

**New Hampshire Department of Environmental Services  
WATER QUALITY CERTIFICATION  
In Fulfillment of  
RSA 485-A:12, IV**

<b>Certification Number</b>	WQC 2022-485A12IV-003
<b>Activity Name</b>	Oak Hill Nordic Ski Trail Improvement Project – Storrs Pond Withdrawal
<b>Activity Location</b>	Hanover, New Hampshire Grafton County
<b>Potentially Affected Surface Waters Near the Activity</b>	Storrs Pond: NHLAK801040402-02-01 Storrs Pond – Recreation Area Beach: NHLAK801040402-02-02 Storrs Pond - Adult Beach: NHLAK801040402-02-03 Unnamed Pond: NHLAK801040402-07 Wilder Lake (Connecticut River): NHLAK801040402-03
<b>Owner/Applicant</b>	Friends of Oak Hill 80 South Main Street, Suite 102 Hanover, NH 03755-2053
<b>Agent Filing Application on Behalf of Owner/Applicant</b>	Peter Milliken, President, Friends of Oak Hill
<b>Decision</b>	Grant with conditions
<b>Date of Issuance</b>	Signature Date

**A. INTRODUCTION**

On December 16, 2022, the New Hampshire Department of Environmental Services (NHDES) received an Application for Water Quality Certification (Application) from Friends of Oak Hill (Applicant) to withdraw water from the Storrs Pond to supply a snowmaking system at the Oak Hill Nordic Ski Center located in Hanover, New Hampshire (Activity). In the Application, the Applicant requested a water quality certification (Certification or WQC) for the Activity from NHDES, as required by RSA 485-A:12, IV, to withdraw up to 1,000 gallons per minute (gpm), which is approximately 2.23 cubic feet per second (cfs), of water from Storrs Pond from November 15 to March 31. The Applicant proposes to withdraw up to a total of 5,000,000 gallons of water during that period to provide sufficient snow coverage on approximately 8.4 acres of cross-country ski trails. Snowmaking will only be performed when there is insufficient snow on the ground for grooming of cross-county ski trails. A more complete description of the Activity is provided in Findings D-1 and this Certification.

The purpose of the Certification is to provide reasonable assurance that the proposed withdrawal will comply with New Hampshire surface water quality standards specified under RSA 485-A:8 and NH Code of Administrative Rules Env-Wq 1700 (Surface Water Quality Standards).

This Certification includes the following:

- A. INTRODUCTION.....1
- B. DECISION.....2
- C. FACTS AND LAWS.....2
  - I. State Certification Law .....2
  - II. State Surface Water Quality Standards .....3
  - III. Requirements for Impaired Waters and Applicable Total Maximum Daily Load.....9
  - IV. U.S. Army Corps of Engineers Permitting Program Under Section 404 of the federal Clean Water Act 10
  - V. EPA Construction General Permit ..... 10
  - VI. New Hampshire Rivers Management and Protection Program ..... 12
  - VII. New Hampshire Alteration of Terrain Permitting Program ..... 14
  - VIII. New Hampshire Shoreland Water Quality Protection Program ..... 15
  - IX. New Hampshire Wetlands Permitting Program ..... 16
  - X. New Hampshire Water Conservation Program ..... 17
  - XI. New Hampshire Water Use Registration and Reporting Program ..... 17
  - XII. NHDES Records Relevant to the Project..... 19
  - XIII. New Hampshire Certification Application ..... 20
- D. FINDINGS ..... 20
  - I. Applicant’s Proposal ..... 20
  - II. Water Quality Certification Required ..... 22
  - III. State Authority for Certification Conditions, Modifications and Monitoring ..... 23
  - IV. Potentially Affected Surface Waters ..... 23
  - V. Potential Impacts of the Withdrawal on Surface Water Quality Standards ..... 25
  - VI. Antidegradation..... 28
  - VII. Other Requirements..... 31
- E. CERTIFICATION CONDITIONS ..... 32
- F. NHDES CONTACT ..... 36
- G. ENFORCEMENT ..... 36
- H. APPEAL PROCEDURE ..... 37
- I. SIGNATURE & DATE ..... 37

**B. DECISION**

Based on the facts, laws, findings, and conditions included herein, NHDES has determined that there is reasonable assurance that construction and operation of the proposed Activity will be conducted in a manner that will comply with New Hampshire Surface Water Quality Standards. NHDES hereby issues this Certification in accordance with RSA 485-A:12, IV, subject to the conditions in Section E of this Certification.

**C. FACTS AND LAWS**

**I. State Certification Law**

C-1. RSA 485-A:12, IV, states: “No activity that involves surface water withdrawal or diversion of surface water that requires registration under RSA 488:3, that does not otherwise require the certification required under paragraph III, and which was not in active operation as of the effective date of this paragraph, may

commence unless the department certifies that the surface water withdrawal or diversion of surface water complies with state surface water quality standards applicable to the classification for the surface water body. The certification shall include any conditions on, modifications to, or monitoring of the proposed activity necessary to provide reasonable assurance that the proposed activity complies with applicable surface water quality standards. The department may enforce compliance with any such conditions, modifications, or monitoring requirements as provided in RSA 485-A:22.” See Fact C-92 for language of RSA 488:3.

## II. State Surface Water Quality Standards<sup>1</sup>

- C-2. RSA 485-A:8 and Env-Wq 1700 together fulfill the requirement of Section 303 of the federal Clean Water Act that the State of New Hampshire adopt Surface Water Quality Standards consistent with the provisions of the Act.
- C-3. Env-Wq 1702.50 defines “water quality standards” as “the combination of designated uses of surface waters, and the water quality criteria for such surface waters based upon such uses.”
- C-4. Env-Wq 1701.01, titled “Purpose”, states the following: “The purpose of these rules is to establish water quality standards for the state’s surface water uses as set forth in RSA 485-A:8, I, II, III and V. These standards are intended to protect public health and welfare, enhance the quality of water, and serve the purposes of the federal Clean Water Act, 33 U.S.C. 1251 et seq., and RSA 485-A. These standards provide for the protection and propagation of fish, shellfish, and wildlife, and provide for such uses as recreational activities in and on the surface waters, public water supplies, agricultural and industrial uses, and navigation in accord with RSA 485-A:8, I and II.”
- C-5. Env-Wq 1701.02, titled “Applicability,” states the following: “These rules [Env-Wq 1700] shall apply to:  
(a) All surface waters; and  
(b) Any person who:  
(1) Causes any point or nonpoint source discharge of any pollutant to surface waters;  
(2) Undertakes hydrologic modifications, such as dam construction or water withdrawals; or  
(3) Undertakes any other activity that affects the beneficial uses or the water quality of surface waters.”
- C-6. Env-Wq 1702.44 defines “surface waters” as “‘surface waters of the state’ as defined in RSA 485-A:2, XIV and waters of the United States as defined in 40 CFR 122.2.”
- RSA 485-A:2, XIV defines “surface waters of the state” as “perennial and seasonal streams, lakes, ponds and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial.”
- 40 CFR 122.2 defines “waters of the United States.”
- C-7. Env-Wq 1702.51 defines “wetland” as “‘wetland’ as defined in RSA 482-A:2, X, as reprinted in Appendix C. Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas as delineated in accordance with Env-Wt 100 et seq.” RSA 482-A:2, X. defines "wetlands" as “an area that is inundated or

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<sup>1</sup> All New Hampshire Surface Water Quality Standards apply to the Activity. The standards specifically called out in the Certification should not be interpreted as the only standards that may apply.

saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

- C-8. Env-Wq 1702.01 defines “7Q10” as “the lowest average flow that occurs for 7 consecutive days on an annual basis with a recurrence interval of once in 10 years on average, expressed in terms of volume per time period.
- C-9. Env-Wq 1702.05 defines “benthic community” as “the community of plants and animals that live on, over, or in the substrate of the surface water.”
- C-10. Env-Wq 1702.06 defines “benthic deposit” as “any sludge, sediment, or other organic or inorganic accumulations on the bottom of the surface water.”
- C-11. Env-Wq 1702.07 defines “best management practices” as “those practices that are determined, after problem assessment and examination of all alternative practices and technological, economic and institutional considerations, to be the most effective practicable means of preventing or reducing the amount of pollution generated by point or nonpoint sources to a level compatible with water quality goals.”
- C-12. Env-Wq 1702.08 defines “biological integrity” as “the ability of an aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region.”
- C-13. Env-Wq 1702.17 defines “designated uses” as “those uses specified in water quality standards for each water body or segment whether or not such uses are presently occurring. The term includes the following:
- (a) Swimming and other recreation in and on the water, meaning the surface water is suitable for swimming, wading, boating of all types, fishing, surfing, and similar activities;
  - (b) Fish consumption, meaning the surface water can support a population of fish free from toxicants and pathogens that could pose a human health risk to consumers;
  - (c) Shellfish consumption, meaning the tidal surface water can support a population of shellfish free from toxicants and pathogens that could pose a human health risk to consumers;
  - (d) Aquatic life integrity, meaning the surface water can support aquatic life, including a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of the region;
  - (e) Wildlife, meaning the surface water can provide habitat capable of supporting any life stage or activity of undomesticated fauna on a regular or periodic basis; and
  - (f) Potential drinking water supply, meaning the surface water could be suitable for human intake and meet state and federal drinking water requirements after adequate treatment.”
- C-14. Env-Wq 1702.18 defines “discharge” as
- “(a) The addition, introduction, leaking, spilling, or emitting of a pollutant to surface waters, either directly or indirectly through the groundwater, whether done intentionally, unintentionally, negligently or otherwise; or
  - (b) The placing of a pollutant in a location where the pollutant is likely to enter surface waters.”
- C-15. Env-Wq 1702.23 defines “high quality waters” as “any surface water whose water quality is better than

required by any aquatic life and/or human health water quality criteria contained in these rules or other criteria assigned to the surface water, or whose qualities and characteristics make the surface water critical to the propagation or survival of important living natural resources.

- C-16. Env-Wq 1702.22 defines “existing uses” as “those uses, other than assimilation waste transport, that actually occurred in the waterbody on or after November 28, 1975, whether or not they are included in the water quality standards.”
- C-17. Env-Wq 1702.31 defines “nonpoint source” as “any source other than a point source.”
- C-18. Env-Wq 1702.33 defines “nuisance species” as “any species of flora or fauna living in or near the water whose noxious characteristics or presence in sufficient number or mass prevent or interfere with a designated use of those surface waters.”
- C-19. Env-Wq 1702.35 defines “outstanding resource water (ORW)” as “surface waters of exceptional recreational or ecological significance.”
- C-20. Env-Wq 1702.37 defines “point source” as “a discernible, confined, and discrete conveyance from which pollutants are or might be discharged, excluding return flows from irrigated agriculture or agricultural stormwater runoff. The term includes, but is not limited to, a pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft.”
- C-21. Env-Wq 1702.38 defines “pollutant” as “‘pollutant’ as defined in 40 CFR 122.2.” According to 40 CFR 122.2, “pollutant” means “dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.”
- C-22. Env-Wq 1703.01, titled “Water Use Classifications; Designated Uses”, states the following:  
“(a) All surface waters shall be classified as provided in RSA 485-A:8, based on the standards established therein for class A and class B waters. Each classification shall identify the most sensitive use it is intended to protect.  
(b) All surface waters shall be restored to meet the water quality criteria for their designated classification including existing and designated uses, and to maintain the chemical, physical, and biological integrity of surface waters.  
(c) All surface waters shall provide, wherever attainable, for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the surface waters.  
(d) Unless high or low flows are caused by naturally-occurring conditions, surface water quantity shall be maintained at levels that protect existing uses and designated uses.”
- C-23. Storrs Pond and an unnamed pond between Storrs Pond, which are impoundments of Camp Brook, are Class B waters (NH Chapter Laws 1951, 44:1, II and 1967, 147:15), and Wilder Lake, which is an impoundment of the Connecticut River, are also Class B waters (NH Chapter Law 1967, 311:1, XLI).
- C-24. Env-Wq 1703.03(c), titled “General Water Quality”, states, in part, the following:  
“Unless otherwise specifically allowed by a statute, rule, order, or permit, the following physical,

chemical, and biological criteria shall apply to all surface waters: (1) All surface waters shall be free from substances in kind or quantity that:

- a. Settle to form harmful benthic deposits;
- b. Float as foam, debris, scum or other visible substances;
- c. Produce odor, color, taste or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses;
- d. Result in the dominance of nuisance species; or
- e. Interfere with recreational activities. [..]”

C-25. Env-Wq 1703.08, titled “Benthic Deposits”, states the following:

“(a) Class A waters shall contain no benthic deposits, unless naturally occurring.

(b) Class B waters shall contain no benthic deposits that have a detrimental impact on the benthic community, unless naturally occurring.”

C-26. Env-Wq, 1703.09, 1703.10 and 1703.12 include Surface Water Quality Standards for oil and grease; color; and slicks, odors, and surface floating solids, respectively.

