



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Robert R. Scott, Commissioner

February 1, 2024

MR. SETH PRESCOTT
STATE OF NEW HAMPSHIRE
NH DEPARTMENT OF NATURATION AND CULTURAL RESOURCES
172 PEMBROKE RD
CONCORD, NH 03301

sent via email: seth.s.prescott@dncr.nh.gov

GROUNDWATER DISCHARGE PERMIT

**Subject: Newbury – Mount Sunapee Resort, NH Route 103, Groundwater Discharge Permit
Site# 198704058/ RSN# 169 / Activity# 257373**

Dear Mr. Prescott:

Please find enclosed a Groundwater Discharge Permit Number GWP-198801026-N-007, approved by the Department of Environmental Services (NHDES) for discharges of treated wastewater to the groundwater via unlined wastewater lagoons and slow rate spray irrigation system. Please note that the permit is being issued to the site owner (New Hampshire Department of Natural and Cultural Resources) not the operator of the facility (Mount Sunapee Resort) in accordance with rule Env-Dw 402.08(c). Please read all the conditions of the permit as there have been changes to the permit during this renewal period.

Should you have any questions, please contact me at (603) 271-3918 or by e-mail at gwdischarge@des.nh.gov.

Sincerely,

Andrew Koff, P.G.
Drinking Water & Groundwater Bureau

e-copy: Jonathan Whaland, Stephen Roy, Phil Trowbridge, Tracy Wood; NHDES
Sarah Stewart, Brian Wilson; DNCR
Joseph Ducharme, Jr; Hoyle Tanner
Maura Mancini, Peter Disch, Rick Ruggles; Mount Sunapee Resort



The

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

hereby issues

GROUNDWATER DISCHARGE PERMIT

NO. GWP-198704058-N-007

to the permittee New Hampshire Department of Natural and Cultural Resources

for the discharge of treated domestic wastewater from

MOUNT SUNAPEE RESORT AND STATE PARK

in NEWBURY, N.H.

to the groundwater via unlined wastewater lagoons

and slow rate spray irrigation

as depicted on the Plan entitled,

“Mount Sunapee Resort Existing Spray Irrigation Site Plan”

dated March 4, 2008 prepared by Hoyle–Tanner & Associates, Inc.

TO: MR. SETH PRESCOTT
STATE OF NEW HAMPSHIRE
DEPARTMENT OF NATURATION AND CULTURAL RESOURCES
172 PEMBROKE RD
CONCORD, NH 03301

Date of Issuance: February 1, 2024

Date of Expiration: February 1, 2029

(continued)

Pursuant to authority in N.H. RSA 485-A:13, I(a), the New Hampshire Department of Environmental Services (NHDES), hereby grants this permit to discharge secondary treated wastewater to the groundwater via infiltration from unlined wastewater lagoons and up to 2" per week (including precipitation) using slow rate spray irrigation at the above-described site, subject to the following conditions:

STANDARD DISCHARGE PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by the NHDES (N.H. Admin. Rules, Env-Wq 402 and successor rules) in the groundwater, at the boundary of the groundwater discharge zone, as shown on the referenced site plan.
2. The permittee shall not cause groundwater degradation, which results in a violation of the surface water quality standards (N.H. Admin. Rules, Env-Wq 1700 and successor rules), in any surface water body at the boundary of the groundwater discharge zone, as shown on the referenced site plan.
3. The permittee shall allow any authorized member of the NHDES' staff, or its agent, to enter the property covered by this permit for the purpose of collecting information, examining records, performing routine inspections, collecting samples, or undertaking other action associated with the permit.
4. The permittee shall apply for renewal of this permit no sooner than 90 days prior to its expiration date. The permittee shall continue to comply with all conditions in this permit until the permit is renewed or the facility is closed in accordance with all applicable requirements, regardless of whether a renewal application is filed.
5. NHDES approval is required for changes in discharge volume or character of pollutants received by the facility and/or its appurtenances.
6. The NHDES reserves the right, under N.H. Code of Administrative Rules, Env-Wq 402, to require additional hydrogeologic studies and/or remedial measures if the NHDES receives information indicating a need for such work.
7. Issuance of this permit does not exempt the permittee from any other applicable or requisite local, State or Federal permits or approvals for structures or activities related to this permit.
8. Issuance of this permit is based on the groundwater discharge permit application package dated July 20, 2023, supporting information and information in the NHDES file #198704058.
9. The permittee shall submit detailed design plans to the NHDES' Groundwater Discharge Program and the Wastewater Engineering Bureau for review and approval of any proposed modifications and/or expansions prior to construction activity. No discharge to expanded facilities shall be allowed without the written approval of the NHDES' Water Division.

