UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
ONE CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES PURSUANT TO THE CLEAN WATER ACT (CWA)

NPDES PERMIT NUMBER: **NH0023302**

PUBLIC NOTICE START AND END DATES:

NAME AND MAILING ADDRESS OF APPLICANT:

Loon Mountain Recreation Corporation
RR#1, Box 41
Kancamagus Highway
Lincoln, New Hampshire 03251-9711

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Loon Mountain Recreation Corporation
Kancamagus Highway
Lincoln, New Hampshire 03251-9711

RECEIVING WATER(S): Hydrologic Basin Code: 01070001

- East Branch Pemigewasset River (Outfalls 001-003)
- Westwood Brook (Outfall 002)
- Boyle Brook (Outfall 004)
- Loon Pond (Outfall 005)

RECEIVING WATER CLASSIFICATION(S): Loon Pond is defined as a Class A water and has also received the designation of "Outstanding Resource Water" by the State of New Hampshire. The remainder of the receiving water bodies are defined as Class B waters.

SIC CODE: 7999 Amusement and Recreation, not elsewhere classified

EXISTING PERMIT EXPIRATION DATE: September 30, 2003

1. Proposed Action, Type of Facility, and Discharge Location

The above named applicant has applied to the New England Regional office of the U.S. Environmental Protection Agency (EPA) in Boston, Massachusetts, for the reissuance of a NPDES permit to discharge drainback water from its snowmaking system into the four above designated receiving waters. Its original submission of an application for a NPDES permit was a requirement of a Court Order issued on May 5, 1997, by the U.S. District Court For the District of New Hampshire in the case Roland C. Dubois and Restore: The North Woods v. U.S. Department of Agriculture, et al., Civil No. 95-50-B. The facility subsequently applied on June 26, 1997.

The Loon Mountain Recreation Corporation (LMRC) operates a ski resort in the White Mountain National Forest in Lincoln, New Hampshire. The discharges proposed for coverage under this draft permit are untreated drainback water from the various snowmaking systems at the facility.

Site location maps are included as Attachments A and C.

2. Description of Discharge

The proposed permit is for the discharge of drainback waters from the snowmaking system as it is presently configured. It does not include any drainback discharges from the proposed South Mountain Expansion Project (G Lift Pod). LMRC's snowmaking system has four main pump systems (Boyle Brook, New River, Existing River and Loon Pond) which obtain water from three sources (Boyle Brook, East Branch Pemigewasset River and Loon Pond) for use in making snow at this ski area. Drainback water is herein defined as water stranded within the pipe distribution network when the pumps are shut down; it must be drained immediately to prevent frozen pipes. Water discharged in this manner is considered a batch or non-continuous discharge of short term duration, the limits of which, as established in the previous permit, are in terms of daily maximum concentrations as allowed by 40 CFR Section 122.45(e).

Nowhere in this system does water come in direct contact with any raw material, intermediate product, waste product or finished product; nor does the facility add any chemical or biological agents to the water either as it enters or moves through the snowmaking system. The only materials with which the water comes into direct contact are the pump impellers and pipes through which it passes. Snow is made by mixing air with the water at the snow gun, but only after the water exits the distribution system.

A summary of the Discharge Monitoring Report (DMR) data collected during the course of the last permit is included in Attachment B. These descriptions include the Total Petroleum Hydrocarbon (TPH) analysis results and reported flow estimates as required by the existing permit.

3. Receiving Water Description

As stated above, Loon Pond is defined as a Class A water and has also received the designation of 'Outstanding Resource Water' (ORW) by the State of New Hampshire. The remainder of the receiving waterbodies are defined as Class B waters.

Class A and B waters are both suitable for use as a water-supply after adequate treatment. However, no discharges of any sewage or wastes are allowed to Class A waters, whereas, discharges of sewage and waste are allowed to Class B waters as long as the discharge(s) receive adequate treatment to prevent lowering of the water-quality criteria assigned to that class. Loon Pond, being classified as an ORW, is provided the highest level of protection to a water body under the State's antidegradation policy. In waters designated as ORW, new or increased discharges of substances are prohibited unless the discharge is for the express purpose and intent of maintaining or enhancing the water resource and its beneficial uses. Therefore, this draft permit as well as the existing permit requires zero discharge of pollutants to Loon Pond.

4. Limitations and Conditions

The proposed effluent limitations and the monitoring requirements of the draft permit may be found in Part I (Effluent Limitations and Monitoring Requirements) of the draft NPDES permit.

5. Permit Basis: Statutory and Regulatory Authority

Section 301(a) of the Clean Water Act (CWA or the Act), 33 U.S.C. 1311(a), makes it unlawful to discharge pollutants to waters of the United States without a permit. Section 402 of the Act, 33 U.S.C. 1342, authorizes EPA to issue NPDES permits allowing discharges that will meet certain requirements, including CWA sections 301, 304, and 401 (33 U.S.C. 1331, 1314, and 1341). Those statutory provisions state that NPDES permits must include effluent limitations requiring authorized discharges to: (1) meet standards reflecting levels of technological capability where promulgated; (2) comply with EPA-approved State Water-Quality Standards; and (3) comply with other state requirements adopted under authority retained by states under CWA 510, 33 U.S.C. 1370.

