



LARGE GROUNDWATER WITHDRAWAL PERMIT APPLICATION NOTIFICATION FORM

Drinking Water and Groundwater Bureau



Notice of Submittal to the New Hampshire Department of Environmental Services

RSA 485-C:21, Env-Wq 403

PROJECT LOCATION

Site Name and Owner (if different than Applicant)	Exeter Test Production Well SG1-TPW – Phillips Exeter Academy Property Mark Leighton, Director of Facilities Management
Address	Drinkwater Road, Exeter, New Hampshire
Tax Map/Lot Number	71-119
Municipality(s) in Potential Impact Area	Exeter, New Hampshire
Community Water Supplier(s) in Potential Impact Area	Town of Exeter

APPLICANT

Name	Mr. Stephen Dalton, Acting Water Sewer Manager
Affiliation	Town of Exeter
Mailing Address	13 Newfields Road, Exeter, NH 03833
Phone Number	603-773-6157
Email Address	sdalton@exeternh.gov

APPLICATION PREPARER (provide imprint of professional license stamp)

Name	Daniel J. Tinkham
Company Name	Emery & Garrett Groundwater Investigations, A Division of GZA
Mailing Address	P.O. Box 1578, Meredith, NH 03253
Phone Number	603-279-4425
Email Address	daniel.tinkham@gza.com

*Notice to application preparer: Provide copies of certified mail receipts to NHDES immediately following each submittal.

For additional information, contact Andrew Koff at (603) 271-8866 or Andrew.Koff@des.nh.gov.

SUBMITTAL INFORMATION

SUBMITTAL TYPE

DATED: 1/18/2021

- Preliminary Application
- Preliminary Application – Supplemental Information
- Final Report
- Final Report – Supplemental Information
- Permit Renewal Application
- Other: _____

PROJECT TYPE

- Public Water Supply
- Bottled/Bulk Water Supply
- Irrigation Water Supply
- Process Water Supply
- Other: _____

1. Type of proposed water source: _____ Bedrock well(s), Overburden well(s), _____ Spring
2. Number of proposed water sources: 1
3. Proposed cumulative withdrawal volume in gallons per day: 576,000

Project Summary: (please provide a brief description of your proposed project in the space below)

The Town of Exeter is planning to develop a new community supply well to serve the public water system in the Town. The additional Production Well will supplement three others in Town.

DWGBinfo@des.nh.gov or phone (603) 271-8866
PO Box 95, Concord, NH 03302-0095
www.des.nh.gov

NOTE: Per RSA 485-C:21, the deadline to request a public hearing for this project is fifteen (15) days following receipt of the Preliminary Application or Final Report. For more information, see the NHDES fact sheet WD-DWGB-22-15 regarding the Large Groundwater Withdrawal permitting process.

REPORT CERTIFICATION STATEMENT

By signing this report the signer certifies that the information contained in or otherwise submitted with this report is true, complete and not misleading to the best of the signer's knowledge and belief.

By signing this report the signer understands that submission of false, incomplete or misleading information is grounds for:

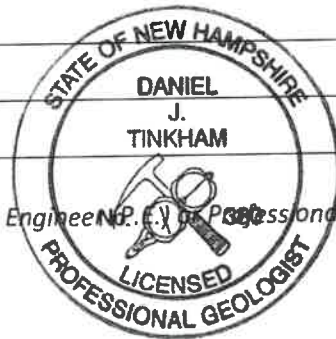
- Not approving the report;
- Revoking any approval that is granted based on the information;
- Suspending or revoking the professional license held by the signer if the department is the licensing authority or referring the matter to the appropriate licensing authority for potential action against the professional license held by the signer if other than the department; and
- If the signer is acting as or on behalf of a listed engineer as defined in Env-C 502.10, debarring the listed engineer from the roster.

By signing this report, the signer understands that they are subject to the penalties specified in NH law, currently RSA 641:3, for making unsworn false statements.

