Water Quality Certification #2015-006
Under 33 U.S.C. § 1341
For the Hermitage Club at Haystack Mountain

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION

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I. INTRODUCTION

Pursuant to Section 13.11 of the Vermont Water Pollution Control Permit Regulations (February 26, 1974) (VWPCPR) and the Vermont Agency of Natural Resources' (Agency) Section 401 Water Quality Certification Practice (October 22, 2014), the Secretary of the Agency of Natural Resources (Secretary) has reviewed a Water Quality Certification (WQC) application submitted August 14, 2015, filed by Harrington Engineering, Inc. and revised November 29, 2016 on behalf of Hermitage Inn Real Estate Holding Company, LLC (Applicant), for the Hermitage Club at Haystack Mountain Project (Project). A WQC is required under Section 401 of the federal Clean Water Act. Pursuant to 33 U.S.C. § 1341, an applicant for an Individual Section 404/Section 10 Permit from the U.S. Army Corps of Engineers (ACOE) must also obtain a WQC from the State.

II. FINDINGS

A. Project Summary

The Project consists of the construction of infill development at the existing ski area on Haystack Mountain to create a year-round resort at 10 Gate House Road in Dover and Wilmington, Vermont. The area of the Project is 803 acres: 608 acres owned and 195 acres leased. The area of the watershed in which the Project is located is 3,040 acres of mountainous terrain, with variable elevations and slopes ranging from 0 to 25%. The Project will impact the Cold Brook tributary to the North Branch of Deerfield River, and Oak Brook and Haystack Brook, tributaries to Cold Brook. The Project will create a 3% increase in impervious area on the Project site– from 4% (~31 acres) to 7% (~55 acres) upon full build out.

The purpose of this project is to rehabilitate the existing ski area at Haystack Mountain and Hermitage Inn lands into a year-round resort, which will include ski lifts, adequate snow-making facilities, recreational trails, approximately 550 residential homes, new Club House and amenities. The Project includes the construction of snowmaking piping, snowmaking pond enlargement, new maintenance building, 550 residential units, new ski lifts, and outdoor recreational facilities. The residential components of the project include: Stag's leap, Rushing Creek Homes, Chamonix Village, Upper Mountain Trailside, and 3 hotels. Appendix 5 of the application for this Certification contains the project elements and phasing plan to which this Certification applies.

B. Water Resources: Current Condition and Impact Description

1. Wetlands

There are wetlands impacted by the Project. All Class II and Class III wetlands associated with the Project (approximately 80 wetlands) have been delineated and surveyed. The total wetland resources and their associated 50-foot buffers cover a total of 8.04 acres of the Project.

Most wetlands are forested hill side seepages important for water quality protection and wildlife habitat. Wetlands associated with streams provide erosion control, flood storage and fish habitat functions as well as wildlife habitat. In addition, some wetlands, located in basins, provide stormwater storage. Some may have rare or threatened plants within them or in their buffer zone.

There are wetland resources impacted by the Project that require a Vermont Wetland Permit. Some of these impacts are authorized via Vermont Wetland Permit #2016-328 (Table 1), whereas other impacts have not yet been authorized. The Application's table "Haystack Mountain wetland and stream impact summary table ANR" on "Haystack Plan CW 100, revised November 4, 2016" prepared by Harrington Engineering states that a total of 1.48 acres of buffer impacts and 0.85 acres of wetland impacts are proposed in total, if able to obtain permits in the future, including Wetland Permit #2016-328. Presently authorized impacts are summarized by Table 1.

Table 1 – Summary of Class II Subject Wetland Impacts (square feet) in Wetland Permit #2016-328

Wetland Complex ID	Wetland ID	Impact Description	Wetland Impacts (square feet)	Buffer impacts (square feet)
332 complex includes A8, 331, 330, 316, 315, 317, 318	332	Building Construction	0	3,319
340/343/515 complex includes 341, 342, 345, 511, 513	340	Building, Road, Driveway, Utilities & Trail construction & grading	0	3,684

	343	Roadway construction	0	2,040
	515	Roadway construction	0	5,727
359	359	Roadway construction	0	1,612

Pursuant to 10 V.S.A. § 914 and the Vermont Wetland Rules, Class III wetlands are those wetlands that do not provide significant functions or values at a level that warrants protection under the Vermont Wetland Rules (2010), and as such, activities in Class III wetlands do not require a state wetlands permit. These wetlands have no designated uses (e.g., fishable, boatable, swimmable) nor do they provide significant wildlife habitat. The Class III wetlands located on this Project are typically very small seeps, often on developed ski trails, or fringes along headwater streams. There are impacts to Class III wetlands, described in the ACOE Table of the Hermitage Wetland Impacts Summary Table for Haystack Mountain (Haystack Plan CW 100, dated November 2016, revised November 4, 2016) totaling 21,714 square feet of direct grading impact, 3,033 square feet of tree clearing, and 58,112 square feet of "high level indirect impact" within 50 feet of Class III wetlands.

