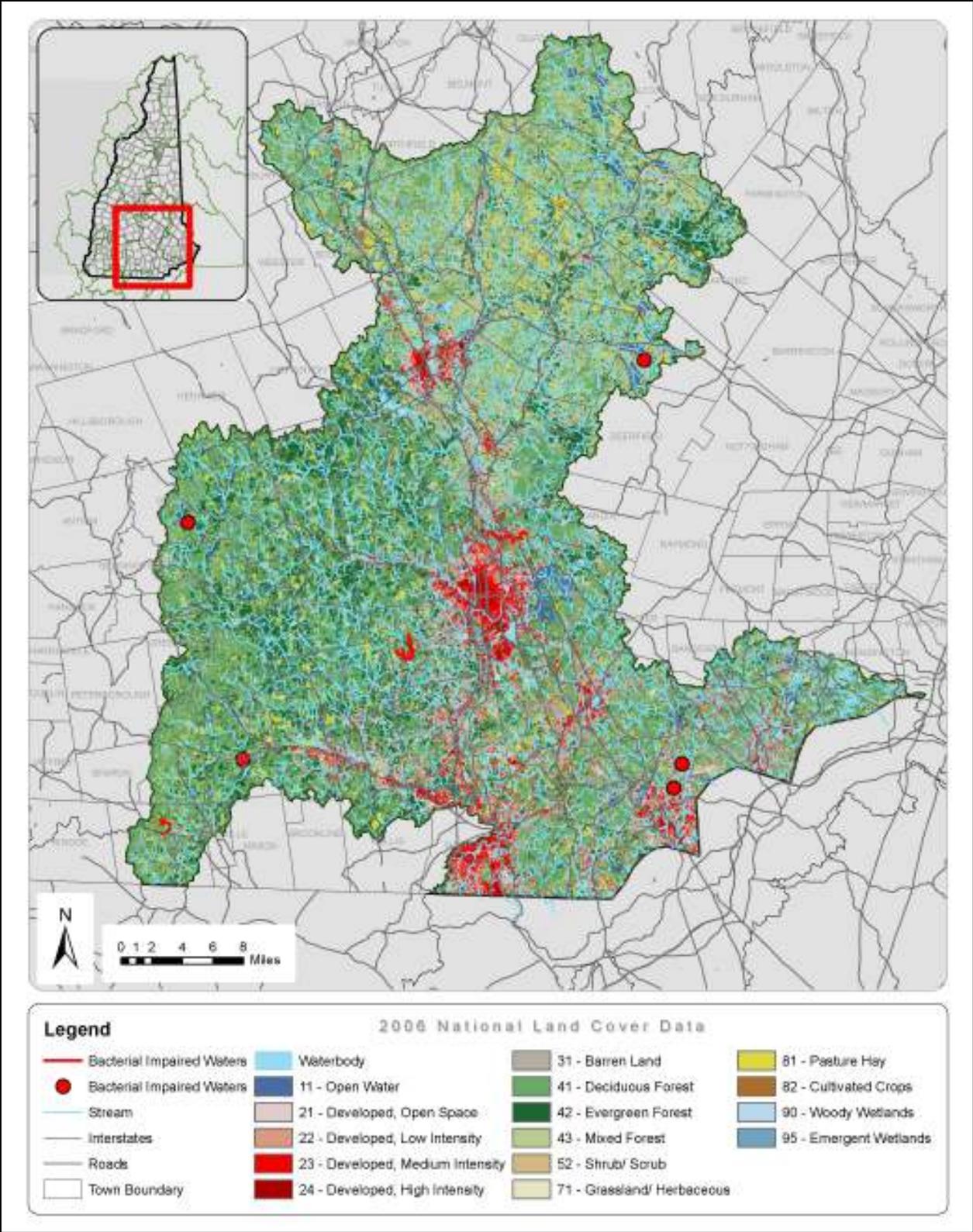
The watershed consists of 67% forested land cover. A portion of the forest land is conserved and protected as part of state parks and wildlife management areas such as Bear Brook State Park, Belknap Mount State Park, and Hopkinton-Everett Lake Project. Development and disturbed land identified on the land cover map (Figure 2) is concentrated in the urban areas of Concord, Manchester, and Nashua, NH. Developed and agriculture land covers 17% of watershed area.

Based on the 2010 303(d) list, twelve assessment units (AUs) in this watershed are listed as being impaired for bacteria. The location of the bacteria impaired surface water AUs are shown on Figure 1 as red circles and red lines. Items F1 through F12 present the percent reduction needed to meet each water quality criterion (and TMDL), based on the highest recorded bacteria measurement that exceeds the criterion for the AU, as well as the bacteria data collected in the impaired AUID that was used to list the AU as impaired on the 2010 303(d) list.