10. The permittee shall submit completed monthly operation reports to the Groundwater Discharge Permit Coordinator, electronically via email to gwdischarge@des.nh.gov. Monthly reports shall include treatment sampling data, site spray application rates and the observation well readings. Reports should be submitted no later than the 15th of the preceding month.
11. Treatment facility samples shall be taken from sampling points on the following table in accordance with the schedule outlined therein:

Monitoring Location	Sampling Frequency	Parameters
Influent	Daily	Continuous flow (gpd)
	Weekly	pH
	Monthly	BOD ₅ and TSS
Storage Lagoon Spray Effluent	Daily	Continuous flow (gpd)
	Twice Monthly	BOD ₅ , nitrate, pH, TKN, TSS, and Escherichia coli

12. The permittee shall maintain a water quality-monitoring program and submit monitoring results to the NHDES' Groundwater Discharge Permits Coordinator no later than 45 days after sampling. Samples shall be taken from on-site monitoring wells, piezometers, and surface water sampling points listed on the following table in accordance with the schedule outlined therein:

Monitoring Location	Sampling Frequency	Parameters
MW-1, 2, 3, 4, 6, 7	May and October of each year	Chloride, Nitrate, pH, <u>E. Coli</u> , TKN, Spec Conductivity @ 25°C, and Static Water Elevation
MW-3, 4	January of each year	Chloride, Nitrate, pH, TKN, Spec Conductivity @ 25°C, and Static Water Elevation
MW-1, 2, 3, 4	May 2025	Volatile Organic Compounds using EPA Method 8260B, low level 1,4-Dioxane & Drinking Water Metals
MW-1, 2, 3, 4, 6, 7	October 2025	Per- and Polyfluoroalkyl Substances (PFAS)
*SW-1 and SW-2	May and September of each year	Ammonia, Chloride, Nitrate, pH, Specific Conductivity @ 25°C
**P-1, 2, 3, & 4	Weekly during spray season	Static Water Elevation

* Surface water sampling points upstream and downstream of lagoon area

**Piezometers - spray irrigation area groundwater observation wells

Samples shall be obtained using sampling procedures and protocol described in "Practical Guide for Ground-Water Sampling," USEPA current edition, and "RCRA Ground-Water Monitoring Enforcement Guidance," USEPA current edition. Samples shall be analyzed by a laboratory accredited by the New Hampshire Environmental Laboratory Accreditation Program (NHELAP) for the analyses required in this permit. Analysis for 1,4-Dioxane shall be conducted with a reporting level of 0.25 micrograms per liter (ug/l) or less. Field parameters (pH, specific conductance, dissolved oxygen) may be measured by the permittee with an instrument intended to measure such parameters and calibrated to manufactures specifications prior to sampling.

All overburden groundwater samples collected for Safe Drinking Water Act (SDWA) Metals shall be analyzed for dissolved metals and must be field-filtered (with a 0.45-micron filter) and acidified at the time of sample collection. As referred to herein, the term "SDWA Metals" refers to: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.

Per and polyfluoroalkyl substances (PFAS) will be analyzed using USEPA Method 1633 (draft), 537.1 or 533. The analytical reporting limit of the method for the following PFAS will be 4 ng/L (parts-per-trillion) or lower: perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA), and perfluorohexanesulfonic acid (PFHxS). The samples shall be analyzed for the full list of PFAS compounds available from the laboratory used for the analysis, including PFAS precursors.

- 13. If a regulated contaminant is detected at a compliance monitoring well at a concentration that violates ambient groundwater quality standards, the permittee shall notify the Department's Groundwater Discharge Program Manager within 10 days and prepare a response plan (in accordance with N.H. Administrative Rules, Env-Wq 402) within 60 days of notifying the Department to ensure that groundwater quality criteria are not violated at the boundary of the groundwater discharge zone. The permittee shall implement the response plan within 30 days of Department approval.

- 14. Laboratory results from groundwater sampling analysis shall be submitted as an Electronic Data Deliverable (EDD) to the department's Environmental Management Database (EMD) upload portal. More information can be found [on the NHDES EMD website](#). The reference information below is included for convenience and needs to be added to the EDD to upload the results to the database.

EMD Column Name	
<i>FacilitySiteIdentifier</i>	198704058
<i>FacilitySiteName</i>	MT SUNAPEE RESORT
<i>ProjectIdentifier</i>	GWDP

Permit Monitoring Location	Monitoring Location Identifier (StationID)
MW-1	198704058MW01
MW-2	198704058MW02
MW-3	198704058MW03
MW-4	198704058MW04
MW-6	198704058MW06
MW-7	198704058MW07
SW-1	198704058SW01
SW-2	198704058SW02
P-1	198704058PZ01
P-2	198704058PZ02
P-3	198704058PZ03
P-4	198704058PZ04