C-27. RSA 146-A:2, III defines “oil” as “petroleum products and their by-products of any kind, and in any form including, but not limited to, petroleum, fuel, sludge, crude, oil refuse or oil mixed with wastes and all other liquid hydrocarbons regardless of specific gravity and which are used as motor fuel, lubricating oil, or any oil used for heating or processing. The term ‘oil’ shall not include natural gas, liquified petroleum gas or synthetic natural gas regardless of derivation or source.”

C-28. RSA 146-A:3 specifies, among other things, that “[t]he discharge or spillage of oil into the surface water or groundwater of this state, or in a land area where the oil will ultimately seep into surface water or groundwater is prohibited.”

C-29. Env-Wq 1703.11, titled “Turbidity”, states the following:

“(a) Class A waters shall contain no turbidity, unless naturally occurring.

(b) Class B waters shall not exceed naturally occurring conditions by more than 10 NTUs.

(c) Turbidity in waters identified in RSA 485-A:8, III shall comply with the applicable long-term combined sewer overflow plan prepared in accordance with Env-Wq 1703.05(c).

(d) For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge, a violation of the turbidity standard shall be deemed to have occurred.”

C-30. Env-Wq 1703.13, titled “Temperature”, states the following:

“(a) There shall be no change in temperature in class A waters, unless naturally occurring.

(b) Temperature in class B waters shall be in accordance with RSA 485-A:8, II, and VIII.”

RSA-A:8, II states the following for Class B waters “[A]ny stream temperature increase associated with the discharge of treated sewage, waste or cooling water, water diversions, or releases shall not be such as to appreciably interfere with the uses assigned to this class.”

RSA-A:8, VIII states the following: “In prescribing minimum treatment provisions for thermal wastes discharged to interstate waters, the department shall adhere to the water quality requirements and recommendations of the New Hampshire fish and game department, the New England Interstate Water

Pollution Control Commission, or the United States Environmental Protection Agency, whichever requirements and recommendations provide the most effective level of thermal pollution control.”

- C-31. Env-Wq 1703.14, titled “Nutrients”, states the following:
- “(a) Class A waters shall contain no phosphorous or nitrogen unless naturally occurring.
  - (b) Class B waters shall contain no phosphorous or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring.
  - (c) Existing discharges containing either phosphorous or nitrogen which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards.
  - (d) There shall be no new or increased discharge of phosphorous into lakes or ponds.
  - (e) There shall be no new or increased discharge(s) containing phosphorous or nitrogen to tributaries of lakes or ponds that would contribute to cultural eutrophication or growth of weeds or algae in such lakes and ponds.”
- C-32. Env-Wq 1703.18, titled “pH”, states the following:
- “(a) The pH of Class A waters shall be as naturally occurs.
  - (b) As specified in RSA 485-A:8, II, the pH of Class B waters shall be 6.5 to 8.0, unless due to natural causes.
  - (c) As specified in RSA 485-A:8, III, the pH of waters in temporary partial use areas shall be 6.0 to 9.0 unless due to natural causes.”
- C-33. Env-Wq 1703.19, titled “Biological and Aquatic Community Integrity”, states the following:
- “(a) All surface waters shall support and maintain a balanced, integrated and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region.
  - (b) Differences from naturally-occurring conditions shall be limited to non detrimental differences in community structure and function.”
- C-34. Env-Wq 1703.21, titled “Water Quality Criteria for Toxic Substances”, states the following:
- “(a) Unless naturally occurring or allowed under part Env-Wq 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that:
    - (1) Injure or are inimical to plants, animals, humans or aquatic life; or
    - (2) Persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in:
      - a. Edible portions of fish, shellfish, or other aquatic life; or
      - b. Wildlife that might consume aquatic life.”
- C-35. Env-Wq 1705.01, titled “Assimilative Capacity”, under Part Env-Wq 1705, titled “Flow Standards”, states the following:
- “(a) Subject to (b), below, the department shall hold not less than 10 percent of the assimilative capacity of each surface water in reserve to provide for future needs.
  - (b) For purposes of combined sewer overflows, the department shall determine compliance based on 99 percent of the assimilative capacity of the receiving surface water.”
- C-36. Antidegradation provisions are included in Env-Wq 1702 and Env-Wq 1708.
- a. Env-Wq 1702.03 defines “antidegradation” as “a provision of the water quality standards that maintains and protects existing water quality and uses.”

- b. Env-Wq 1708.02 specifies the following: “Antidegradation shall apply to: (a) Any proposed new or increased activity, including point source and nonpoint source discharges of pollutants, that would lower water quality or adversely affect the existing or designated uses; (b) Any proposed increase in loadings to a waterbody when the proposal is associated with existing activities; (c) Any increase in flow alteration over an existing alteration; and (d) Any hydrologic modifications, such as dam construction and water withdrawals.”
- c. Antidegradation applies to all parameters as evidenced by Env-Wq 1708.08(a) under “Assessing Waterbodies”, which specifies the following: “The applicant shall characterize the existing water quality and determine if there is remaining assimilative capacity for each parameter in question.”
- d. Env-Wq 1708.03(a) specifies the following: “A proposed discharge or activity shall not eliminate any existing uses or the water quality needed to maintain and protect those uses.”
- e. Env-Wq 1702.04 defines “assimilative capacity” as “the amount of a pollutant or combination of pollutants that can safely be released to a waterbody without causing violations of applicable water quality criteria or negatively impacting uses.”
- f. Env-Wq 1708.08 describes the process for assessing waterbodies to determine if there is remaining assimilative capacity for each parameter in question, including the requirement under Env-Wq 1708.08(h) for the department to reserve no less than 10% of a surface water’s assimilative capacity as specified under Env-Wq 1705.01 (see Fact C-35).
- g. Env-Wq 1708.09, titled “Significant or Insignificant Determination”, specifies, in part, the following: “(a) Any discharge or activity that is projected to use 20% or more of the remaining assimilative capacity for a water quality parameter, in terms of either concentration or mass of pollutants, or volume or flow rate for water quantity, shall be considered a significant lowering of water quality. (b) The department shall not approve a discharge or activity that will cause a significant lowering of water quality unless the applicant demonstrates, in accordance with Env-Wq 1708.10, that the proposed lowering of water quality is necessary to achieve important economic or social development in the area where the waterbody is located. (c) [...] any applicant proposing an activity that will cause an insignificant lowering of water quality shall not be required to demonstrate that the activity is necessary to provide important economic or social development, provided the applicant implements best management practices to minimize degradation.”
- h. Env-Wq 1708.01(a) specifies the following: “Existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.”
- i. Env-Wq 1708.01(b)(1), in general, states that for significant changes in water quality, where the quality of the surface waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected unless the department finds, after full satisfaction of the intergovernmental coordination and public participation provisions and the analysis required by Env-Wq 1708.10, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the surface waters are located. In allowing such degradation or lower water quality, the department shall ensure water quality adequate to fully protect existing uses. Further, the department shall ensure that the highest statutory and regulatory requirements shall be achieved for all new and existing point sources and that all cost effective and reasonable best management practices for nonpoint source control shall be implemented.
- j. Env-Wq 1708.01(b)(2) states the following: “The department shall not approve any proposed discharge or activity that might cause degradation or lower water quality, without such conditions as are necessary to ensure that: a. Water quality will be adequate to protect existing uses; b. The highest statutory and regulatory requirements will be achieved for all new and



existing point sources; and c. All cost effective and reasonable best management practices for nonpoint source control will be implemented.”

- C-37. Env-Wq 1708.04, titled “Protection of Water Quality in ORW”, states the following:
- “(a) Surface waters of national forests and surface waters designated as natural under RSA 483:7-a, I, shall be considered outstanding resource waters (ORW).
  - (b) Subject to (c), below, water quality shall be maintained and protected in surface waters that constitute ORW.
  - (c) The department shall allow a limited point or nonpoint source discharge to an ORW only if:
    - (1) The discharge will result in no more than temporary and short-term changes in water quality, wherein “temporary and short-term” means that degradation is limited to the shortest possible time;
    - (2) The discharge will not permanently degrade water quality or result at any time in water quality lower than that necessary to protect the existing and designated uses in the ORW; and
    - (3) All practical means of minimizing water quality degradation are implemented.”
- C-38. Env-Wq 1708.06, titled “Protection of Water Quality in High Quality Waters”, states the following:
- “(a) Subject to (b) through (d) below, high quality waters shall be maintained and protected.
  - (b) The department shall evaluate and authorize insignificant changes in water quality as specified in Env-Wq 1708.09.
  - (c) The department shall allow degradation of significant increments of water quality, as determined in accordance with Env-Wq 1708.09, in high quality waters only if the applicant can demonstrate to the department, in accordance with Env-Wq 1708.10, that allowing the water quality degradation is necessary to accommodate important economic or social development in the area in which the receiving water is located.
  - (d) If the waterbody is Class A Water, the requirements of Env-Wq 1708.05 shall also apply.”

### III. Requirements for Impaired Waters and Applicable Total Maximum Daily Load

- C-39. Section 303(d) of the Clean Water Act (33 U.S.C. 1313(d)) and the regulations promulgated thereunder (40 CFR. 130) require states to identify and list surface waters that are violating state water quality standards (i.e., Section 303(d) List) that do not have an approved Total Maximum Daily Load (TMDL) for the pollutants causing impairment. For these water quality-impaired waters, states must establish TMDLs for the pollutants causing the impairments and submit the list of impaired surface waters and TMDLs to the U.S. Environmental Protection Agency (EPA) for approval. TMDLs include source identification, determination of the allowable load and pollutant reductions (by source) necessary to meet the allowable load. Once a TMDL is established, the pollutant/surface water is transferred to the list of impaired waters with approved TMDLs (known as Category 4A waters). The Section 303(d) List is, therefore, a subset of all impaired waters. The most recent Section 303(d) list of impaired waters approved by EPA is the [2020/2022 Section 303\(d\) List](#). A list of all impaired waters is available through the [NHDES website](#).
- C-40. On December 20, 2007, EPA approved the [Northeast Regional Mercury TMDL](#) which addressed mercury impairments in all of New Hampshire’s fresh surface waters, including Storrs Pond, which is an impoundment of Camp Brook.
- C-41. When a surface water does not meet Surface Water Quality Standards (i.e., when a surface water is impaired), the addition of pollutants causing or contributing to impairment should be avoided as

indicated in the following rule and statute:

Env-Wq 1703.03(a) states the following: “The presence of pollutants in the surface waters shall not justify further introduction of pollutants from point or nonpoint sources, alone or in any combination.”

RSA 485-A:12, I, under “Enforcement of Classification”, states, in part, the following: “After adoption of a given classification for a stream, lake, pond, tidal water, or section of such water, the department shall enforce such classification by appropriate action in the courts of the state, and it shall be unlawful for any person or persons to dispose of any sewage, industrial, or other wastes, either alone or in conjunction with any other person or persons, in such a manner as will lower the quality of the waters of the stream, lake, pond, tidal water, or section of such water below the minimum requirements of the adopted classification.”

#### **IV. U.S. Army Corps of Engineers Permitting Program Under Section 404 of the federal Clean Water Act**

- C-42. Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States. According to EPA, “[t]he basic premise of the [permit program under CWA section 404] is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment or (2) the nation’s waters would be significantly degraded. In other words, when you apply for a permit, you must first show that steps have been taken to avoid impacts to wetlands, streams and other aquatic resources; that potential impacts have been minimized; and that compensation will be provided for all remaining unavoidable impacts.”<sup>2</sup> The U.S. Army Corps of Engineers (USACE) implements this federal permitting program.
- C-43. On September 29, 2022, USACE issued 23 regional general permits under General Permit No: NAE-2022-00849 (GPs) for activities subject to USACE jurisdiction in waters of the United States, including navigable waters within the State of New Hampshire, adjacent ocean waters to the seaward limit of the outer continental shelf, and tribal lands. USACE issued the GPs in accordance with USACE regulations at 33 CFR 320-332 [see 33 CFR 325.5 (c)(1)]. USACE asserted that the GPs will provide protection to the aquatic environment and the public interest while effectively authorizing activities that have no more than minimal individual and cumulative adverse environmental impacts. On August 2, 2022, before USACE issued the GPs, NHDES granted with conditions Water Quality Certification No. 2022-404P-001 for the GPs in accordance with RSA 485-A:12, III and section 401 of the CWA.
- C-44. In the Application, the Applicant stated that a general permit from USACE will be required for impacts associated with the installation of the withdrawal intake infrastructure for the Activity, including installation of a submersible pump vault in Storrs Pond.