2. Streams

There are streams impacted by the Project, located in the Cold Brook watershed, within the North Branch of Deerfield River. All pertinent streams and stream banks have been delineated and surveyed, including Cold Brook tributaries to the North Branch of the Deerfield River and Oak Brook and Haystack Brook tributaries to Cold Brook. The watershed area of the Project is 3,040 acres, involving 260 acres of disturbed area – 6.6% of the total watershed area. As indicated in Exhibit 131 (ANR Item 3 SBRMP), 0.89 acres of primary (grading and tree clearing) and 4.98 acres of riparian buffer impacts are anticipated.

The following is a list of physical impacts to streams resulting from the Project:

1. New concrete bridge with open bottom for roadway,
2. Replace existing culvert with open bottom arch culvert for roadway and trail,
3. Replace existing culvert with open bottom arch culvert for hotel fill & trail,
4. Replace existing culvert with open bottom arch culvert for roadway,
5. New bridge crossing for Hermitage Inn lots,
6. New open bottom arch culvert for roadway,
7. New open bottom arch culvert for ski trail,
8. New bridge crossing for the Ratheau Lot,
9. Cold Brook withdrawal upgrades, and
10. Possible Mirror Lake expansion.

There are also expanded snowmaking operations proposed. An existing water withdrawal structure on Cold Brook impounds water for snowmaking. The snowmaking intake is permitted to operate with a conservation flow of 0.58 cubic feet per second per square mile of drainage area (csm). The intake feeds an existing 14.6 million-gallon reservoir known as "Mirror Lake."

The applicant proposes to expand snowmaking coverage from 127.4 to 193.3 acres. As proposed, the first phase of snowmaking expansion would increase coverage to 154.4 acres and upgrade the Cold Brook withdrawal after Mount Snow ceases usage of Mirror Lake. Further expansion may include increasing snowmaking coverage to 193.3 acres, enlarging Mirror Lake to increase its capacity to 28.4 million-gallons, and construction of an additional 22 million-gallon storage reservoir. Since this is a private resort with limited membership, it is expected to have a lower volume of skier usage compared to other ski resorts. Therefore, the water needs for snowmaking capacity are hard to predict. The Applicant proposes to analyze the need for snowmaking water withdrawals at Haystack Mountain and pursue the changes described above as needed after that period. During the interim, the Applicant proposes to continue using the existing Cold Brook source as its only water withdrawal location to ascertain whether additional snowmaking infrastructure is necessary. Additional snowmaking infrastructure, including increased snowmaking coverage, an increase in withdrawal

capacity, or the addition of new storage capacity or new sources of water will need to be reviewed and permitted by the Agency prior to construction.

3. Lakes

The Project proposes development within and around Mirror Lake, including a beach area to facilitate recreational activities including kayaking, boating and fishing. Public access is allowed at Mirror Lake though this does not occur on a large scale.

C. Vermont Water Quality Standards

4. Physical, Chemical, and Biological Conditions

In accordance with 10 V.S.A. Chapter 47, through Vermont's Water Quality Standards (VWQS) the Agency established classifications of all Vermont waters, and those waters are managed by the Agency in order to obtain and maintain these classifications. The VWQS apply to all "waters of the United States" as defined in 40 C.F.R. § 122.2 (1995). Pursuant to the applicable VWQS (effective October 30, 2014 or January 15, 2017), all waters above 2,500 feet in elevation are designated Class A(1). All waters below 2,500 feet elevation are Class B. The Project will affect both Class A(1) and Class B waters.

Class A(l) (ecological) waters are managed to achieve and maintain waters in a natural condition that provides recreational opportunities of the highest quality; supports habitat for aquatic biota, fish and wildlife; displays aesthetic value that is consistent with waters in their natural condition, and meets established Water Quality Criteria for Class A(1) Ecological Waters (VWQS § 3-02(A)).

Class B waters must be managed to achieve and maintain a level of water quality that fully supports a range of uses, including aquatic biota, wildlife, and aquatic habitat; aesthetics; public water supply with suitable treatment and disinfection; irrigation of crops and other agricultural uses; swimming and other primary contact recreation; boating, fishing, and other recreational uses, and meets established Water Quality Criteria for Class B Waters (VWQS § 3-04).

5. Fish, Aquatic Biota, and Wildlife

Areas within the Project contain habitat for fish, aquatic biota, and wildlife. No rare, threatened, or endangered wildlife species have been identified in the Project area. The Applicant has conducted an environmental assessment of the Project area, which included the development of a map of natural communities and a rare or irreplaceable natural areas assessment. Results of these assessments are contained by the Findings of Fact and Conclusions of Law for Act 250 Land Use permit 700002-25.

6. Recreational and Land Uses

The Project will enhance existing recreational uses including as skiing, hiking, wildlife observation, and other recreation.

Land uses within the watershed generally includes silviculture, commercial and residential development, commerce, transportation, and tourism, and will either be unaffected or enhanced by the Project.

