



The
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
hereby issues
LARGE GROUNDWATER WITHDRAWAL PERMIT

NO. LGWP-2006-0002A

to the permittee

CHAMBERLAIN SPRINGS LLC
166 OLD WOLFEBORO ROAD
ALTON, NEW HAMPSHIRE 03809
(603-875-7562)

for the withdrawal of the following volumes of groundwater from the following wells for use in the production of bottled water:

Alton 1	57,600 gallons over any 24-hour period
Alton 2	50,400 gallons over any 24-hour period
Alton 4	115,200 gallons over any 24-hour period

Date of Issuance: July 26, 2016
Date of Expiration: July 26, 2026

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 Alton 1, Alton 2, and Alton 4 subject to the following conditions:

1. The permittee shall comply with the requirements of Env-Wq 403 at all times.
2. Water Conservation: In addition to the measures the permittee proposed in its Final Report dated September 6, 2005, submitted by GZA GeoEnvironmental, Inc. (GZA) to NHDES and incorporated herein by reference, the following measures shall be implemented:
 - a) The permittee shall complete weekly visual leak inspection of piping in the distribution building and annual pressure testing of system piping. All leaks must be repaired within 60 days of discovery. Alternatively, the permittee may utilize meters and totalizers at the wellhead and the distribution building to determine if water losses exceed 5% of the total water produced from extraction wells. If water losses exceed 5% between the wellhead and the distribution building, a leak detection and repair program must be implemented. Flow meters and totalizers must meet the requirements in item 3, below. The permittee must report a summary of activities it undertook to identify and repair pipeline leakage in an annual report by January 31 of each year.
 - b) The permittee shall maintain shut-off devices in any tanker truck filling process that prevent the discharge of unused water to waste.
3. Metering Requirements: The withdrawals from Alton 1, Alton 2 and Alton 4 shall 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 provide NHDES with a certificate of calibration and performance specifications for each meter. The permittee shall document and maintain records of all meter maintenance and calibration activities and submit this information to NHDES in an annual report by January 31 of each year. 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 each source during each month; and
 - b) The cumulative total volume withdrawn from each source during each month.
4. Monitoring and Reporting Requirements: The permittee shall establish and maintain the monitoring and reporting program as described below.
 - a) Water Level Monitoring
 - i) Off-site Private Wells: Install pressure transducers and data loggers and measure water levels at a frequency of at least every four hours in the following private wells starting six months prior to initiating a withdrawal:

Lot	Address
	Old Wolfeboro Road
	Range Road
	Range Road
	Range Road
	Bay Hill Road
	Old Wolfeboro Road
	Old Wolfeboro Road
	Old Wolfeboro Road
	Old Wolfeboro Road
	Old Wolfeboro Road
	Clark Road
	Old Wolfeboro Road

- ii) On-site Private Well: Install a pressure transducer and data logger and measure water levels at a frequency of at least every four hours in the private well designated as "O'Shaughnessy-1 well" (alternatively referenced as "Joy Hill well") within Tax Map Lot (Old Wolfeboro Road).
- iii) Off-site Bedrock Monitoring Wells: Install pressure transducers and data loggers and measure water levels at a frequency of at least every four hours in the proposed bedrock monitoring well locations designated Alton 6 and Alton 7 as shown on Figure 12, titled "Off-Site Monitoring Plan", dated April 2006 submitted by GZA to NHDES and incorporated herein by reference.
- iv) On-site Bedrock Monitoring Wells: Install pressure transducers and data loggers and measure water levels at a frequency of at least every four hours at locations as shown on Figure 11, titled "On-Site Monitoring Plan", dated April 2006 submitted by GZA to NHDES and incorporated herein by reference. The locations shall include Alton 1, Alton 2, Alton 3, Alton 4, Alton 5 located within Tax Map Lot 77.
- v) On-site Overburden Monitoring Wells and Surface Water Monitoring Locations: Use electronic water level meters or install pressure transducers and data loggers and measure water levels at a frequency of at least biweekly at locations shown on Figure 11, titled "On-Site Monitoring Plan", dated April 2006. The locations shall include OMW-101U, OMW-101L, OMW-102U, OMW-102L, OMW-103U, OMW-103L, OMW-103N, OMW-104U, OMW-104L, OMW-105, SW-1, SW-2, SW-4, SW-5, SW-6, SW-9, WP-1, WP-2, and WP-3. Install pressure transducers and data loggers and measure water levels at a frequency of at least every four hours at locations SW-3, SW-3A and SW-10.

If a private well owner denies permission to monitor water levels, then the permittee shall propose an alternative monitoring location to NHDES for approval. The permittee shall monitor the alternative location upon receiving approval from NHDES.