#### **V. EPA Construction General Permit**

- C-45. Section 402 of the CWA prohibits any person from discharging pollutants through a point source into a water of the United States unless the person obtains a National Discharge Elimination System (NPDES) permit. According to EPA, “[t]he [NPDES] permit will contain limits on what you can discharge, monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt

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<sup>2</sup> U.S. EPA. (updated April 20, 2022). *Permit Program under CWA Section 404*. EPA Section 404 of the Clean Water Act. <https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404> (accessed January 24, 2023).

water quality or people's health. In essence, the permit translates general requirements of the Clean Water Act into specific provisions tailored to the operations of each person discharging pollutants.”<sup>3</sup>

- C-46. On January 18, 2022, EPA issued its 2022 NPDES Construction General Permit (CGP) that authorized certain persons, under certain eligibility conditions, to discharge pollutants in accordance with the effluent limitations and conditions provided in the CGP. The 2022 NPDES CGP became effective on February 17, 2022 and expires on February 16, 2027. EPA typically reissues a NPDES CGP every five years. In Part 9.1.1 of the 2020 NPDES CGP, EPA included conditions of a water quality certification that NHDES granted under RSA 485-A:12, III and section 401 of the CWA for the CGP on August 13, 2021 for activities that may result in discharges to New Hampshire’s surface waters.<sup>4</sup>
- C-47. The CGP covers construction related stormwater discharges (including stormwater runoff, snowmelt runoff and surface runoff and drainage) as well other discharges, including but not limited to, construction dewatering that has been treated by an appropriate control. Part 7 of the CGP requires operators to develop and keep up-to-date a Stormwater Pollution Prevention Plan (SWPPP) that describes how the Activity will meet the requirements of the CGP. Information that must be provided in a SWPPP include the following, among other things: a list of all site operators who will be engaged in construction activities; identification of the stormwater team; a description of the nature of construction activities; a site map that includes, among other things, locations, soil types, and topography of where polymers, flocculants, or other treatment chemicals will be used; identification of all non-stormwater discharges; a description of stormwater controls; procedures for inspection, maintenance, and corrective action; procedures for turbidity benchmark monitoring from dewatering discharges; documentation demonstrating compliance with other requirements (e.g., threatened and endangered species protection); certification of the SWPPP; and copies of certain documents once coverage under the CGP is authorized. The CGP requires operators to provide a copy of the SWPPP upon request by a State.
- C-48. Part 3.3 of the CGP requires turbidity benchmark monitoring when discharging dewatering water to certain receiving waters. The operator must record the results of the monitoring and submit the results to EPA no later than 30 days following the end of each monitoring quarter as specified in Part 3.3.4 of the CGP.
- C-49. Part 4 of the CGP specifies that a “qualified person”, as described in the CGP, must conduct regular site inspections to ensure compliance with the CGP. Within 24 hours of completing any inspection, an inspection report must be completed that includes, among other things, a summary of any problems found during the inspection that make it necessary to perform routine maintenance or corrective action. Copies of all inspection reports must be kept at the site of the Activity or at an easily accessible location and be available upon request by EPA. Part 5.4 of the CGP requires an operator to record certain information in a corrective action log, and a copy of that log must be kept at the project site or an easily accessible location so that it can be made immediately available at the time of an on-site inspection or upon request by EPA.
- C-50. In the water quality certification that NHDES granted with conditions for the CGP, NHDES required, among other things, the following:

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<sup>3</sup> U.S. EPA. (updated December 23, 2022). *NPDES Permit Basics*. EPA National Pollutant Discharge Elimination System (NPDES). <https://www.epa.gov/npdes/npdes-permit-basics> (accessed January 24, 2023).

<sup>4</sup> U.S. EPA. (updated May 11, 2022). *2022 Construction General Permit (CGP)*. EPA National Pollutant Discharge Elimination System (NPDES). <https://www.epa.gov/npdes/2022-construction-general-permit-cgp> (accessed January 24, 2023).

“Should visible turbidity or benthic sediment deposits attributable or partly attributable to your construction activities be present in the receiving water, the ‘Corrective Actions’ specified in Part 5 [of the CGP] shall be immediately implemented to correct the water quality standard violations. In addition, daily monitoring (including photographs) of the receiving water shall be conducted until there is no visible turbidity or benthic deposits. Inspection Reports required in Part 4.7 of the CGP shall include, but not be limited to, the distance downstream and the percent of the river width where visible turbidity was observed, and the period of time that the visible turbidity persisted. A copy of the Inspection Report(s) shall be made available to NHDES within 24 hours of receiving a written request from NHDES.”

- C-51. In the Application, the Applicant stated that the project associated with the Activity will require coverage under the CGP.

## **VI. New Hampshire Rivers Management and Protection Program**

- C-52. RSA 483 established the New Hampshire Rivers Management and Protection Program to, among other things, conserve and protect outstanding characteristics of designated rivers or river segments including recreational, fisheries, wildlife, environmental, hydropower, cultural, historical, archaeological, scientific, ecological, aesthetic, community significance, agricultural, and public water supply.

- C-53. RSA 483:4, VIII defines “designated river” as “that portion of a perennial river which has been specifically designated by the general court pursuant to RSA 483:15.”

RSA 483:4, XI defines "Instream public uses" as “those uses which comprise the state's interests in surface waters including, but not limited to: navigation; recreation; fishing; storage; conservation; maintenance and enhancement of aquatic and fish life; fish and wildlife habitat; wildlife; the protection of water quality and public health; pollution abatement; aesthetic beauty; and hydroelectric energy production.”

RSA 483:4, XVI defines "protected instream flow" as “a stream flow pattern which is established to maintain water for present and future instream public uses.”

RSA 484:4, XVIII defines “river corridor” as “the river and the land area located within a distance of 1,320 feet of the normal high water mark or to the landward extent of the 100 year floodplain as designated by the Federal Emergency Management Agency, whichever distance is larger.”

- C-54. RSA 483:15, VIII.(z) designates the Connecticut River from Storrs Pond Brook to Dothan Brook outlet in Hartford, Vermont as a rural-community river.

- C-55. RSA 483:9-aa, titled “Rural-Community Rivers Protection”, specifies, in part, the following:  
“V. A protected instream flow shall be established by the commissioner for each designated rural-community river or segment and any upstream impoundment or diversion facility which may affect the natural flow characteristics of such river or segment pursuant to RSA 483:9-c.  
VI. Water quality shall be restored or maintained at least at the Class B level. Significant adverse impacts on water quality or other instream public uses shall not be permitted. The department shall review and consider adopted local river corridor management plans prior to issuing any permit under RSA 485-A:13, RSA 485-A:17 or RSA 482-A.”

- C-56. RSA 483:9-c, titled “Establishment of Protected Instream Flows”, specifies, in part, the following:  
“I. The commissioner, in consultation with the advisory committee, shall adopt rules under RSA 541-A specifying the standards, criteria, and procedures by which protected instream flows shall be established and enforced for each designated river or segment. [...] VI. Water management plans implementing instream flow protections shall be effective and enforceable upon adoption.”
- C-57. RSA 483:12-a, titled “State Action; Notification of Rivers Coordinator; Petition for Review”, specifies the following:  
“I. Any state agency considering any action affecting any river or segment designated under this chapter shall notify the rivers coordinator and the local river management advisory committee prior to taking any such action. Such agency shall forward to the rivers coordinator and the local river management advisory committee for review and comment copies of all notices of public hearings, or, where a public hearing is not required, a copy of the application for issuance of a permit, certificate, or license within the designated river or corridor under RSA 485-C, RSA 485-A, RSA 483-B, RSA 12-E, RSA 270:12, RSA 482, RSA 482-A, except notifications for minimum impact activities under RSA 482-A:3, V and XII and for routine roadway maintenance under RSA 482-A:3, XVI on land used for agricultural purposes, RSA 149-M, RSA 430, or RSA 147-A. If an agency is notified by the rivers coordinator that a proposed activity would violate a protection measure under RSA 483:9, 483:9-a, 483:9-aa, or 483:9-b, such agency shall deny the application.”
- C-58. The commissioner of NHDES adopted Chapter Env-Wq 1900, titled “Rules for the Protection of Instream Flow on Designated Rivers”, in accordance with RSA 483:9-c, I (see Fact C-56).
- C-59. Env-Wq 1901.01, titled “Purpose”, states the following: “The purpose of these rules is to specify standards, criteria, and procedures by which protected instream flows shall be established and enforced for each designated river segment in order to maintain water for instream public uses and to protect the resources for which the river or river segment is designated. The department shall establish protected instream flows for the designated rivers described in RSA 483:15 and adopt water management plans for the water management planning areas (WMPAs) of the designated rivers.”
- C-60. Env-Wq 1901.02 titled “Applicability” states the following: “The requirements set forth in Env-Wq 1900 shall apply to:  
(a) Designated rivers or river segments and their tributary drainage areas;  
(b) Affected water users; and  
(c) Affected dam owners and the associated water body impounded by the dam.”
- C-61. Env-Wq 1902.03 defines “affected water user” as “a water user required to be registered under RSA 488:3 and having a withdrawal or discharge at any location within the WMPA of a designated river.”
- C-62. Env-Wq 1902.13 defines “water management planning area (WMPA)” as “the tributary drainage area to a designated river for which a water management plan is required.”
- C-63. Env-Wq 1905.03, titled “Water Conservation Plans”, states, in part, the following:  
“(a) Each affected water user in a WMPA required to have a water management plan under Env-Wq 1905.01 shall have an individual water conservation plan that is prepared by the affected water user and approved by the department in accordance with this section.

(b) Each individual water conservation plan shall be incorporated into the water management plan for the WMPA.”

C-64. Env-Wq 1905.04, titled “Water Use Plans”, states, in part, the following:

“(a) Each affected water user in a WMPA subject to a water management plan under Env-Wq 1905.01 shall:

(1) Have an individual water use plan that is prepared by the department in consultation with the affected water user.”

C-65. Env-Wq 1905.06, titled “Water Management Plan Document”, states, in part, the following:

“(a) The department shall prepare a proposed water management plan document specifying the conservation and operational measures required for each affected water user and affected dam owner in the WMPA to meet the protected instream flows.”

C-66. Env-Wq 1906.03 “Compliance” states the following:

“(a) Affected water users and affected dam owners shall comply with the adopted water management plan and its implementation schedule.

(b) Each affected water user and affected dam owner shall maintain records of the actions taken to comply with a water management plan.

(c) Each affected water user and affected dam owner shall allow the department to review the records specified in (b) above upon request.

(d) Any affected water user or affected dam owner that complies with the adopted water management plan shall be deemed to be in compliance with the water quality standards relative to stream flow established in RSA 485-A and Env-Wq 1700.”

C-67. A portion of Storrs Pond is located in the river corridor of Connecticut River (see Fact C-54). The Activity will be within the water use management planning area of the Connecticut River.

## **VII. New Hampshire Alteration of Terrain Permitting Program**

C-68. RSA 485-A:17, I requires, among other things, any person proposing to dredge, excavate, place fill, mine, transport forest products or undertake construction in or on the border of the surface waters of the state, and any person proposing to significantly alter the characteristics of the terrain, in such a manner as to impede the natural runoff or create an unnatural runoff, to be directly responsible to submit to NHDES detailed plans concerning such proposal and any additional relevant information requested by NHDES, at least 30 days prior to undertaking any such activity. The applicant must receive a permit from NHDES prior to undertaking those operations. The Commissioner of NHDES has adopted Alteration of Terrain (AOT) rules under Chapter Env-Wq 1500, titled “Alteration of Terrain”, to protect drinking water supplies, surface waters, and groundwater by specifying the procedures and criteria for obtaining permits required by RSA 485-A:17.

C-69. Env-Wq 1503.19, titled “Criteria for Issuance of AOT Permits”, specifies, in part, that: “The department shall not issue an AOT permit unless the applicant demonstrates that all of the following criteria are met:

(a) Temporary water quality protection measures in accordance with Env-Wq 1505.05 that are adequate to prevent violations of the surface water quality (SWQ) standards will be used during the construction phase of the proposed activity and maintained until all areas are stabilized;

(b) The permanent methods for protecting water quality proposed in the application meet the

requirements of Env-Wq 1507.02 and are adequate to prevent violations of the SWQ standards.”

- C-70. Env-Wq 1502.67 defines “surface water quality standards (SWQ standards)” as “the combination of designated uses of surface waters and the water quality criteria for such surface waters based upon such uses as described in RSA 485-A:8-12 and Env-Wq 1700.”
- C-71. In the Application, the Applicant stated that the project associated with the Activity will require a permit from the NHDES Alteration of Terrain Program.

