



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**Region 1**  
**5 Post Office Square, Suite 100**  
**Boston, MA 02109-3912**

September 24, 2015

Eugene Forbes, P.E., Director  
New Hampshire Environmental Services  
Water Division  
6 Hazen Drive, Box 95  
Concord, NH 03302-0095

Re: 2012 303(d) List

Dear Mr. Forbes,

Thank you for submitting New Hampshire's 2012 §303(d) list of water quality limited segments. In accordance with §303(d) of the Clean Water Act (CWA) and 40 CFR §130.7, the U.S. Environmental Protection Agency (EPA) has conducted a complete review of the State's list, including all supporting documentation. Based on this review, EPA has determined that New Hampshire's 2012 §303(d) list meets the requirements of Section 303(d) of the Clean Water Act and EPA's implementing regulations. Therefore, by this order, EPA hereby approves the State's list, submitted electronically on February 12, 2014.

Thank you for your hard work in developing the 2012 §303(d) list. My staff and I look forward to continuing our work with NHDES to implement the requirements under §303(d) of the CWA. If you have any questions or need additional information please contact Ralph Abele at 617-918-1629 or Toby Stover at 617-918-1604.

Sincerely,

/s/

Ken Moraff, Director  
Office of Ecosystem Protection

Enclosure

cc: NHDES: Ted Diers, Gregg Comstock, Ken Edwardson  
EPA: Ralph Abele, Ann Williams, Greg Dain

# **EPA REVIEW OF NEW HAMPSHIRE'S 2012 SECTION 303(d) LIST**

## **INTRODUCTION**

EPA has conducted a complete review of New Hampshire's 2012 section 303(d) list, supporting documentation and other information and, based on this review, EPA has determined that New Hampshire's list of water quality limited segments (WQLSs) still requiring total maximum daily loads (TMDLs) meets the requirements of section 303(d) of the Clean Water Act ("CWA" or "the Act") and EPA implementing regulations. Therefore, by this order, EPA hereby approves New Hampshire's 2012 final section 303(d) list. The statutory and regulatory requirements, and EPA's review of New Hampshire's compliance with each requirement, are described in detail below.

## **II. STATUTORY AND REGULATORY BACKGROUND**

### **Identification of Water Quality Limited Segments for Inclusion on the Section 303(d) List**

Section 303(d) (1) of the Act directs States to identify those waters within its jurisdiction for which effluent limitations required by section 301(b) (1) (A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of section 303(d).

EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. See 40 CFR §130.7 (b) (1).

### **Consideration of Existing and Readily Available Water Quality-Related Data And Information**

In developing section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate non-attainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any section 319 nonpoint assessment submitted to EPA. See 40 CFR §130.7(b) (5). In addition to

these minimum categories, States are required to consider any other data and information that is existing and readily available. EPA's 2006 Integrated Report Guidance describes categories of water quality-related data and information that may be existing and readily available. See EPA's March 21st, 2011 memorandum on *Information Concerning 2012 Clean Water Act Sections 303(d), 305 (b), and 314 Integrated Reporting and Listing Decisions* which recommended that the 2012 integrated water quality reports follow the *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305 (b) and 314 of the Clean Water Act* (2006 Integrated Report Guidance (IRG)) issued July 29, 2005 (available at [http://www.epa.gov/owow/tmdl/2006\\_IRG/](http://www.epa.gov/owow/tmdl/2006_IRG/)) as supplemented by the October 12, 2006 memo and attachments, the May 5, 2009 memo and attachments and the March 21, 2011 memo and attachments. All guidance, memoranda and attachments may be found at: <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/guidance.cfm>. While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters. In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR §130.7(b)(6) require States to include as part of their submissions to EPA, documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by EPA.

### **Priority Ranking**

EPA regulations also codify and interpret the requirement in section 303(d) (1) (A) of the Act that States establish a priority ranking for listed waters. The regulations at 40 CFR § 130.7(b)(4) require States to prioritize waters on their section 303(d) lists for TMDL development, and also to identify those WQLSs targeted for TMDL development in the next two years. In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. See section 303(d)(1)(A). As long as these factors are taken into account, the Act provides that States establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and State or national policies and priorities. See 57 FR 33040, 33045 (July 24, 1992), and EPA's 2006 Integrated Report Guidance and the 2006, 2009 and 2011 memoranda and attachments.

### **III. ANALYSIS OF NEW HAMPSHIRE'S SUBMISSION**

On July 30, 2013, the New Hampshire Department of Environmental Services (NH DES)

submitted to EPA as part of the State's 2012 Integrated Report (IR) an initial version of its final 2012 section 303(d) list. However, during the period between issuance of the State's draft 303(d) list (April 20, 2012) and issuance of the State's initial version of its final 303(d) list (July 19, 2013), NH DES identified additional segments that warranted delisting and for which NH DES decided to provide the public with an opportunity to comment. Accordingly, on November 18, 2013, NH DES solicited additional public comments pertaining only to the additional segments proposed to be delisted. This additional comment period lasted until December 20, 2013, and NH DES received no comments. Subsequently, on February 12, 2014, NH DES submitted to EPA an updated version of the State's final 2012 section 303(d) list and that is the version of NH DES's final list that EPA has reviewed and is approving, as set forth in this memorandum. The State's February 12, 2014 section 303(d) list submittal included the following specific components:

1. The State of New Hampshire's 2012 section 303(d) list;
2. A list of waters / impairments being removed or delisted from New Hampshire's section 303(d) list;
3. New Hampshire's 2012 sections 305(b) and 303(d) Consolidated Assessment and Listing Methodology (CALM) and NH DES's Response to Public Comments on the CALM; and
4. New Hampshire's Response to Public Comments on the April 20, 2012 draft 303(d) list.

New Hampshire's section 303(d) list contains water segments for which available data and/or other information indicates that a water segment is not meeting water quality standards because it is impaired or threatened by one or more pollutants for one or more designated uses, and for which a Total Maximum Daily Load (TMDL) is therefore required to be established. EPA's regulations at 40 CFR §130.7 require EPA to review and approve, or disapprove, a state's section 303(d) list.