III. ANALYSIS

Before a Water Quality Certification can be issued, the Agency must find that there is reasonable assurance that the proposed activity will be conducted in a manner that will not violate applicable Water Quality Standards (VWPRCP Rule 13.11(g)(3)). Compliance with the Vermont Water Quality Standards requires that Class A(1) waters be managed to achieve and maintain the waters in a natural condition compatible with certain designated uses, and that those waters meet established water quality criteria. Similarly, Class B waters must be managed to achieve and maintain a level of quality that fully supports certain uses, and that meets established water quality criteria. Additionally, all waters must be managed in compliance with Vermont's anti-degradation policy, which requires that existing uses of waters and the level of water quality necessary to protect those existing uses shall be maintained and protected regardless of the water's

classification. The Agency will consider the following factors in determining that there is reasonable assurance the VWQS will not be violated:

A. - Regulatory Requirements

1. Act 250 Land Use Permit

The Agency is a statutory party to all Act 250 permit application proceedings. The Agency participates in technical review of large scale development projects reviewed by Act 250 District Commissions. District Environmental Commission #1 issued Land Use Permit #700002-25, pursuant to the authority vested in it by 10 V.S.A. §§ 6001 – 6093. LUP #70002-25 constitutes partial findings of fact and conclusions of law on a proposed Master Plan. Individual construction projects will require separate Act 250 permit applications and the Applicant will need to demonstrate conformance with criteria which were not granted affirmative findings in the Partial Findings of Fact and Conclusions of Law and Order issued on February 16, 2017. The Agency has provided evidence and recommendations regarding the Project's impacts on natural resources and the environment.

2. Stormwater Discharges

Stormwater discharge permits were issued in accordance with the following state and federal laws and rules: Federal Water Pollution Control Act's (a.k.a. the "Clean Water Act," 33 U.S.C. 1251 et seq.) National Pollution Discharge Elimination System (NPDES); the Vermont Water Pollution Control statutes 10 V.S.A. Chapter 47, including §§ 1258, 1259, 1263, and 1264; the Vermont Water Pollution Control Permit Regulations (Vermont Environmental Protection Rules Chapter 13); and the Vermont Stormwater Management Rule for Non-Stormwater Impaired Waters (Vermont Environmental Protection Rules Chapter 18).

The Project will create regulated impervious surfaces. The Agency issued an amended authorization to discharge under General Permit 3-9015 for new discharges of stormwater runoff to waters of the State of Vermont that are not principally impaired by regulated stormwater runoff (GP 3-9015), with a subsequent Notice of Intent (NOI) under that permit (NOI #4245-9015.1A4) to reflect modifications made by the Applicant to the Project in response to Agency concerns articulated in the Act 250 process.

The Project will result in earth disturbance from construction-related activity. The Agency issued an amended Individual Construction Discharge Permit (4245-INDC.1A3) to discharge construction stormwater into receiving waters on the Base Tract to cover the following: the Upper Base Lodge Area, Summit Rescue Building, Stag's Leap, Kingsley House, Mountain Cabins, Six Pack Ski Lift, Beginner Ski Slope (base lodge area), Lot D West, Waterline Ext. 2014, Chamonix Village Addition, Grenoble Way and Chamonix, Hotel Hermitage, Kingsley horse barns and [Kingsley] bridge and Fannie Hill Paving. As new construction sites are included in the development, these permits shall be amended to cover discharges from new sites. The INDC (4245-INDC.1A3) limits concurrent disturbance to a maximum of five acres at any given time. Compliance with the conditions of the listed permits will provide reasonable assurance that stormwater discharges from the project site to not result in a violation of the VWQS.

3. Wastewater Discharges

Wastewater from development within the Base Tract will be treated at the Cold Brook Fire District (CBFD) municipal treatment plants, and disposed of through spray irrigation systems on existing land, plus direct discharge to the North Branch Deerfield River through an existing piping network after the approved spray irrigation system discharges have been maximized. The Vermont Indirect Discharge Rule requires permits for land-based, sewage disposal facilities with design flows of greater than 6,499 gallons per day. The Agency issued Discharge Permit(s) # ID-9-00006/ID-9-0027/VT0101214 to the CBFD that renewed an existing approval to discharge up to 28,000 gallons per day (GPD) of treated sewage to the North Branch of the Deerfield River after maximizing the approved spray irrigation system discharges at the Haystack Base Area and the Haystack Golf Course. The Applicant has an agreement with CBFD to provide funding for upgrades to both the wastewater and water systems to accommodate for the Project, in which estimates of an additional 120,000

gallons per day of wastewater and 150,000 gallons per day of potable water will be needed for complete build-out.