### **VIII. New Hampshire Shoreland Water Quality Protection Program**

- C-72. RSA Chapter 483-B authorizes NHDES to regulate development activities in the protected shoreland established under the New Hampshire Shoreland Water Quality Protection Act (SWQPA). RSA 483-B:2 specifies, in part, the following: “To fulfill the state's role as trustee of its waters and to promote public health, safety, and the general welfare, the general court declares that the public interest requires the establishment of standards for the subdivision, use, and development of the shorelands of the state's public waters. The development standards provided in this chapter shall be the minimum standards necessary to protect the public waters of the state of New Hampshire. These standards shall serve to [...] Prevent and control water pollution [...] Protect fish spawning grounds, aquatic life, and bird and other wildlife habitats [...] Protect freshwater and coastal wetlands [...] Preserve the state's lakes, rivers, estuaries and coastal waters in their natural state [...] Promote wildlife habitat, scenic beauty, and scientific study [...] Protect public use of waters, including recreation [...] and] Anticipate and respond to the impacts of development in shoreland areas to the extent they may potentially damage the public waters.” The Commissioner of NHDES has adopted Env-Wq 1400 to implement the NHDES Shoreland Protection Program authorized by RSA 483-B for all land areas that fall within the definition of protected shoreland.
- C-73. RSA 483-B:4, XV defines “protected shoreland” in relevant part as “for natural, fresh water bodies without artificial impoundments, for artificially impounded fresh water bodies, except private garden water features and ponds of less than 10 acres, and for coastal waters and rivers, all land located within 250 feet of the reference line of public waters.”
- C-74. Env-Wq 483-B:5-b, I(a), specifies, in part, that “No person shall commence construction, excavation, or filling activities within the protected shoreland without obtaining a permit from the department to ensure compliance with this chapter.”
- C-75. Env-Wq 1404.01, titled “Protection of Water Quality, specifies the following:  
“(a) No person shall undertake construction or any other activity in such a way as to degrade water quality in violation of the water quality standards specified in RSA 485-A:8 or Env-Wq 1700.  
(b) As required by RSA 483-B:9, V(d)(2), new structures and all modifications to existing structures within the protected shoreland shall be designed and constructed to prevent the release of surface runoff across exposed soils.”
- C-76. Env-Wq 1406.01, titled “Permit Required”, specifies, in part, that:  
“(a) Subject to (b), below, as specified in RSA 483-B:5-b, I(a), no person shall commence construction, excavation, or filling activities within the protected shoreland without obtaining a permit from the department to ensure compliance with RSA 483-B [...].”

- C-77. Env-Wq 1406.15, titled “Decisions on Shoreland Permit Applications”, requires the following, among other things:
- “(b) The department shall approve an application for a shoreland permit if all of the following are true:
    - (1) The application is complete as specified in Env-Wq 1406.06; and
    - (2) The project, during and after construction if constructed as proposed, will comply with all applicable criteria of these rules and RSA 483-B.
  - (c) If the department determines that the project as proposed will not comply with all applicable criteria of these rules and RSA 483-B but that reasonable project-specific conditions could be imposed to bring the project into compliance, the department shall approve the application with such conditions as are necessary to ensure compliance. [...]
  - (g) All permits issued shall be subject to the conditions specified in Env-Wq 1406.20.
- C-78. Env-Wq 1406.20, titled “Conditions Applicable to All Projects in the Protected Shoreland”, specifies, in part, that:
- “(c) No person undertaking any activity in the protected shoreland shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards established in [...] Env-Wq 1700.”
- C-79. On January 1, 2023, NHDES notified the Applicant that the Applicant would need to obtain a NHDES Shoreland Permit for the Activity.

## **IX. New Hampshire Wetlands Permitting Program**

- C-80. RSA 482-A:3, I(a) prohibits any person from excavating, removing, filling, dredging, or constructing any structures in or on any bank, flat, marsh, or swamp in and adjacent to any waters of the state without a permit from NHDES. RSA-A:4 specifies that Chapter 482-A to all surface waters of the state as defined in RSA 485-A:2 (see Fact C-6). The Commissioner of NHDES has adopted Env-Wt 100 through Env-Wt 900 to implement the NHDES permitting program authorized by RSA 482-A, including Chapter Env-Wt 300, titled “Permits and other Authorizations; Conditions Applicable to All Work in Jurisdictional Areas.”
- C-81. Env-Wt 103.25 defines “jurisdictional area” as “an area that is subject to regulation under RSA 482-A, including but not limited to surface waters, streams, lakes, rivers, ponds, wetlands, banks, flats, shores, sand dunes, upland tidal buffer zones, and duly-established 100-foot buffers.”
- C-82. Env-Wt 305.02, titled “Applicability”, specifies, in part, that:
- “(a) Subject to (b)-(f), below, this chapter shall apply as of December 15, 2019 to any person who undertakes or proposes to undertake any dredge, fill, or construction activities, or any combination thereof, in a jurisdictional area.”
- C-83. Env-Wt 307.03, titled “Protection of Water Quality required”, specifies, in part, that:
- “(a) No activity shall be conducted in such a way as to cause or contribute to a violation of:
    - (1) the surface water quality standards specified in RSA 485-A:8 or Env-Wq 1700.”
- C-84. Part Env-Wt 516, titled “Intake and Outflow Structures”, specifies certain requirements for the construction of inflow and outflow structures.
- C-85. Records maintained by the NHDES Wetlands Bureau show that it received a NHDES Standard Dredge and



Fill for the Activity on February 7, 2023.

#### **X. New Hampshire Water Conservation Program**

C-86. RSA 485:61, titled “Rules for Water Conservation”, states the following regarding rules for NHDES’ Water Conservation Program:

- I. The department shall adopt rules, pursuant to RSA 541-A, for water conservation practices for water users. These rules shall strike a reasonable balance between environmental, energy, and economic impacts and be consistent with current industry standards and practices for different types of water users.
- II. The water conservation rules in paragraph I of this section shall apply to all new permit applicants and applications for water withdrawals subject to the provisions of RSA 485:3, RSA 485:48, RSA 485-C:21 and section 401 of the Clean Water Act.
- III. Water conservation rules shall be consistent with applicable state or federal rules and regulations.”

Water Conservation Rules were adopted May 14, 2005 and currently codified as Env-Wq 2101.

C-87. Env-Wq 2101.05(f) states the following: “The owner of a conservation system that is, in whole or in part, an ICI water user shall comply with the requirements specified in Env-Wq 2101.13 and Env-Wq 2101.19 through Env-Wq 2101.22.”

C-88. Env-Wq 2101.24 titled, “Water Conservation Plan Required”, states, in relevant part, the following:

“(a) The applicants for approval of a source that would be a conservation source shall submit a water conservation plan that demonstrates compliance with the applicable provisions of Env-Wq 2101.05 through Env-Wq 2101.22 in accordance with the following:”

“(5) For a new withdrawal from a surface water associated with a project requiring a 401 Water Quality Certification, the water conservation plan shall be submitted prior to or in conjunction with the application for a 401 Water Quality Certification pursuant to Section 401 of the federal Clean Water Act;”.

C-89. Env-Wq 2101.27 titled, “On-Going Compliance Reports”, requires the owner of a conservation system to submit reports once every three years from the date of approval of the water conservation plan to demonstrate on-going compliance with the plan.

C-90. On December 16, 2022, the Applicant submitted a water conservation plan for the Activity to NHDES. After receiving comments on the water conservation plan from NHDES, the Applicant submitted a revised water conservation plan for the Activity to NHDES on January 31, 2023.

#### **XI. New Hampshire Water Use Registration and Reporting Program**

C-91. RSA 488 established the New Hampshire Water Use Registration and Reporting Program (WURRP) within NHDES, and RSA 488:1 states: “Statement of Purpose. – This chapter provides for uniform statewide collection of water use data to understand how water resources are utilized in the state by establishing procedures and standards for the registration, measurement, and reporting of water use. The legislature recognizes the fundamental importance of water resources and intends to provide a framework to obtain

and maintain basic water use data for the state. The legislature recognizes that information describing the major water uses of the state along with assessing the amount of water in a given watershed or aquifer are integral to all water resource quantity assessments and management decisions. Water use data is necessary to understand the effects of cumulative uses, transfers, discharges, and consumptive water losses in aquifers and watersheds in the state. Water use data also identifies the quantity and timing of existing water uses, and this information can be used to estimate future water needs of the state. Water use data is also necessary for verifying compliance with and equitable enforcement of state laws pertaining to groundwater and surface water.”

- C-92. RSA 488:3, states: “I. No person shall withdraw or discharge a cumulative amount of more than 20,000 gallons of water per day, averaged over any 7-day period, or more than 600,000 gallons of water over any 30-day period, at a single real property or place of business without registering the withdrawal or discharge with the department. Transfers of such volume of water shall also be registered. Registration shall be in addition to any required permits. II. No registration shall be transferred to another person without written notification to the commissioner.”
- C-93. RSA 488:4, titled “Measurement Required”, states: “Each withdrawal, discharge, or transfer required to be registered under this chapter shall be metered or measured by a technically appropriate and verifiable method approved by the commissioner. Withdrawals and discharges shall be measured at the point of withdrawal or discharge, respectively. Transfers shall be measured at a technically appropriate point approved by the commissioner.”
- C-94. RSA 488:4-a, titled “Measurement of Withdrawals for Snowmaking”, states: “Notwithstanding RSA 488:4, water use associated with snowmaking shall be measured at the point water is withdrawn from any natural source of water for use by a snowmaking system and at the point that water is entering into the snowmaking system, and such water withdrawal and use shall be measured by an appropriate and calculable method such as a weir, stream gauge, meter, or a technically appropriate and calculable method utilizing the manufacturer's plated specifications as they relate to gallons of water pumped per minute. Diversions from natural sources into storage reservoirs may be measured by using the measurement of the amount of water entering a snowmaking system and by calculating the change in the amount of water stored in the storage reservoir, provided separate records of the water withdrawn from each natural source are maintained.
- C-95. Env-Wq 2102 includes requirements for water use registration and reporting and applies to any person required to register a water use under RSA 488:3, I, namely any person whose cumulative incoming water or cumulative outgoing water exceeds an average of 20,000 gallons of water per day in any 7-day period, or exceeds a total volume of 600,000 gallons in any 30-day period (see Fact C-92). Env-Wq 2102.07 requires each water user that is not an agriculture water user, a limited water user, or the owner of a mobile facility that qualifies for an intermittent registration under Env-Wq 2102.32(a)(1) to report water use in accordance with Env-Wq 2102.07.
- C-96. Env-Wq 2102.10, titled “Measurement of Volume of Water Use Required,” states, in part:  
“(a) Each water user that is not an agriculture water user, a limited water user, or the owner of a mobile facility that qualifies for an intermittent registration under Env-Wq 2102.32(a)(1) shall use the methods described in Env-Wq 2102.11 through Env-Wq 2102.15 to measure or quantify:  
(1) The monthly volume of withdrawal and discharge for each registered source and destination, respectively;  
(2) The 24-hour maximum volume for each month reported, if available; and

(3) The monthly volume(s) of water transferred to or from another facility. [...]"

C-97. Env-Wq 2102.11, titled "Accuracy" states:

"a) The method of measurement or quantification of water use shall be accurate to within 10 percent.

(b) If meters are not used, the water user shall:

(1) Document in detail the method employed for estimating water use; and

(2) Demonstrate that the results satisfy the accuracy requirement in (a), above."

C-98. The Applicant is required to register and report water use of the Activity with the NHDES WURRP because the Activity's cumulative incoming water will exceed an average of 20,000 gallons of water per day in any 7-day period, or exceeds a total volume of 600,000 gallons in any 30-day period.

## **XII. NHDES Records Relevant to the Project**

C-99. The Storrs Pond impoundment is created by Storrs Pond Dam, which impounds inflow from Camp Brook. According to information maintained by the NHDES Dam Bureau, Storrs Pond Dam is 34 feet high, 140 feet long, and is primarily constructed of earth to provide for recreation use of Storrs Pond. Storrs Pond holds approximately 254 acre-feet of water at maximum storage, has an area of approximately 16 acres, and discharges into Camp Brook.

C-100. After Storrs Pond discharges into Camp Brook, which is separated by a culvert that conveys flow under New Hampshire Route 10 (i.e., Lyme Road), Camp Brook discharges into the Connecticut River. The dam of the Wilder Hydroelectric Project is located on the Connecticut River approximately 5.5 miles downstream of where Camp Brook enters the Connecticut River. According to records maintained by the NHDES Watershed Management Bureau, the dam creates an impoundment of the Connecticut River, referred to as Wilder Lake, that extends approximately 45 miles upstream from the dam on the Connecticut River to Haverhill, New Hampshire. Under the license that the Federal Energy Regulatory Commission (FERC) issued for the project on December 10, 1979, the licensee of the project is permitted to operate the project to cause the surface elevation of Wilder Lake to fluctuate from 380.0 feet mean sea level (msl) to 385.0 feet msl.<sup>5</sup> Therefore, the distance from Storrs Pond Dam to the Connecticut River varies with the elevation of Wilder Lake, with a maximum distance of approximately 1,400 feet when the surface elevation of Wilder Lake is lower than its confluence with Camp Brook.