Pursuant to EPA's Integrated Report Guidance related to assessment and listing of waters pursuant to sections 305(b) and 303(d) of the CWA, states list their waters in one or more of five categories, depending on the status of each water body's attainment of water quality standards. Category 5 corresponds to the section 303(d) list. Category 4 is comprised of waters that are not meeting water quality standards, but for which a TMDL need not be established due to one of three reasons. Category 4A contains waters for which a TMDL has already been established and approved by EPA. Category 4B includes waters, for which a "functionally equivalent" control action has been developed and is being implemented, i.e., an impairment caused by a pollutant is being addressed through other pollution control requirements. Category 4C contains waters that are not attaining water quality standards due to pollution that is not associated with a pollutant. Although waters in Category 4 are not on the section 303(d) list, EPA reviews a state's Category 4 list to ensure that the waters are categorized appropriately and do not,

in fact, belong on the section 303(d) list. NH DES included waters in Category 4 with its 2012 submission to EPA.

## **Public Participation**

New Hampshire conducted a public participation process, in which it provided the public an opportunity to review and comment on the State's draft 2012 section 303(d) list. A public comment period opened on May 18, 2012 and closed on July 5, 2012. NH DES posted its draft list on the Department's website, and mailed notices to 32 organizations and agencies. NH DES received a total of 7 comment submissions, some of which included multiple individual comments. Two comment submissions were received from New Hampshire municipalities, three were received from the Great Bay Municipal Coalition, and Conservation Law Foundation and Art Mathieson (UNH) each made one submission. Five of the comment submissions were received during the State's defined comment period, while two were received after the comment period's deadline but were still addressed by NH DES. NH DES assigned to individual comments a reference or section number to aid in identifying instances when a NH DES response applied to multiple individual comments and to ensure that all comments had been appropriately addressed. As described earlier in this document, during the period between issuance of the State's draft 303(d) list (April 20, 2012) and issuance of the State's initial version of its final 303(d) list (July 19, 2013), NH DES identified additional segments that warranted delisting and for which NH DES decided to provide the public with an opportunity to comment. Accordingly, on November 18, 2013, NH DES solicited additional public comments pertaining only to the additional segments proposed to be delisted. This additional comment period lasted until December 20, 2013, and NH DES received no comments.

### Summary of Comments Received:

1. Eric Swope, Industrial Pretreatment Coordinator, City of Keene, commented that the Ashuelot River (NHRIV802010301-11) should be de-listed for impairment of the aquatic life use due to low dissolved oxygen saturation, based upon the improved effluent from the Keene WWTF and the resulting improved conditions of the Ashuelot River as demonstrated during 2010 sampling that occurred under low-flow conditions.

New Hampshire responded that most rivers have a break in the assessment units where they pass a WWTF, but that the Ashuelot River segment (NHRIV802010301-11) was a rare exception to that rule. Thus, for the State's 2012 303(d) list, in recognition of the differences in water quality expected upstream versus downstream of the Keene WWTF, NH DES split the Ashuelot River segment (NHRIV802010301-11) into two new sections at the point of discharge from the Keene WWTF. Based upon the split, the new water quality data collected at low flow, and the modified operations of the Keene WWTF, segment NHRIV802010301-11, Ashuelot River – Otter Brook to Keene WWTF, was retained on the list and the newly created segment NHRIV802010301-38, Ashuelot River – Keene WWTF to South Branch, is not included on the State's 2012 303(d) list. The full

data review is provided in the State's "2012 Delisting" document, 'Impairments Removed (i.e. delisted) from the 303(d) List of Threatened or Impaired Waters.'

EPA has reviewed the data relevant to dissolved oxygen saturation in the two sections of the Ashuelot River described above and concurs with NH DES's decisions to retain segment NHRIV802010301-11, Ashuelot River – Otter Brook to Keene WWTF, on the State's 303(d) list and not to include segment NHRIV802010301-38, Ashuelot River – Keene WWTF to South Branch, on New Hampshire's 2012 303(d) list.

EPA concludes that NH DES adequately responded to the comment.

2. Dr. Arthur C. Mathieson, Professor of Plant Biology, Jackson Estuarine Laboratory & Department of Biological Sciences commented that "based upon ... observations and scientific data, eutrophication is creating an unstable and negative situation within the GBES [Great Bay Estuarine System], which needs to be quickly rectified."

NH DES responded that Dr. Mathieson's comment "supports DES's recommendation to include many assessment units in the Great Bay Estuary on the 2012 303(d) list for eutrophication-related parameters."

EPA concurs with NH DES's listing of the Great Bay Estuary water body segments in question. See Attachment A to this EPA approval memorandum, entitled "EPA Technical Support Document."

EPA concludes that NH DES adequately responded to the comment.

3. Tom Irwin Esq., Vice President and NH-Director, Conservation Law Foundation submitted comments supporting NH DES's listing of certain water body segments in the Great Bay Estuary for cultural eutrophication.

NH DES noted that the commenter provided information supporting its comments.

EPA concludes that NH DES adequately responded to the comment.

4. David Green, Chief Operator of the City of Rochester's Wastewater Treatment Facility, commented that the Cocheco River should not be listed as impaired for dissolved oxygen (DO) and should be removed from the 303(d) list for all nitrogen-based and chlorophyll-a-based DO violations because there is no DO data showing violation of the State's numeric DO criteria.

NH DES responded to the comment with a detailed explanation of this listing, essentially explaining that monitoring data showing high levels of total nitrogen and chlorophyll-a in the water body segment were a sufficient basis upon which to conclude that the segment is impaired for the aquatic life designated use. NH DES also explained that, in fact, it

had insufficient monitored data of dissolved oxygen levels in the Cocheco River upon which to make impairment decisions on that basis, and that the Cocheco River would be accounted for in Category 3 (Insufficient Information) on the State's Integrated List in relation to dissolved oxygen and dissolved oxygen saturation.

