The

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

hereby issues

LARGE GROUNDWATER WITHDRAWAL PERMIT

NO. LGWP-2010-0001A

to the permittee

TOWN OF JAFFREY DEPARTMENT OF PUBLIC WORKS
23 KNIGHT STREET
JAFFREY, NH 03452
603-532-6521

for the withdrawal of the following volume of groundwater from the following well for the purpose of community water supply:

SQUANTUM ROAD WELL (SRW)

170,000 gallons over any 24-hour period from April 1st through October 31st

360,000 gallons over any 24-hour period from November 1st through March 31st

Date of Issuance: March 17, 2020
Date of Expiration: February 18, 2030

Pursuant to authority in N.H. RSA 485-C:21, the New Hampshire Department of Environmental Services (NHDES), hereby grants this permit to withdraw groundwater from the Squantum Road Well subject to the following conditions:

1. The permittee shall comply with the requirements of Env-Wq 403 and RSA 485-C at all times.

2. Water Conservation: The permittee shall implement the approved Water Conservation Plan, dated May 15, 2008, in accordance with Env-Wq 2101 and NHDES' conditional approval dated June 20, 2008.

3. Metering Requirements: Withdrawals from the source must be metered at all times. All meters must be selected, installed, tested, and maintained in accordance with the AWWA M6 manual as referenced in Env-Wq 2101. The permittee shall read source water meters to adequately report the following volumes to the reporting program referenced in condition No. 6 of this permit:

   a) The 24-hour peak day volume withdrawn from the source during each month; and

   b) The cumulative total volume withdrawn from the source during each month.

4. Monitoring and Reporting Requirements: The permittee shall establish and maintain the monitoring and reporting program as described below.

   a) Groundwater and Surface Water Monitoring: The permittee shall install a pressure transducer and data logger and measure water levels at the frequency and locations in the table below. Water level monitoring shall continue indefinitely as a condition of this permit. Note that the groundwater monitoring shall occur year round and the piezometer and staff gauge monitoring points shall be monitored seasonally from April 1st through October 31st each year.

Monitoring Location	**Monitoring Type**	**Critical Water level (feet amsl)**	**Frequency**
Squantum Road Well (SRW)	Groundwater	NA	Every 4 hours
PZ-2D	Piezometer	1033.66	hourly
PZ-8S	Piezometer	1033.92	hourly
SG-6	Surface Water	1034.65 (Apr 1 – Jun 1) 1034.40 (Jun 1- Aug 1)	hourly

   All water level monitoring shall be completed by a person who can demonstrate, by education or experience, competency in collecting and reporting hydrogeologic measurements.

   Monitoring locations may be added or changed if the water level data obtained contradict the information provided in the permittee's application, or if additional data points are required to assess the potential for adverse impacts to occur.

   The critical water levels, listed above, trigger a response by the permittee described in the condition 5d below. To determine whether a water level monitoring trigger is met, the permittee shall obtain and review the daily production volumes from SRW and the water level monitoring data collected at those monitoring points outfitted with transducers and connected to the permittee's SCADA system on a minimum of a biweekly basis between April 1st and October 31st.

b) Wetland Monitoring: Wetland monitoring shall occur at the on-site wetland monitoring plots 1 and 2, and the reference wetland located in Sharon, New Hampshire (Tax Map 7, Lot 6), which is outside of the zone of contribution of the Squantum Road Well.

Monitoring shall occur three times a year and include vegetative plot surveys, photo documentation of wetland plots, and wetland piezometer surveys in accordance with the methods completed by the permittee from 2014 to 2019 and summarized in the permittee's annual monitoring reports. The permittee shall continue to monitor the locations listed in Table 1 of the annual monitoring reports.

The wetland monitoring program shall continue indefinitely as a condition of this permit. All work shall be conducted under the direct oversight of a New Hampshire Certified Wetland Scientist. Results of the wetland monitoring and surveys must provide a determination as to whether or not an adverse impact has occurred, may occur, or has not occurred over the monitoring period.

c) Reporting Requirements: An annual monitoring report and all monitoring data shall be submitted to NHDES by January 31 of each year. The report shall note any relevant observations that may affect the water level measurements or wetland plot observations and include all field notes documenting the monitoring activities for the preceding year. All field notes shall be signed and dated by the personnel responsible for collecting measurements. The results of the tri-annual wetland surveys and associated impact assessment shall be included in the annual monitoring report unless requested sooner by NHDES.

The annual monitoring report and all monitoring data collected per section 4 above shall be submitted in an electronic format only.

5. Mitigation Requirements

a) In the event that an adverse impact occurs, the permittee shall comply with all of the requirements below and with the impact mitigation and source replacement requirements of Env-Wq 403.

b) Where the status of an unanticipated impact is not clear, the permittee shall gather information needed to quantify the impact and determine its status relative to the adverse impact criteria defined under RSA 485-C:21, V-c and provide this information to NHDES within 48 hours of being notified by NHDES. A verified adverse impact shall be mitigated in accordance with Env-Wq 403.

c) NHDES will routinely review the results of all monitoring data, and if water level monitoring data indicates that groundwater is being extracted at a rate that exceeds natural recharge on average, then NHDES will modify the permit in accordance with Env-Wq 403 in order to prevent adverse impacts from occurring.

d) In addition, the permittee shall operate the Squantum Road Well in accordance with the management procedures described below:

MANAGEMENT PROCEDURE

In the event that water levels fall below the trigger elevations listed above in condition 4a in the piezometers PZ-2D, PZ-8S or SG6, the permittee shall minimize the withdrawal from the Squantum Road Well by placing the Squantum Road Well into the lag position and only withdrawing from the well as needed to meet the system demands. The permittee may return the Squantum Road Well into the lead position when water levels are above the trigger elevations in all of the monitoring points listed above.

The withdrawal from the Squantum Road Well shall not exceed 57,600 gallons per day when a critical water level is met. If a withdrawal of greater than 57,600 gallons per day occurs when a critical water level is met, the permittee shall notify NHDES within 5 days of the occurrence and provide available water level monitoring data. NHDES shall review the data and, if needed, establish a reduced production rate to avoid causing a non-mitigated adverse impact to the affected wetland area.

6. The permittee shall continue to comply with all water use reporting requirements with the NHDES Water Use Registration and Reporting Program per RSA 488, Env-Wq 2102, and this permit.

7. The permittee shall apply for renewal of this permit not more than six months prior to its expiration date in accordance with Env-Wq 403. 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.

Any person aggrieved by any terms or conditions of this permit may appeal in accordance with RSA 21-O:7, IV within 30 days.

Thomas E. O'Donovan, P.E.,
Director Water Division

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