C-101. Based on records maintained by the NHDES Drinking Water and Groundwater Bureau, Camp Brook, which is upstream of and discharges to Storrs Pond, is also impounded by two dams that create Fletcher Reservoir and Parker Reservoir. Parker Reservoir, which is upstream of Fletcher Reservoir, conveys water to Fletcher Reservoir via Camp Brook. Fletcher Reservoir, in turn, discharges water to Camp Brook via the dam's spillway. In addition, a dam on tributary of Mink Brook, which is in a different watershed than the Camp Brook watershed, creates Hanover Center Reservoir, which discharges water to Parker Reservoir via 10-inch pipe (i.e., transfers water from the Mink Brook watershed to the Camp Brook watershed). Hanover Water Works operates that transfer when more water is needed in Fletcher Reservoir. Hanover Water Works withdraws water from Fletcher Reservoir to provide drinking water to portions of the Town of Hanover. From 2008 to 2022, those withdrawals have averaged approximately 26.7 million gallons per month, which is approximately equivalent to 611 gallons per minute (i.e., if water is constantly and consistently withdrawn each minute of the year, which does not occur). The average withdrawal amount

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<sup>5</sup> FERC Document Accession No. [19791210-4000](https://www.ferc.gov/records/19791210-4000).

from April through October (i.e., the months during which the Activity would not occur) is approximately 23% higher than average withdrawal amount from November through March (i.e., the months during which the Activity would occur).

### **XIII. New Hampshire Certification Application**

- C-102. *Water Quality Certification Application:* On December 16, 2022, NHDES received the Application for Water Quality Certification for the Activity from the Applicant (Application). With the Application, the Applicant included the following, among other things: narratives describing the Activity and the expansion of cross-country ski trails associated with the Activity; plans for existing conditions, grading, erosion prevention and sediment control; construction details for the project associated with the Activity; a copy of a NHDES Alteration of Terrain Permit Application for the project associated with the Activity; a copy of the Applicant's 2020 Snowmaking Concept Design; a copy of an open letter, dated December 12, 2022, from the owner of the property where the Activity and the project associated with the Activity would be located that stated that the property owner authorizes use of the property by the Applicant to annually remove up to 5 million gallons of water from Storrs Pond.
- C-103. On January 17, 2023, NHDES sent a letter to the Applicant that notified the Applicant that the Application was incomplete and requested that the Applicant submit certain information to NHDES to complete the Application.
- C-104. On January 27, 2023, NHDES received from the Applicant an amendment to the Application that included the information that NHDES requested in its January 17, 2023 letter. The record for this Certification decision includes the information provided in the Application, as amended, and the references in this Certification.
- C-105. *Certification Public Comment Period:* NHDES published on its website and issued a draft Water Quality Certification for the Activity for public comment from March 2, 2023 to 4 pm on April 3, 2023. NHDES did not received comments on the draft Water Quality Certification.

## **D. FINDINGS**

### **I. Applicant's Proposal**

- D-1. The proposed Activity is described in narratives, plans, data from measurements of the surface water elevation of Storrs Pond, maps, and calculations provided in the Application, as amended (see Facts C-102 and C-104). In the Application, the Applicant provided the following description of the Activity, among other information:

“The proposed water withdrawal from Storrs Pond to support snowmaking at the facility is new and it is intended to be permanent but operated seasonally during the winter ski season. Storrs Pond was selected as a source of snowmaking water after evaluating other options and finding such alternatives to be infeasible [...], and the effect on Storrs Pond water levels to be less than what NH Fish and Game have previously determined to not result in adverse effects on water quality at other impoundments. [..]

The snowmaking system is comprised of a screened intake that will be supported on a small structure (concrete pad or other support) on the bottom of Storrs Pond at an elevation of

approximately 405 ft [feet] that is approximately 8.7 ft below full pool. This location was selected due to its relatively deep water close to shore and because the area under which the subsurface piping must pass has previously been disturbed and is an existing beach area. A 10-inch diameter pipe will allow water to passively flow from the intake to the submersible pump vault that is to be located along the northerly end of the beach. The pump vault is designed to withstand submergence and will house two 30 hp [horsepower] submersible pumps that will lift water approximately 60 vertical feet from the vault in a 10-inch diameter water supply pipe to an existing building within the Oak Hill Nordic Ski Center that will be repurposed to serve as a snowmaking pumphouse. The pumphouse will contain two 200 hp pumps and up to two compressors from which water and air will be distributed via approximately 10,000 ft of steel piping of various diameters to snow guns spaced alongside the proposed ski loop. The approximate acreage of trail to be covered by snow is 8.4 acres. The distribution system is designed with several zones so that the application of snow is efficient and can be directed to the desired zone. A valve house located adjacent to an existing gravel drive/ parking area will contain valves that can be opened and closed to control flow to each zone. [...]

The flow rate of the proposed water withdrawal from Storrs Pond is dictated by the pumping rate of the submersible pumps located within the submersible pump vault along the shore of Storrs Pond. The maximum rate of pumping of the submersible pump is 1,000 gallons per minute (gpm). [...]

No chemical, physical, or biological constituents are proposed to be added to snowmaking water. [...]

The frequency of the withdrawal is dictated by two main snowmaking objectives: initial coverage and recovery/refresh after thawing or rainstorms. Initial coverage of the 8.4 acres of trail surface is anticipated to require 2.4 million gallons (MG) of water. This initial effort will provide adequate depth of snow cover that a snow cat/groomer can operate without accidentally contacting the underlying ground surface and bringing grass or dirt to the snow surface. While it may be physically possible to withdraw and pump 2.4 million gallons to obtain this initial coverage in less than two days at the maximum pumping rate ( $2.4 \text{ mg} / (1,000 \text{ gpm} \times 1,440 \text{ min/day}) = 1.67 \text{ days}$ ) temperatures must stay continuously cold for this period of time and operationally there is some down time transitioning between snowmaking distribution zones and checking and adjusting air/water mix at the snow guns to ensure the snow that is made is of desirable consistency. The actual frequency of withdrawal during this initial coverage period is likely split between several application events over the course of 2 days to 2 weeks occurring between November 15th and December 15<sup>th</sup>.

The refresh of the snow surface after initial coverage is obtained can be variable both in location and in number of subsequent applications. This variability is driven by several factors that can work to degrade snow depth and snow quality including: rain events or persistent thaws, and snow tilling and excessive working of snow that changes the structure of the snow and which reduces the air content of the snow which in extreme cases reverts the snow to ice. A refresh that is intended to be used to recover from a rain or significant thaw event tends to require more widespread application of additional snow and would require larger water withdrawal rates and volumes concentrated into a shorter time frame that may approach that used in the initial coverage. [...]

The period in which water withdrawals for snowmaking are needed is from November 15th to March 31. The requested duration of this water withdrawal is in perpetuity. [...]

The temperature of the water withdrawn for snowmaking may range from 2-5 degrees Celsius. The air temperature (or more importantly, the wet bulb temperature which is a combination of air temperature and relative humidity) generally needs to be below -3 degree Celsius for this type of system to operate.

Storrs Pond [...] is the first named water which will capture meltwater and runoff from the project area. [...]

The following best management practices (BMPs) would be used to implement an approach to water withdrawals that: does not create an impairment, reserves 10% of the maximum capacity stored above that which we have conservatively assumed has the potential create an impairment, and does not lower the pond water level by more than one foot:

- Check water levels at the existing staff gage at pond dam (or other suitable staff gage location within the pond) prior to a snowmaking event and if greater than elevation 408.57 then water withdrawals for snowmaking are allowed and the observed water level shall be recorded.
- Check and record water levels during a snowmaking event to ensure:
  - a. pond is [not] lowered by more than 4.4" (0.37 feet) per 24 hours; and
  - b. pond is not lowered by more than 1 foot from the elevation observed/recorded at the start of snowmaking.
- Install and maintain a flowmeter at the pumphouse that meets the requirements of NH RSA 488:4-a.
- Keep records to ensure [the Applicant] does not use more than 5 million gallons of water from Storrs Pond for snowmaking per snowmaking season (November 15th to March 31). [...]

Any water that is withdrawn for snowmaking from Storrs Pond will be returned to the environment in the Storrs Pond watershed. The release of such water will be as follows [...]:"

- During snowmaking as snow. Frequency: whenever snow is made; rate/volume: max pumping rate of 1,000 gpm (as snow).
- During snowmaking on the northern snowmaking distribution loop a bleeder valve will be left open to keep it flowing to keep the system from freezing. This will allow between 50-100 gpm to be released to the pond at the intake screen, allowing water to recirculate back into intake. Frequency: whenever this loop is operating at low temperatures; flow: 50-100 gpm
- At the end of a snowmaking session water that remains in the snowmaking distribution system will be drained from portions of the system at low points in the snowmaking distribution system which are either:
  - a. back into the pond at the intake screen; or
  - b. into rock lined/filled stone sumps sized to hold the volume of water drained, and that are wider than they are deep. Frequency: at the end of a snowmaking session [...]."

## II. Water Quality Certification Required

D-2. Surface Water Quality Standards are summarized in Facts C-2 through C-38 and apply to all New

Hampshire surface waters as defined in Fact C-6.

- D-3. The Storrs Pond, which is an impoundment of Camp Brook, where the Activity would be located, is a surface water and is subject to New Hampshire’s Surface Water Quality Standards (see Facts C-5 and C-6 and Finding D-1).
- D-4. The proposed Activity involves the withdrawal of surface water that will require registration under RSA 488:3 (See Fact C-92 and Finding D-1).
- D-5. Because the proposed Activity involves a withdrawal from a surface water that will require registration under RSA 488:3, NHDES must issue a Certification in accordance with RSA 485-A:12, IV before the proposed withdrawal can commence (see Fact C-1 and Findings D-1 and D-4).
- D-6. The Applicant submitted an application for Certification (see Facts C-102 and C-104).

### **III. State Authority for Certification Conditions, Modifications and Monitoring**

- D-7. RSA 485-A:12, IV (see Fact C-1) states, in part, the following: “The certification shall include any conditions on, modifications to, or monitoring of the proposed activity necessary to provide reasonable assurance that the proposed activity complies with applicable surface water quality standards. The department may enforce compliance with any such conditions, modifications, or monitoring requirements as provided in RSA 485-A:22.” Necessary conditions on and monitoring of an activity include, but are not limited to, the following:
  - a. Identification of the effective date of a certification so that an applicant and other persons know when the certification conditions are applicable to the applicant;
  - b. Notification to NHDES if control of the Activity changes from the Applicant to a new person so that NHDES and other persons know who is responsible for the Activity;
  - c. Requiring an applicant to comply with Surface Water Quality Standards to certify the Activity;
  - d. Requiring an applicant to obtain approval from NHDES prior to modifying an activity that could have a significant or material effect on the findings or conditions of a certification so that NHDES may amend a certification, as necessary, to ensure that a modified activity will comply with Surface Water Quality Standards;
  - e. Monitoring to determine compliance with conditions in this certification;
  - f. On-site inspections;
  - g. Development, submission, and implementation of monitoring plans;
  - h. Analysis, preparation, and submittal of reports that summarize monitoring results or compliance with applicable permits so that NHDES and others may know whether there is compliance with Surface Water Quality Standards or certain permits applicable to an activity; and
  - i. Notifying appropriate authorities in a timely manner when deviations from conditions in this certification occur.
- D-8. The Applicant is Responsible for the Activity. If the person responsible for the Activity and Certification changes, it would become necessary to notify NHDES of the change so that NHDES can ensure compliance with the Certification (See Fact C-1 and Finding D-7). Condition E-7 addresses this finding.

### **IV. Potentially Affected Surface Waters**

- D-9. NHDES has assigned Assessment Unit (AU) identification numbers to many, but not all surface waters.

The surface waters that could be potentially affected by the Activity and its associated AU numbers include, but are not limited to, the following:

Assessment Unit ID	Description
NHLAK801040402-02-01	Storrs Pond (Camp Brook)
NHLAK801040402-02-02	Storrs Pond – Recreation Area Beach (Camp Brook)
NHLAK801040402-02-03	Storrs Pond - Adult Beach
NHLAK801040402-07	Unnamed Pond (Camp Brook)
NHLAK801040402-03	Wilder Lake (Connecticut River)

- D-10. The surface waters potentially affected by the Activity are classified as Class B (see Facts C-22 and C-23 and Finding D-10).
- D-11. A requirement of all surface waters is to protect the designated uses defined in Env-Wq 1702.17, which include swimming and other recreation in and on the water, fish consumption, shellfish consumption (for tidal waters), aquatic life integrity, wildlife, and after adequate treatment as a water supply. Designated uses apply “...whether or not such uses are presently occurring” (see Facts C-13 and C-22).
- D-12. The surface waters in the vicinity of the Activity are not outstanding resource waters (see Facts C-19 and C-37) but are high quality waters for flow, among other Surface Water Quality Standards (see Facts C-15 and C-38).
- D-13. According to the 2020/2022 305(b)/303(d) lists of impaired waters (see Fact C-39), the following surface waters in the vicinity of the proposed Activity are listed as impaired:

Assessment Unit (AU)	Waterbody Name	Cause of Impairment (Designated Use Impaired)
NHLAK801040402-02-01	Storrs Pond (Camp Brook)	<b>Mercury (FC)</b> Cyanobacteria hepatotoxic microcystins (PCR)
NHLAK801040402-02-02	Storrs Pond – Recreation Area Beach (Camp Brook)	<b>Mercury (FC)</b> Cyanobacteria hepatotoxic microcystins (PCR)
NHLAK801040402-02-03	Storrs Pond - Adult Beach (Camp Brook)	<b>Mercury (FC)</b>
NHLAK801040402-07	Unnamed Pond (Camp Brook)	<b>Mercury (FC)</b>
NHLAK801040402-03	Wilder Lake (Connecticut River)	<b>Mercury (FC)</b>
Notes: AL = Aquatic Life, PCR = Primary Recreation, SCR = Secondary Recreation, FC = Fish Consumption, SFC = Shellfish Consumption. Impairments highlighted in bold have approved TMDLs. All other impairments are on the Section 303(d) List. All fresh surface waters are impaired mercury due to elevated levels of mercury in fish tissue which has resulted in statewide fish consumption advisory.		