NH DES also stated in its response that “[i]t should be noted that the Cocheco River has also been classified as impaired for nitrogen under the Primary Contact Recreation designated use due to high chlorophyll-a concentrations.”

EPA concludes that NH DES adequately responded to the comment.

5. Dean Peschel submitted comments on behalf of the Great Bay Municipal Coalition (GBMC) on three separate occasions, July 2, 2012, October 18, 2012, and November 2, 2012. The comments themselves were lengthy and will not be repeated in this approval memorandum. However, in essence, Mr. Peschel commented that the water body segments in the Great Bay Estuary and its tidal tributaries, listed by NH DES as impaired for the aquatic life designated use associated with total nitrogen as a pollutant cause, should be removed from the list. EPA has reviewed all of Mr. Peschel's comments and NH DES's responses and has concluded that NH DES adequately responded to the comments.

In addition, EPA's attached Technical Support Document, relating to the Great Bay Estuary and its tidal tributary water body segments listed for impairment of the aquatic life designated use, identifies the most significant comments submitted by the Great Bay Municipal Coalition and reproduces NH DES's responses. EPA concluded in its Technical Support Document that the nature and content of NH DES's responses to the Coalition's comments, in addition to the remainder of the NH DES's entire administrative record, supports the listings in question.

Additionally, EPA has attached to this approval memorandum, as Attachment B, responses to public comments EPA received directly from the Great Bay Coalition through its legal counsel. Attachment B therefore constitutes a component of EPA's administrative record supporting EPA's approval of New Hampshire's 2012 section 303(d) list.

### **Identification of Waters and Consideration of Existing and Readily Available Water Quality Related Data and Information**

EPA has reviewed the State's submission, and has concluded that the State developed its section 303(d) list in compliance with section 303(d) of the Act and 40 CFR § 130.7. EPA's review is based on its analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

New Hampshire used the NH DES assessment database to develop its 2012 section 303(d) list. The same database was used to assist in the preparation of the biennial

section 305(b) report. NH DES provides ongoing notice on its website to request data from outside sources. Information received from outside sources was assessed in accordance with the State's assessment methodology. In the development of the 2012 section 303(d) list, New Hampshire began with its existing EPA-approved 2010 section 303(d) list and relied on new water quality assessments to update the list accordingly. New Hampshire believes that information pertaining to impairment status must be well substantiated, preferably with actual monitoring data, for it to be used in section 303(d) listing.

### **Priority Ranking**

As described in its methodology, New Hampshire established a priority ranking for listed waters by considering: 1) the presence of public health issues, 2) natural/outstanding resource waters, 3) threat to federally threatened or endangered species, 4) public interest, 5) available resources, 6) administrative or legal factors (i.e., NPDES program support or court order), and 7) the likelihood of implementation after the TMDL has been completed.

Individual priority rankings for listed waters are presented as the date shown on the section 303(d) list which indicates when the TMDL is expected to be completed. EPA finds that the water body prioritization and targeting method used by New Hampshire is reasonable and sufficient for purposes of section 303(d). The State properly took into account the severity of pollution and the uses to be made of listed waters, as well as other relevant factors described above.

### **Waters which are not listed on New Hampshire's 2012 section 303(d) List**

The following section provides a summary of the NH DES's rationale supporting decisions not to include certain newly identified waters and certain previously listed waters on the State's 2012 303(d) list. As discussed below, the State has demonstrated, to EPA's satisfaction, good cause for not listing the following waters, as provided in 40 CFR § 130.7(b)(6)(iv):

#### **1. New AUIDs (Assessment Unit Identifications) Covered by New England Regional Mercury TMDL (79)**

Beginning with the 2010 listing cycle, NH DES moved its assessment units from the 1: 100,000 to 1: 24,000 mapping scale for hydrography units. This scale is linked to the National Hydrography Dataset (NHD) which is used by EPA. The difference in scales resulted in an additional 3,622 assessment units for the 2010 listing cycle. Further refinement of the assessment units has resulted in an additional 79 segments for the 2012 listing cycle. This new group of 79 assessment units was included in Category 4A (TMDL complete) due to the fact that all freshwater assessment units in New Hampshire are covered by the 2007 Mercury TMDL. All freshwater assessment units in New Hampshire are considered impaired for fish consumption due to atmospheric deposition of mercury. EPA



concludes that this is the appropriate course of action for these new assessment units. The increased resolution of the mapping scale used by New Hampshire will provide better assessment and monitoring for the future, and will also result in the use of the same dataset that EPA uses. EPA approves the State's section 303(d) list without these waterbody-pollutant combinations, because the State's decision not to include them on the 303(d) list is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements. (In the interest of space, all 79 assessment units are not listed here individually.)

## **2. AUIDs Covered by New Hampshire Statewide Bacteria TMDL (394)**

On September 21, 2010 EPA approved the New Hampshire Statewide Bacteria TMDL which covered assessment units for rivers and streams, lakes and ponds, impoundments, estuaries and the Atlantic Ocean that were listed on the State's 2008 section 303(d) list. The TMDL accounted for the three types of bacterial impairments which are responsible for designated use impairments in New Hampshire surface waters; *E. coli* in freshwaters (primary contact, i.e. swimming), enterococcus in marine waters (primary contact, i.e. swimming) and fecal coliform in marine waters (marine shellfishing). As a result of EPA's approval of New Hampshire's statewide Bacteria TMDL, these 394 assessment units have been accounted for in Category 4A (TMDL Complete). EPA approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

## **3. AUIDs Covered by Beach Bacteria TMDL (59 Impairments on 58 AUs)**

On August 29, 2011 EPA approved the "TMDL Report for 58 Bacteria Impaired Waters in New Hampshire." This TMDL specifically addressed primary contact impairments to beach segments due to bacteria contained in stormwater and improperly treated sewage. The report covers 59 impairments on 58 assessment units for *E. coli* for freshwaters (primary contact, i.e. swimming), enterococcus for marine waters (primary contact, i.e. swimming), and fecal coliform (marine shellfishing). As a result of EPA's approval of New Hampshire's beach bacteria TMDL, these 59 impairments in 58 assessment units have been accounted for in Category 4A (TMDL Complete). EPA approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