**FIGURE 1:**



**FIGURE 2:**



## II. WATER QUALITY DATA TABLES

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**F1: Camp Ann Jackson Girls Scout Pond Swimming Area**

**AUID** NHIMP700060902-13-02

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100ML

Geometric mean: 47 CTS/100mL

**Percent reduction to meet TMDL:**

Single sample: 78%

Geometric mean: 80%

**Data:** 2004-2008 (inclusive) from NH DES, 2010 TMDL cycle

**Single sample *E coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Station ID</b>	<b>Date</b>	<b>Result</b>
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTCR	7/25/2008	86.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTLF	7/26/2004	18.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTLF	7/18/2005	6.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTLF	7/24/2006	210.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTLF	7/16/2007	4.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTLF	7/22/2008	400.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTRT	7/26/2004	18.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTRT	7/18/2005	4.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTRT	7/24/2006	254.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTRT	7/16/2007	10.0
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	BCHAJSWLTRT	7/22/2008	400.0

**Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
CAMP ANN JACKSON GIRSL SCOUT POND SWIMMING AREA	7/25/2008	239.6

Shaded cells indicate exceedance of water quality criteria

## F2: Northwood Lake – Lynn Grove Association Beach

**AUID** NHLAK700060502-08-04

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100MI

Geometric mean: 47 CTS/100MI

**Percent reduction to meet TMDL:**

Single sample: 56%

Geometric mean: in compliance

**Data:** 2004- 2009 (inclusive) from NH DES, 2010 TMDL cycle

### Single sample *E coli* results (CTS/100ML)

Station Name	Station ID	Date	Result
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	7/28/2004	2.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	8/18/2004	10.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	6/30/2005	1.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	7/21/2005	10.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	8/3/2005	6.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	7/24/2006	58.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	8/7/2006	160.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	8/30/2006	2.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	7/9/2007	1.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	7/25/2007	4.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	8/14/2007	1.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	8/14/2007	1.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	7/7/2008	4.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	7/28/2008	40.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	8/13/2008	12.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	6/24/2009	2.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	7/22/2009	2.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORLF	8/17/2009	18.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	7/28/2004	54.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	8/18/2004	16.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	6/30/2005	28.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	7/21/2005	2.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	8/3/2005	1.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	7/24/2006	20.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	8/7/2006	202.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	8/30/2006	2.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	7/9/2007	1.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	7/25/2007	1.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	7/7/2008	2.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	7/28/2008	10.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	8/13/2008	14.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	6/24/2009	2.0

NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	7/22/2009	32.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	BCHLYNNORRT	8/17/2009	6.0

Shaded cells indicate exceedance of water quality criteria

**Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	8/18/2004	11.5
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	8/3/2005	3.9
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	8/30/2006	23.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	8/14/2007	1.3
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	8/13/2008	9.0
NORTHWOOD LAKE – LYNN GROVE ASSOCIATION BEACH	8/17/2009	5.5

### F3: Deering Reservoir - Deering Lake Beach

**AUID** NHLAK700060601-01-02

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100MI

Geometric mean: 47 CTS/100MI

**Percent reduction to meet TMDL:**

Single sample: 78%

Geometric mean: in compliance

**Data:** 2006 - 2009 (inclusive) from NH DES, 2010 TMDL cycle

#### Single sample *E coli* results (CTS/100ML)

Station Name	Station ID	Date	Result
DEERING RESERVOIR – DEERING LAKE BEACH	BCHDLBDRGLF	8/7/2006	4.0
DEERING RESERVOIR – DEERING LAKE BEACH	BCHDLBDRGLF	8/26/2009	400.0
DEERING RESERVOIR – DEERING LAKE BEACH	BCHDLBDRGLF	8/28/2009	1.0
DEERING RESERVOIR – DEERING LAKE BEACH	BCHDLBDRGRT	8/7/2006	1.0
DEERING RESERVOIR – DEERING LAKE BEACH	BCHDLBDRGRT	8/26/2009	400.0
DEERING RESERVOIR – DEERING LAKE BEACH	BCHDLBDRGRT	8/28/2009	1.0