By signing this report, the signer and applicant agree to comply with all applicable rules and conditions of the approval, if one is issued.

SIGNATURES

APPLICANT/CONTACT PERSON: <i>Stephen Dalton</i>	DATE	7-20-23
PRINTED NAME: Mr. Stephen Dalton, Acting Water and Sewer Manager		
*REPORT PREPARER: <i>D.J. Tinkham</i>	DATE	7/19/2023
PRINTED NAME: Daniel J. Tinkham, P.G.		
PROFESSIONAL LICENSE TYPE: Professional Geologist		
PROFESSIONAL LICENSE NUMBER: 380		



**This cover page must bear the stamp or seal of the NH-licensed Professional Geologist (P.G.) who prepared the report.*

Rec 7/24/2023



VIA EMAIL: largegw@des.nh.gov
Andrew.Koff@des.nh.gov

July 10, 2023
Project No.: 33.0083130.00

Mr. David Hisz
New Hampshire Department of Environmental Services
Drinking Water and Groundwater Bureau
P.O. Box 95, 29 Hazen Drive
Concord, NH 03302-0095

Re: EGGI/GZA Response to the NHDES Comments regarding the Preliminary Application for Large Groundwater Withdrawal Permit for Test Production Well SG1-TPW, Town of Exeter, New Hampshire (CWS Exeter; PWS ID 0801010; DR005398)

Dear Mr. Hisz,

Thank you for your comments regarding Emery & Garrett Groundwater Investigations (EGGI), a Division of GZA's report entitled, "Large Groundwater Withdrawal Application, Test Production Well SG1-TPW, Exeter, New Hampshire," dated December 29, 2022. Each of the fourteen items listed in your response of June 6, 2023, are addressed in the same sequence in the following paragraphs.

1. Regarding the current use and 50-year site history of the property, Phillips-Exeter Academy (PEA) has maintained the forested property for non-motorized recreational trails throughout the past 50 years. Timber is harvested from the property occasionally, in accordance with a forest management plan. Many of the trees, within the Sanitary Protective Area (SPA; a 400-foot radius) around the new Production Well, were harvested in 2022.
2. The Town of Exeter acknowledges that final approval of the proposed water source requires New Hampshire Department of Environmental Service's (NHDES) approval of an easement agreement demonstrating control of the SPA by the water system. The Town of Exeter has been working with PEA to secure such an agreement and the Town anticipates receiving a Letter of Intent from PEA in the coming weeks.
3. The Potential Impact Area (PIA) receives average annual precipitation of 44.3 inches¹ spread over the 745-acre area. That quantity of precipitation over the PIA provides a total volume of 422.8 million gallons per year (1.16 million gallons per day). Fifty-three percent of the precipitation is lost to rapid runoff and evapotranspiration while the remainder (20.9 inches) becomes groundwater recharge potentially available to be captured by Production Wells. The extensive low-permeability marine deposits that overlie the lower aquifer restrict groundwater recharge from infiltrating vertically downwards, therefore, other mechanisms for groundwater recharge to the confined aquifer must be available. The other groundwater recharge mechanisms may include any or all of the following:
 - Vertical leakage through the confining materials. Although the low-permeability marine deposits cover a large area, there are portions that are much sandier than others and will allow higher rates of recharge, especially under pumping conditions when vertically downward pressure gradients are established.

¹ StreamStats® software (<https://www.usgs.gov/streamstats/new-hampshire-streamstats>) developed by the U.S. Geological Survey was used to calculate average annual precipitation and groundwater recharge rates within the PIA.