## **4. AUIDs Covered by Acid Pond TMDL (8)**

On January 26, 2011, EPA approved the addition of 8 beach assessment units to the acid pond TMDL which was approved by EPA in FY 2007. These segments were impaired for aquatic life use due to low pH and correspond with the waterbody assessment units that were previously approved in the parent acid pond TMDL. As a result of EPA's approval of New Hampshire's acid pond TMDL, these 8 assessment units have been accounted for in Category 4A (TMDL Complete). EPA

approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**5. AUIDs Covered by the Lake Phosphorus TMDL (84 Parameter/Designated use combinations on 26 assessment units) Plus CHANGES FROM APRIL 20TH, 2012 DRAFT 303(d) - One Additional Cyanobacteria Impairment Covered by the Lake Phosphorus TMDL upgraded to Category 2 (1)**

On May 12, 2011, EPA approved the "24 Lake Phosphorus TMDLs" and subsequently approved phosphorus TMDLs for Turtle Pond (October 18, 2011), Webster Lake (January 9, 2012) and Hoods Pond (June 1, 2012). None of these segments meet phosphorus criteria related to primary contact recreation and/or aquatic life designated uses and are impaired for various combinations of chlorophyll-a, cyanobacteria, low dissolved oxygen concentration and dissolved oxygen saturation. Additionally, during the 2012 listing cycle, another seven segments were found to be impaired for various combinations of the aforementioned causes/designated uses. As a result of the Lake Phosphorus TMDL approval, these 84 parameter/designated use combinations have been accounted for in Category 4A (TMDL Complete). The TMDL for Hoods Pond was approved after the draft 2012 303(d) list was released for public comment and subsequent review of the waterbody segments and impairments has revealed that the cyanobacteria impairment for Hoods Pond was erroneous. All monitoring data for Hoods Pond show compliance with water quality standards for cyanobacteria. This segment has been moved into Category 2 (Full Support) for the cyanobacteria assessment parameter. EPA approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**6. Additional Cyanobacteria Impairments Covered by the Lake Phosphorus TMDL (3) Plus CHANGES FROM APRIL 20<sup>TH</sup>, 2012 DRAFT 303(d) LIST – Additional Cyanobacteria Impairments Covered by the Lake Phosphorous TMDL (10).**

Recent blooms of cyanobacteria hepatotoxic microcystins at three beach assessment units (Sebbins Pond-Camp Kettleford, Pawtuckaway SP and Forest Lake TB) have resulted in these assessment units being categorized as impaired for the State's primary contact recreation designated use. These beaches are located on waterbodies that are covered by the "Lake Phosphorus TMDL" which was approved by EPA on May 12, 2011. The waterbodies covered by the Lake Phosphorus TMDL did not meet phosphorus criteria for the State's aquatic life use and/or primary contact recreation use for assorted combinations of chlorophyll-a, cyanobacteria, low dissolved oxygen concentration and/or dissolved oxygen saturation. A 12 µg/L phosphorus target was set to protect designated uses in the

TMDL. As a result of EPA's approval of New Hampshire's Lake Phosphorus TMDL, these 3 beach assessment units have been accounted for in Category 4A (TMDL Complete) along with 10 additional beach segments that have been identified as being impaired for cyanobacteria since the draft 2012 303(d) list was released for public comment. All 13 of these beach segments can be found in Table 4 which identifies the segments that NH DES is delisting in its 2012 listing cycle. EPA approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**7. Additional Dissolved Oxygen Impairments Covered by the Lake Phosphorus TMDL (2) plus CHANGES FROM APRIL 20<sup>TH</sup>, 2012 DRAFT 303(d) LIST – Additional Dissolved Oxygen Saturation Impairments Covered by the Lake Phosphorous TMDL (2).**

Pawtuckaway Lake (NHLAK600030704-02-01) and Robinson Pond NHLAK700061230-06-01) were listed in 2006 for dissolved oxygen percent saturation impairment for the State's aquatic life designated use. At the time of listing, beach assessment units inherited all impairments that were assigned to the parent lake assessment unit. As a result of these listings, Pawtuckaway SP Beach (NHLAK600030704-02-02), Pawtuckaway Town Beach (NHLAK600030704-02-03), Robinson Pond - Town Beach (NHLAK700061203-06-02) and Robinson Pond - Camp Winahupe Beach (NHLAK700061203-06-03) were also listed as impaired for dissolved oxygen percent saturation. These beaches are located on waterbodies that are covered by the "Lake Phosphorus TMDL" which was approved by EPA on May 12, 2011. The waterbodies covered by the Lake Phosphorus TMDL did not meet phosphorus criteria for the State's aquatic life use and/or primary contact recreation use for assorted combinations of chlorophyll-a, cyanobacteria, low dissolved oxygen concentration and/or dissolved oxygen saturation. A 12 µg/L phosphorus target was set in the TMDL to protect designated uses. As a result of the Lake Phosphorus TMDL approval, these 4 beach assessment units have been accounted for in Category 4A (TMDL Complete). EPA approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**8. CHANGE FROM APRIL 20<sup>TH</sup>, 2012 DRAFT 303(d) LIST – Additional Excess Algal Growth Impairment Covered by the Lake Phosphorous TMDL (1)**

Baboosic Lake Town Beach was listed as impaired for primary contact use support during the State's 2006 listing cycle due to excessive algal growth, as well as for chlorophyll-a and cyanobacteria. The chlorophyll-a and cyanobacteria impairments are addressed as part of the Lake Phosphorus TMDL

described earlier in this document. All of these impairments are covered by the Lake Phosphorus TMDL which EPA approved on May 12, 2011. Baboosic Lake Town Beach is now accounted for in Category 4A (TMDL Complete). The delisting for excessive algal growth impairment was not part of the State's original submission to EPA, but is included in the State's final submission. EPA approves the State's section 303(d) List without this waterbody-pollutant combinations because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