4. Wetlands

Vermont Wetland Permit #2016-328 authorizes impact to 0 square feet of Class II wetlands and 16,382 square feet of adjacent 50-foot buffer zone. The wetlands and adjacent 50-foot buffer zones are located on Haystack Mountain; Wetland 332 is approximately 280' southwest of Fannie Hill Road and 60 feet northeast of Stag's Leap Phase II Building; wetlands 340, 343, and 515 are part of a complex of wetlands located approximately 500 feet northeast of Fannie Hill Road/McGovern Lane; and wetland 359 is along an unnamed tributary to Cold Brook approximately 580 feet southwest of the Gate House Trail/Haystack Mountain Lane intersection.

The Class II wetlands that have not received a Vermont Wetland Permit are described along with the wetlands permitted for impact and Class III wetlands in the Applicant's table "Haystack Mountain wetland and stream impact summary table ANR" on "Haystack Plan CW 100, revised November 4, 2016" prepared by Harrington Engineering. Additional impacts to wetlands not covered by Permit #2016-328 will require coverage by one or more subsequent Vermont Wetlands Permits.

A total of 0.85 acres of wetland impacts and 1.48 acres of buffer impacts would occur, as shown by "Haystack Mountain wetland and stream impact summary table ANR" on "Haystack Plan CW 100, revised November 4, 2016" prepared by Harrington Engineering. Most of the potential Class II wetland impacts relate to the possible expansion of Mirror Lake, which is dependent on completion of both the requisite Needs and Alternative Analysis (NAA, discussed below under Streams and Stream Flow) and the Vermont Wetland Rule's Avoidance and Minimization sequencing.

During the design process, the layout was modified to decrease the overall wetland and wetland buffer acreage impacted. The wetlands mitigation sequence, as described in Section 9.5 of the Vermont Wetland Rules, was applied to the proposed project; whenever possible, impacts to Class II wetlands were avoided. When impacts could not be avoided, steps were taken to minimize impact, and mitigate impact to the important functions and values of Class II wetlands.

The Class II wetlands that have not received a Vermont Wetland Permit are described along with the wetlands permitted for impact in the Applicant's table "Haystack Mountain wetland and stream impact summary table ANR" on "Haystack Plan CW 100, revised November 4, 2016" prepared by Harrington Engineering. Before any additional work can be done that will impact a Class II wetland or its buffer zone, the Applicant must apply for a wetland permit authorizing the impact.

5. Streams and Stream Flows

The Project will affect streams and stream flows. As indicated in Exhibit 131 (ANR Item 3 SBRMP), 0.89 acres of primary (grading and tree clearing) and 4.98 acres of riparian buffer impacts are anticipated. The Agency has adopted a Stream Alteration Rule pursuant to 10 V.S.A. § 1027 and 10 V.S.A. Chapter 165. This Rule applies to stream alterations in both emergency and non-emergency circumstances. Pursuant to 10 V.S.A. § 7501, individual and general permits are required for stream alteration activities to ensure that all stream alteration activities are regulated efficiently and effectively in accordance with the requirements of 10 V.S.A. Chapter 41 and the Stream Alteration Rule. There are proposed temporary physical impacts to stream crossings involving the replacement of existing undersized round culverts with much larger, open arch culverts. All replaced crossings will comply with current Agency policies and regulations, including the "Stream Equilibrium" and "Aquatic Organism Passage" standards. Agency Stream Alteration Permits have been issued for the primary Oak Brook crossings.

The Agency has issued two Individual Stream Alteration Permits under 10 V.S.A. Chapter 41. Permit #IND-07-0002 authorizes the Oak Brook Chamonix Trail Crossing, which is a replacement of an undersized culvert with a bank full width structure. The other is permit #SA-07-001-2016, which authorizes the so-called Oak Brook Upper Three Crossing, involving the replacement of two undersized culverts with three new bank full width structures. The Agency finds that the new bank full width crossing structures will support aquatic habitat by attaining the Stream Equilibrium and Aquatic Organism Passage standards. These stream restoration activities will promote higher quality habitat, and ensure maintenance of designated uses.

The Agency has adopted the Water Withdrawals for Snowmaking Rule (Environmental Protection Rule Chapter 16, "Snowmaking Rules") pursuant to 10 V.S.A. Chapter 41, which governs the use of the state's waters for snowmaking. The Snowmaking Rules establish the February Median Flow (FMF) as the general standard for the winter flow limit (16-03(2)). The Rule specifies changes to existing systems that require an Agency determination of acceptable conservation flow (16-07). An Agency determination of acceptable conservation flow must be supported by an alternatives analysis to evaluate whether there is a reasonable and feasible alternative that would avoid or lessen the impact to the natural condition of the stream (Snowmaking Rules 16-05). The Rule requires that a schedule be included as a condition of expansion which shall provide for compliance with the FMF, but no sooner than is determined to be reasonable and feasible based on the results of the alternatives analysis. After July 1, 2000, the Agency may act to increase conservation flows at systems that do not expand.