Emery &
Garrett
GROUNDWATER
INVESTIGATIONS
A Division of GZA

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION
MANAGEMENT

PO Box 1578
56 Main Street
Meredith, NH 03253
Tel: 603-279-4425
Fax: 603-279-8717
www.gza.com

- It is possible that surface water flowing down the Exeter River, Little River, Great Brook, and other drainages can be induced into more permeable aquifer deposits beyond the extent of the low-permeability marine deposits.
- Upwelling from bedrock fracture systems will provide groundwater recharge to the confining unit from below. Where present, those fracture systems would direct recharge from a wide area.
- Although the confined aquifer is limited in its geographic extent, there are thin unconsolidated deposits (glacial till and weathered bedrock) that extend beyond the aquifer deposits and will also contribute groundwater recharge from beyond the aquifer deposits.

From 2016 through 2018, groundwater withdrawals from the three existing Production Wells averaged 417,000 gpd, or about 42% of EGGI's estimate of the sustainable capacity of the three wells (EGGI 2020)². Groundwater withdrawals from the three existing Production Wells accounted for only 36 percent of total estimated groundwater recharge during those three years.

In addition to the existing Production Wells, two small community supply wells (Winding River Campground and Unitil) and approximately 50 domestic wells withdraw groundwater from the underlying bedrock aquifer. The Campground is listed in OneStop as having an estimated maximum population of 550, but only for short periods of seasonal camping. It is suspected that daily use in the summer may average a few thousand gallons per day. Unitil has a maximum population of 40 persons, but many employees are deployed away from the facility during a typical day. Daily withdrawals are unknown but are considered to be 1,000 gallons per day or less (25 gpd per employee per day).

According to Horn et al (2007)³, in 2003, Exeter had 2.3 persons per household and domestic groundwater withdrawals were 75.8 gpd/person. Therefore, groundwater withdrawals for the 50 domestic wells total approximately 8,717 gpd. Approximately 6,659 gpd (57.9 gpd per capita) of that water is returned to the subsurface via on-site wastewater disposal systems.

4. The groundwater flow regime around Production Well SG1-TPW can be subdivided into three distinct groundwater flow systems. The uppermost is the unconfined groundwater flow system that lies on top of the confining marine deposits. This unit is generally 10 to 20 feet thick and composed of silty fine sand. Groundwater flow within the unit is expected to be very slow, as there is little to no topographic gradient, but the Exeter River, located to the west, serves as the primary sink towards which groundwater flows within the upper unit.

The primary aquifer of interest is confined beneath thick marine sequences of low-permeability material. The confined aquifer is limited in its extent to the north and east based on the results of test borings, but it is hydraulically connected with the existing Exeter Production Wells to the west and northwest. Natural groundwater flow gradients are likely very low and generally directed towards the north where the aquifer terminates and the Exeter/Squamscott River system is the primary sink in the area. However, under long-term pumping conditions at the Stadium, Gilman, and Lary Lane Production Wells, groundwater flow is generally directed to the west and northwest towards those established cones of depression.

The third groundwater flow system, of which little is known, is the underlying fractured bedrock aquifer system consisting of brittle fracturing of the competent bedrock. No wells connected with the bedrock fracture system were monitored during the preliminary testing program. Regionally, preferential groundwater flow may occur

² Emery & Garrett Groundwater Investigations, A Division of GZA (2020) Groundwater Resource Assessment, Groundwater Investigations Report, Town of Exeter, New Hampshire, submitted to Underwood Engineers, September 25, 2020.

³ Horn, M.A., Moore, R.B., Hayes, L., and Flanagan, S.M. (2007) Methods for and Estimates of 2003 and Projected Water Use in the Seacoast Region, Southeastern, New Hampshire. U.S. Geological Survey Scientific Investigations Report 2007-5157.

along the regional strike of the rocks, generally southwest to northeast. A network of domestic wells, most of which are constructed in the fractured bedrock aquifer, will be monitored during the proposed pumping test and will provide further information regarding groundwater flow between the confined, unconsolidated aquifer and the underlying fractured bedrock.