The NPDES permit is the mechanism used to implement technology and water-quality based effluent limitations and other requirements including monitoring and reporting. This draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to Section 1342 of the Act and any applicable State administrative rules. The regulations governing EPA's NPDES permit program are generally found in 40 CFR Parts 122, 124, 125 and 136. Many of these regulations consist primarily of management requirements common to all permits.

When developing permit limits, EPA is required to consider technology and water-quality based requirements as well as all requirements/limitations in the existing permit, if one exists. Technology-based treatment requirements represent the minimum level of control imposed under Sections 301(b) and 402 of the Act (See 40 CFR §125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT) for conventional pollutants and some metals, Best Conventional Pollution Control Technology (BCT) for

the conventional pollutants, and Best Available Technology Economically Achievable (BAT) for non-conventional and toxic pollutants. Technology guidelines (effluent limitations) for various industrial categories and subcategories are found in 40 CFR §400-471, Subchapter N, Effluent Guidelines and Standards. Conventional pollutants are pH, biochemical oxygen demand (BOD), oil and grease (O&G), total suspended solids (TSS) and fecal bacteria.

However, in the absence of these published technology-based effluent guidelines identifying BPT, BCT, and BAT standards to which specific industrial categories and subcategories are subject, the permit writer is authorized under Section 402(a)(1)(B) of the Act to establish effluent limitations on a case-by-case basis using Best Professional Judgment (BPJ). Furthermore, EPA regulations require NPDES permits to contain effluent limits more stringent than promulgated technology-based effluent limits where more stringent limits are necessary to maintain or achieve state or federal water-quality standards. See Section 301(b)(1)(C) of the Act.

A NPDES permit shall limit any pollutant or pollutant parameter (conventional, non-conventional, toxic and whole effluent toxicity) that is or may be discharged at a level that causes, or has "reasonable potential" to cause or contribute to an excursion above any water-quality criterion in the state's water-quality standard. See 40 CFR § 122.44(d)(1). An excursion occurs if the projected or actual in-stream concentration exceeds the applicable criterion. In determining reasonable potential, EPA considers existing controls on point and non-point sources of pollution, variability of the pollutant in the effluent, sensitivity of aquatic species to toxicity and, where appropriate, the dilution of the effluent in the receiving water.

A water-quality standard consists of three elements: (1) Beneficial designated use or uses for a waterbody or a segment of a waterbody; (2) a numeric or narrative water-quality criteria sufficient to protect the assigned designated use(s); and (3) an antidegradation requirement to ensure that once a use is attained it will not be eroded.

The Act requires that EPA obtain state certification which states that all water-quality standards will be satisfied. The permit must conform to the conditions established pursuant to a State Certification under Section 401 of the Act (40 CFR §124.53 and §124.55). EPA regulations pertaining to permit limits based upon water-quality standards and state requirements are contained in 40 CFR §122.44(d).

The conditions of the permit reflect the goal of the Act to achieve and then to maintain water quality standards. To protect the existing quality of the State's receiving waters, the New Hampshire Department of Environmental Services, Water Division (NHDES-WD) adopted Antidegradation requirements in their December 3, 1999, Surface Water Quality Regulations (Env-Ws 1708.01 through 1708.12). Hereinafter, New Hampshire's Surface Water Quality Regulations are referred to as the NH Standards.

6. Explanation of the Permit's Effluent Limitation(s)

6.1 Description of Snowmaking System and Permitted Outfalls.

LMRC operates the Loon Mountain Ski Area in the White Mountain National Forest in Lincoln, New Hampshire, under the terms of a special-use permit issued by the U.S. Forest Service. LMRC began operation in the mid-1960s. The special-use permit allows LMRC to use 785 acres of National Forest Land and to operate a snowmaking system whose water sources are Boyle Brook, East Branch Pemigewasset River and Loon Pond. Westwood Brook, listed above as a receiving water, is not used for intake water and is only used as a discharge point due to the hydraulic design of the system. Each time a sector of the snowmaking system is shut down, water just pumped into the system is allowed to drain back to its source. This prevents water in the pipe network from freezing, causing pipe blockages or burst pipes. Frozen pipes are a constant concern because a large portion of the distribution network is laid on top of the land surface, exposing it to the elements.

In summary, discharges of water from the snowmaking system will occur at five locations. The frequency with which the facility's snowmaking system is cycled (turned on and off) is weather-dependent. Snowmaking ceases when air temperature rises to around 30 degrees Fahrenheit and cannot be resumed until the temperature drops again. As a result, the facility often makes snow for as little as eight hours or, depending upon weather conditions, longer stretches as needed. If additional ski trails require coverage, the frequency of these drainback discharges could change.

As stated earlier, the facility does not add any chemicals or biological agents to the water as it enters, moves through, or leaves the snowmaking system. Consequently, any changes to the water quality at point of discharge as compared to point of entry is purely a function of the pipes, pumps and the water's transient movement through the system. All the water pumps have electrically driven oil-cooled motors with permanently sealed lubricated bearings. The water system's pipe network consists of steel pipe whose diameters range from 4 to 16 inches.