Shaded cells indicate exceedance of water quality criteria

#### Geometric mean *E. coli* results (CTS/100ML)

Station Name	Date	Result
DEERING RESERVOIR – DEERING LAKE BEACH	8/28/2009	20.0

#### **F4: Arlington Mill Reservoir – Second St. Beach**

**AUID** NHLAK700061101-04-02

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100MI

Geometric mean: 47 CTS/100MI

**Percent reduction to meet TMDL:**

Single sample: 65%

Geometric mean: in compliance

**Data:** 2009 (inclusive) from NH DES, 2010 TMDL cycle

##### **Single sample *E coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Station ID</b>	<b>Date</b>	<b>Result</b>
ARLINGTON MILL RESERVOIR – SECOND ST. BEACH	BCHSSBSALLF	8/5/2009	250.0
ARLINGTON MILL RESERVOIR – SECOND ST. BEACH	BCHSSBSALLF	8/10/2009	8.0
ARLINGTON MILL RESERVOIR – SECOND ST. BEACH	BCHSSBSALRT	8/5/2009	250.0
ARLINGTON MILL RESERVOIR – SECOND ST. BEACH	BCHSSBSALRT	8/10/2009	3.0

Shaded cells indicate exceedance of water quality criteria

##### **Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
ARLINGTON MILL RESERVOIR – SECOND ST. BEACH	8/28/2009	20.0

**F5: Millville Lake – Town Beach**

**AUID** NHLAK700061102-06-02

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100Ml

Geometric mean: 47 CTS/100Ml

**Percent reduction to meet TMDL:**

Single sample: 63%

Geometric mean: 25%

**Data:** 2007- 2009 (inclusive) from NH DES, 2010 TMDL cycle

**Single sample *E coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Station ID</b>	<b>Date</b>	<b>Result</b>
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	7/2/2007	6.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	8/1/2007	24.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	6/4/2008	26.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	7/2/2008	54.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	8/6/2008	54.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	6/3/2009	28.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	7/1/2009	227.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	7/6/2009	16.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALLF	8/5/2009	4.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	7/2/2007	14.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	8/1/2007	28.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	6/4/2008	24.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	7/2/2008	84.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	8/6/2008	62.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	6/3/2009	18.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	7/1/2009	240.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	7/6/2009	28.0
MILLVILLE LAKE TOWN BEACH	BCHMILSALRT	8/5/2009	12.0

**Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
MILLVILLE LAKE TOWN BEACH	8/1/2007	15.4
MILLVILLE LAKE TOWN BEACH	7/2/2008	41.0
MILLVILLE LAKE TOWN BEACH	8/6/2008	62.4
MILLVILLE LAKE TOWN BEACH	7/6/2009	48.0
MILLVILLE LAKE TOWN BEACH	8/5/2009	32.5

Shaded cells indicate exceedance of water quality criteria

## F6: Unnamed Brook to Jenness Pond

**AUID** NHRIV700060502-20

**Characteristics:** freshwater, class B designation, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 406 CTS/100MI

Geometric mean: 126 CTS/100mL

**Percent reduction to meet TMDL:**

Single sample: 98%

Geometric mean: 3%

**Data:** 2004 - 2006 (inclusive) from NH DES, 2010 TMDL cycle

### Single sample *E coli* results (CTS/100ML)

Station Name	Station ID	Date	Result
UNNAMED BROOK TO JENNESS POND	1272-PS001	7/27/2004	10.0
UNNAMED BROOK TO JENNESS POND	1272-PS001	9/2/2004	5.0
UNNAMED BROOK TO JENNESS POND	1272-PS001	9/7/2004	5.0
UNNAMED BROOK TO JENNESS POND	1272-PS001	9/9/2004	50.0
UNNAMED BROOK TO JENNESS POND	1272-PS001	7/27/2005	120.0
UNNAMED BROOK TO JENNESS POND	1272-PS001	10/14/2005	5.0
UNNAMED BROOK TO JENNESS POND	1272-PS001	10/25/2005	1,000.0
UNNAMED BROOK TO JENNESS POND	1272-PS002	7/27/2004	60.0
UNNAMED BROOK TO JENNESS POND	1272-PS002	9/2/2004	20.0
UNNAMED BROOK TO JENNESS POND	1272-PS002	9/7/2004	30.0
UNNAMED BROOK TO JENNESS POND	1272-PS002	9/9/2004	14,400.0
UNNAMED BROOK TO JENNESS POND	1272-PS002	7/27/2005	50.0
UNNAMED BROOK TO JENNESS POND	1272-PS002	10/14/2005	5.0
UNNAMED BROOK TO JENNESS POND	1272-PS002	10/25/2005	560.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	7/27/2004	2,000.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	9/2/2004	30.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	9/7/2004	30.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	9/9/2004	20,000.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	7/27/2005	310.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	9/29/2005	20,000.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	10/13/2005	50.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	10/14/2005	9.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	10/25/2005	370.0
UNNAMED BROOK TO JENNESS POND	1272-PS003	4/26/2006	2.5
UNNAMED BROOK TO JENNESS POND	1272-PS003	5/3/2006	5.0
UNNAMED BROOK TO JENNESS POND	1272-PS005	9/2/2004	20.0
UNNAMED BROOK TO JENNESS POND	1272-PS005	9/7/2004	50.0
UNNAMED BROOK TO JENNESS POND	1272-PS005	9/9/2004	20,000.0
UNNAMED BROOK TO JENNESS POND	1272-PS005	7/27/2005	20.0
UNNAMED BROOK TO JENNESS POND	1272-PS005	10/14/2005	9.0
UNNAMED BROOK TO JENNESS POND	1272-PS005	10/25/2005	220.0
UNNAMED BROOK TO JENNESS POND	1272-PS006	9/2/2004	30.0
UNNAMED BROOK TO JENNESS POND	1272-PS006	9/7/2004	40.0
UNNAMED BROOK TO JENNESS POND	1272-PS006	9/9/2004	20,000.0
UNNAMED BROOK TO JENNESS POND	1272-PS006	7/27/2005	180.0