The applicant has proposed expanding snowmaking at Hermitage Club, including increasing acreage of trail coverage, increasing withdrawal capacity, and the addition of new storage. These changes will require an Agency determination of acceptable conservation flow, which must be supported by a Needs and Alternatives Analysis (NAA). As such, this certification is being conditioned with a schedule that requires the development of such an analysis. Pursuant to Section 16-05, without an NAA, the Agency shall not approve snowmaking expansion, therefore expansion is not considered herein. Any future expansion will require Agency approval and may require permits for specific project components. This certification is being conditioned accordingly.

The current conservation flow at the existing Cold Brook intake, 0.58 csm, is less than FMF and does not comply with the general standard. The certification is conditioned, such that the NAA required will include a schedule for compliance with FMF. While expansion of the snowmaking system is not considered herein, the Agency understands the federal permit will consider expansion of the system and will require conservation flows equal to the FMF connected with expansion. Such a flow requirement will provide reasonable assurance that the Vermont Water Quality Standards are attained. If expansion is not pursued by the Applicant, the Agency may address the current conservation flow pursuant to 10 V.S.A. §1003.

In addition, the Project is designed to meet the applicable Acceptable Stormwater Treatment Practices as required by Chapter 18 and the Vermont Stormwater Management Manual – Volume I: Stormwater Treatment Standards, resulting in decreased frequency, volume, and flow rate of stormwater runoff that could otherwise destabilize downstream channels and increase pollutant loading into streams.

6. Lakes

Being private and less than 10 acres in size, Mirror Lake is not subject to regulation under 10 V.S.A. Chapter 49A – the Shoreland Protection Act. However, pursuant to 10 V.S.A. 43, the Agency approved an application (#2005-04a) to alter Mirror Lake dam for the purposes of expanding Mirror Lake (on September 12, 2007) to increase water storage for snowmaking. This expansion project was not completed by November 15, 2010; therefore, by permit condition the Applicant will submit revised plans and specifications to the Agency for consideration of an extension.

7. Stream Buffers

Buffer protections are conferred by provisions of the District Environmental Commission #1 issued Land Use Permit #700002-25, pursuant to the authority vested in it by 10 V.S.A. §§ 6001 – 6093. The Agency has

provided evidence and recommendations regarding the Project's impacts on stream buffers, pursuant to the *Guidance for Agency Act 250 and Section 248 Comments Regarding Riparian Buffers*.

8. Physical, Chemical, and Biological Water Conditions

Stormwater discharges have the potential to transport stormwater-related pollutants to receiving water, such as sediment and nutrients. Construction related stormwater discharges are known to contain increased levels of pollutants including sediment and nutrients. The best management practices (BMPs) and approved Erosion Prevention and Sediment Control (EPSC) plan required under the Individual Construction Discharge Permit (4245-INDC.1A3) are designed to prevent or minimize the discharge of these pollutants to receiving waters.

Furthermore, post-construction stormwater discharges from regulated impervious surfaces are known to contain increased levels of pollutants including sediment, nutrients, metals, and toxics. The post-construction stormwater management plan is designed to prevent or minimize the discharge of these pollutants to receiving waters. Post-construction stormwater discharges are also known to increase the total runoff volume associated with any rain event, resulting in an increase in the frequency of runoff and higher flows. These changes can result in stream channel erosion or adjustment. Peak stormwater runoff flow rates and velocities are known to increase because of increasing the percentage of impervious surfaces in a watershed. The resulting changes in volume, peak flow rates, and velocities over pre-development conditions are known to increase the potential for flooding problems downstream of the discharge, especially during large and relatively infrequent storm events. The approved post-construction stormwater management plan includes an array of BMPs that meet the "Channel Protection Treatment Standard," "Overbank Flood Protection Treatment Standard" criterion, and an "Extreme Flood Protection" criterion as defined in the Vermont Stormwater Management Manual, Volume I (VSMM). The BMPs are designed to mitigate and control the volume, peak flow rates, and velocities from the stormwater discharge from regulated impervious surfaces to prevent channel erosion and overbank and/or flooding conditions down drainage as a result of the 1-year 24-hour storm and 10-year 24-hour storm event up through the 100-year 24-hour storm event, respectively. In addition, the Applicant has completed a downstream analysis up through the 100-year 24-hour storm event to assess existing conditions and proposed conditions to demonstrate that the Project will not exacerbate known flooding conditions down drainage of the Project.

9. Fish, Aquatic Biota, and Wildlife

The Project will not result in permanent, impacts to fish, aquatic biota, or wildlife. Significant wetland dependent wildlife habitat has been identified on the project site, but the analysis of the Project's impact on that habitat is limited in scope (e.g. does not include Mirror Lake) to the activities identified within Wetland Permit 2016-328. Pursuant to Wetland Permit 2016-328, there will be no undue adverse impact to significant wetland dependent habitat. Any subsequent Vermont Wetland permitting needed to implement the 3 to 5-year plan of expanding Mirror Lake will be conditioned so that there is no significant permanent impact to wildlife and fish functions. Also, downstream fish, aquatic biota, and wildlife will not be significantly affected by the Project. The proposed stream crossings will result in localized, temporary impacts associated with installation. However, these impacts are expected to be limited to the immediate work area during installation.