The snowmaking season generally starts-up in early October, goes to full operation by late October/early November, and stays that way through late February, when the need to make snow diminishes dramatically until shutdown occurs in late March/early April. During the month of October, the snowmaking system is activated primarily for training the snowmaking crews and equipment shake-down, while during the months of March and early April, its use is primarily for repairing badly worn patches or bare spots on heavily traveled ski trails.

Water for LMRC's snowmaking system is withdrawn from three different sources: East Branch Pemigewasset River, Boyle Brook, and Loon Pond; and is distributed to the snowmaking system on the mountain by four distinct pumphouses. East Branch Pemigewasset River water is distributed to the snowmaking system through the "Existing Pumphouse" and the "New River Pumphouse"; Boyle Brook water is distributed to the system through the "Boyle Brook Pumphouse"; and Loon Pond water is distributed to the system through the "Loon Pond Pumphouse." Water from these sources either flows by gravity into the pumphouse (Boyle Brook, Existing Pumphouse and New River

Pumphouse) or is pumped in (Loon Pond Pumphouse). These pumphouses, which are located adjacent to the source water, pump water into the snowmaking system for transfer throughout the mountain's snowmaking system through diverter valves. With the exception of the water from the Boyle Brook Pumphouse, these diverter valves, located in the Top Compressor Building and in the Mid-Mountain Valve Station (See Attachment C), are able to transfer water to the entire snowmaking system. The Boyle Brook pumphouse only develops sufficient pressure to supply water to the Mid-Mountain Valve Stations which, as a result, can only make that water available for snowmaking on the eastern portion of the lower mountain.

Water in the main feeder pipes can flow in two directions depending on whether the pumps are "on", pushing source water up the mountain for snowmaking, or "off", allowing that same water to drain back and to discharge to a surface water under the influence of gravity (except for the Westwood Brook Outfall) -- hence the name "drainback discharge." At the Westwood Brook outfall, a pump has been installed in the manhole located in the low-point section of the 16-inch feeder pipe to pump water into Westwood Brook that drains by gravity into the manhole from the 16-inch line. Depending on where the water is being used on the mountain, some portion could be discharged through a pumphouse other than the one through which the water entered the system. The only exception to this is Loon Pond, which has been engineered to only receive drainback discharges of Loon Pond water.

To prevent any water that reaches the Top Compressor Building from being discharged to Loon Pond, LMRC has installed a check valve (one-way valve) just inside the Top Compressor Building on the main feeder line from the Loon Pond pumphouse. Consequently, the only water that gets drained back to Loon Pond is the water stored in that main feeder line between the check valve and the Loon Pond pumphouse when Loon Pond's pumps are turned off.

A more detailed description of the actual snowmaking process, including interaction between the water lines and compressed air lines, is outlined in the previous fact sheet dated June 17, 1998.

6.2 Derivation of Effluent Limits

General Background

As stated in Section 5 of this Fact Sheet, EPA is required to consider technology-based and water-quality based effluent limitations when developing permit limits and apply whichever limitation is more stringent if a permit limit is deemed appropriate. In the absence of published technology-based effluent guidelines, the permit writer is authorized under Section 402(a)(1)(B) of the Act to establish effluent limitations on a case-by-case basis using Best Professional Judgment (BPJ). EPA has neither proposed nor promulgated any technology-based effluent guidelines for discharges from snowmaking systems such as used at LMRC. Accordingly, technology-based limitations for such sources can be established on a case-by-case basis using BPJ as authorized under Section 402(a)(1)(B) of the Act.

Based on an examination of the physical equipment comprising the distribution portion of the snowmaking system, EPA-New England and the NHDES-WD had previously concluded that O&G is the only pollutant potentially available for discharge. The O&G method measures groups of substances with similar physical characteristics and common solubility in the organic solvent, and is not a measure of a specific substance; therefore, potential interferences from materials other than O&G, such as sulfur compounds, certain organic dyes, and chlorophyll could cause elevated results from other groups present in the sample besides O&G groups. It has been determined in this case that because one specific contaminant, coolant oil, has been identified, it is more exact to measure for Total Petroleum Hydrocarbons (TPH) instead of O&G. Based on this fact, NHDES-WD suggested that LMRC switch to measuring TPH instead of O&G. EPA-New England agreed with this finding and will continue to require TPH analysis in lieu of the generic O&G determination.

Technology-Based Considerations

EPA-New England and NHDES-WD have examined the system and determined that there is no readily available source of TPH to the system. There are two exceptions to this finding: one is the potential for the pump's coolant oil and sealed bearings to leak, and that likelihood is considered minimal. The other exception is for oil to be introduced to the system during the routine maintenance performed at regular use intervals, usually no more than once annually. Upon pump failure or an oil spill, product could discharge into the water moving through the system and be drained back into receiving water along with drainback water. In this situation, detection of oil in the drainback discharge above that in the source water would be direct evidence of seal failure or coolant leakage. Once these problems were repaired, the system would again be free of TPH.