When surface waters do not meet Surface Water Quality Standards (i.e., when the surface water is



impaired), the addition of pollutants causing or contributing to impairment should be avoided (see Fact C-41). All fresh surface waters in New Hampshire are impaired for mercury due to concentrations found in fish tissue, which have resulted in a statewide fish consumption advisory. On December 20, 2007, EPA approved the Northeast Regional Mercury TMDL which addressed mercury impairments in all New Hampshire fresh surface waters (see Fact C-40). The primary source of mercury is atmospheric deposition from in-state and out-of-state emissions. The surface waters in the vicinity of the Activity are also listed as impaired for Cyanobacteria hepatotoxic microcystins (Cyanobacteria). The proposed Activity is not expected to have an impact on mercury or cyanobacteria in surface waters. When water quality of surface waters is better than required by any aquatic life or human health water quality criteria or other criteria assigned to the surface water, or has qualities and characteristics that make surface waters critical to the propagation or survival of important living natural resources, the surface waters are high quality waters (see Facts C-15 and C-38). Surface waters in the vicinity of the Activity are high quality waters except for the aforementioned impairments.

## V. Potential Impacts of the Withdrawal on Surface Water Quality Standards

- D-14. As stated in Finding D-11, all designated uses apply to surface waters whether or not the uses are presently occurring. If not properly controlled, withdrawals from surface waters can result in impairment of designated uses including, but not limited to, aquatic life. Examples of how aquatic life can be adversely impacted by winter withdrawals include, but are not limited to, reductions in wetted habitat and river velocity due to less water, which can cause increased icing and lower dissolved oxygen levels due to less atmospheric contact and mixing. Reductions in water flow or surface elevation caused by withdrawals can also expose amphibians and reptiles (e.g., turtles and frogs) that hibernate underwater in the winter to freezing temperatures and possible death. These potential impacts can contribute to violations of Surface Water Quality Standards for Biological and Aquatic Community Integrity (see Fact C-33).
- D-15. In the Application, the Applicant stated the following, among other things, related to the existing water quality, including quantity, of Storrs Pond and downstream of Storrs Pond:

“[T]he main consideration is whether the removal of water from the pond will have physical effects on the ability of the waterbody to continue to provide primary contact recreation and the effect on aquatic life forms. [..]

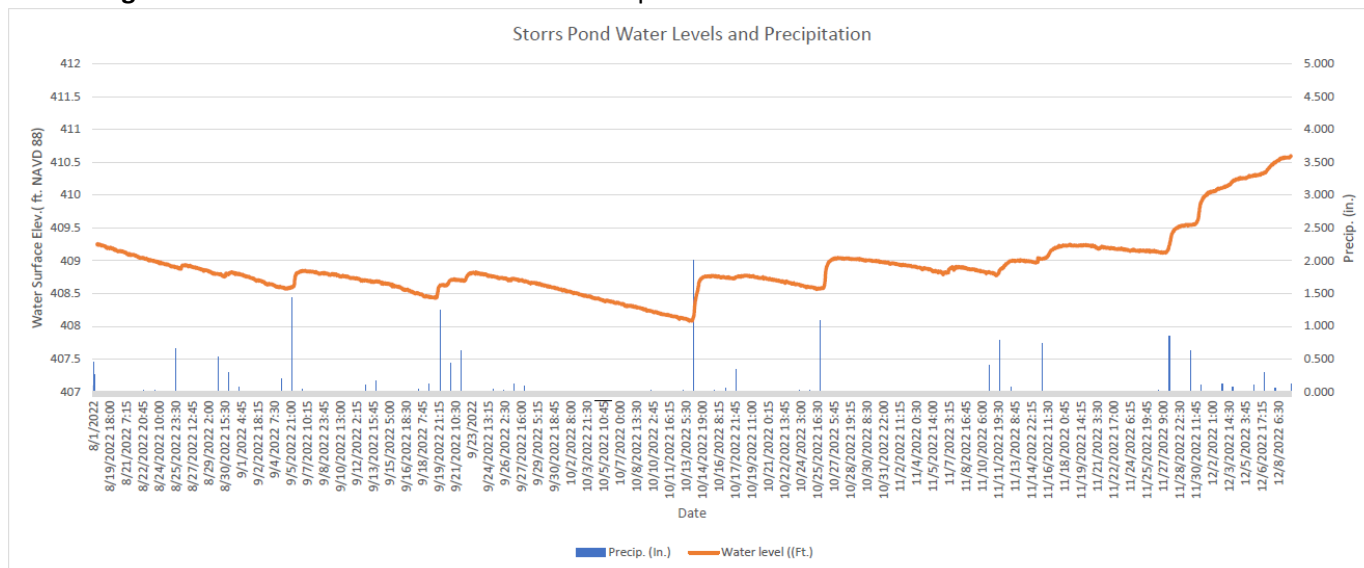
First it is important to conceptually understand the pond’s water inputs and exports as they currently exist prior to implementing the proposed withdrawal. The watershed to the pond is approximately 1,870 acres. Approximately 2/3 (1,235 acres) of this watershed lies upstream of an impoundment system (two dammed reservoirs) that captures and stores water, and after treatment, provides drinking water for the Town of Hanover. Much of the watershed to the pond is open space. It is our understanding that Storrs Pond and the upstream reservoirs are typically full in spring and the dam at the lower of the two reservoirs (Fletcher Reservoir) is spilling water over its spillway into Camp Brook in spring which in turn conveys this flow into Storrs Pond. With Storrs Pond full (flashboards are at elevation 413.7 NAVD 88 [North American Vertical Datum of 1988]) in spring, the flashboards will typically fail/open resulting in a drop in pond water levels as Storrs Pond passes water through the dam’s outlet to a downstream waterbody which lies between Storrs Pond and Route 10. By summer there is less water arriving at Storrs Pond from the Fletcher Reservoir and water levels in Storrs Pond are not high enough to discharge water through its dam and tend to lower throughout the typical the swimming season until its end a little after Labor Day. The pond’s

water surface tends to continue to lower until fall when evaporative and transpirational losses apparently decline relative to precipitation-related inputs and water levels in the pond begin to climb.”

NHDES notes that the Applicant also described a dam outlet structure that is located in Storrs Pond at an elevation of approximately 412.1 NAVD 88 and 18 inches lower than that top of flashboards of Storrs Pond Dam (see Finding D-16).

NHDES is not aware of a gage in Storrs Pond or on Camp Brook that regularly measures and records surface water elevation of, or flow to or from, Storrs Pond, on historical basis (the Applicant did report an existing staff gage located at the Storrs Pond Dam in the Application). In the Application, the Applicant stated that it began recording surface water elevations of Storrs Pond on August 18, 2022 using a data logger and provided the following figure (i.e., Figure 1) showing the measured surface water elevation of Storrs Pond and precipitation in Hanover, New Hampshire, from August 18, 2022 to December 8, 2022.

**Figure 1 - Storrs Pond Water Levels and Precipitation**



In the Application, the Applicant stated the following regarding visual observations of Storrs Pond and Camp Brook:

“We also made (non-continuous) visual observations of water levels in Camp Brook and in the waterbody downstream of Storrs Pond starting on August 18th, 2022, and observed very little to no flow in Camp Brook, with some minor flow in the Brook in November. The waterbody downstream of Storrs Pond was consistently found have water levels that fluctuate by approximately 0.3 feet throughout the period of observation despite a lack of outflow over the Storrs Pond Dam (<2 gpm leakage). In performing research of NH Department of Transportation files, we learned that the waterbody is connected to the Connecticut River via a 5 ft x 5 ft box culvert under Route 10 and water levels in the waterbody were within 0.15 ft of the water level of the Connecticut River when measured on September 8, 2022. Further field investigation found the culvert submerged on both ends with a nominal dimension of 5 ft. x 5 ft. Since water levels on the Connecticut River raise and

drop several times a day by often as much as 3-4 feet at the streamgage on the Connecticut River in downstream West Lebanon we believe this to be the source of frequent 0.3 ft. fluctuation in the waterbody downstream of Storrs Pond. We have drawn four main conclusions from our observations: 1) with this being a relatively dry year with little to no inflow from Camp Brook, the observations we made of water levels were largely attributable to direct precipitation on the pond and the land immediately surrounding the pond as well as some unquantified level of groundwater input. 2) Contributions from the watershed upstream of Fletcher reservoir had no measurable effect on water levels during the period of measurement. 3) The water levels in the waterbody downstream of Storrs Pond fluctuates frequently and in response to other frequent water level changes in the Connecticut River with little to no influence by water levels in Storrs Pond. 4) Given conclusions 1 & 2 & 3, we further conclude the physical effects of water levels in Storrs Pond will not extend beyond the Pond itself.

Because a ponds side slopes are not vertical the volume of water contained within one vertical foot of a pond's water stage is not uniform and declines as one moves lower within the bowl-shaped configuration of the pond. with a portion of the pond's side slopes exposed during 2022 we had relatively good access to measure the side slopes of the upper portion of the pond that would normally be submerged. We used this opportunity to take 50 measurements of the ponds side slope. We were also able to take measurements of the submerged portions of the pond and found no distinct break in the portions of the side slopes that were submerged vs those that were above the water. While much of the pond side slopes were in the range of 2 horizontal: 1 vertical to 3H:1V, the side slopes in beach areas and at some relic channels were considerably flatter. With a spatially uniform sampling effort among the features present around the perimeter of the pond we found an average side slope of 3.71H:1V. [...]

During numerous site visits to measure water levels and perform various data collection activities (including walking the entire perimeter of the pond during side slope measurements) we did not observe impacts to primary or secondary contact recreation (swimming and boating), aquatic life integrity, and wildlife. We did not observe any evidence of stranded organisms or fish exhibiting signs of stress, nor fish kills. We did not observe evidence of the pond off-gassing (the presence of such gas bubbles at the pond surface in the morning or on cloudy days is often the result of low dissolved oxygen levels and is typically the result of denitrification within a pond). At no time did we observe conditions that would deter or inhibit wildlife from using the pond. So, while we cannot determine the minimum pond level (below that which we observed this season) that would still support these uses during the period of our proposed withdrawal activity, we collected water level data and observations during a period of time in which impacts of low water levels would have been pronounced. From this we conclude that a pond water level elevation of 408.1 supports and protects swimming boating, aquatic life integrity and wildlife."

At Facts C-99, C-100, C-101, NHDES describes additional factors that may influence water quantity in Storrs Pond and downstream of Storrs Pond based on records maintained by NHDES.

- D-16. In the Application, as amended, the Applicant stated the following, among other things, about the Activity's impact on Surface Water Quality Standards (see Facts C-102 and C-104):

"In assessing how the project may affect designated uses, we observed that the effect of water levels in Storrs Pond on primary contact recreation did not hamper a successful swim season this year despite the water levels being 4-5 feet below full pool during the month of August [2022]. The

water withdrawals we propose would not initiate until at least two months after the swim season has concluded. Water levels in Storrs Pond typically recover by early spring such that the pond is full, and the flashboards open which causes the release of excess water (estimated to be 8,000,000) from the Storrs Pond dam as the water level lowers approximately 18" to the dam outlet structure at 412.1. Given the above experience during a dry summer and the release of excess water in spring we believe that the project will not have an adverse impact on Primary Contact Recreation and that there is remaining excess capacity to accommodate the proposed withdrawal.

We have estimated the physical effects of the proposed withdrawal on the Storrs Pond water levels under a conservative assumption of no precipitation, no groundwater inputs to the pond, and no inflows into the pond. This is very conservative and is akin to modelling the pond as a bathtub in which the volumetric effect of a withdrawal is the only input or output variable and our estimates would tend to show the greatest lowering of water levels from a water withdrawal since it would presume no water level recovery. If we further use a conservative assumption that the water surface in Storrs Pond is at elevation 408.0 NAVD 88 which is the lowest the pond reached this past summer and evaluate the effects of water withdrawals at the maximum pumping rate of 1,000 gpm with the above conservative assumptions of no other water inputs to the pond, we expect the water surface of the pond to lower by no more than 0.18 inches per hour. If pumping continuously for 24 hours at this rate the pond would lower by not more than 4.4 inches at the end of this 24-hour period and initial coverage could be completed with another 16 hours of withdrawal/snowmaking. Given the physical limitations of the pumping equipment, the water withdrawals could not draw down the pond more than 4.4" per day. This is less than the 6" per 24 hours that NH Fish and Game has recently determined would not have an adverse effect on water quality and aquatic life integrity at other dammed impoundments [...].

