



The State of New Hampshire  
**Department of Environmental Services**



**Robert R. Scott, Commissioner**

**NHDES Response to Comments and List of Substantive Changes for  
WQC # 2019-404P-001 regarding the  
Bellamy River Artificial Recharge Facility in Dover, NH  
June 19, 2020**

**Response to Comments**

The New Hampshire Department of Environmental Services (NHDES) received comments from one person for draft Water Quality Certification (WQC) # 2019-404P-001 regarding the Bellamy River Artificial Recharge Facility in Dover, NH. A copy of the comments and NHDES' response are provided below followed by a list of substantive changes made since the draft WQC was issued for public comment.

**A. Comments (paraphrased) from Virginia Kristl, resident of Sawyer Mill Apartments adjacent to the Bellamy River in Dover, NH** (A complete copy of Ms. Kristl's comments is provided in Attachment 1.)

Two dams were recently removed from the the Sawyer Mill complex on the Bellamy River with hopes that removal would encourage migration of eels and diadromous fish upriver to spawn. Elvers have been observed upriver of the old dam sites, though many landed on rocks due to the low water level. Paragraph D-21 states that in the area of construction, two threatened species and one species of "special concern" have been noted. And as noted in D-22: abundance and diversity of fish were low, though the American Eel, a N.H. species of "Special Concern" were found by the New Hampshire Fish and Game. At present, the river is extremely low-- river bottom is exposed along both banks and even where there is water, it is only inches deep. My concern, and that of many residents here, is that the river cannot afford to lose any more flow without endangering that of the species who live here--not only the elvers, but the other wildlife which include aquatic birds, amphibians and reptiles. How can the City remove water from the Bellamy, which will, by definition, lower the water level and yet NOT expect it to cause change and possible harm to the natural habitat downstream? Has this study adequately assessed the effects of this project downstream?" How will the proposed project affect the water level of the river once it gets to my area—where the river goes under route 108?

**NHDES Response:** NHDES shares the commenters concerns that the proposed withdrawal leaves sufficient water in the Bellamy River to support aquatic life especially since removal of the two Sawyer Mill dams may now allow diadromous fish to migrate further upstream. This is exactly why Condition E-13 (Fish Passage) was included in the Water Quality Certification (WQC). In general, this condition states that if the NH Fish and Game Department (NHFGD) identifies conditions downstream of the withdrawal where fish passage could be a concern, the Applicant will develop a plan to monitor the location(s) for NHFGD and NHDES for approval and then implement the approved plan. There is no limit of how far downstream NHFGD may investigate. Target fish species include the American eel (*Anguilla rostrata*), potential anadromous fish which include alewives, blueback herring and shad (*Alosa* Spp.) and fallfish (*Semotilus corporalis*). NHFGD will then review the monitoring results and submit its findings and recommendations to NHDES and the Applicant. If NHDES concurs with NHFGD that additional withdrawal limitations are necessary to provide fish passage, NHDES will notify the Applicant in writing and the Applicant shall then update the Operations and Reporting Plan (ORP) and implement the revised ORP in accordance with Condition E-16 of the WQC. Instead of altering withdrawal operations, the

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Applicant may instead propose instream habitat improvements to maintain/improve fish passage but may only implement the habitat improvements after receiving approval from NHDES and NHFGD and after obtaining all necessary permits (such as NHDES wetlands permit).

As explained in Finding D-30, the amount of water that can be withdrawn varies depending on the upstream river flow and month with a maximum of 1.78 cubic feet per second (cfs). The Bellamy River “trigger” flows used to establish when and how much water can be withdrawn are based on a “natural” hydrograph (i.e., a relationship of flow and time that is intended to be representative of a system that is not influenced by humans). The maximum percent of the upstream river flow that can be withdrawn (assuming there are no fish passage issues) varies from 4 to 15 percent depending on the month (Table 5 of Finding D-30). When upstream river flows are below the level at which the maximum can be withdrawn, the volume (and percentage of the river) that can be withdrawn decreases. It is believed that these withdrawal restrictions, coupled with the Condition E-13 regarding fish passage (discussed above), will provide adequate habitat and be protective of aquatic life. That said, should violations of New Hampshire surface water quality standards be found (which includes support of aquatic life – see Finding D-7), NHDES may amend the WQC and add additional terms and conditions, as necessary, to ensure compliance with the State surface water quality standards.

With regards to the low flows in the Bellamy River recently observed by the commentor, many rivers throughout much of the State are currently below normal due to lack of precipitation. For example, river flow in the nearby Oyster River on June 15, 2020 ([U.S. Geological Survey gage # 01073000](#)) was 1.65 cubic feet per second (cfs) which is well below the long-term median flow on this date of 8.5 cfs.

#### **B. Substantive Changes Made Since the Draft Water Quality Certification Was Issued for Comment**

There were no substantive changes made to the Water Quality Certification since a draft of the Certification was issued for public comment:

**Attachment 1**  
**Ms. Virginia Kristl's Comments**

Email received on June 5, 2020.

"Dear Mr. Comstock,

I live on the Bellamy River in Dover—at Sawyer Mill Apartments. We have just suffered though 2 years of dam demolition required by the state. The two dams were part of the mill complex. My question to you is how will the proposed project affect the water level of the river once it gets to my area—where the river goes under route 108?

I appreciate your time,  
Virginia Kristl, APRN"

Letter dated June 14, 2020

"Dear Mr. Comstock,

Thank you for this opportunity to comment on the Bellamy Recharge Facility Project. As a resident of Sawyer Mill Apartments in Dover, I have daily opportunity to observe the Bellamy River throughout the seasons. As you may know, Sawyer Mill straddles the Bellamy River. In fact, my apartment is the southernmost in the complex, giving me an unobstructed view of the river below as it flows south toward the bay.

Two dams were removed from the Sawyer Mill complex over the last two years. One reason cited was for safety, but the other reasons were environmental and included the hope that the removal of the dams would encourage the migration of eels and diadromous fish upriver to spawn. And, indeed, this year some residents noted elvers upriver of the old dams sites, though many landed on rocks due to the low water level.

Paragraph D-21 states that in the area of construction, two threatened species and one species of "special concern" have been noted. And as noted in D-22: abundance and diversity of fish were low, though the American Eel, a N.H. species of "Special Concern" were found by the New Hampshire Fish and Game.

At present, the river is extremely low--river bottom is exposed along both banks and even where there is water, it is only inches deep. My concern, and that of many residents here, is that the river cannot afford to lose any more flow without endangering that of the species who live here--not only the elvers, but the other wildlife which include aquatic birds, amphibians and reptiles.

The proposal is technical and beyond the ability of the layperson to understand, but my concern is quite simple: How can the City remove water from the Bellamy, which will, by definition, lower the water level

June 16, 2020

Page 4 of 4

and yet NOT expect it to cause change and possible harm to the natural habitat downstream? Has this study adequately assessed the effects of this project downstream?"

Sincerely,

Virginia Kristl"