#### **9. Cains Pond (NHIMP600031004-05) Sedimentation/Siltation (1)**

Cains Pond is an impoundment of Cains Brook located in Seabrook, NH which was listed on the State's 2008 303(d) list as impaired for secondary contact recreation due to sedimentation/siltation, which resulted in the pond no longer being suitable for navigation by watercraft. Sedimentation and dense aquatic plant growth, coupled with shallow water depths, severely restricted the use of personal watercraft in the pond. The increased sediment load was attributed to a combination of construction projects, highway maintenance practices and an upstream dam breach caused by the Mother's Day flood of 2006. These activities mobilized large amounts of sediment/silt that was then deposited in Cains Pond. In 2009, the Town of Seabrook began the process of restoring the secondary contact designated use by dredging the pond to depths that would support boat navigation and by building BMPs to control sediment/silt inputs to the pond. The main basin of the pond was dredged to an average depth of 7 feet and a deep hole of 10 feet was created to provide adequate habitat for fish. Additionally, the inlet section of the pond was dredged to an average depth of 4 feet and an oil and grit separator BMP was built to control sediment from Route 1. Construction activities in the watershed have been completed and the area is at or close to build out capacity, which will limit future construction activities. BMPs have been constructed at Lowe's and Kohl's to control stormwater runoff, and a shorefront retaining wall has been repaired to prevent erosion into the pond. Also, sand is no longer used on Route 1 in the winter for maintenance purposes. As a result of the dredging, BMP construction and road maintenance practices, Cains Pond is now suitable for boat navigation and other secondary contact recreation activities. Cains Pond has been removed from the State's section 303(d) list for impairment of secondary contact recreation due to sedimentation/siltation and has been placed into Category 2 (Fully Supporting). EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

#### **10. Contoocook River, Jaffrey WWTF to Peterborough WWTF (42 AUID/Designated Use/ Impairment combinations)**

The Contoocook River contains nine assessment units between Jaffrey, NH and the Peterborough, NH WWTF. These nine assessment units were listed in 2006 for 42 impairments resulting from the evaluation of a QUAL2E model that was run in 2005. The model was calibrated to the permit limits of the Jaffrey WWTF. The

model was based on design flow for the facility and other permit requirements at the time. On September 28, 2009 (and modified with an effective date of August 16, 2010) EPA issued a new permit to the Jaffrey facility, requiring reductions in phosphorus and ammonia discharges to the Contoocook River in order to control chlorophyll-a, dissolved oxygen concentration and dissolved oxygen saturation and to prevent violations of New Hampshire's relevant water quality standards. The Jaffrey facility implemented the new permit limits in 2010 and has been in compliance with its permit since then, which means that the QUAL2E model is no longer applicable and is not an appropriate means of assessment for these assessment units. Based on the new permit requirements and the facility's compliance with these requirements, New Hampshire DES is delisting these assessment units to Category 3 (Insufficient Information) due to the limited data that has been collected since the implementation of the new permit requirements. The limited data that have been collected so far show compliance with water quality standards, but not enough data have been collected to categorize these segments as fully supporting (Category 2), consistent with the State's CALM document. EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

#### **11. Berry River (NHRIV600031002-01) Chlorophyll-a for Primary Contact Recreation (1)**

The Berry River was originally listed during the 2006 listing cycle for chlorophyll-a, causing impairment of the primary contact recreation designated use. The listing was based on exceedances of the State's chlorophyll-a numeric threshold translator of the State's narrative nutrient standard for freshwaters. Between 2001 and 2002 there were three exceedances of the 15 µg/L translator threshold. Since 2002, there have not been any exceedances of the numeric threshold in the 15 samples taken during the critical summer swimming period (May 24<sup>th</sup> - September 15<sup>th</sup>) or in the 27 samples taken during the non-critical, off summer, swimming season (September 16<sup>th</sup> – May 23<sup>th</sup>). These more recent sampling conditions are representative of the dry sampling conditions that existed in 2001 and 2002, because the sampling periods in 2005 and 2007 also were during dry summer conditions. Based on the samples taken since 2002, under representative conditions, without any exceedances of the numeric translator threshold, the data support the delisting of this river for primary contact recreation use impairment. EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

#### **12. Clough Pond (NHLAK700060202-03-01) Chlorophyll-a for Primary Contact Recreation (1)**

Clough Pond was listed as impaired for the primary contact recreation designated use due to chlorophyll-a exceedances of the State's numeric translator threshold (15 µg/L) for the State's narrative nutrient standard. The samples that exceeded the

applicable threshold were taken during a period of drier than normal conditions. Since 2007, 11 samples have been collected, none of which have exceeded the numeric translator threshold, including samples taken in 2010 under drier conditions than in 2007. All of the samples taken since 2002 for this pond have been collected during the critical summer swimming period. Based on the samples taken since 2007 under representative conditions, with no exceedances of the numeric translator threshold, the data supports delisting this pond for primary contact recreation use impairment. EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