Available data from water samples collected on the source and discharge sides of these pumps while in operation, as well as the previous five years worth of data collected, show that the pumps do not impart any lubricating oils, specifically any TPH, to the water being pumped at the detection level of the analytical method employed (0.5 mg/l). This verifies EPA-New England's and NHDES-WD's conclusion that the pumps do not impart any detectable TPH to the water. Since historical data show no TPH in either the pumped water or drainback discharge water at the detection level, EPA-New England has concluded, that, based on "demonstrated system performance", proper operation and maintenance of the system's pumps is the key component necessary to maintain this system free of TPH. This demonstration shows, that, aside from a seal failure and oil coolant release, or a maintenance related spill, the system has no other potential sources of Total Petroleum Hydrocarbons on a continual or even periodic basis, and that "proper operation and maintenance procedures," is the only "treatment technology" necessary to keep this system free of TPH. EPA-New England has also determined that this is "economically achievable" and is routinely practiced by ski areas engaged in snowmaking. For a further discussion of technology-based limits for TPH and the reopener provision of Paragraph 17 of the draft permit, see the fact sheet dated June 17, 1998.

The monitoring frequency for TPH will be limited to once per month for all permitted

outfalls. This means that if drainback water is discharged to receiving water through any particular outfall just once during any particular month, that "once" becomes the sampling event for that month. Due to operational demands, a drainback discharge either can be a normally planned shutdown event or one performed just to collect water samples with the pump being turned back on soon after, at the discretion of the permittee. Proper sampling technique for TPH requires that a grab sample be collected.

Discharges from the snowmaking system will be allowed from October 1st through April 30th each snowmaking season. During other months of the year, discharges are prohibited unless due to an act of God such as the pumps were activated for fire-fighting purposes.

In addition, during each month of the calendar year in which a discharge is allowed, the permittee shall retain a copy of pumping records for each pumphouse. Those records shall show, at a minimum, the date and time the pumps were turned on as well as the date and time the pumps were turned off. For each of these on/off cycles, it shall be clear which outfall(s) drainback water was discharged through as a result of that pump's shutdown as well as the approximate time it took to complete the drainback discharge event. Even though the sampling frequency for the outfalls is once per month, EPA-New England still wants to know for each outfall the date and time each drainback occurred with the approximate elapsed time it took to complete each drainback event. A report of no pumping and/or no drainback discharge for any given month and outfall must be documented. In addition, the permittee shall collect a sample of water directly from the East Branch Pemigewasset River just above the confluence with Boyle Brook; and from Boyle Brook a sample will be collected just above the diversion dam to the Boyle Brook Holding Pond for TPH analysis. Samples of Loon Pond will be collected in the vicinity of the Pond's outlet once per month as additional verification of the ambient background concentration in that Pond. These samples will be taken at a time when water is being withdrawn from the source water body. If no water is being withdrawn, then no sample is required. Also, records of all inspection and maintenance activities relative to the pumphouses and intake structures shall be kept at the facility for inspection and/or copying as needed by EPA-New England and/or State officials.

EPA has no approved method for the analysis of TPH under 40 CFR Part 136. Therefore, under authority found in 40 CFR Section 122.41(j)(4), the Agency is allowed to specify an analytical method in the permit. After consultation with appropriate personnel at our Chelmsford Laboratory, EPA-New England has chosen Method 8100 for the analysis of TPH. Therefore, analytical testing of water samples for Total Petroleum Hydrocarbons shall be performed using EPA Method 8100 with a protocol specific to Eastern Analytical Inc. (LMRC's consultant) entitled "EPI SOP: 4.53, STANDARD OPERATING PROCEDURE, PETROLEUM HYDROCARBONS BY GC/FID" which has a detection level of less than 0.5 mg/l and reported as "Level One." "Level One" indicates the presences of fuel (diesel) and lubricating oils in the water sample, but not necessarily the specific oil(s) used in LMRC's pumps. Also, for reporting purposes on the monthly discharge monitoring report, all analytical results reported as less than 0.5 mg/l shall be considered equal to zero, therefore, reported as zero.

Since the "Level One" results are not specific to the oils used in LMRC's pumps, EPA had

required LMRC in the existing permit to have a sample of each pump's coolant oil analyzed to ascertain its chemical fingerprint. According to LMRC, the same coolant oil is used in each of the pumps; therefore one chemical fingerprint was obtained. This coolant oil chemical fingerprint shall be kept on file for future reference should TPH be detected in any of the compliance samples using the "Level One" approach. If TPH's are detected in any sample at levels equal to or greater than 0.5 mg/l, the chemical fingerprint in the water sample shall be compared against the chemical fingerprint of the pump(s) coolant oil(s) to determine if the source of the petroleum hydrocarbons is from LMRC pump(s). If LMRC chooses to change the type of coolant oil used in any or all of the pumps in the future, a new chemical fingerprint shall be obtained for the above stated use.

The choice of Method 8100 and/or the protocol specific to Eastern Analytical may be changed to an equivalent method and/or protocol, but only after written approval (delivered by certified mail) from EPA-New England. This permit provision anticipates that sometime during the life of this permit the permittee may wish to switch analytical laboratories and/or EPA may promulgate a TPH analytical method in 40 CFR Part 136 that EPA-New England believes the permittee should follow. The permittee will be required to continue testing using the Method 8100 and specified protocol in the proposed permit until the permit is either formally modified or until the permittee receives a certified letter from EPA-New England.

Water-Quality Based Considerations

This potential discharge of pump coolant and lubricating oils to waters of the United States is regulated by the narrative O&G Standards in New Hampshire's Water Quality Regulations adopted on December 3, 1999. There are no numerical water quality standards for O&G or TPH.