[T]he the maximum 4.4"/day water level drop in Storrs Pond under conservative assumptions of no precipitation or other water inputs to the Pond is intended to convey an upper limit of a potential effect of water withdrawals. In reality, the water taken out of the pond for snowmaking will likely be replaced by precipitation falling directly on the pond and from inflows from the surrounding watershed. In order to provide an estimate or reference of how quickly the water level in Storrs Pond rises or recovers in response to precipitation we used the empirical water level data we collected to develop a relationship of water level rise in the pond relative to significant precipitation events that occurred during our period of water level monitoring. [...]

In the Application, as amended, the Applicant also concluded that a Storrs Pond surface water elevation of 408.1 NAVD 88 would maintain and protect recreation, wildlife, and aquatic life integrity of Storrs Pond based on the Applicant's observations of Storrs Pond in 2022 (see Fact D-15).

## VI. Antidegradation

- D-17. Since the Applicant is proposing an Activity that involves a withdrawal from a surface water, the Activity is subject to antidegradation requirements under Env-Wq 1708 to ensure, in part, that existing uses and the level of water quality necessary to protect the existing is maintained and protected (see Facts C-16 and C-36, and Finding D-1). Under antidegradation requirements, NHDES must determine whether the Activity would cause an insignificant or significant lowering of water quality, as those terms are applied under Part Env-Wq 1708.09, or an impairment of Surface Water Quality Standards. If NHDES determines that the Activity would only cause an insignificant lowering of water quality of surface waters, then NHDES is required to authorize the Activity provided the Applicant implements best management

practices to minimize degradation (see Facts C-11, C-36, and C-38). If NHDES determines that the Activity will cause a significant lowering of water quality of surface waters, then the Applicant must demonstrate, in accordance with Env-Wq 1708.10, that the significant lowering of water quality is necessary to achieve an important economic or social development before NHDES may authorize the Activity (see Fact C-36). If NHDES determines the Activity will cause an impairment of surface waters, NHDES is prohibited from certifying the Activity (see Fact C-1).

NHDES concurs with the Applicant that the water withdrawal of the Activity and, therefore, a change in water quantity will be the primary impact on existing and designated uses of affected surface waters, particularly recreation, wildlife, and aquatic life integrity (see Fact C-22 and Finding D-15). Because of the unnatural hydrologic conditions that affect water quantity upstream and downstream of Storrs Pond, NHDES concurs with the Applicant that the Activity will primarily impact Storrs Pond, and not Camp Brook downstream of Storrs Pond (see Finding D-15). Therefore, the primary impact of concern relative to antidegradation requirements is whether the proposed reduction in volume of water and surface elevation of Storrs Pond would cause an insignificant or significant lowering of water quality or an impairment of Surface Water Quality Standards.

NHDES concurs with the Applicant that the Activity will not cause a significant lowering of water quality with respect to recreation because recreation will likely be unaffected by the Activity, especially considering that much of the water withdrawn for the Activity will be returned to the Storrs Pond watershed (see Findings D-1 and D-16).

However, NHDES is unable to determine that certain aspects of the Activity, as proposed by the Applicant in the Application, will not cause a significant degradation or impairment of water quality with respect to wildlife and aquatic life integrity, and with respect to Surface Water Quality Standards specified under Env-Wq 1703.19 and Env-Wq 1705.01(a) (see Facts C-33 and C-35).

Based on observations described in the Application, the Applicant asserted that wildlife and aquatic life integrity is maintained and protected when the surface water elevation of Storrs Pond is at 408.1 NAVD 88 and, therefore, conservatively assumed that impairments of Surface Water Quality Standards could occur when the surface water elevation of Storrs Pond is at 408.0. To address the requirement of Env-Wq 1705.01(a), the Applicant assumed the best possible existing water quality of Storrs Pond occurs when its surface water elevation is at 413.7 feet NAVD 88 and proposed to not conduct the Activity when the surface water elevation of Storrs is 0.57 feet above 408.0 NAVD 88, which is 10 percent of the range between the surface water elevation for the best existing water quality and the potentially impaired water quality (i.e.,  $413.7 \text{ feet} - 408.0 \text{ feet} = 5.7 \text{ feet}$ ;  $5.7 \text{ feet} \times 10\% = 0.57 \text{ feet}$ ;  $408.0 \text{ feet} + 0.57 \text{ feet} = 408.57 \text{ feet NAVD88}$ ). Because of the frequency and magnitude of fluctuations of the surface water elevation of Storrs Pond, the Applicant asserted that NHDES should not use a fixed surface water elevation of Storrs Pond to delineate insignificant and significant lowering of water quality. Instead, to ensure that the Activity would only cause an insignificant, and not a significant, lowering of water quality of Storrs Pond, the Applicant proposed limiting the drawdown of Storrs Pond during each snowmaking event to less than 20 percent of the range between the surface water elevation for the best existing water quality and the remaining assimilative capacity of Storrs Pond, which would be approximately one foot (i.e.,  $413.7 \text{ feet} - 408.57 \text{ feet} = 5.13 \text{ feet} \times 20\% = 1.026 \text{ feet} \approx 1 \text{ foot}$ ). In addition, the Applicant proposed to limit withdrawals so that Storrs Pond is not lowered by more than 4.4 inches per 24-hour period (see Finding D-1). To support that this surface water lowering rate would not adversely impact aquatic life integrity, the Applicant asserted that the New Hampshire Fish and Game Department (NHFGD) had recently determined that a surface water elevation lowering rate of not

more than 6 inches per 24 hours would not have an adverse impact on water quality and aquatic life integrity of impoundments of certain hydroelectric projects, as referenced in water quality certifications that NHDES has granted for those hydroelectric projects.

Little is known about the ecological impacts of winter water level drawdowns on lake and pond littoral zones, including how the frequency and magnitude of drawdowns impact wildlife and aquatic life integrity.<sup>6</sup> However, studies have shown that lakes or ponds that experience relatively rapid or substantial, unnatural lowering of surface water elevations can cause increased mortality of littoral macrophytes, macroinvertebrates, and fauna.<sup>6</sup> For example, certain wildlife, such as frogs and turtles, hibernate over the winter below the ice at the bottom of lakes and ponds in varying depths of water. If frozen lakes or ponds experience rapid or substantial lowering of surface water elevations, wildlife may not be able to adequately respond to exposure to freezing air temperatures, which could cause an increase in wildlife mortality. The Applicant's assertion that that wildlife and aquatic life integrity is maintained and protected when the surface water elevation of Storrs Pond is at 408.1 NAVD 88 is based on the Applicant's observations in warmer months when the Activity would not occur. Therefore, NHDES is concerned that drawdowns of Storrs Pond by up to one-foot per snowmaking event or down to a surface elevation of 408.57 feet NAVD 88 may not be protective or supportive of the aquatic life as required under Env-Wq 1703.01(d), Env-Wq 1703.19, and Env-Wq 1708.01(a) (see Facts C-22, C-33, and C-36), and result in noncompliance of Env-Wq 1705.01(a) (see Fact C-35).

Based on consultation with the NHFGD about the Activity, NHDES determined that the Activity would only cause an insignificant lowering of water quality if the Activity was limited, in part, by the following withdrawal conditions:

- a. To prevent the proposed intake structure from entraining and impinging aquatic life when the pumps of the Activity are operating, it is necessary to have a screen installed on the end of the intake pipe that is acceptable to the NHFGD and can be periodically cleaned in a manner that will not cause a violation of Surface Water Quality Standards, for parameters including, but not limited to, turbidity (see Fact C-29) and visible plumes (see Facts C-24 and C-26);
- b. The withdrawal rate be limited to 1,000 gpm and not reduce the surface elevation of Storrs Pond by more than 4.4 inches per 24-hour period during any snowmaking event, as proposed by the Applicant;
- c. Only occur when the surface water elevation of Storrs Pond is at or above a target minimum surface water elevation of Storrs Pond of the snowmaking season. The target minimum surface water elevation of Storrs Pond should be four inches below the average daily readings of surface water elevation of Storrs Pond from September 1 to November 15, inclusive, unless otherwise directed by NHFGD.

Conditions E-10, E-11.e, E-11.f, and E-11.h address this finding.

NHDES also determined that NHFGD's recommendation to limit the surface water elevation lowering rates of impoundments of hydroelectric projects by not more than 6 inches per 24 hours to protect and maintain aquatic life integrity is contingent on NHFGD's recommendation that those drawdowns do not occur when aquatic life may be exposed to prolonged freezing temperatures, unless the drawdown is necessary for emergency repairs for the hydroelectric project.

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<sup>6</sup> Carmignani, J.R., Roy, A.H. Ecological impacts of winter water level drawdowns on lake littoral zones: a review. *Aquatic Sciences* 79, 803–824 (2017). <https://doi.org/10.1007/s00027-017-0549-9>.

- D-18. Under Env- Wq 1708.09(c), the Applicant must implement BMPs to minimize degradation of water quality (see Facts C-11 and C-36) . In the Application, as amended, the Applicant proposed certain BMPs and described certain elements of the Activity that meet the definition of BMPs (see Facts C-102 and C-104 and Finding D-1). NHDES has determined that compliance with the conditions in this Certification will satisfy BMP requirements and serve to minimize degradation of Storrs Pond caused by the Activity. BMPs for withdrawals of water for the Activity include the following:
- 1) Be at the location described in the Application;
  - 2) Only occur from November 15 to March 31 for the purpose of snowmaking;
  - 3) Not exceed five million gallons from November 15 to March 31 each snowmaking season unless the Applicant obtains prior approval from NHDES; and
  - 4) Be limited to snowmaking that would provide sufficient snow depth and coverage on trails so that a snow groomer can operate without risk of contacting the underlying ground surface.

Conditions E-11.a, E-11.b, E-11.c, and E-11.g address this finding.

- D-19. To help ensure compliance with certain conditions required by this Certification, it is necessary for the Applicant to regularly maintain and submit records to NHDES that describe the operation of the Activity, including instances of noncompliance with Certification conditions (see Finding D-7). Conditions E-12, E-13, and E-15 address this finding.
- D-20. To help ensure compliance with the withdrawal conditions and BMPs required by this Certification, it is necessary for the Applicant to develop and submit for NHDES approval an Operations, Maintenance, and Reporting Plan (OMRP) that describes how the Activity will be operated. The OMRP would communicate to operators of the Activity and any other person how the Activity should be operated to achieve compliance with conditions of this Certification. Condition E-14 addresses the necessity of an OMRP.

## **VII. Other Requirements**

- D-21. If NHDES discovers that operation of the Activity is causing a significant degradation of water quality, or is causing or contributing to a violation of Surface Water Quality Standards, it may be necessary for NHDES to amend this Certification (See Facts C-22, C-36, and C-38 and Finding D-7). Condition E-3 addresses this Finding.
- D-22. The Applicant is required to obtain authorization under a general permit from USACE that is required under section 404 of the CWA to authorize the Applicant's proposed discharges of dredge and fill material into waters of the United States that are associated with the Activity (see Facts C-42, C-43, and C-44).
- D-23. The Applicant is required to obtain coverage under and comply with the 2022 NPDES CGP for construction of a portion of the Activity and until the applicant terminates CGP coverage. The 2022 NPDES CGP requires, among other things, the development and implementation of a SWPPP for the Activity, as well as certain monitoring, inspection, recording keeping, and reporting requirements (see Facts C-45, C-46, C-47, C-48, C-49, C-50, and C-51).
- D-24. The Applicant is required to obtain and comply with a permit from the NHDES Alteration of Terrain Program to protect surface waters, among other things, that may be impacted by the Activity (see Facts

C-68, C-69, C-70, and C-71).

