

Response summary to comments received on the Vermont 2016 public comment draft versions of the:

- ❖ *303(d) List of Impaired Waters (Part A)*
- ❖ *Other Priority Waters Lists (Parts B, D, E, & F)*

Public Comment Period

The Department of Environmental Conservation (DEC) held a public comment period upon the release of the draft 2016 303(d) List of Impaired Waters and Parts B, D, E, and F of the Vermont 2016 List of Priority Waters. The public notice stated that a public meeting would be considered if requested. The comment period extended from May 28 through June 17, 2016. At the close of public comment, DEC had received no requests for a public meeting but written comments were received from the following two parties:

Commenter	Identification
Stowe Mountain Resort	SMR
Green Mountain Power	GMP

Part A and Interim List Comments

1. Comment: [SMR] With regard to the proposed extension of the impaired reach up to RM0.8 Stowe Mountain Resort would like to offer the following comments.

Yearly stream monitoring of Big Spruce, particularly in the new proposed extension, has identified historical iron seeps that have been in place for many years prior to any current or past development activities adjacent to this stream segment. Additionally, monitoring results have not identified significant sediment impacts in this section of the stream; therefore, we would like to request that the 2016 proposed extended reach not include any reference to sediment impacts and also recognize that the iron seeps in this reach are located in inaccessible areas near the bottom of a very steep heavily vegetated ravine. Any disturbance of this slope would have the potential for significant negative impacts on the stream water quality nearby and below.

Response: Upon review of existing data and discussions with field staff, VTDEC concurs that the extended reach of Big Spruce Brook from river mile (RM) 0.3 to RM0.8 should only be identified as impaired by iron. However, since at this time there appears to be no feasible remediation measures, the extended reach will be removed from consideration under the existing Water Quality Remediation Plan and the reach will be listed on Part A 303(d) List of Impaired Waters. Without feasible actions under the WQRP, there is no longer justification to expect remediation measures to restore the impaired reach, and therefore no justification for listing on Part B.

Listing action – list the extended reach (RM0.3 – RM0.8) of Big Spruce Brook on Part A for iron only.

2. Comment: [GMP] On behalf of Green Mountain Power, I am writing to provide comments on the draft 2016 303(d) list, with respect to the new listing of Mollys Brook on the 303(d) list of impaired waters, Part A –surface waters in need of a TMDL. Our opinion is that the monitoring data from the Brook do not meet the criteria for listing as impaired, pursuant to the Vermont Surface Water Assessment and Listing Methodology. Furthermore, even if an impaired listing were justified, the Brook should be listed on Part B, because existing pollution control requirements are expected to address all water quality issues, and the Water Quality Standards are expected to be attained in a reasonable period of time.

First, regarding the criteria for listing a stream as impaired, the Vermont Surface Water Assessment and Listing Methodology (March 2016) specifies that two successive years of data are to be used to determine an impaired condition. However, only one year of data, from the fish population study that VHB and the Vermont ANR conducted in 2015, is available to-date. The Methodology states that "generally, biological data indicating non-attainment from the previous two or more successive samples are necessary in order to determine this condition."

Secondly, existing State requirements are expected to address all water quality issues, and the Water Quality Standards are expected to be attained in a reasonable period of time. GMP and the Vermont ANR signed a Memorandum of Agreement ("MOA") in 2012 regarding the Mollys Falls Hydroelectric Project, which is believed to be contributing to existing water quality conditions in Mollys Brook. The MOA stipulates that in the short-term, prior to March 2017 GMP will work in good faith to provide increased flows into the bypass region of Mollys Brook (where the 303(d) listing is concerned). In the long-term, GMP has proposed to implement a system for minimum flows in this reach to be increased over 400 percent above existing conditions on a permanent basis. The planned increased bypass flows, both interim and permanent, are expected to achieve compliance with the Vermont Water Quality Standards by introducing aerated low temperature water into the brook in order to provide acceptable temperatures, while also continuing to meet the DO criteria, as detailed in an extensive study report that VHB provided to the ANR in March 2016. Thus, if Mollys Brook were to be added to any list, which we believe it should not, it should be placed on the Part B list rather than the Part A list. We believe that no changes should be made to the Mollys Brook listing and that it should remain only on the part F list.

It is important to note that GMP voluntarily entered into the MOA as part of a plan that GMP initiated to upgrade the Mollys Falls Hydroelectric project, and GMP sponsored the extensive studies of water quality and aquatic biota that are now apparently being used as the basis for this draft TMDL listing. GMP has already committed to improving water quality conditions at this project.

Response: The stream reach in question is currently listed on the 2014 Part F (Waters Altered by Flow Regulation) where it is considered in non-compliance with Class B VT Water Quality Standards (VTWQS) due to a significantly reduced flow caused by the

manipulation of flows to the bypass reach. Recent investigations have further refined the lack of compliance to include the impact of elevated temperature.

Two sources of data were utilized to further refine the temperature impacts. First, decisions made regarding the secondary contact impacts relied mainly on a Department of Fish and Wildlife memo dated 2/25/2016, "Molly's Brook wild trout and temperature evaluation". This memo describes a two-year investigation (2014-2015) whereby stream temperatures and trout populations were measured above and below the reservoir. Both temperature and trout population monitoring revealed dramatic impacts to downstream conditions. Temperature monitoring revealed that downstream maximum temperatures far exceeded upstream maximum temperatures to a point of negatively effecting wild trout populations. Trout populations closely reflected temperature metrics whereby upstream sampling showed consistently high densities of trout populations while downstream stations revealed very poor wild trout populations.

Second, with regard to the aquatic life use impairment, fish community monitoring data from 2015 was used as the primary supporting evidence. Two upstream stations and two downstream stations were sampled in 2015 and assessed according to Division biomonitoring protocols. The two upstream sites on Molly's Brook at Lovely Rd. and the Route 2 Bridge had fish population assessments of "Very Good" and "Excellent" respectively. The downstream sites' assessments at Porter Road and the Route 232 bridge were "Fair" and "Poor" respectively. According to assessment protocols, assessments of "Fair" or "Poor" indicate non-compliance with the Class B water quality standards for aquatic life use support.

As noted in the comment, the Division's Assessment and Listing Methodology for aquatic life use support non-compliance states that "generally, biological data indicating non-attainment from the previous two or more successive samples are necessary in order to determine this condition." However, in instances such as this with overwhelming evidence of a drastic decline in fish community health above and below a noted cause, listing can result from a single years' data. Additionally, temperature and trout data from a separate two-year investigation directly support the aquatic life use impairment determination in that the cause of the impairment is due to temperature and that without intervention, the stressor causing the impairment is likely present on an annual basis.

Upon initial assessment and subsequent draft 303(d) List preparation, it was proposed that this stream reach be listed on Part A (303d List) due to temperature. However, upon further review of the data it appears that the temperature impacts are directly related to operations of the dam and specifically to the manipulated and restricted flow to the bypass reach. In this case, it is appropriate for the altered water to be placed (or in this case, remain) on Part F and this reach will not be proposed for Part A listing.

The department continues to support the process outlined in the Memorandum of Agreement, as signed by the VTANR Secretary on September 20, 2012, and believes it is the most expeditious way to remediate the deleterious temperature increases associated with the controlled discharge from Molly's Brook dam outfall. By working through the described process in the MOA, enforceable mechanisms will be put in place whereby the stream reach will come into compliance with the Class B VTWQS.

Listing action – remove this reach from the proposed Part A and retain on Part F with acknowledgement of temperature impacts.

Other Priority Waters List Comments: none received