

# **APPENDIX C**

## **PEMIGEWASSET RIVER WATERSHED**

(HUC 8: 01070001)

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

The Pemigewasset River Watershed covers an area of approximately 1.023 square miles situated in the western center of the state. There are 38 towns located at least partially within the watershed and urban areas include Franklin and Plymouth, NH. As shown in Figure 1, the primary watercourse in the region is the Pemigewasset River which flows south from the northern watershed border town of Franconia to Franklin at the southern border. The river terminates at the Franklin Falls Dam Project and becomes the Merrimack River downstream of the dam, outside of the watershed. Land forms in the watershed include the Sandwich Range and Squam Mountains in the east and the Blue Ridge Mountains forming the northwestern edge of the Watershed. There are numerous mountains covering the landscape as part of the White Mountains with elevations decreasing from north to south. The Appalachian Trail follows the watershed along the northwestern border from Lyme to Franconia. There are two lakes of notable size which are Newfound Lake in the southern end of the watershed and Squam Lake to the east.

The watershed consists of 87% forested land cover, a great portion of which in the north is conserved and protected as part of the White Mountain National Forest. Other protected areas include the Cardigan Mountain and Province Road State Forests and Cockermouth Forest. Scattered areas of development identified on the following land cover map (Figure 2) are found in valleys surrounding the main branch of the Pemigewasset River and Baker River. Developed land covers 3% of watershed area.

Based on the 2010 303(d) list, two 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 lines. Items C1 and C2 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:

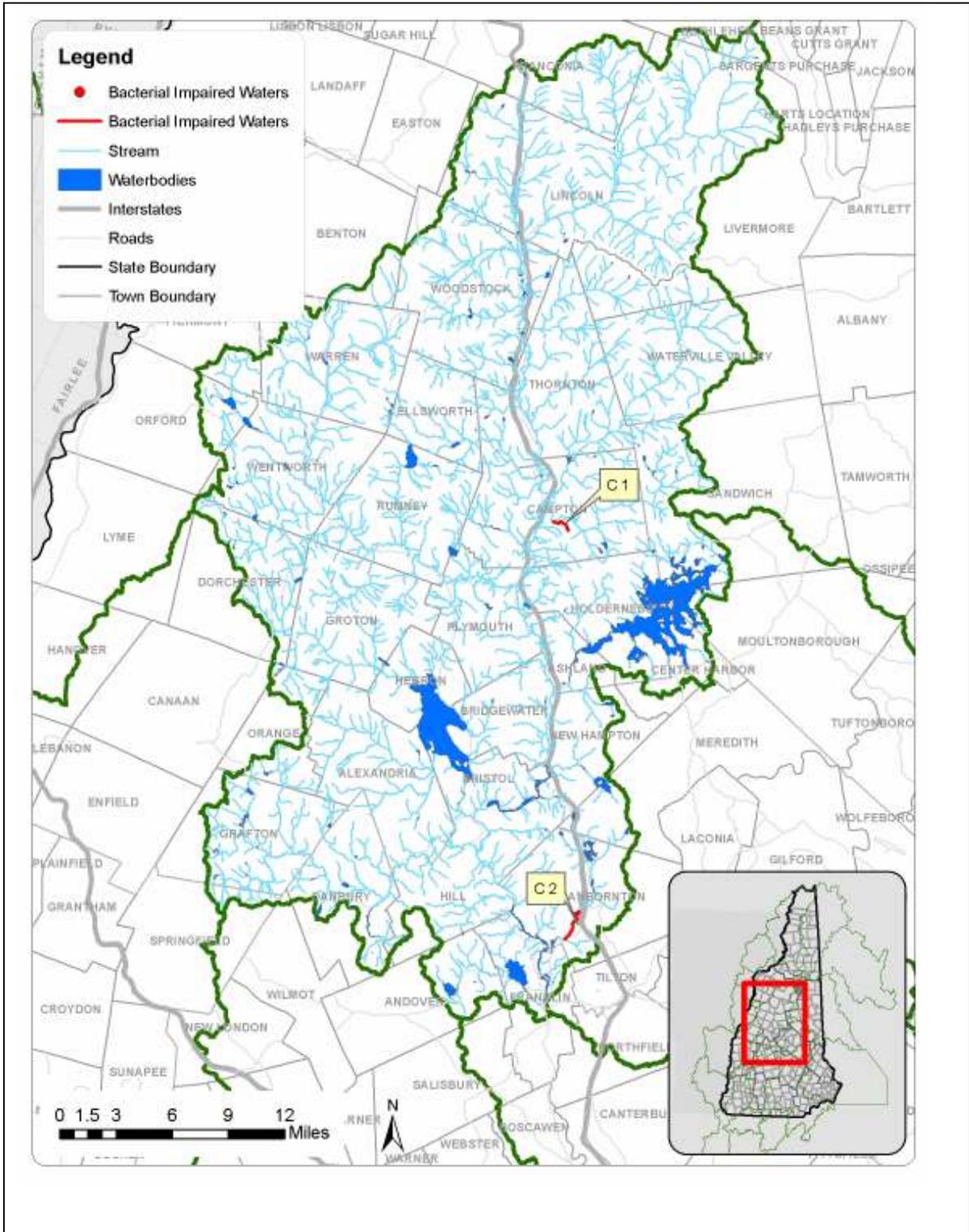
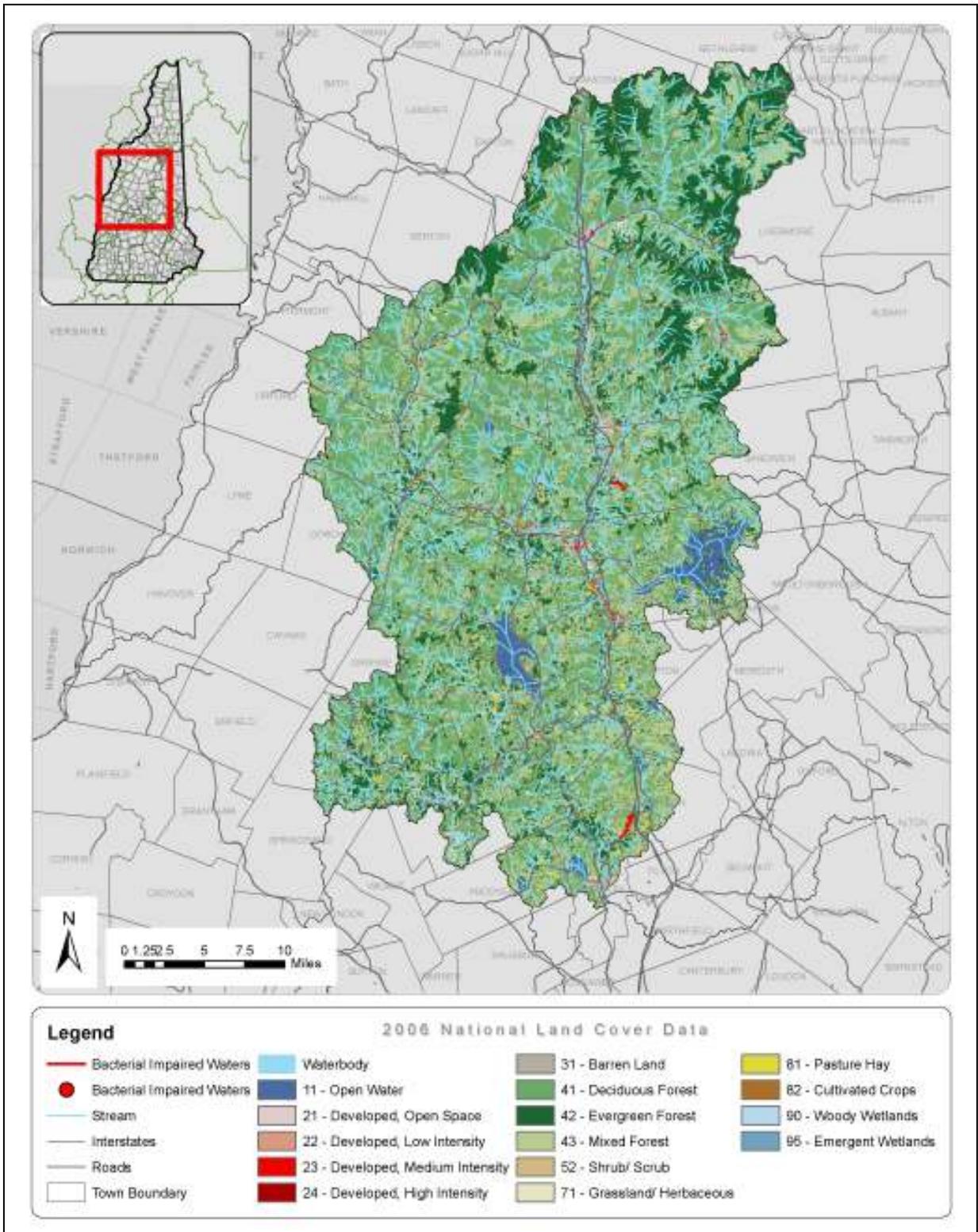