### **13. Oyster River (NHEST600030902-01-03) Chlorophyll-a and Total Nitrogen for Primary Contact Recreation (2)**

The tidal portion of the Oyster River was listed in 2008 as impaired for the State's primary contact recreation designated use due to chlorophyll-a and high total nitrogen values. In 2002 and 2003, the Oyster River had exceedances of both the single sample maximum threshold for estuarine waters of 20 µg/L chlorophyll-a and the magnitude of exceedance threshold of 40 µg/L chlorophyll-a. This resulted in the assessment unit being listed during New Hampshire's 2006 303(d) list cycle. In 2008, the impairment due to total nitrogen was added due to the strong causal relationship between total nitrogen and chlorophyll-a production in estuarine waters. From 2002 until 2004, chlorophyll-a samples at the assessment location were collected by an autosampler set up to collect samples under a variety of tidal conditions. In 2005, the autosampler was removed. Sampling (a total of 56 samples, 30 of which were collected during the summer critical period) has not produced any exceedances since 2003. The post 2003 sampling was also completed under the same limiting conditions of tide, inflow and weather. It is likely that the high chlorophyll-a values from 2002-2003 are attributable to contamination of the autosampler device. Such devices can become clogged with pieces of moss, macroalgae and/or organic matter, which can produce artificially high values not truly representative of the phytoplankton concentrations in the river. This delisting only applies to the primary contact recreation designated use. The State's aquatic life designated use impairments attributed to excess chlorophyll-a, total nitrogen, dissolved oxygen concentration, dissolved oxygen saturation, estuarine bioassessments and light attenuation are being retained on the State's 2012 303(d) list and are supported by recent monitoring data. Based on the number of samples taken that do not exceed the applicable chlorophyll-a thresholds, and the representative nature of the sampling conditions, EPA approves the State's section 303(d) list without the Oyster River appearing on the list for impairment of the primary contact recreation use, because the removal of that listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

### **14. Ashuelot River (NHRIV802010403-19) pH (1)**

The Ashuelot River was listed by New Hampshire during the 2004 303(d) listing cycle for impairment of the aquatic life designated use, due to four violations of the

water quality standard lower threshold of 6.5 for pH. Subsequent sampling (21 sampling dates) from 2005-11 did not result in any pH readings outside the allowable range. Based on the number of samples taken that did not violate the water quality standard for pH taken during the summer critical sampling period, EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**15. Fresh Creek (NHRIV600030608-11) pH (1)**

Fresh Creek was listed by New Hampshire during the 2008 303(d) listing cycle for impairment of the aquatic life designated use, due to two violations of the water quality standard lower threshold of 6.5 for pH. Subsequent sampling (24 sampling dates, including a 14-day period of continuous measurements taken every 15 minutes) from 2008-11, did not result in any pH readings outside of the allowable range. Based on the number of samples taken that did not violate the water quality standard for pH and the timing of such samples, EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**16. South Mill Pond (NHEST600031001-09) pH (1)**

South Mill Pond was listed by New Hampshire during the 2006 303(d) listing cycle for impairment of the aquatic life designated use, due to violations of the water quality standard upper threshold of 8.5 for pH. The samples were taken in 2004 for a particular project. The data from this project were rounded to the nearest whole number, which is not acceptable for pH data due to the fact that pH is based on a logarithmic scale. These data have now been deemed invalid by NH DES and removed from the assessment database. With this data removed, there have not been any violations of the pH standard since 2000 (151 samples taken between 2000 and 2009). Based on the number of samples taken that did not exceed the water quality standard for pH and the timing of such samples, EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**17. North Mill Pond (NHEST600031001-10) pH (1)**

North Mill Pond was listed by New Hampshire during the 2006 303(d) list cycle for aquatic life designated use, due to pH violations beyond the upper threshold of 8.5 for samples taken in 2004 for a particular project. The data from this project were rounded to the nearest whole number, which is not acceptable for pH data due to the fact that pH is based on a logarithmic scale. These data have now been deemed invalid by NH DES and removed from the assessment database. Subsequent monitoring samples (28) taken from 2006-09 have not produced any violations of the applicable pH criteria. Based on the number of samples taken that did not exceed the water quality standard for pH and the timing of such samples, EPA

approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**18. Adams Point South- Cond. Appr. (NHEST600030904-04-06) pH (1)**

Adams Point South was listed by New Hampshire during the 2006 303(d) listing cycle for the aquatic life designated use, due to pH violations of the upper threshold of 8.5 based on data collected in 2004. The listing of this waterbody in 2006 was due to the samples taken in 2004. New Hampshire subsequently deemed the samples invalid because of a data reporting error; the samples were reported to the nearest whole number, which is not an acceptable way of reporting pH data due to the fact that pH is based on a logarithmic scale. Once the 2004 data were removed from the assessment, there were no longer any violations of the pH criteria for this site. Subsequent monitoring samples (51) taken from 2005-09 have not produced any violations of the pH criteria. Based on the number of samples taken that did not exceed the water quality standard for pH and the timing of such samples, EPA approves the state's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**19. Adams Point Mooring Field SZ (NHEST600030904-06-10) pH (1)**

Adams Point Mooring Field SZ was listed by New Hampshire during the 2006 303(d) listing cycle for the aquatic life designated use, due to pH violations of the upper threshold of 8.5. The listing of this waterbody in 2006 was due to the samples taken in 2004. New Hampshire subsequently deemed the samples invalid because of a data reporting error; the samples were reported to the nearest whole number, which is not an acceptable way of reporting pH data due to the fact that pH is based on a logarithmic scale. Once the 2004 data were removed from the assessment, there were no longer any violations of the pH criteria for this site. Subsequent monitoring samples (43) taken from 2005-09 have not produced any violations of pH criteria. Based on the number of samples taken that did not exceed the water quality standard for pH and the timing of such samples, EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**20. Black Brook (NHRIV700060801-05-02) Iron (1)**

Black Brook was listed by New Hampshire during the 2006 303(d) listing cycle for the aquatic life designated use, due to exceedances of the water quality standard for iron. This data was obtained from the USGS NWIS database in 2005 and showed five exceedances of the iron standard for samples taken in 2001. In 2011, the NWIS database was queried again for this sampling location and it was discovered that the previous data from 2001, which had originally been reported in mg/L, had been corrected in the database and were now reported in µg/L. The corrected data samples meet the iron standard, which means that the 2006 listing was erroneous.