Vertical groundwater flow gradients are unknown, but it is suspected that the lower confined aquifer under natural conditions has a slight upwards flow gradient, forcing groundwater from the primary aquifer upwards through the confining unit. However, under pumping conditions proximal to the production well, it is anticipated that the groundwater flow gradient will be reversed, and groundwater flow lines will be vertically downwards, driving recharge through the confining unit and into the aquifer over a wide area. This will be confirmed once accurate elevations of the shallow and deep monitoring locations are available.

There is no evidence of a hydraulic connection between the confined aquifer and any surface water bodies. Based on geologic mapping and the installation of exploratory test borings, the confining marine deposits form a continuous layer across the lowlands overlying the aquifer. In the vicinity of proposed Production Well SG1-TPW, the confining unit is 66 feet thick, so any hydraulic connection to local surface water is expected to be minimal.

5. The Town of Exeter acknowledges that endangered and threatened wildlife and plant species have been observed within the Preliminary Zone of Influence, as documented by the Natural Heritage Bureau (NHB). EGGI/GZA has wetland specialists and aquatic biologists that are familiar with the site and will be prepared to evaluate any potential impacts to surface water bodies or wetlands proximal to the Production Well. The pumping test plan has incorporated monitoring of those water resources during the testing program.
6. EGGI will consider the selection of an alternative ambient well on the Unutil Property pending that permission can be secured, the wells are accessible, and they are representative of the aquifer. NHDES records indicate two bedrock well sources on the Unutil Property but lists them as inactive. Assuming they have an active well to support their operations, it is to be noted that groundwater levels beneath the property may not represent ambient conditions.
7. The proposed "Water Level Questionnaire" and Monitoring Request Letter is attached as **Appendix A**.
8. Upon NHDES approval of the "Water Level Questionnaire" presented in Item #7, it will be sent to the list of developed properties within the 1,000-foot buffer around the eastern and southern borders of the Preliminary Zone of Influence (PZOI) (**Figure Addendum 1**). EGGI anticipates sending the Questionnaire to 50 properties listed in the table in **Appendix B**.
9. All locations with well records in the OneStop Datamapper were downloaded and referenced in the Preliminary Application, but EGGI shall re-visit the database to ensure all georeferenced records have been obtained. In addition, EGGI reviewed all of the well records from Kensington that were not georeferenced in the OneStop Datamapper and found one additional well record along Drinkwater Road. Regardless of whether a well record exists or not, a Water Level Questionnaire will be sent to all developed properties within the 1,000-foot buffer around the PZOI, as discussed in Item #8.
10. EGGI will provide NHDES with an updated inventory of private water supply wells within the 1,000-foot buffer around the PZOI at least 30 days prior to the scheduled pumping test. The table shall include a listing of all the properties that were sent the Water Level Questionnaire, the responses to the Questionnaire, any well construction information obtained, the date contact was made, whether permission to monitor a well has been secured, and whether the well is anticipated to be included in the monitoring program during the long-term pumping test.

11. Once NHDES has reviewed the table discussed in Item #10, EGGI will coordinate with NHDES to ensure that an adequate monitoring network has been established to characterize the extent of the Zone of Influence (ZOI) around the new Production Well.
12. As stated in the Preliminary Application, we intend that the pumping test will meet or exceed all of the requirements in Env-Dw 302.14, *Proposal for Pumping Test*. To further clarify, we offer the following:

- a. EGGI has prepared a table that describes the type of water level measurements and the measurement interval for each location during the pumping test program (**Appendix C**). EGGI intends to install automated water level recorders (Van Essen® Diver or Geokon® Vibrating Wire Transducers) at all of the monitoring locations, with the exception of existing Production Wells (which will be monitored using the Town's Supervisory Control and Data Acquisition System (SCADA)). All water level monitoring equipment will be calibrated using manual water level measurements and referenced to the established measuring point (generally the top of well casing). The sampling interval at Production Well SG1-TPW, all exploratory test wells within 1,000 feet, and Exploratory Test Well SG-10 will be one-minute for the first 2.5 hours of the pumping and recovery intervals. Otherwise, all the recorders will collect data every 30 minutes throughout the testing program.
- b. Exeter's SCADA system will be used to collect water level data from each Production Well (Lary Lane, Stadium and Gilman) at 30-minute intervals throughout the testing program. Likewise, the withdrawal rate of each Production Well will be recorded at 30-minute intervals.
- c. The surface water level staff gages are currently installed and consist of two-inch-diameter PVC pipe with one-foot of slotted screen resting on the bottom of the ponds. Both gages are attached to deeply-driven grade stakes to ensure they cannot settle. Each is outfitted with an automated water level recorder.
- d. During the pumping interval, discharge water from the pumping test will be measured using an in-line flowmeter at the wellhead and controlled using either a variable frequency drive (VFD) motor or a gate valve. In addition, an orifice weir will be installed at the end of the discharge line (approximately 600 feet from the wellhead) to confirm the discharge rate.



13. Per your request, the final groundwater samples collected from the Production Well on the last day of pumping will be analyzed for those parameters listed in Appendix A of the *Small Community Well Siting Guide, revised July 2021*, despite the fact that the Town of Exeter is applying for a Large Groundwater Withdrawal Permit. In **Appendix A**, it clearly states that a minimum of nine analytes categorized as Per and Polyfluoroalkly Substances (PFAS) will be analyzed, and those compounds are listed. However, your letter requests analyses for "at least 25 PFAS compounds or more". EGGI will ensure that the groundwater sample will be tested for at least 25 PFAS compounds.
14. A draft Water Conservation Plan will be prepared by the Town of Exeter and submitted to NHDES in accordance with Administrative Rule Env-Wq 403.06(a)(3). The Town will be coordinating with Underwood Engineers (UE) to develop the draft Plan.



A copy of this submittal will be sent to the Governing Authorities of Exeter and Kensington, New Hampshire in accordance with the notification requirements for Large Groundwater Withdrawal permitting.

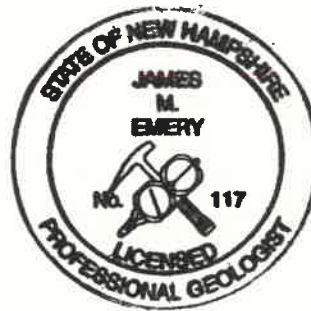
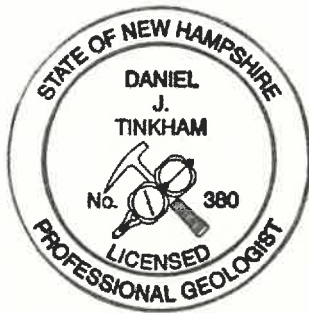
We hope you find the information contained herein responsive to your needs. If you have any questions, please do not hesitate to contact us.

Very truly yours,

EMERY & GARRETT GROUNDWATER INVESTIGATIONS, A DIVISION OF GZA

Daniel J. Tinkham, P.G.
Senior Consultant/Hydrogeologist

James M. Emery, P.G.
Principal/District Office Manager
Senior Hydrogeologist



DJT/JME:bar

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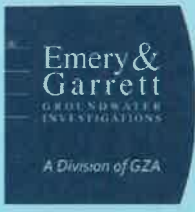
Attachments:

Figure Addendum 1 – Preliminary Zone of Influence with a 1,000-foot Buffer and Parcels Shown for Potential Domestic Well Monitoring

Appendix A – Proposed Water Well Questionnaire

Appendix B – Parcel Table

Appendix C – Water Level Sampling Intervals



**Figure Addendum 1 – Preliminary Zone of Influence with a 1,000-foot Buffer and
Parcels Shown for Potential Domestic Well Monitoring**

FIGURE Addendum 1

Preliminary Zone of Influence with a 1,000-Foot Buffer and Parcels Labeled for Potential Domestic Well Monitoring