FIGURE 2:



## **II. WATER QUALITY DATA TABLES**

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## C1: Unnamed Brook to Beebe River

**AUID** NHRIV700010402-12

**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: 94%

Geometric mean: 57%

**Data:** 2004 (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 BEEBE RIVER	1214-PS001	6/29/2004	170.0
UNNAMED BROOK TO BEEBE RIVER	1214-PS001	7/8/2004	150.0
UNNAMED BROOK TO BEEBE RIVER	1214-PS001	9/9/2004	2,800.0
UNNAMED BROOK TO BEEBE RIVER	1214-PS001	5/10/2004	13.0
UNNAMED BROOK TO BEEBE RIVER	1214-PS002	6/29/2004	140.0
UNNAMED BROOK TO BEEBE RIVER	1214-PS002	7/8/2004	2,000.0
UNNAMED BROOK TO BEEBE RIVER	1214-PS002	9/9/2004	6,100.0
UNNAMED BROOK TO BEEBE RIVER	1214-PS002	5/10/2004	13.0
UNNAMED BROOK TO BEEBE RIVER	1214-PS005	9/9/2004	6,700.0

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

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
UNNAMED BROOK TO BEEBE RIVER	7/8/2004	290.7
UNNAMED BROOK TO BEEBE RIVER	5/23/2004	103.2

Shaded cells indicate exceedance of water quality criteria

**C2: Salmon Brook**

**AUID** NHRIV700010802-10

**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: 48%

Geometric mean: 70%

**Data:** 2006 (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>
SALMON BROOK	03-SLB	6/26/2006	780.0
SALMON BROOK	03-SLB	7/24/2006	660.0
SALMON BROOK	03-SLB	8/21/2006	140.0

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

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
SALMON BROOK	8/21/2006	416.2

Shaded cells indicate exceedance of water quality criteria