The NH Standards, which are designed to protect all surface waters in the State, have two basic receiving water classifications: Class A and Class B. Some waters are also classified as Outstanding Resource Waters (ORW). The ORW classification offers special protection of those waters within the boundaries of the national forest, particularly under the antidegradation provisions in the NH Standards. This facility discharges to both classes of waters with Outfall 005 (Loon Pond) going to Class A and ORW, and Outfalls 001 and 003 (East Branch Pemigewasset River), Outfall 002 (Westwood Brook) and Outfall 004 (Boyle Brook) going to Class B.

Section (Env-Ws 1703.03(c)(1)b. of the NH Standards' General Water Quality Criteria, which applies to all surface waters in New Hampshire, states, "All waters shall be free from substances in kind or quantity which: Float as foam, debris, scum, or other visible substances." In addition, Section Env-Ws 1703.09(b) states, "Class B waters shall contain no oil and grease in such concentrations that would impair any existing or designated use." Given the language in both these narrative standards, EPA-New England interprets these provisions, in particular the "free from floating visible substances" to mean "free from an oil sheen", and to prohibit, in the context of discharges into Class B waters, any discharge that would cause an oil sheen. The permit satisfies this standard by requiring proper operation and maintenance procedures as well as monitoring once per month to ensure that the narrative water quality standards for O&G are not violated.

Applicable narrative standards for Class A waters are Env-Ws 1703.12(a), which states that Class A waters "shall contain no slicks, odors, or surface floating solids unless naturally occurring"; and a portion of Env-Ws 1703.09(a), which states that Class A waters "shall contain no oil and grease, unless naturally occurring." EPA-New England interprets Env-Ws 1703.09(a) to mean that discharges to Class A waters shall contain no "additional" oil and grease above that naturally occurring at background or ambient levels/concentrations in the Class A water to which the discharge occurs. At Outfall 005 (Loon Pond), there is a potential, albeit low, for an additional discharge of oil above that existing in Loon Pond but at concentrations insufficient to cause a visible oil sheen. Consequently, any additional discharge of TPH above that already existing in Loon Pond would violate this NH Standard. Therefore, given the language of Env-Ws 1703.09(a), the draft permit allows no discharge of TPH into Loon Pond from Outfall 005 above background concentrations occurring in the Pond at the time of discharge. Consequently, a TPH limit of 0.0 mg/l on a maximum daily basis has been included in the draft permit. This means that if a sample of pond water shows less than 0.5 mg/l of TPH -- the detection limit -- and the drainback discharge to the pond shows 0.6 mg/l an exceedance of the NH Standard Env.Ws 1703.09(a) has occurred.

Since Loon Pond is an "Outstanding Resource Water" and the limit has been set at "no discharge of TPH above that naturally occurring", compliance monitoring shall be conducted once per month. This monitoring requirement has changed from the previous requirement of twice per month, largely based on the fact that no discharges above the permit limit have occurred during the time period covered by the previous permit. Compliance with this standard of "no discharge of TPH above that naturally occurring" will continue to be judged by the comparison of two water samples: one intake water sample collected on the inlet or pond side of the pump just prior to pump shutdown, but not during the last 30 minutes of its operation; and the other sample of drainback discharge water collected after sufficient mixing has occurred in the common well, at least two minutes after the start of the discharge event. Both results and the net difference as described in the proposed permit shall be reported on the appropriate monthly DMR. To further protect Loon Pond, the proposed permit has been conditioned to prohibit any discharge of water to the Pond from any other source of water such as the East Branch Pemigewasset River or Boyle Brook.

7. Essential Fish Habitat

Under the 1996 Amendments (PL 104-297) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) if EPA's actions, or proposed actions that EPA funds, permits, or undertakes, "may adversely impact any essential fish habitat." 16 U.S.C. § 1855(b). The Amendments broadly define essential fish habitat as, "... those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." 16 U.S.C. § 1802(10). Adverse effect means any impact which reduces the quality and/or quantity of EFH. 50 C.F.R. § 600.910(a). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or

synergistic consequences of actions.

EFH is only designated for species for which Federal Fisheries Management Plans exist (16 U.S.C. § 1855(b)(1)(A)). EFH designations were approved for New England by the U.S. Department of Commerce on March 3, 1999.

Of the 59 species that are of concern to the National Marine Fisheries Service (NOAA Fisheries) in the Northeast Region (New England and Mid-Atlantic), no species of concern are listed for the above receiving waters. This determination was confirmed in an informal communication between NOAA Fisheries Habitat Division and EPA (Mike Johnson, NOAA Fisheries to John Nagle, EPA, - January 5, 2006).

Since the East Branch of the Pemigewasset River is a tributary of the Pemigewasset River, which has been designated as Essential Fish Habitat for Atlantic salmon, EPA also evaluated potential indirect and cumulative affects of the project discharge on EFH. The discharge from this facility is only authorized from October through April and no contaminants above detection limits are expected to be present. The effluent will not have a marked negative impact on the fish habitat of the Pemigewasset River. Therefore, EPA has further determined that the projected discharge will have no indirect or cumulative affect on EFH. EPA has provided a copy of the draft permit and fact sheet to the NOAA Fisheries Northeast Region Habitat Division.