Town of Exeter, New Hampshire



Legend

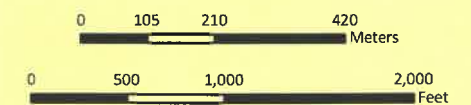
Wells by Location Type

- ◆ Test Production Well SG1-TPW
- ◊ Existing Exeter Production Well
- Public Water Supply Well
- Domestic Well

- Preliminary Zone of Influence (PZOI)
- 1000-Foot Buffer Around the Preliminary Zone of Influence
- Town Boundaries
- Parcels Sent Monitoring Request



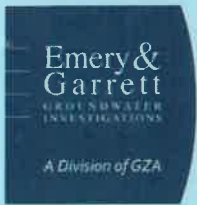
Scale is 1:12,000
1 inch = 1,000 feet



Emery & Garrett
Groundwater Investigations, A Division of GZA

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Appendix A – Proposed Water Well Questionnaire



Date

Project No. xxxx

addressee

company

address

city, state zip

Tax Lot Number of Property(ies):

Address of Property(ies):

Dear Property Owner:

The Town of Exeter (Town) has recently developed a new potential groundwater supply well (Well SG1-TPW) located off Drinkwater Road, Exeter, New Hampshire. As part of the work scope required for the permitting of this well, the New Hampshire Department of Environmental Services (NHDES) has requested that Emery & Garrett Groundwater Investigations, A Division of GZA (EGGI) consider monitoring a series of local domestic wells in the area during a proposed long-term groundwater testing program.

Therefore, EGGI is requesting information about any wells that are located on the property(ies) listed above and is requesting permission to monitor *water levels* in these well(s). Please note that this request is being sent to many landowners in the area around Well SG1-TPW. The selection of which wells to monitor will be based on the location and hydrogeologic setting of the wells for which permission to monitor is received. *Therefore, at the present time, it is not yet certain that the well(s) on your property will be monitored.*

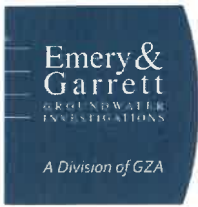
You are not required to provide EGGI and/or the Town information about your well or to grant permission to access your well to collect water level measurements. However, any information you provide, or monitoring data that is collected from your well, will allow the Town and the NHDES to more fully assess if groundwater withdrawals from Well SG1-TPW will adversely impact your water supply. The impact assessment will be completed, in part, using data collected from your well(s) or will be based upon technical data collected from other wells in the vicinity of your well, if water level data are not obtained from your well(s). There will be no cost to you to participate in this well monitoring program.

The collection of water level measurements in your well(s) will include the temporary installation of a water level measuring device that automatically records a water level measurement every few minutes. This device would be installed in your well(s) by EGGI at a level above the pump and connected via cable to a small water level datalogger that will be located outside of the well casing. The device will be left in your well(s) for a period or approximately 4 to 6 weeks during the testing program. This includes periods of monitoring prior to and after the actual pumping of Well SG1-TPW.

EGGI personnel will download data from the datalogger periodically during this pumping period. Since the datalogger is located on the outside of the well(s), it will only be necessary to open your well(s) at the beginning and end of the monitoring period.¹

Prior to the installation of the equipment into your well(s), EGGI will collect a water quality sample for bacteriological analysis. All equipment installed into your well(s) will be disinfected prior to installation. Upon the removal of the water level monitoring equipment at the completion of the groundwater monitoring period, EGGI will collect a second water quality sample for bacteriological analysis from your well(s).

¹ This assumes that there are no technical problems with the monitoring equipment.



If, in the unlikely event it is determined that bacteria was introduced into your well(s) during the groundwater level monitoring program, then the well will be disinfected at the end of monitoring period, at no cost to you. EGGI will notify you in writing when disinfection of the well(s) will occur. After the well(s) is disinfected, you will not be able to drink or bath in the water until the disinfectant is completely flushed from your system. This typically requires running water from faucets for several hours.