UNNAMED BROOK TO JENNESS POND	1272-PS006	10/14/2005	9.0
UNNAMED BROOK TO JENNESS POND	1272-PS006	10/25/2005	350.0

**Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
UNNAMED BROOK TO JENNESS POND	9/9/2004	130.0

Shaded cells indicate exceedance of water quality criteria

## **F7: Unnamed Brook to Piscataquog River**

**AUID** NHRIV700060607-35

**Characteristics:** freshwater, class B designation, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 406 CTS/100MI

Geometric mean: 126 CTS/100mL

**Percent reduction to meet TMDL:**

Single sample: 98%

Geometric mean: 94%

**Data:** 2007 (inclusive) from NH DES, 2010 TMDL cycle

**Single sample *E coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Station ID</b>	<b>Date</b>	<b>Result</b>
Unnamed Brook to Piscataquog River	03-SAB	9/5/2007	23,000.0
Unnamed Brook to Piscataquog River	03-SAB	9/12/2007	3,300.0
Unnamed Brook to Piscataquog River	03-SAB	9/18/2007	150.0

**Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
Unnamed Brook to Piscataquog River	9/16/2007	2,249.6

Shaded cells indicate exceedance of water quality criteria

## F8: Messer Brook

**AUID** NHRIV700060802-09

**Characteristics:** freshwater, class B designation, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 406 CTS/100MI

Geometric mean: 126 CTS/100mL

**Percent reduction to meet TMDL:**

Single sample: 59%

Geometric mean: 52%

**Data:** 2007 - 2008 (inclusive) from NH DES, 2010 TMDL cycle

### Single sample *E coli* results (CTS/100ML)

Station Name	Station ID	Date	Result
MESSER BROOK	01-MSR	6/11/2007	210.0
MESSER BROOK	01-MSR	7/13/2007	200.0
MESSER BROOK	01-MSR	8/24/2007	150.0
MESSER BROOK	01-MSR	6/20/2008	300.0
MESSER BROOK	01-MSR	7/25/2008	1,000.0
MESSER BROOK	01-MSR	8/14/2008	60.0

### Geometric mean *E. coli* results (CTS/100ML)

Station Name	Date	Result
MESSER BROOK	8/14/2008	262.1

Shaded cells indicate exceedance of water quality criteria

## **F9: Rays Brook**

**AUID** NHRIV700060802-15

**Characteristics:** freshwater, class B designation, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for E coli**

Single sample: 406 CTS/100MI

Geometric mean: 126 CTS/100mL

**Percent reduction to meet TMDL:**

Single sample: 92%

Geometric mean: no data

**Data:** No monitoring data -- see explanation below.

**Listing is based on known sources of untreated sewage (CSOs) which are assumed to violate ambient bacteria standards.**

**Assuming an ambient concentration of 5000 cts / 100 ml, this translates to  $(5000 - 406) / 5000 = 92\%$  reduction**

**F10: Furnace Brook****AUID** NHRIV700060901-08**Characteristics:** freshwater, class B designation, primary contact recreation.**Impairment:** *E coli***Water Quality Criteria & TMDL for E coli**