10. Recreational and Land Uses

Recreation and land uses within the Project area are determined not to be significantly impacted. There are no water or wetland dependent recreational uses associated with the wetlands in the project area. Recreational uses downstream of the Project include fishing and boating (e.g. canoeing, kayaking), and will not be adversely affected.

B. Avoidance and Minimization

The avoidance and minimization of wetland and stream impacts was conducted. The scope of the analysis of wetlands avoidance and minimization is limited to the activities identified within Wetland Permit 2016-328. In issuing permit 2016-328, the Wetlands Program conducted an analysis of all practicable avoidance and minimization measures that could be taken to avoid impact to the wetland and buffer. The concentration of the residential and commercial development of the Project on Haystack Mountain minimizes dispersed, sprawl development.

Unmanaged stormwater discharges are known to contain increased levels of pollutants, including sediment and nutrients. The approved stormwater discharge management plans are designed to treat and control the discharge of these pollutants into all affected receiving waters in accordance with the VSMM, which results in the maintenance of criteria under the VWQS, and minimizes the discharge of stormwater to receiving waters pursuant to the treatment standards in the Vermont Stormwater Management Manual Volume I.

Stream channel alterations and crossings are being designed and implemented in accordance with provisions of the Stream Alteration General Permit, and two individual Stream Alteration permits. The protections conferred by conditions of these General and Individual permits results in the maintenance of the hydrology and aquatic life and habitat criteria under the VWQS.

C. Monitoring and Mitigation

The Applicant developed a Quality Assurance Program Plan (QAPP), and a water quality monitoring and biomonitoring plan, which was approved by the Agency on June 29, 2016. The Applicant has indicated that it will fully implement the approved QAPP and will continue to address all concerns identified by the Agency, including the passage of aquatic biota and fish on Oak Brook, Cold Brook, Haystack Brook, and their respective tributaries. Based on an assessment conducted June of 2015, the biological integrity of the watershed within the Project area was rated as "good to excellent" using standard Agency biological criteria.

Compensatory wetland mitigation has been arranged for the loss of the wetlands from the Project through the Army Corps of Engineers in-lieu Fee Program.

A riparian buffer management plan is to be completed through the Act 250 process. Adherence to this plan will result in the restoration of certain riparian buffers that were impacted by prior activities, and the protection of riparian buffers for streams within the project area. The riparian management plan also will serve as mitigation for the buffer impacts proposed by the project.

D. Application of the Anti-Degradation Policy

The VWQS § 1-03 includes the State's Anti-Degradation Policy. The Policy is implemented per the Agency's 2010 Interim Anti-Degradation Implementation Procedure (Procedure). Section X of the Procedure specifically applies to Section 401 Water Quality Certifications. The Agency has conducted an anti-degradation review in accordance with the Anti-Degradation Procedure. The Agency has evaluated the nature of the activities and discharges and the resulting potential effects of the pollutants that could possibly be discharged and affect aquatic biota and habitat, wildlife and plant life, recreational uses, and the existing physical, chemical, and biological condition of the Project's receiving waters.

1. Anti-Degradation Policy and Procedure

Under the Procedure, "[w]aters whose existing ambient water quality exceeds (i.e. is better than) the applicable minimum water quality criteria and indices for the class to which the waterbody is assigned shall be considered high quality water" (Procedure § X(F)(1)(a)). The Secretary is to "presume that all waters are high quality for at least one criterion and/or index for some portion of the year" (Procedure § X(F)(1)(c)). High quality waters require review under Tier 2 of the Procedure (Procedure § X(F)). Tier 2 requires that high quality waters "shall be managed to maintain and protect the higher water quality and minimize risk to existing and designated uses," and that "[i]n all cases, the level of water quality necessary to maintain and

protect all existing uses as well as applicable water quality criteria shall be maintained" (VWQS § 1-03(C)(1)). Under Tier 2 a limited reduction in the existing higher quality of high quality waters is only allowed if the Project satisfies the socio-economic justification test (VWQS § 1-03(C)(2); Procedure § X(F)(4)). A Tier 2 review of the Project is conducted below in Subsection D.2 of this Certification.

As provided in the Procedure, in reviewing an application "the Secretary shall determine whether the proposed discharge will result in a limited reduction in water quality in a high-quality water by utilizing all credible and relevant information and the best professional judgment of Agency staff" (Procedure § X(F)(2)(b)).

The Project does not affect any Outstanding Resource Waters as defined in 10 V.S.A. § 1424a, and therefore, does not require review under Tier 3 of the Procedure for the protection of Outstanding Resource Waters (Procedure § X(E)).

A separate Tier 1 review is not required for the Project because the maintenance and protection of existing uses and the level of water quality necessary to protect those existing uses is included in a Tier 2 review.