The installation of off-site bedrock monitoring wells Alton 6 and Alton 7 shall be performed as described in a letter dated June 28, 2006 submitted by GZA to NHDES

and incorporated herein by reference. If Alton 6 and Alton 7 can not be located at their target locations due to site constraints, the permittee shall seek prior approval from NHDES for alternative locations. The permittee shall provide soil boring data, monitoring construction details, and well completion reports within 30 days following the installation of Alton 6 and Alton 7.

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 well locations and frequencies may be added or changed if the water level data obtained in paragraphs (i)-(v) above contradict the information obtained in the permittee's application, or if additional data points are required to assess the potential for adverse impacts to occur.

b) Water Quality Monitoring

- i) Water Quality Sampling Schedule: The permittee shall conduct two water quality sampling rounds at three and two months prior to initiating a withdrawal, one water quality sampling round six months following startup, and annually thereafter during the month of August for the remainder of the permit.
- ii) Water Quality Sample Analysis: The permittee shall perform analysis on water quality samples in accordance with the water quality monitoring program as described in Appendix G.3 of GZA's report titled "Lead Source Evaluation/Response to Preliminary Comments, Chamberlain Springs, 166 Old Wolfeboro Road, Alton, New Hampshire" dated April 12, 2006. The suite of water quality parameters shall include groundwater fingerprint analysis as described in Section 3.0 of the GZA's Final Report dated September 6, 2005; manganese; inorganic compounds listed in Env-Dw 704.02 (Health-Related Regulated IOC Contaminants)); and total phenolics.
- iii) Water Quality Sampling Locations: The permittee shall collect the water quality samples referenced in paragraph i) from the off-site and on-site bedrock well locations referenced in paragraphs 5a)i) through 5a)iv) above.

All water quality sampling shall be completed by a person who can demonstrate, by education or experience, competency in collecting and recording water quality samples.

Water quality sampling frequency, parameters and locations may be added or changed if the water quality results contradict the information obtained in the permittee's application, or if additional sampling is required to assess the potential for adverse impacts to occur.

- c) Stream Flow Monitoring: The permittee shall install (after obtaining the required wetland impact permits) two permanent V-notch weirs in the unnamed stream that flows through the wellfield at locations as shown as Weir 1 and Weir 2 on the revised Figure 11, titled "On-Site Monitoring Plan", dated April 2006. The stream

flow at the weirs shall be measured at a frequency of at least weekly, unless snow and ice make measurements not possible.

- d) Wetland Monitoring: Implement the wetland monitoring program at locations CS-1, CS-2, CS-3, VPS-1, VPA-1, and VPA-2 as summarized in Appendix L of the Final Report dated September 6, 2005 from GZA to NHDES. The wetlands monitoring program shall initiate one year prior to initiating a withdrawal and continue indefinitely as a condition of the permit. All work shall be conducted under the direct oversight of a New Hampshire Certified Wetland Scientist. The tri-annual wetland surveys must provide a clear determination as to whether or not an adverse impact has occurred, may occur, or has not occurred over the monitoring period.

All monitoring data shall be submitted to NHDES annually by January 31 of each year. The submittals shall be in an electronic format and hard copy format. The annual report shall note any relevant observations that may affect water level measurements, water quality results or stream flow measurements 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 monitoring and associated impact assessment must be included in an annual wetland monitoring report and provided in the annual report unless requested sooner by NHDES.

5. Mitigation Requirements

- a) In the event that adverse impacts occur, the permittee shall comply with all of the requirements below and with the impact mitigation and source replacement requirements of Env-Wq 403.
- b) Prior to initiating the large groundwater withdrawal, the permittee shall notify any owner of a private well within the area identified as "Estimate of 180 Day Zone of Influence" as shown on Figure 7, titled "Conceptual Hydrogeologic Model", dated April 2006 submitted by GZA to NHDES and incorporated herein by reference. The permittee shall provide copies of certified returned receipts to NHDES. The permittee shall explain to owners of wells in the area that their well may be influenced by the withdrawal at Alton 1, Alton 2, and Alton 4. The permittee shall provide the homeowner with contact information for both the permittee and NHDES in the event a homeowner believes they may be adversely impacted.
- c) Where the status of unanticipated impact is not clear, the permittee shall gather information needed to quantify the impact and determine its status relative to 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.
- d) 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.

In addition, the permittee shall operate the wells in accordance with the management procedures described below:

STAGE I MANAGEMENT PROCEDURES:

In the event that any of the following triggers occur, output from each production well shall be reduced to 75% of the permitted withdrawal volume:

Trigger A: A ten foot drawdown below the 180-day no-recharge projections (at locations and associated values listed in Table 1), unless it is determined by NHDES that the drop in water levels in a specific monitoring point is erroneous based upon an analysis of water levels in all other similar monitoring points.

