



The
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

hereby issues

LARGE GROUNDWATER WITHDRAWAL PERMIT

NO. LGWP-2006-0002

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 on-site wells for the purpose of bulk sales for 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

located at 118 Old Wolfeboro Road in Alton, New Hampshire (Tax Map 12, Lot 57)

Date of Issuance: July 26, 2006
Date of Expiration: July 26, 2016

Pursuant to authority in N.H. RSA 485-C:21, the New Hampshire Department of Environmental Services (DES), 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-Ws 388 at all times.
2. Water Conservation: In addition to the measures the permittee proposes in its Final Report dated September 6, 2005, submitted by GZA GeoEnvironmental, Inc. to DES 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 November 30 of each year.
 - b) The permittee shall maintain shut-off devices in its tanker truck filling process that prevent the discharge of unused water to waste.
3. Metering Requirements: Withdrawals from all source wells must be metered at all times. The permittee shall provide DES with a certificate of calibration for each meter, as well as the performance specifications, maintenance and calibration requirements of each meter as prescribed by the manufacturer. All meters must be sized and calibrated to monitor the applicable withdrawal and flow rates. The permittee shall maintain and calibrate the meters in accordance with the specifications of the manufacturer. The permittee shall document and maintain records of all meter maintenance and calibration activities and submit this information to DES in an annual report by November 30 of each year.

4. Monitoring and Requirements

The permittee shall establish and maintain the monitoring and reporting program as described below.

- a) Water Level Monitoring: The permittee shall complete the following water level monitoring and reporting program.
 - 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 system startup:

Lot	Address
8-39	93 Old Wolfeboro Road

9-60	103 Range Road
9-60-6	137 Range Road
9-60-1	81 Range Road
12-13	Bay Hill Road
12-50	Old Wolfeboro Road
12-54-1	Old Wolfeboro Road
12-53-1	178 Old Wolfeboro Road
12-53-2 (old)	169 Old Wolfeboro Road
12-53-2 (new)	169 Old Wolfeboro Road
12-53-3	42 Clark Road
12-55	140 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 12 Lot 57 (166 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 GeoEnvironmental, Inc. to DES 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 GeoEnvironmental, Inc. to DES and incorporated herein by reference. The locations shall include Alton 1, Alton 2, Alton 3, Alton 4, Alton 5 located within Tax Map 12 Lot 57.
- 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 DES for approval. The permittee shall monitor the alternative location upon receiving approval from DES.

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

GeoEnvironmental, Inc. to DES 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 DES 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: The permittee shall complete the following water quality monitoring and reporting program.
 - i) Water Quality Sampling Schedule: The permittee shall conduct two water quality sampling rounds at three and two months prior to system startup, one water quality sampling round six months following system 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-Ws 314.01 (Health Related Regulated Inorganic Chemical 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 Gaging: 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) Wetlands: 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 GeoEnvironmental, Inc. to DES. The wetlands monitoring program shall initiate one year prior to initiating withdrawals 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 DES annually by November 30 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 gage readings 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 DES.

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-Ws 388.
- 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 GeoEnvironmental, Inc. to DES and incorporated herein by reference. The permittee shall provide copies of certified returned receipts to DES. 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 DES in the event a homeowner believes they may be adversely impacted.
- c) The permittee shall notify DES of any adverse impact within 12-hours of receiving such information. Furthermore, the permittee shall provide potable water for drinking and cooking purposes to a well owner that DES has determined to be adversely impacted. The permittee shall have 12 hours to provide drinking and cooking water after being notified of an occurrence of an adverse impact. The permittee shall provide potable water for other domestic uses within 36 hours of being notified of an adverse impact (e.g., lower well

pump, install higher capacity well pump, drill a new well, or truck bulk water to the property). A permanent alternative water supply that produces water quality that complies with Federal and State drinking water requirements and a quantity of water that complies with the requirements of Env-Ws 388.18, shall be provided to an adversely impacted water user within 30 days of DES determining that a water user had been adversely impacted.

Contracts with companies capable of providing water and well services (including drilling of new wells) must be developed and maintained prior to and after initiating the withdrawal such that in the event that impacts are noted at private wells, mitigation steps can be undertaken expeditiously. Copies of these contracts shall be provided to DES prior to initiating the large groundwater withdrawal.

- d) 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 Env-Ws 388.18 and provide this information to DES within 48 hours of being notified by DES. A verified adverse impact shall be mitigated as described in paragraph (c), above.
- e) DES 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 DES will modify the permit in accordance with Env-Ws 388 in order to prevent adverse impacts from occurring. In addition, the permittee shall operate the well in accordance with the management procedures described below:

STAGE I MANAGEMENT PROCEDURES:

In the event that any of the following monitoring triggers are exceeded, output from each production well shall be reduced to 75% of the permitted yield capacity:

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 DES 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 U.S Drought Monitor which is administered by the U.S. Department of Agriculture, Department of Commerce, and National Oceanic and Atmospheric Administration.

Trigger C: An adverse wetland impact determination based upon the criteria of Env-Ws 388.18(c)(7) by the Certified Wetland Scientist completing the monitoring described in Section 5 d), or DES.

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 DES, and submit all measurements electronically by the 15th and 30th day of each

calendar month.

STAGE II MANAGEMENT PROCEDURES

In the event that any of the conditions listed below are exceeded, then output from each production well shall be reduced to 50% of the permitted yield capacity:

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 DES 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 U.S. Drought Monitor which is administered by the U.S. Department of Agriculture, Department of Commerce, and National Oceanic and Atmospheric Administration.

Trigger C: An adverse wetland impact determination based upon the criteria of Env-Ws 388.18(c)(7) by the Certified Wetland Scientist completing the monitoring described in Section 5 d) or DES that is not corrected by Stage I.

As part of Stage II management procedures, the permittee shall increase the frequency of reporting of all on-site and off-site water level measurements to DES, and submit all measurements electronically by the 15th and 30th day of each calendar month.

STAGE III MANAGEMENT PROCEDURES

In the event that any of the following triggers are exceeded based on monitoring at the private wells outlined above, the cumulative withdrawal from all on-site wells shall be reduced to below 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 DES 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 U.S. Drought Monitor which is administered by the U.S. Department of Agriculture, Department of Commerce, and National Oceanic and Atmospheric Administration.

Trigger C: An adverse wetland impact determination based upon the criteria of Env-Ws 388.18(c)(7) by the Certified Wetland Scientist completing the monitoring described in Section 5 d) or DES that is not corrected by Stage II.

As part of Stage III management procedures, the permittee shall increase the frequency of reporting of all on-site and off-site water level measurements to

DES, and submit all measurements electronically by the 15th and 30th day of each calendar month.

STAGE IV MANAGEMENT PROCEDURES

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

6. The permittee shall register its new sources of water under the Registered Water User Program and maintain the water use reporting requirements established by RSA 488.
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.

Harry T. Stewart, P.E.,
Director Water Division