2. Automatic Satisfaction of Tier 2 Review

Under Section X(D) of the Procedure, certain permitted discharges and activities automatically satisfy a Tier 2 review, including:

a. "Discharges that meet the requirements of a BMP or treatment and control manual that takes into consideration anti-degradation requirements during its adoption." The project meets this requirement with respect to coverage under the stormwater program permits, issued in compliance with the Stormwater Management Manual Volume I.
b. "A discharge that is seeking authorization to operate under a general permit when the Tier 2 analysis is performed at the time of the development of the general permit." The project meets this requirement with respect to coverage under the stream alteration general permit.
c. "Discharges that result in no measurable reduction in the physical, chemical or biological quality of a surface water." The project meets this requirement as a result of coverage by an individual wetlands permits, the imposed water quality monitoring requirements, and riparian buffer management requirements.
d. "Stream alteration activities resulting in channel geometry and fluvial processes where bed and bank erosion are neither increased nor transferred to other stream locations, and where floodplain function is maintained or restored over time." Stream alteration permits provide the reasonable assurance that Water Quality Standards will be maintained.

Discharges on the Project site are covered under GP 3-9015, Notice of Intent (NOI) #4245-9015.1A4; the Vermont Water Pollution Control Permit Regulations, Individual Construction Discharge Permit #4245-INDC.1A3; and, Discharge Permit #01001214/ID-9-0006/ID-0-0027 to the Cold Brook Fire District #1 on June 27, 2014; therefore, satisfy the presumption in Section X(D)(1)(b) of the Procedure.

F. Limited Lowering of Water Quality

If the Applicant complies with the stormwater discharge permits issued by the Agency, the Section 404 Individual Permit, applicable wetlands permits including 2016-328, applicable stream alteration permits including SA #IND-07-0002 and SA-07-001-2016, and this Certification, no limited lowering of water quality within the receiving waters is anticipated from the Project.

G. Cumulative Impacts

If the Applicant complies with the stormwater discharge permits, the Section 404 Individual Permit, applicable wetlands permits including #2016-328, applicable stream alteration permits including SA #IND-07-0002 and SA-07-001-2016, the water quality monitoring plan, the stream riparian buffer management plan, and this

Certification, no cumulative impacts on water quality within the receiving waters are anticipated from the Project.

1. Water Quality

The Project will have no additional cumulative impact. The Project itself will not result in the degradation of the condition of the water, or affect existing and designated uses. The Project is expected to have impacts on water quality and fish and wildlife habitat, however impacts are expected to be temporary, limited to project construction, and limited to immediate work areas, and are not expected to result in violations of the VWQS. Water quality monitoring provisions are in place to verify ongoing attainment of VWQS.

2. Aquatic Biota and Fisheries

In the immediate area of construction, there may be a temporary impact on water quality, aquatic biota, and fisheries; however, impacts are expected to be temporary, limited to project construction and immediate work areas, and are not expected to exceed VWQS. Therefore, no cumulative impacts are anticipated. Monitoring provisions are in place to verify ongoing attainment of VWQS for aquatic biota and fisheries.

IV. CERTIFICATION CONDITIONS

The Secretary has examined the application, and this decision is based upon an evaluation of the information contained within the application and other pertinent information that is relevant to the Agency's responsibilities under Section 401 of the federal Clean Water Act. The Agency certifies that there is a reasonable assurance that construction and operation of the Project by the Applicant in accordance with all required state and federal permits as well as the following conditions will not cause a violation of the VWQS and will comply with sections 301, 302, 303, 306, and 307 of the federal Clean Water Act, 33 U.S.C. § 1341, as amended, and other appropriate requirements of state law. This Certification is granted pursuant to the following conditions:

A. The Applicant shall comply with all terms and conditions of this Certification.

B. The conditions of the following permits and stipulations are incorporated by reference as conditions of this Certification: GP 3-9015 Notice of Intent (NOI) #4245-9015.1A4; Individual Construction Discharge Permit #4245-INDC.1A4; Wetlands Individual Permit #2016-328; Stream Alteration Permits #IND-07-0002 and #SA-07-001-2016; and, all amendments and renewals thereto. The reasonable assurances provided by this Certification are contingent upon compliance with these permits.

C. Wetland and buffer impacts to Class II wetlands not addressed by Vermont Wetland Permit 2016-328 and that are not otherwise allowed uses pursuant to Section 6 of the Vermont Wetland Rules, are only authorized by this Certification contingent upon receipt of subsequent Vermont Wetland Permits, the total cumulative impacts for which shall not exceed the square foot impacts specified in Wetland Permit 2016-328 and the table "Haystack Mountain wetland and stream impact summary table ANR" found on "Haystack Plan CW 100, revised November 4, 2016", prepared by Harrington Engineering.

D. The Applicant shall not operate such facilities that are reliant upon an increase in instream wastewater discharge to 150,000 GPD until CBFD obtains Basis of Final Design approval and authorization to discharge treated wastewater in these amounts.