- D-25. The Applicant is required to obtain and comply with a Shoreland Permit for the Activity from NHDES that would authorize construction, excavation, and filling activities in the protected shoreland (see Facts C-72, C-73, C-74, C-75, C-76, C-77, C-78, and C-79).
- D-26. The Applicant is required to obtain and comply with a NHDES Wetlands Permit for the Activity from the NHDES to authorize proposed impacts associated with dredge and fill material into jurisdictional areas, including impacts associated with intake structures (see Facts C-80, C-81, C-82, C-83, C-84, and C-85). Condition E-5 addresses this finding.
- D-27. This Certification decision relies, in part, on the Applicant complying with applicable permits that help ensure compliance with Surface Water Quality Standards (see Findings D-22, D-23, D-24, D-25, D-26). Condition E-5 addresses this finding.
- D-28. Because the Activity, in part, is subject to section 401 of the CWA, the Applicant must comply with applicable rules for water conservation under Env-Wq 2101 (see Facts C-86, C-87, C-88, C-89, and C-90).
- D-29. Because the proposed withdrawal exceeds the withdrawal thresholds in RSA 488:3, the Applicant must register the Activity with, and report the Activity to, the NHDES WURRP (see Facts C-91, C-92, and C-98 and Finding D-5). Registering and reporting the withdrawal with WURRP allows NHDES to track the cumulative volume of withdrawals in the watershed, which is important for determining how withdrawals are degrading surface water quality and to ensure that current and proposed withdrawals will comply with Surface Water Quality Standards. To properly report surface water withdrawals, the Applicant should comply with requirements for withdrawals, including measuring withdrawals in accordance with applicable laws and rules (see Facts C-91 through C-98). Conditions E-8 and E-11.d address this Finding.
- D-30. The Connecticut River downstream of the Activity is a designated river and is classified as a rural-community river (see Fact C-54). Therefore, the Activity is within the water use management planning area of the Connecticut River. As such, the Activity is within the jurisdiction of the New Hampshire Rivers Management and Protection Program and the Applicant will be an affected water user when the Applicant commences the Activity (see Facts C-52 through C-67). In accordance with NH RSA 483:9-a and Env-Wq 1900, NHDES must establish protected instream flows (PIFs) and adopt water management plans (WMPs) for each designated river that include details on how to implement the PIFs. To comply with PIFs and Surface Water Quality Standards associated with instream flow, affected water users must comply with the adopted WMPs. NHDES has not yet established PIFs or a WMP for the water use management planning area of the Connecticut River. If and when NHDES adopts a WMP that establishes PIFs, and if NHDES specifies withdrawal limits for the Activity in a WMP that are more stringent than the withdrawal conditions specified Condition E-11 of this certification, then Condition E-11 would need to be modified in accordance with Condition E-3 of this certification.

## E. CERTIFICATION CONDITIONS

Unless otherwise authorized or directed by NHDES, the following conditions shall apply:

- E-1. **Effective Date and Compliance with Certification Conditions:** This certification shall become effective on the date this certification is granted and shall remain effective for as long as the Applicant operates the



Activity. The Applicant shall operate the Activity to comply with this Certification.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Fact C-1 and Finding D-7.

- E-2. **Compliance with Water Quality Standards:** The Activity shall not cause or contribute to a violation of Surface Water Quality Standards.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Fact C-1 and Finding D-7.

- E-3. **Modification of Certification:** NHDES may amend this Certification as necessary to ensure compliance with Surface Water Quality Standards, when authorized by law, and, if necessary, after notice and opportunity for hearing.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Fact C-1 and Findings D-7 and D-21.

- E-4. **Proposed Modifications to the Activity:** The Applicant shall consult with and receive prior written approval from NHDES regarding any proposed modifications to the Activity that could have a significant or material effect on the findings or conditions of this certification. If necessary, NHDES may modify the Certification in accordance with condition E-3 of this Certification.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Fact C-1 and Findings D-7 and D-21.

- E-5. **Compliance with Applicable Permits:** The Applicant shall comply with all applicable permits required for, and associated with, the Activity. Should there be any discrepancies between permit requirements, the more stringent requirement as it relates to compliance with Surface Water Quality Standards shall control.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Findings D-22, D-23, D-24, D-25, and D-26.

- E-6. **Compliance Inspections:** In accordance with applicable laws, the Applicant shall allow NHDES to inspect the Activity and affected surface waters to monitor compliance with the conditions of this Certification.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Finding D-7.

- E-7. **Transfer of Certification:** If the Applicant plans to transfer responsibility of the Activity to another person (i.e., any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity), the Applicant shall provide the contact information of the new person, including name, address, phone number, and email in writing to NHDES prior to the transfer.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Fact C-92 and Findings D-7 and D-8.

- E-8. **Water Conservation:** Prior to commencing the Activity, the Applicant shall obtain NHDES approval of a water conservation plan for the Activity. The Applicant shall comply with a NHDES approved water conservation plan and the applicable requirements under Env-Wq 2101.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Facts C-86 through C-90 and Finding D-28.

- E-9. **Water Use Registration and Reporting:** Within 30 days of commencing the Activity, the Applicant shall register the withdrawal(s) from Storrs Pond with the NHDES Water Use Registration and Reporting Program and comply with all WURRP requirements.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Facts C-91 through C-98 and Findings D-5 and D-29.

- E-10. **Water Intake Structure:** The Applicant shall comply with the following during construction and operation of the water intake structure:

- a. The end of the water intake pipe must be equipped with a screen to reduce velocities around the intake to prevent impingement of aquatic organisms. The screen must be designed per guidance provided by the NHFGD. Prior to initially withdrawing water, the Applicant must provide NHDES with a photo of the installed screen and written evidence that the screen is acceptable to NHFGD. After such acceptance by NHFGD, the Applicant must consult with and receive written approval from NHDES and NHFGD in accordance with Condition E-4 prior to any changes to the type of screen that was previously accepted by NHFGD.
- b. Maintain and clean the screen on the end of the water intake pipe in a manner that will not cause a violation of Surface Water Quality Standards, for parameters including, but not limited to, turbidity and visible plumes; and
- c. Construction and operation will not result in a discharge of pollutants to Storrs Pond (e.g., via overland, piped, or channelized flow) or cause turbidity or visible plumes;

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Facts C-21 C-24, C-26, C-27, C-28 and C-29 and Finding D-17.

- E-11. **Withdrawal Conditions:** Unless otherwise approved by NHDES in writing, withdrawals from Storrs Pond for the Activity shall:

- a. Be at the location shown in the Application (see Facts C-102 and C-104 and Findings D-1);
- b. Only occur from November 15 to March 31 for the purpose of snowmaking;
- c. Be a snowmaking event with the intent of providing snow depth and coverage on trails so that a snow groomer can operate without risk of contacting the underlying ground surface;
- d. Be metered, measured, or quantified by a technically appropriate and verifiable method that is accurate within 10 percent at the point water is withdrawn from any natural source of water for use by a snowmaking system and at the point that water is entering into the snowmaking system (one measuring device shall satisfy that requirement if withdrawn water is going directly to the snowmaking system during the withdrawal);
- e. Not exceed a rate of 2.23 cfs or 1,000 gpm;
- f. Not reduce the surface elevation of Storrs Pond by more than 4.4 inches per 24-hour period during any snowmaking event;

- g. Not exceed five million gallons from November 15 to March 31 each snowmaking season unless the Applicant obtains prior approval from NHDES;
- h. Only occur when the surface water elevation of Storrs Pond is at or above a target minimum surface water elevation of Storrs Pond for each snowmaking season. The target minimum surface water elevation of Storrs Pond shall be four inches below the average daily readings of surface water elevation of Storrs Pond from September 1 to November 15, inclusive, unless otherwise directed by NHFGD.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Facts C-93, C-94, C-102 and C-104 and Findings D-1, D-17 and D-18.

- E-12. **Recordkeeping:** During periods of withdrawals from the Storrs Pond, the Applicant shall maintain daily records demonstrating compliance with this Certification. To the maximum extent practicable, records shall be automatically generated and recorded, and operation of the systems shall be automated.

Records shall include the following:

- a. The daily readings of surface water elevation of Storrs Pond from September 1 to November 15 (the Applicant should select a consistent reference datum for elevation);
- b. The average of the daily readings from September 1 to November 15, inclusive, preceding each snowmaking season;
- c. Date and time that withdrawals start and stop;
- d. The surface water elevation of Storrs Pond at the beginning and end of a snowmaking event;
- e. The depth and characteristics of snow conditions on affected x-country ski trails at the Oak Hill Nordic Ski Center prior to withdrawal;
- f. Average and maximum pumping rate (in cfs and gpm) per calendar day;
- g. Volume of water withdrawn (in gallons) per calendar day;
- h. Volume of water withdrawn (in gallons) per snowmaking season (i.e., between November 15 to March 31);
- i. The method used to meter, measure, or quantify the withdrawal, including documentation showing the method to be technically appropriate, verifiable, and accurate within 10 percent; and
- j. Date and time that screen(s) on the intake pipe was cleaned.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Facts C-93 and C-94 and Findings D-7 and D-19.

- E-13. **Reporting:** The Applicant shall submit the following reports to NHDES via email:
- a. Records required under Condition E-12 of this Certification shall be maintained by the Applicant and submitted to NHDES within 7 days of receiving a written request by NHDES; and
  - b. By April 30<sup>th</sup> of each year the Applicant shall prepare and submit an annual report to NHDES to demonstrate compliance with Conditions E-10, E-11, E-12, and E-15 for withdrawals that occurred during the prior snowmaking season. In the report, the Applicant shall show all calculations for all reported Information or data that rely on calculations (e.g., provide an Excel workbook that shows the calculations). Should there be any non-compliance with this Certification (see Condition E-15), the Applicant shall provide a summary of the non-compliances, including the reasons for the non-compliance and corrective actions taken to prevent such non-compliances from reoccurring.
  - c. Within 24 hours of receiving a written request from NHDES, the Applicant shall provide NHDES

with a copy of the following items that are required under the 2022 NPDES CGP: turbidity benchmark monitoring results that the Applicant has submitted to EPA under Part 3 of the CGP; inspection reports required under Part 4 of the CGP; a corrective action log required under Part 5 of the CGP; or a SWPP required under Part 7 of the CGP.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Facts C-45 through C-51 and Findings D-7, D-19, and D-23.

- E-14. **Operations, Maintenance, and Reporting Plan (OMRP):** Prior to commencing the Activity, the Applicant shall prepare, submit to NHDES, and obtain NHDES approval of, an Operations, Maintenance, and Reporting Plan (OMRP) that describes, in detail, how the Activity will be operated, recorded, and reported so that the Applicant complies with Conditions E-10, E-11, E-12, E-13, and E-15 of this Certification. Upon approval by NHDES, the Applicant shall then implement the OMRP. If, at any time, revisions to the conditions in this Certification that affect the OMRP are directed or approved by NHDES, the Applicant shall update the OMRP as necessary within 60 days (or other period of time acceptable to NHDES) of being notified by NHDES, submit the revised OMRP to NHDES for approval, and then implement the most recently approved OMRP.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Findings D-7 and D-20.

- E-15. **Notification of Non-compliance:** The Applicant shall notify NHDES via email<sup>7</sup> within 48 hours of any discovery of non-compliance with this Certification. Such notification shall include the date(s) of non-compliance, reasons for non-compliance, corrective actions taken to prevent such non-compliance from reoccurring, and date(s) the Applicant achieved compliance.

For an explanation of why this condition is necessary to provide reasonable assurance that the Activity will comply with Surface Water Quality Standards, see Finding D-7.

## F. NHDES CONTACT

Reports and other items that must be submitted to NHDES under a condition of this Certification should be sent to the NHDES Water Quality Certification Supervisor and to the following NHDES email address: [wqc@des.nh.gov](mailto:wqc@des.nh.gov). On the date this certification is granted, James Tilley is the NHDES Water Quality Certification Supervisor and can be reached at [james.w.tilley@des.nh.gov](mailto:james.w.tilley@des.nh.gov) or (603) 271-0699. If you have questions regarding this certification, please contact James Tilley. If you are unable reach the NHDES Water Quality Certification Supervisor, please contact NHDES at (603) 271-3503.

## G. ENFORCEMENT

Certification conditions are subject to enforcement mechanisms available to the state of New Hampshire under RSA 485-A.

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<sup>7</sup> Email records to the NHDES Water Quality Certification Supervisor at [wqc@des.nh.gov](mailto:wqc@des.nh.gov).

#### H. APPEAL PROCEDURE

Any person aggrieved by this decision may appeal to the N.H. Water Council (“Council”). An Environmental Fact Sheet with information on appealing a decision of the N.H. Department of Environmental Services can be found at the following link: [CO-7 \(nh.gov\)](https://www.nh.gov/CO-7). A link to the Council’s rules, is available on the [New Hampshire Environmental Council website](#) (or more directly at the [Water Council page](#)). Copies of the rules also are available from the NHDES Public Information Center at (603) 271-2975.

#### I. SIGNATURE & DATE



Rene J. Pelletier, P.G., Director  
NHDES Water Division

4/5/23  
Date

- ec: Alex Torpey, Town Manager, Town of Hanover
- Robert Houseman, Planning, Zoning and Codes Director, Town of Hanover
- Steve Lembke, President, Connecticut River Joint Commission
- Bill Malcolm, Chair, Connecticut River Upper Valley Local Advisory Commission
- Jeff Graham, General Manager, Hanover Improvement Society
- Michael Dionne (NHFGD)
- Melissa Winters (NHFGD)
- John Magee (NHFGD)
- Erin Holmes (NHDES)
- Kelsey Vaughn (NHDES)
- Christina Rambo (NHDES)
- Ted Diers (NHDES)
- Tracie Sales (NHDES)
- Emmanuel Uwizeye (NHDES)
- Ridge Mauck (NHDES)