15. An annual summary of groundwater quality results shall be submitted to the department's Groundwater Discharge Permits Coordinator in the month of January and should include pdf files of the lab reports from all the previous year's water quality samples and summary table of previous monitoring results. This report shall be submitted electronically through the [OneStop Data Provider Portal](#), and include an assessment of trends in the data, and a short narrative concerning any changes, improvements, or activity, concerning the site.
16. The wastewater treatment facility shall be operated and maintained by qualified operators, licensed under the requirements of the N.H. Admin. Rules, Env-Wq 304.
17. The permittee shall properly operate and maintain all facilities and systems of collection, treatment, control, disposal and all related appurtenances used to achieve and maintain compliance. All grit, oil, sludge, or other wastes that result from the operation of the facility shall be disposed of only at a site approved by the department for such disposal.
18. Within one year of the date of this this permit, the permittee shall provide the department the following, related to the operations and maintenance the wastewater facility:
 1. An Operations and Maintenance Plan for the facility in accordance with Env-Wq 718.05(b). [This guidance document](#) has more information on this requirement.
 2. A plan to replace and/or upgrade infrastructure as identified in item 10 of Hoyle Tanner's July 20, 2023 letter entitled "Review of Mount Sunapee Resort Wastewater Treatment System" that was included as part of the groundwater discharge permit renewal application. The improvement plan shall include a timeline to replace the site's infrastructure that is beyond its service life, including but not limited to, the lagoon cast-in place concrete flow control structures, elevated bridge deck, and spray irrigation pump building.
 3. An assessment of the approximate sludge volume (in cubic feet or tons) currently in the lagoons and, if needed, a plan to remove the sludge.

19. All groundwater monitoring wells shall be capable of obtaining a competent groundwater sample in May and November. Monitoring well(s) that do not provide a groundwater sample shall be deepened or replaced. All monitoring wells at the site shall be properly maintained and secured from unauthorized access or surface water infiltration.
20. The permittee shall notify the Administrator of the Wastewater Engineering Bureau, in writing, when the wastewater treatment facility reaches 80% of its design capacity for 90 consecutive days.
21. This permit does not authorize discharges of wastewater from other locations not approved in this permit, for example, sanitary sewer overflows (SSOs). Any unauthorized discharge, either to ground or surface water, shall be reported to the Groundwater Discharge Program Manager either orally or in writing within 24-hours from discovery of the discharge. Any unauthorized discharge to surface water shall also be reported to the National Pollutant Discharge Elimination System (NPDES) contacts at the Wastewater Engineering Bureau (603-271-1497 or teresa.b.ptak@des.nh.gov) and EPA (617-918-1746 or pastrana-del-valle.solanch@epa.gov). The Permittee shall similarly report any permit noncompliance which may endanger health or the environment. A detailed written report shall also be submitted to the appropriate programs within 5 calendar days of the time the Permittee becomes aware of the circumstances of the unauthorized discharge. The written report shall contain a detailed description of the event, the exact period of noncompliance and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the unauthorized discharge. The report shall additionally provide any other relevant details including the volume, location and environmental impact of the unauthorized discharge event.

ADDITIONAL CONDITIONS FOR WASTEWATER LAGOONS

22. By August 2024, the permittee shall install and maintain a staff gauge in each of the wastewater lagoons on site. The permittee will record the water level on the staff gauge on a weekly basis, at a minimum, and provide the results as part of the monthly operating reports.
23. The permittee shall maintain compliance with the Departments' Dams Bureau and maintain or obtain any required permits and/or registrations.

CONDITIONS SPECIFIC TO SPRAY IRRIGATION

24. Spray irrigation shall be applied only to the areas as specified on the referenced plan. Discharge volumes shall not exceed 2" per week including precipitation.
25. Access to the spray irrigation areas shall be restricted to authorized personnel only.
26. The permittee shall maintain a 100 ft vegetated buffer around the spray areas.
27. Spray effluent shall meet secondary treatment levels ($BOD_5 \leq 30\text{mg/l}$ and $TSS \leq 30\text{mg/l}$) prior to discharge.

28. Design and operation of slow rate irrigation systems shall follow the "Process Design Manual-Land Treatment of Municipal Wastewater," USEPA current edition.
29. No spray application shall be allowed during rainfall or after leaf fall. Spray shall be allowed only from May 1 thru October 31 unless otherwise approved by the NHDES' in writing.
30. The permittee shall maintain a one-foot minimum of unsaturated soil depth at all times in the spray field areas and shall maintain observation wells in the spray area(s) to record the unsaturated thickness during the spray season.
31. The activities shall not cause runoff, surface erosion or result in a direct discharge to any surface water body, wetland or storm water drainage way. Spray activities shall be conducted so as to minimize any overland flow on site.
32. Complete records shall be kept of spray application rates (gallons/day/spray area), lagoon levels, and water levels in the observation wells. These records shall be tabulated and submitted with the monthly operations reports (MORs) to the NHDES' Groundwater Discharge Permits Coordinator monthly during the spray period and included in the annual summary required in the month of January of each year.



Brandon Kern, Administrator
Water Division

Under RSA 21-0:14 and 21-0:7-IV, any person aggrieved by any terms or conditions of this permit may appeal to the Water Council in accordance with RSA 541-A and N.H. Admin. Rules, Env-WC 200. Such appeal must be made to the Council within 30 days and must be addressed to the Chairman, Water Council, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095.