E. The Applicant shall analyze water use and need during the 2015/2016, 2016/2017, and 2017/2018 seasons in accordance with following schedule:

1. No later than July 1, 2017, the Applicant shall submit a preliminary report of water use and need that analyzes snowmaking data from prior years, including water withdrawn from Cold Brook and snowmaking usage;
2. No later than October 1, 2017, the Applicant shall submit a study plan for the Needs and Alternatives Analysis (NAA);

3. No later than July 1, 2018, the Applicant shall submit an updated report of water use and need; and,
4. No later than October 1, 2018, the Applicant shall submit a Needs and Alternatives Analysis. The NAA shall include a schedule for compliance with the FMF at the existing Cold Brook withdrawal.

F. No snowmaking expansion shall occur without an Agency determination of acceptable conservation flow. The applicant shall seek and obtain applicable permits for snowmaking improvements identified in the preferred alternative from the NAA prior to construction.

G. Final design plans of the proposed upgrade of the Cold Brook withdrawal or any proposed modifications to the existing Cold Brook withdrawal shall be subject to prior review and written approval by the ACOE and the Agency.

H. The Applicant shall give the Agency notice of the date on which construction of the project will commence, the date on which construction of the project will be completed, and the date operation of the project (if applicable) will commence.

I. The Applicant shall implement all monitoring activities articulated by their approved QAPP, and report results to the Agency's Monitoring, Assessment and Planning Program annually, no later than May 1st of the year following data collection. The Applicant shall implement the monitoring program pursuant to the QAPP annually, and for a minimum of two years after construction, until two years of post-construction monitoring documents full compliance with the VWQS.

J. The Applicant shall implement all buffer management activities articulated by their approved buffer management plan and report activities undertaken to the Agency's Fisheries Division annually, no later than May 1st of the year following the implementation of those activites.

K. The Applicant shall provide written notice to the Agency of any proposed change to the project that would have a significant or material effect on the findings, conclusions, or conditions of this Certification, including any changes to the construction, operation, or schedule of the project. The Applicant shall not make any such change without approval from the Agency.

L. The Applicant shall ensure that every reasonable precaution is taken during construction to prevent the discharge of petrochemicals, wet concrete, and debris into state waters.

M. The Applicant shall provide written notice to the Agency of any proposed change to the conditions of this Certification, including any changes to the construction, operation, or schedule of the project. The Applicant shall not make any such change without approval from the Agency.

N. The Applicant shall allow authorized Agency representatives, at reasonable times and upon presentation of credentials, to enter upon the project site for purposes of inspecting the project and determining compliance with this Certification.

O. The Agency may reopen and alter or amend the conditions of this Certification over the life of the project when such action is necessary to assure compliance with the VWQS and to respond to any changes in the classification or management objectives for the affected waters. Any amendment that results in a change of conditions for the project shall be subject to VWPCPR § 13.11(c) (Public Notice) and VWPCRP §§ 13.11(d), (e), and (f) (Public Hearing).

P. Communications to the Agency shall be sent directly to:

Watershed Management Division
Water Quality Certification Coordinator
Main Building - 2nd Floor, One National Life Drive
Montpelier, VT 05620-3522
Phone: 802-828-1535

Q. This Certification does not relieve the Applicant of the responsibility to comply with all other applicable federal, state, and local laws, regulations, and permits.

V. ENFORCEMENT

A. Upon receipt of information that water quality standards are violated as a consequence of the project's construction or operation or that one or more certification conditions has not been complied with, the Secretary, after consultation with the Applicant and notification of the appropriate federal permitting agency, may, after notice and opportunity for a public hearing, modify this Certification and provide a copy of such modification to the Applicant and the federal permitting agency.

B. Certification conditions are subject to enforcement mechanisms available to the federal agency issuing the permit and to the State of Vermont. Other mechanisms under Vermont state law may also be used to correct or prevent adverse water quality impacts from construction or operation of activities for which certification has been issued.

VI. APPEALS

Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Division of the Superior Court within 30 days of the date of the decision. The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Division; and must be signed by the appellant or the appellant's attorney. In addition, the appeal must give the address or location and description of the property, project, or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings. For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at www.vermontjudiciary.org. The address for the Environmental Division is: 32 Cherry St.; 2nd Floor, Suite 303; Burlington, VT 05401 (Tel. # 802-951-1740).

VII. EFFECTIVE DATE & EXPIRATION

By delegation from the Secretary to Vermont Department of Environmental Conservation, this certification shall become effective on the date of signing, and the conditions of this Certification shall become conditions of the federal permit (33 U.S.C. § 1341(d)). If the federal authority denies a permit, this Certification shall become null and void. Otherwise it remains in effect for the term of the federal license or permit.

Emily Boedecker, Commissioner
Department of Environmental Conservation

By Mary L Borg for
Peter LaFlamme, Director
Watershed Management Division
May 17, 2017