Trigger B: Moderate Drought Condition as determined by the U.S. Drought Monitor which is administered by the U.S. Department of Agriculture, U.S. Department of Commerce/National Oceanic and Atmospheric Administration, and the National Drought Mitigation Center.

Trigger C: An adverse wetland impact determination based upon the criteria of Env-Wq 403 by the Certified Wetland Scientist completing the monitoring described in Section 5 d), or NHDES.

As part of Stage I Management Procedures, the permittee shall increase the frequency of reporting of all on-site and off-site water level measurements to NHDES, and submit all measurements electronically to NHDES by the 15th and last day of each calendar month.

STAGE II MANAGEMENT PROCEDURES

In the event that any of the following triggers occur, output from each production well shall be reduced to 50% of the permitted withdrawal volume:

Trigger A: A twenty foot drawdown below the 180-day no-recharge projections (at locations and associated values listed in Table 1), unless it is determined by NHDES that the drop in water levels in a specific monitoring point is erroneous based upon an analysis of water levels in all other similar monitoring points.

Trigger B: Severe Drought Condition as determined by the U.S. Drought Monitor which is administered by the U.S. Department of Agriculture, U.S. Department of Commerce/National Oceanic and Atmospheric Administration, and the National Drought Mitigation Center.

Trigger C: An adverse wetland impact determination based upon the criteria of Env-Wq 403 by the Certified Wetland Scientist completing the monitoring described in Section 5 d) or NHDES that is not corrected by Stage I Management Procedures.

As part of Stage II Management Procedures, the permittee shall continue reporting all on-site and off-site water level measurements to NHDES

electronically by the 15th and last day of each calendar month.

STAGE III MANAGEMENT PROCEDURES

In the event that any of the following triggers occur, the combined production from all on-site wells shall be reduced to less than 57,600 gallons over any 24-hour period:

Trigger A: A thirty foot drawdown below the 180-day no-recharge projections (at locations and associated values listed in Table 1), unless it is determined by NHDES that the drop in water levels in a specific monitoring point is erroneous based upon an analysis of water levels in all other similar monitoring points.

Trigger B: Extreme Drought Condition as determined by the U.S. Drought Monitor which is administered by the U.S. Department of Agriculture, U.S. Department of Commerce/National Oceanic and Atmospheric Administration, and the National Drought Mitigation Center.

Trigger C: An adverse wetland impact determination based upon the criteria of Env-Wq 403 by the Certified Wetland Scientist completing the monitoring described in Section 5 d) or NHDES that is not corrected by Stage II Management Procedures.

As part of Stage III Management Procedures, the permittee shall continue reporting all on-site and off-site water level measurements to NHDES electronically by the 15th and last day of each calendar month.

STAGE IV MANAGEMENT PROCEDURES

In the event that a monitoring report indicates that the withdrawal volumes established as part of Stage III Management Procedures are adversely impacting wetlands and the adverse impacts will continue, withdrawals at the site shall cease.

6. The permittee shall register with the NHDES Water Use Registration and Reporting Program and maintain the water use reporting requirements established by RSA 488, Env-Wq 2102, and this permit.
7. The permittee shall apply for renewal of this permit at least 365 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.

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



Eugene J. Forbes, P.E.,
Director Water Division

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Table 1. Trigger Water Level Elevations for Chamberlain Springs Large Groundwater Withdrawal Permit 2006-0002A

Town Map / Lot Number	180-day No-Recharge Drawdown (feet MSL)	Stage I Trigger Level (feet MSL)	Stage II Trigger Level (feet MSL)	Stage III Trigger Level (feet MSL)	Address
	700	690	680	670	Old Wolfeboro Road
	731	721	711	701	Range Road
	0	Note 1	Note 1	Note 1	Range Road
	0	Note 1	Note 1	Note 1	Range Road
	752	742	732	722	Bay Hill Road
	774	764	754	744	Old Wolfeboro Road
	826	816	806	796	Old Wolfeboro Road
	736	726	716	706	Old Wolfeboro Road
	719	709	699	689	Old Wolfeboro Road
	859	849	839	829	Old Wolfeboro Road
	830	820	810	800	Clark Road
	756	746	736	726	Old Wolfeboro Road
	828	818	808	798	Old Wolfeboro Road

NOTES:

1. Static water level for these wells shall be determined at the time monitoring begins. Stage I, II and III trigger levels shall be established based on static water levels and observations following start of monitoring.
2. If an alternative monitoring location is used as described in Section 5 then the trigger levels shall be established as specified in Note 1. above.