8. Endangered Species Act

Section 7(a) of the Endangered Species Act of 1973, as amended (ESA) grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants ("listed species") and habitat of such species that has been designated as critical (a "critical habitat"). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish and Wildlife Service (USFWS) administers Section 7 consultations for freshwater species. The National Marine Fisheries Service (NMFS) administers Section 7 consultations for marine species and anadromous fish.

EPA has reviewed the federal endangered or threatened species of fish, wildlife, and plants to see if any such listed species might potentially be impacted by the re-issuance of this NPDES permit. After a review of the listed federal species and species habitat for Grafton County, New Hampshire, it has been determined that no listed critical habitat exists for these species in the vicinity of the discharge. Furthermore, effluent limitations and other permit conditions which are in place in this Draft Permit should preclude any adverse effects should there be any incidental contact with listed species. A copy of the Draft Permit has been provided to USFWS for review and comment.

9. Monitoring

The effluent monitoring requirements in the proposed permit have been established to yield data representative of the discharge under the authority of Section 308(a) of the Act and in accordance with 40 CFR §§122.41(j), 122.44(i) and 122.48. The remaining conditions of the permit are based on the NPDES regulations 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

10. State Certification Requirements

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving water(s) either certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water-Quality Standards or waives its right to certify as set forth in 40 CFR §124.53. State Water-Quality Standards contain three major elements: Beneficial uses; Water-Quality Criteria; and an Antidegradation Policy, all of which are part of the State's Water-Quality Certification under Section 401 of the Act. The only exception to this is the sludge conditions/requirements, which are not part of Section 401 certifying requirements. The staff of the NHDES-WD, Surface Water Quality Bureau (certifying authority), has reviewed the draft permit and advised EPA-New England that the limitations are adequate to protect all three major elements of their water-quality standards. EPA-New England has requested permit certification by the State and expects that the draft permit will be certified. Regulations governing state certification are set forth in 40 CFR §§124.53 and 124.55.

11. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the Draft Permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period to Lori Muller, NPDES Industrial Permits Program Unit, U.S. EPA, 1 Congress Street, Suite 1100 (CIP), Boston, Massachusetts 02114-2023. Any person, prior to such date, may submit a request in writing for a public hearing to consider the Draft Permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public meeting may be held if the criteria stated in 40 C.F.R. § 124.12 are satisfied. In reaching a final decision on the Draft Permit, the EPA will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after any public hearings, if such hearings are held, the EPA will issue a Final Permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the Final Permit decision, any interested person may submit a petition for review of the permit to EPA’s Environmental Appeals Board consistent with 40 C.F.R. § 124.19.

12. EPA Contact

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Lori B. Muller
NPDES Industrial Permits Program Unit
U.S. Environmental Protection Agency
1 Congress Street, Suite 1100 (CIP)
Boston, MA 02114-2023
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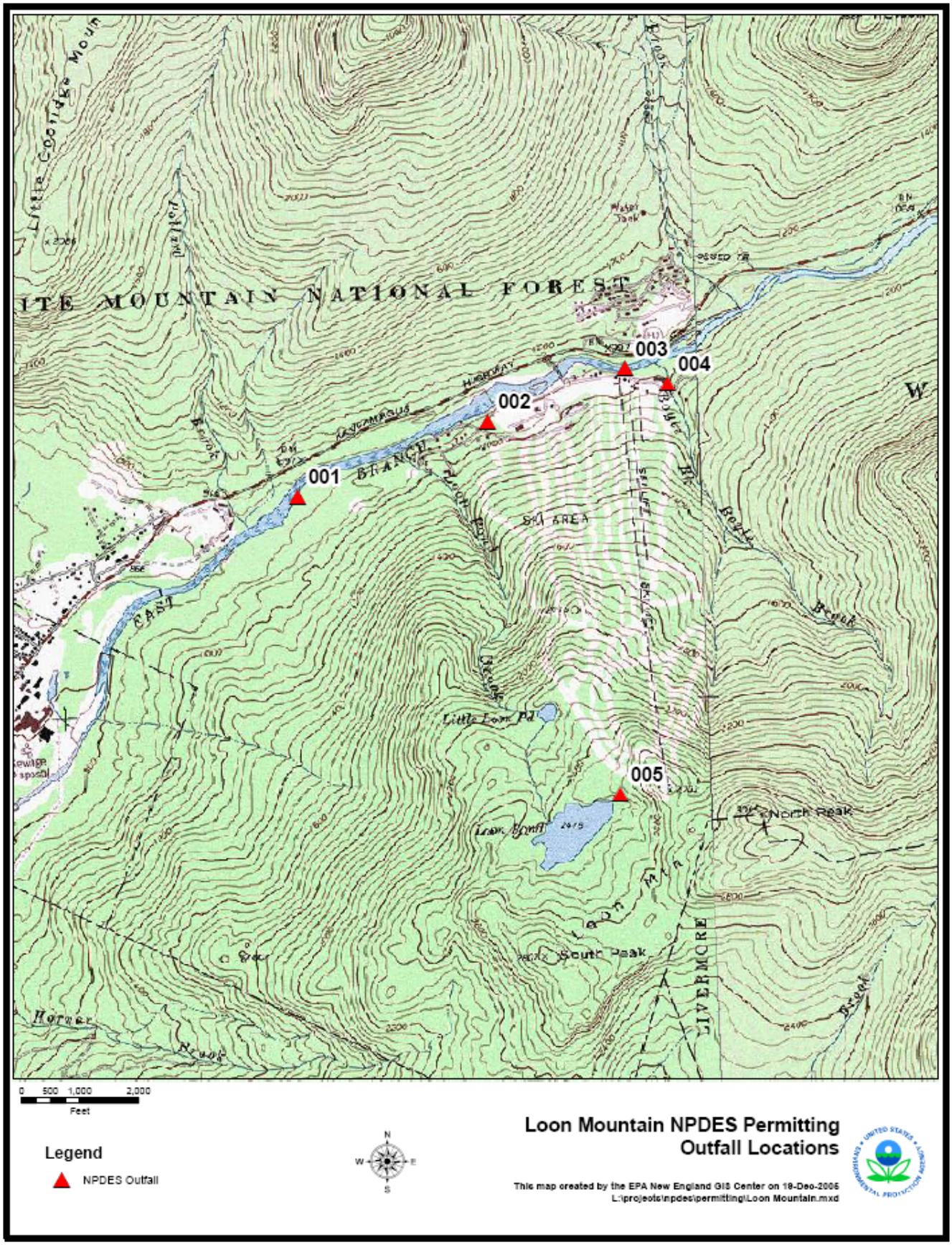
Linda M. Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