Single sample: 406 CTS/100ML

Geometric mean: 126 CTS/100mL

**Percent reduction to meet TMDL:**

Single sample: 95%

Geometric mean: 22%

**Data:** 2008 (inclusive) from NH DES, 2010 TMDL cycle**Single sample E coli results (CTS/100ML)**

Station Name	Station ID	Date	Result
FURNACE BROOK	06-FCB	6/16/2008	90.0
FURNACE BROOK	06-FCB	6/17/2008	1,300.0
FURNACE BROOK	06-FCB	7/1/2008	7,800.0
FURNACE BROOK	06-FCB	7/8/2008	20.0
FURNACE BROOK	06-FCB	8/26/2008	50.0
FURNACE BROOK	06-FCB	9/8/2008	150.0
FURNACE BROOK	06-FCB	9/29/2008	40.0
FURNACE BROOK	08-FCB	6/16/2008	40.0
FURNACE BROOK	08-FCB	6/17/2008	120.0
FURNACE BROOK	08-FCB	7/1/2008	50.0
FURNACE BROOK	08-FCB	7/8/2008	110.0
FURNACE BROOK	08-FCB	8/26/2008	160.0
FURNACE BROOK	08-FCB	9/8/2008	500.0
FURNACE BROOK	08-FCB	9/29/2008	30.0

**Geometric mean E. coli results (CTS/100ML)**

Station Name	Date	Result
FURNACE BROOK	7/8/2008	162.3
FURNACE BROOK	8/26/2008	137.9
FURNACE BROOK	9/8/2008	156.5
FURNACE BROOK	9/16/2008	94.7

Shaded cells indicate exceedance of water quality criteria

## F11: Appleton – Gibbs Brook

**AUID** NHRIV700060901-17

**Characteristics:** freshwater, class B designation, primary contact recreation.

**Impairment:** *E coli*

### **Water Quality Criteria & TMDL for *E coli***

Single sample: 406 CTS/100ML

Geometric mean: 126 CTS/100mL

### **Percent reduction to meet TMDL:**

Single sample: 66%

Geometric mean: in compliance

**Data:** 2008 (inclusive) from NH DES, 2010 TMDL cycle

#### **Single sample *E coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Station ID</b>	<b>Date</b>	<b>Result</b>
APPLETON – GIBBS BROOK	04-AGT	6/17/2008	700.0
APPLETON – GIBBS BROOK	04-AGT	7/1/2008	130.0
APPLETON – GIBBS BROOK	04-AGT	7/8/2008	9.0
APPLETON – GIBBS BROOK	04-AGT	8/26/2008	5.0
APPLETON – GIBBS BROOK	04-AGT	9/8/2008	590.0
APPLETON – GIBBS BROOK	04-AGT	9/29/2008	160.0
APPLETON – GIBBS BROOK	05-AGT	6/17/2008	1,200.0
APPLETON – GIBBS BROOK	05-AGT	7/1/2008	50.0
APPLETON – GIBBS BROOK	05-AGT	7/8/2008	50.0
APPLETON – GIBBS BROOK	05-AGT	8/26/2008	50.0
APPLETON – GIBBS BROOK	05-AGT	9/8/2008	760.0
APPLETON – GIBBS BROOK	05-AGT	9/29/2008	200.0

Shaded cells indicate exceedance of water quality criteria

#### **Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
APPLETON – GIBBS BROOK	7/8/2008	116.2
APPLETON – GIBBS BROOK	8/26/2008	30.0
APPLETON – GIBBS BROOK	9/8/2008	102.9
APPLETON – GIBBS BROOK	9/16/2008	123.7

**F12: McQuade Brook****AUID** NHRIV700060905-13**Characteristics:** freshwater, class B designation, primary contact recreation.**Impairment:** *E coli***Water Quality Criteria & TMDL for E coli**

Single sample: 406 CTS/100ML

Geometric mean: 126 CTS/100mL

**Percent reduction to meet TMDL:**

Single sample: 98%

Geometric mean: complies

**Data:** 2009 (inclusive) from NH DES, 2010 TMDL cycle**Single sample E coli results (CTS/100ML)**

<b>Station Name</b>	<b>Station ID</b>	<b>Date</b>	<b>Result</b>
MCQUADE BROOK	2217-001	11/10/2009	200.0
MCQUADE BROOK	2217-001	12/2/2009	2,000.0
MCQUADE BROOK	2217-001	12/7/2009	50.0
MCQUADE BROOK	2217-001	12/17/2009	350.0
MCQUADE BROOK	2217-002	11/10/2009	18.0
MCQUADE BROOK	2217-002	12/2/2009	5.0
MCQUADE BROOK	2217-003	11/10/2009	0.0
MCQUADE BROOK	2217-004	12/2/2009	20,000.0
MCQUADE BROOK	2217-004	12/7/2009	1,000.0
MCQUADE BROOK	2217-004	12/17/2009	9.0

Shaded cells indicate exceedance of water quality criteria

**Geometric mean E. coli results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
MCQUADE BROOK	11/28/2009	118.9