



To: Jay Peak WQRP Project File

Date: July 27, 2022
Project #: 57201.17

Memorandum

From: Thomas Bryce, CPESC
Robert Wildey, PE, CPESC

Re: Jay Peak Resort
2022 Water Quality Remediation Plan Update

In accordance with the terms of the 2015 Settlement Agreement with the Vermont Natural Resources Council ("VNRC") and the Vermont Department of Environmental Protection ("DEC"), Jay Peak Resort ("Jay Peak" or "Resort") is required to periodically update the Jay Peak Water Quality Remediation Plan ("WQRP"). The purpose of these updates is to identify any new proposed development activities as well as sediment reduction measures and other best management practices ("BMPs") that are required if stream segments identified in the Settlement Agreement did not meet interim or attainment biocriteria targets during the previous year's monitoring. No additional development is proposed at the Resort at this time. However, as described below, the 2021 monitoring results trigger the need for the WQRP to be amended through the implementation of additional BMPs. This document describes the proposed amendment components and provides the required information for consideration and review under the ANR Procedure for Water Quality Remediation Plans (2015).

2021 Monitoring Results

As reported in the 2021 Performance Report of the Water Quality Monitoring Plan report dated May 26, 2022, biomonitoring results at all streams other than the Tributary 9 to Jay Branch ("Tributary 9") and Tributary 3 to South Mountain Branch ("Tributary 3") continued to meet the biomonitoring criteria for aquatic biota in 2021. The Tributary 9 monitoring station previously met the biomonitoring criteria for 4 years prior to the replacement in 2020 (by VAST volunteers) of an undersized bridge that was retain sediment upstream from the monitoring station. In the two years since that bridge was replaced with a larger, channel-spanning structure, previously-retained sediment has been migrating through the sampling reach, resulting in macroinvertebrate densities below the Vermont Water Quality Standards for Class B waters. These impacts are not associated with Resort operations and this temporary condition is anticipated to resolve itself without further intervention as the sediment clears the area. The Tributary 3 compliance station that is referenced in the Settlement Agreement ("SMB-T3-0.1") was not in attainment with the Vermont Water Quality Standards for Class B waters due primarily to the low density of macroinvertebrates when it was sampled during the 2021 index period. For this reason, additional measures are proposed to be implemented within the Tributary 3 watershed. These measures are described in more detail below.

2021/2022 Remediation Projects

With respect to reaching attainment results at Tributary 3 of South Mountain Branch, VHB recommends the following BMPs as measures to continue improving water quality in the South Mountain Branch.

- Continued implementation of sediment-control BMPs, including cleaning swales and catch basins, managing runoff from the winter sand storage area, and evaluating paving options for parking lots and roadways within the watershed (ongoing).
- Installation of an improved sediment containment system for sand stockpile located at the Stateside Maintenance Area. This system will be comprised of a post and plank system lined with filter fabric for water seepage (completed July 20, 2022).

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- Reconfigure the gravel bunker in the 242 Parking Lot and construct a swale along the south end of the parking lot that will connect to the existing swale along the east side of the parking lot. This new practice will collect stormwater that was otherwise not receiving treatment and will direct that flow to the StormTrap sediment system at the north side of the parking lot (completed July 15, 2022).
- Implementation of a "Large Scale BMP" in the South Mountain Branch Tributary 3 Watershed, as required by the Settlement Agreement. VHB recommends that this BMP be comprised of an upgraded stormwater management practice for the 242 Parking Lot that is compliant with DEC General Permit 3-9050. Timing of the construction of the practice is to be determined based on the necessary design, permitting and funding considerations, as outlined in Table 1 below:

Table 1. Timeline and Steps to Compliance under General Permit

Milestone	Deadline	Description
Initial Notice of Intent ("NOI")	June 1, 2022 (submitted and currently under review by DEC)	File "Initial NOI" consisting of an estimate of the impervious surface, identification of any existing stormwater permit authorizations, identification of any existing Act 250 Permits, and map of approximate existing impervious surfaces.
Final Notice of Intent	December 1, 2023 (Date approximate; specified by GP 3-9050 as 18-months following DEC signing of initial NOI response authorization)	The Final NOI will consist of all required technical supporting information, including site plans, EFA, stormwater system design, and any applicable stormwater impact fees. A licensed engineering consultant is required to prepare the EFA. The analysis that has been done by VHB and is summarized in this memo will provide a foundation for the EFA.
Construction of Stormwater Treatment	December 1, 2028	Construction of stormwater treatment measures with 5 years of acceptance of the EFA (prior to the next renewal).

2022 Monitoring Modifications

Jay Branch stations JB-9.1 (DEC #427800000091) and JB-7.3 (DEC #427800000073) are located on the main stem of Jay Branch and have been monitored annually by the Resort since 2012 and 2008, respectively. For the past six years, both sites have been fully in attainment with the VWQS and the Jay Branch was delisted from the 303(d) list. Because no additional development activities are proposed within the Jay Branch watershed at this time, it is proposed to discontinue monitoring for substrate, macroinvertebrates, and base flow, storm event, and winter melt water chemistry analysis at these stations as of the 2022 index period. Monitoring is proposed to continue within Tributary 9 (JB-T9-0.1) and at JB-8.3 (downstream from the confluence of Tributary 9 with the Jay Branch) until Tributary 9 has

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returned to attainment with VWQS. At this time, no changes are proposed to the monitoring stations within the South Mountain Branch watershed.

Summary

As required by the terms of the Settlement Agreement, this proposed update to the Jay Peak WQRP update identifies the adaptive management measures that have been or are proposed to be implemented by the Resort, as well as presenting additional monitoring activities that will be undertaken moving forward. If approved, these improvements will be implemented in 2022 with the goal of meeting attainment in Tributary 3 and the other streams at the Resort.

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