ATTACHMENT A


ITE MOUNTAIN NATIONAL FOREST
001
002
003
004
005
EAST BRANCH
SKI AREA
Little Loon Pd
Loon Pond
North Peak
South Peak
LIVERMORE
0 500 1,000 2,000
Feet
Legend
NPDES Outfall
N
W
E
S
Loon Mountain NPDES Permitting
Outfall Locations
This map created by the EPA New England GIS Center on 18-Dec-2006
L:\projects\npdes\permitting\Loon Mountain.mxd

ATTACHMENT B

Loon Mountain **DMR Summary** **NH0023302**

Outfall Serial Number 001 **East Branch Pemigewasset River**

Effluent Characteristic	**Flow (gallons)**
Data Set	Maximum Daily Flow
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Each Event
Permit Limit	Report
Max. Flow (gallons)	87972
Min. Flow (gallons)	11.931
Avg. Flow (gallons)	29324
Number of Events	25

Effluent Characteristic	**Total Petroleum Hydrocarbons (TPH)**
Data Set	Maximum Daily Concentration
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Monthly
Permit Limit	Report
Max. Conc. (mg/L)	0
Min. Conc. (mg/L)	0
Avg. Conc. (mg/L)	0
Number of Events	26

Loon Mountain **DMR Summary** **NH0023302**

Outfall Serial Number 002 **Westwood Brook**

Effluent Characteristic	**Flow (gallons)**
Data Set	Maximum Daily Flow
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Each Event
Permit Limit	Report
Max. Flow (gallons)	35611
Min. Flow (gallons)	35511
Avg. Flow (gallons)	35516
Number of Events	19

Effluent Characteristic	**Total Petroleum Hydrocarbons (TPH)**
Data Set	Maximum Daily Concentration
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Monthly
Permit Limit	Report
Max. Conc. (mg/L)	0.5
Min. Conc. (mg/L)	0
Avg. Conc. (mg/L)	0
Number of Events	18

Loon Mountain **DMR Summary** **NH0023302**

Outfall Serial Number 003 **East Branch Pemigewasset River**

Effluent Characteristic	**Flow (gallons)**
Data Set	Maximum Daily Flow
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Each Event
Permit Limit	Report
Max. Flow (gallons)	34918
Min. Flow (gallons)	11.931
Avg. Flow (gallons)	11692.38
Number of Events	26

Effluent Characteristic	**Total Petroleum Hydrocarbons (TPH)**
Data Set	Maximum Daily Concentration
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Monthly
Permit Limit	Report
Max. Conc. (mg/L)	0.5
Min. Conc. (mg/L)	0
Avg. Conc. (mg/L)	0
Number of Events	27

Loon Mountain **DMR Summary** **NH0023302**

Outfall Serial Number 004 **Boyle Brook Holding Pond**

Effluent Characteristic	**Flow (gallons)**
Data Set	Maximum Daily Flow
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Each Event
Permit Limit	Report
Max. Flow (gallons)	1305468
Min. Flow (gallons)	1250
Avg. Flow (gallons)	54144
Number of Events	25

Effluent Characteristic	**Total Petroleum Hydrocarbons (TPH)**
Data Set	Maximum Daily Concentration
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Monthly
Permit Limit	Report
Max. Conc. (mg/L)	0.5
Min. Conc. (mg/L)	0
Avg. Conc. (mg/L)	0
Number of Events	26