There has not been any sampling conducted for iron since the 2001 sampling season at this site location. Due to the lack of iron data, this segment has been removed from the State's section 303(d) list and placed in Category 3 (Insufficient Information) for the aquatic life designated use. EPA approves the State's section 303(d) list without this waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**21. Horseshoe Pond (NHLAK700060302-02) Chlorophyll-a (1)**

Horseshoe Pond was listed by New Hampshire during the 2010 listing cycle for the aquatic life designated use, due to exceedance of the chlorophyll-a standard for lakes. The State subsequently discovered that the notation for exceedance of a water quality standard should have been for chloride in this segment instead of chlorophyll-a. This mistake occurred because chlorophyll-a and chloride are only one line apart in the State's assessment spreadsheet. The impaired notation was included on the spreadsheet before it was transferred to the Environmental Monitoring database, which is much less prone to assessment error. Additionally, data collected since 2010 shows attainment of both the State's chlorophyll-a and phosphorus thresholds based on the Trophic Class for this particular waterbody. For the 2012 listing cycle, the chloride impairment has been added and the chlorophyll-a impairment has been removed and placed into Category 2 (Full Support). EPA approves the State's section 303(d) list without the chlorophyll-a waterbody-pollutant combination because the removal of this listing is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**22. Kezar Lake (NHLAK700030303-03-01) Chlorophyll-a & Total Phosphorus (2)**

Kezar Lake has had water quality problems dating back to the 1960's relating to excess phosphorus which was causing algae blooms and fish kills. These problems led to New Hampshire listing the lake as impaired for aquatic life use due to chlorophyll-a and total phosphorus. From 1931 until 1981, a wastewater treatment facility discharged to the lake, causing internal phosphorus loading problems well beyond the date the facility closed. Since the mid-1980's, Kezar Lake has been the site of a Restoration/Protection Project to restore aquatic life designated use attainment through the application of aluminum salts and manipulation of upstream riparian wetlands to encourage phosphorus uptake and sedimentation. Sampling conducted since 2005 demonstrates that Kezar Lake is now attaining chlorophyll-a and total phosphorus thresholds for a mesotrophic lake. Based on the number of samples taken that did not exceed the water quality thresholds for chlorophyll-a and total phosphorus and the timing of the samples, EPA approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

### **23. Lamprey River South (NHEST600030709-01-02) Dissolved Oxygen (Concentration and Percent Saturation) (2) – Changes due to Re-segmentation**

The Lamprey River South segment is a new assessment unit that was created by NH DES for the 2012 303(d) listing cycle by splitting the Lamprey River segment (NHEST600030709-01) into northern (NHEST600030709-01-01) and southern (NHEST600030709-01-02) segments. The original Lamprey River segment was listed by New Hampshire during the 2010 303(d) list cycle for aquatic life designated use impairment, due to low dissolved oxygen concentration and dissolved oxygen percent saturation. However, once the segment was split, the monitoring sites with the dissolved oxygen concentration and dissolved oxygen percent saturation violations were located wholly within the new Lamprey River North segment (NHEST600030709-01-01). Therefore, NH DES is retaining on its 2012 303(d) list the dissolved oxygen concentration and dissolved oxygen percent saturation impairments in the northern segment. NH DES is not placing the southern segment on its 2012 303(d) list because there are no impairments in that segment. EPA approves the State's section 303(d) list without the southern segment waterbody-impairment combination because its absence from the list is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

### **24. Lamprey River North (NHEST600030709-01-01) and Squamscott River South (NHEST600030806-01-01) Estuarine Bioassessments (2) and Light Attenuation Coefficient (2) – Changes due to Re-segmentation**

The Lamprey River North and Squamscott River South are new assessment units that were created for the 2012 303(d) listing cycle from the original Lamprey River segment (NHEST600030709-01) and the original Squamscott River segment (NHEST600030806-01). These new segments were created to more accurately depict assessment units where eelgrass has historically existed. The new segments provide more clarity about the restoration goals for the individual segments (dissolved oxygen for upstream segments and eelgrass for downstream segments where the rivers discharge to Great Bay). As a result of the re-segmentation of these units, the eelgrass estuarine bioassessment and light attenuation coefficient indicators no longer apply to the Lamprey River North and Squamscott River South segments. Both of these new segments have been re-categorized from 5-P on the State's 2010 303(d) list to "No Standard" for the State's 303(d) 2012 list because the estuarine bioassessment and light attenuation coefficient indicators are no longer pertinent or applicable to these segments; that is, based on the nature of the segment, there would be no rational reason to assess these two parameters. The estuarine bioassessments and light attenuation coefficient impairments that were listed on the 2010 303(d) list remain with the appropriate new segments (Lamprey River South and Squamscott River North). EPA approves the State's section 303(d) list without the Lamprey River North and Squamscott River South waterbody-impairment combinations because their absence from the list is consistent with EPA's regulations and

EPA's Guidance for Assessment, Listing and Reporting Requirements.

**25. Lamprey River South (NHEST600030709-01-02) and Squamscott River North (NHEST600030806-01-02) Toxics – Changes due to Re-segmentation**

The Lamprey River South and Squamscott River North are assessment units that were newly created for the State's 2012 303(d) listing cycle from the original Lamprey River segment (NHEST600030709-01) and the original Squamscott River segment (NHEST600030806-01). Both of the original segments were listed on the 2010 303(d) list as impaired for the State's aquatic life designated use, due to a suite of toxins. As a result of the re-segmentation of both waterbodies, the toxin impairments are being retained on the Lamprey River North (NHEST600030709-01-01) and Squamscott River South (NHEST600030806-01-01) segments for the 2012 listing cycle. The newly created Lamprey River South and Squamscott River North segments have either been categorized for the 2012 303(d) listing cycle as "Not Assessed" or "Insufficient Information," for assessment of the aquatic life use for each specific toxin. This is due to the fact that there is no recent toxics monitoring data available for these segments. Tables 21 and 22 of New Hampshire DES's document entitled "Impairments Removed (i.e., delisted) From the 303(d) List of Threatened or Impaired Waters July 30, 2013" provides all of the relevant information for each segment and how the segment has been re-categorized. The aquatic life use impairments, associated with toxins, that were included on the State's 2010 303(d) list, remain on the State's 2012 303(d) list in relation to the Lamprey River North (NHEST600030709-01-01) and Squamscott River South (NHEST600030806-01-01) segments. EPA approves the State's section 303(d) list without the Lamprey River South and Squamscott River North waterbody-impairment combinations because their absence from the list is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

**26. Ashuelot River- Keene WWTF to South Branch (NHRIV802010301-38) Dissolved Oxygen Saturation for Aquatic Life Use (1)**

The Ashuelot River segment from Otter Brook to South Branch of the Ashuelot River was listed on the State's 2010 303(d) list as impaired for the State's aquatic life designated use, due to low dissolved oxygen saturation. This listing was for the segment designated NHRIV802010301-11, and was based upon a combination of exceedances of the State's dissolved oxygen saturation criteria at three different monitoring stations in 2001, 2002 and 2007. For the State's 2012 303(d) listing cycle, this segment was split into two segments to reflect the upstream portion (NHRIV802010301-11) above the Keene WWTF to Otter Brook and the downstream portion (NHRIV802010301-38) from the Keene WWTF discharge to the South Branch of the Ashuelot River. The State's 2012 303(d) list is retaining the original segment NHRIV802010301-11, due to the dissolved oxygen violations. For the State's 2012 303(d) listing cycle, the new segment, NHRIV802010301-38, is not being included on the 2012 303(d) list due to the fact that monitoring data collected in 2010 demonstrate that this segment is meeting water quality standards for dissolved oxygen saturation. The State's decision not to include the new

segment, NHRIV802010301-38, on its 2012 303(d) list, is also supported by new NPDES permit limits (2007) for total phosphorus and an EPA Administrative Order (2008) that resulted in: 1) operational modifications to the old Keene WWTF; and 2) the construction and operation of a new treatment facility, replacing the older facility. The new facility was constructed in accordance with EPA's 2008 Administrative Order and actually began operation in early 2015. The new facility is designed to, among other things, reduce the amount of phosphorous discharged from the facility. The data used to support the State's decision were collected after the new NPDES permit's revised operational limits took effect and during warm weather, low-flow conditions. This demonstrates that the facility will be able to continue to meet its new permit limits and comply with water quality standards under the most difficult operational conditions. Based on the information described above, EPA approves the State's section 303(d) list without the new segment, NHRIV802010301-38, because its absence from the list is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

#### **27. Changes From April 20<sup>th</sup>, 2012 Draft 303(d) List- Bacteria TMDL Corrections**

When the State's first draft of the 2012 303(d) list was released on April 20, 2012, seven segments (see Table 24 of the 2012 303(d) delisting document) were included on both the impaired waters list and on the list of segments to be delisted. This was due to a flagging error in the State's database, and was subsequently corrected on the State's revised final 2012 303(d) list. These seven segments are now only included on the list of waters to be delisted for the 2012 303(d) cycle. As a result of EPA's approval of New Hampshire's statewide Bacteria TMDL, these seven assessment units have been accounted for in Category 4A (TMDL Complete). EPA approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

#### **28. Changes From April 20<sup>th</sup>, 2012 Draft 303(d) List- Souhegan River, Dissolved Oxygen Concentration Impairments for Aquatic Life Designated Use (5)**

During the 2006 listing cycle, five segments of the Souhegan River were added to the State's section 303(d) list as impaired for the State's aquatic life designated use due to low dissolved oxygen concentrations. Otis Dam (NHIMP700060901-07), Pine Valley Mill (NHIMP700060904-08), Furnace Brook (NHRIV700060901-07), Tucker Brook (NHRIV700060902-05) and Souhegan River (NHRIV700060909-13) were listed based on samples collected between 2002 and mid July 2005. Subsequent sampling and data analysis, during the period from late July 2005 through September 2009, has shown that water quality has improved and that these segments now meet the State's water quality criteria for dissolved oxygen concentration. Many of the samples taken since 2005 were collected during low flow/high temperature conditions when dissolved oxygen concentrations are expected to be lowest. Based on the lack of violations of the dissolved oxygen concentration criteria since 2005, and the conditions under which these samples were collected, EPA approves the State's section 303(d) list without these waterbody-pollutant combinations because the removal of these listings is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

## **29. Changes From April 20<sup>th</sup>, 2012 Draft 303(d) List- Little Cohas Brook, Benthic Macroinvertebrates Index for Aquatic Life Designated Use (1)**

Little Cohas Brook (NHRIV700060804-04) was listed on the State's draft 2012 303(d) list as impaired for the State's aquatic life designated use, due to a poor score on the Index of Benthic Integrity for a sample collected in 2009. Subsequent review of this site and the one sample that had been collected, has revealed a clerical error in the entry of the site ID number. The one sample in question was actually collected from a different segment in Little Cohas Brook (NHRIV700060804-05) which was previously listed as impaired during the State's 2004 section 303(d) listing cycle based upon a poor score on the Index of Benthic Integrity for macroinvertebrates. Thus, the one sample simply confirms the previous documented impairment for segment (NHRIV700060804-05), and NH DES has no macroinvertebrate data for segment (NHRIV700060804-04). Therefore, NH DES removed this segment from the State's section 303(d) list, placing it into Category 3 (Insufficient Information) of the State's 2012 Integrated List. EPA approves the State's section 303(d) list without segment (NHRIV700060804-04) on the list because its absence is consistent with EPA's regulations and EPA's Guidance for Assessment, Listing and Reporting Requirements.

## **Waters impaired by nonpoint sources of pollution**

The State properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with section 303(d) and EPA guidance. Section 303(d) lists are to include all WQLSs still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA's long-standing interpretation is that section 303(d) applies to waters impacted by point and/or nonpoint sources. In 'Pronsolino v. Marcus,' the District Court for Northern District of California held that section 303(d) of the Clean Water Act authorizes EPA to identify and establish total maximum daily loads for waters impaired by nonpoint sources. Pronsolino v. Marcus, 91 F. Supp. 2d 1337, 1347 (N.D.Ca. 2000). This decision was affirmed by the 9th Circuit court of appeals in Pronsolino v. Nastri, 291 F.3d 1123 (9th Cir. 2002). See also *EPA's Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act*, EPA Office of Water, July 29, 2005.