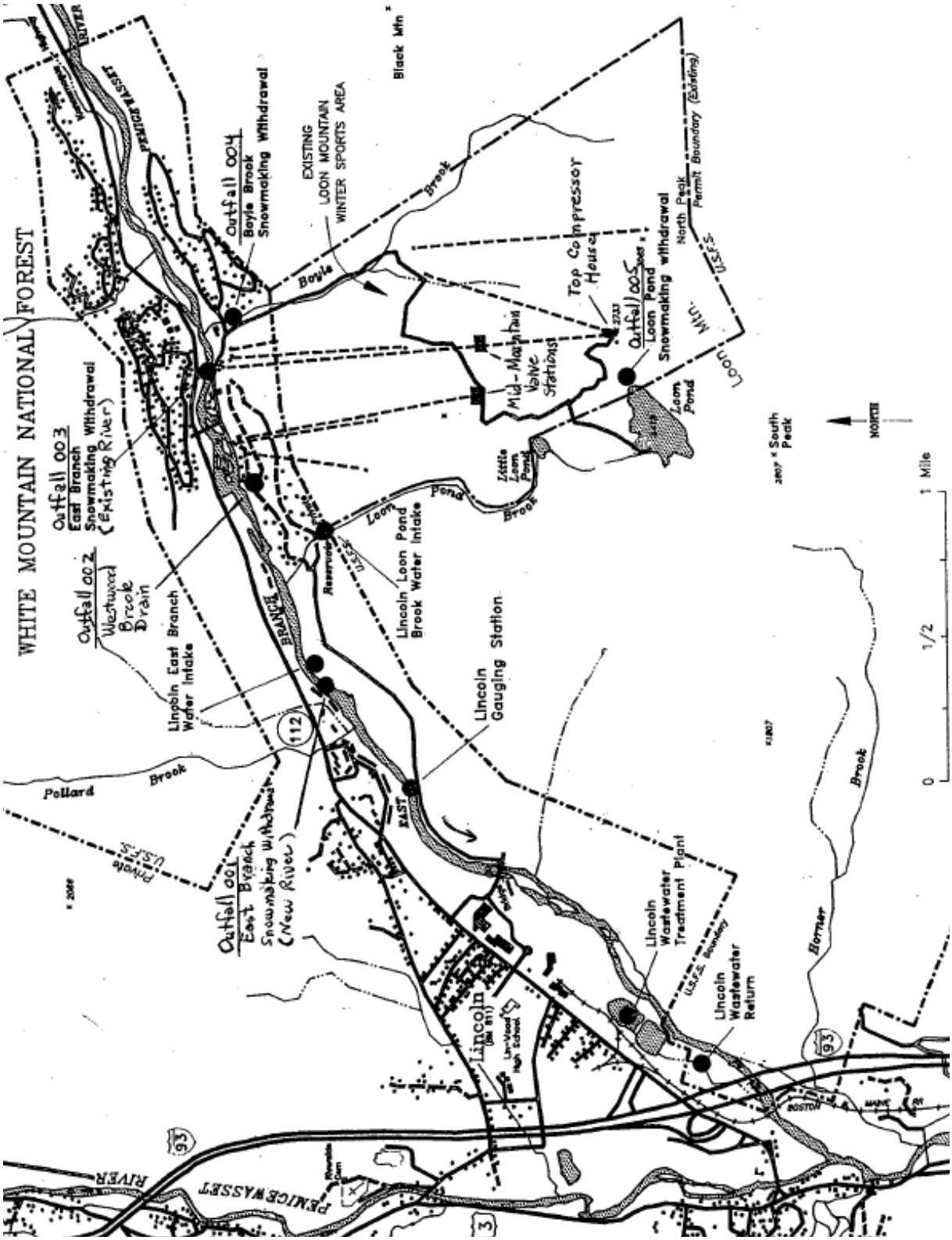
Loon Mountain **DMR Summary** **NH0023302**

Outfall Serial Number 005 **Loon Pond**

Effluent Characteristic	**Flow (gallons)**
Data Set	Maximum Daily Flow
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	Each Event
Permit Limit	Report
Max. Flow (gallons)	8226
Min. Flow (gallons)	1371
Avg. Flow (gallons)	3996
Number of Events	11

Effluent Characteristic	**Total Petroleum Hydrocarbons (TPH)**
Data Set	Maximum Daily Concentration
Dates	11/30/1998 to 4/30/2005
Measurement Frequency	2/Month
Permit Limit	0.0
Max. Conc. (mg/L)	0
Min. Conc. (mg/L)	0
Avg. Conc. (mg/L)	0
Number of Events	11
Number of Exceedances	0

ATTACHMENT C


WHITE MOUNTAIN NATIONAL FOREST
Outfall 003
East Branch
Snowmaking Withdrawal
(Existing River)
Outfall 002
Westwood Brook Drain
Lincoln East Branch Water Intake
Outfall 001
East Branch
Snowmaking Withdrawal
(New River)
Outfall 004
Boyle Brook
Snowmaking Withdrawal
EXISTING
LOON MOUNTAIN
WINTER SPORTS AREA
Black Mtn
Boyle
Brook
Top Compressor House
Mid-Mountain Valve Stations
Outfall 005
Loon Pond
Snowmaking withdrawal
North Peak
Permit Boundary (Existing)
Loon Mtn
Loon Pond
Little Loon Pond
Brook
Lincoln Loon Pond Brook Water Intake
Lincoln Gauging Station
Pollard
Brook
Private Lands
Lincoln
Lincoln Wastewater Treatment Plant
Lincoln Wastewater Return
Bottom
Brook
South Peak
NORTH
1 Mile
1/2
0
PEMIGEWASSET
RIVER
93
3
112