Adverse impacts to the well are very rare and typically of minor consequence. EGGI may elect to not monitor your well depending on the type of well, pump equipment, condition of the well, or other factors that would increase the potential for causing damage to the well or pumping equipment as a result of installing and removing monitoring equipment.

If you agree to have your well(s) monitored and your water is adversely impacted by the groundwater withdrawals during the pumping test program, pumping of the proposed withdrawal will cease or potable water will be provided to you. If any problems arise during the groundwater withdrawal testing period, you may notify Dan Tinkham at 603-279-4425 or Mr. Steve Dalton, Exeter’s Acting Water/Sewer Manager at 603-773-6157.

Should you like more information regarding the State’s Large Groundwater Withdrawal regulations, please contact Mr. David Hisz at 603-271-8866 or David.B.Hisz@des.nh.gov or visit the NHDES website at: <https://www.des.nh.gov/water/groundwater/water-use-and-withdrawal/large-groundwater-withdrawal>

This letter serves as the formal request by EGGI and the Town to monitor your domestic well(s). If you agree to have your well(s) monitored, EGGI will contact you to schedule a mutually convenient time for the installation of the monitoring equipment. A copy of the water level monitoring results will be provided to you at no cost upon the completion of this project.

If you wish to have your well(s) considered for the monitoring program, **please circle “YES”** on the accompanying well information form, and provide any available well information. Please mail the form to EGGI in the provided stamped envelope no later than **xyz 2023**.

If you do not wish to have your well(s) monitored, **please circle NO** on the well information form, sign the form, and mail to EGGI in the provided envelope.

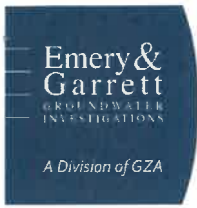
Thank you in advance for your participation in this important groundwater investigation.

Very truly yours,

EMERY & GARRETT GROUNDWATER INVESTIGATIONS, A DIVISION OF GZA

Daniel J. Tinkham, P.G.
Senior Consultant

James M. Emery, P.G.
Principal/District Office Manager
Senior Hydrogeologist



CONSENT FORM FOR WELL MONITORING

After reading the information supplied on the previous page, please indicate to us your decision by **circling** either YES or NO listed below.

YES, I would like my well monitored during the upcoming pumping tests.

NO, Please do not monitor my well during the test.

Signature: _____ Date: _____

Well Owner Name:

Property Address:

Property Identification Number:

Phone (home): _____ (work): _____ Email: _____

WELL INFORMATION SURVEY

It would be most helpful if you could provide any information on the installation and design of your well. If you have knowledge of any of the following information, please fill out the form below. Thank you.

Well Driller and Year of Installation: _____

Total depth of the well: _____ feet

Diameter of well: _____ inches

Length of steel casing: _____ feet

Estimated yield (from driller): _____ gallons per minute

Water level (below ground): _____ feet

Type of rock or material encountered: _____ (i.e., siltstone/diabase)

Depth of Pump Setting: _____ (feet from ground surface)

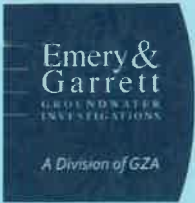
Type of Pump: _____ (submersible, jet, etc.)

Describe the location of the well on your property: _____

What does the well look like? (i.e., is it 6-inch casing with a removable cap, is it covered with a cement tile, does it have a rubber seal within the casing?) _____

DJT:bar

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Appendix B – Parcel Table

**Appendix B: Parcels for Potential Domestic Well Monitoring within the 1,000-foot Buffer around the Preliminary Zone of Influence (PZOI)
Exeter and Kensington, New Hampshire**

Town	Display Id	Street Address	Date Monitoring Request Sent Out	Delivery Confirmation of Letter	Status of Monitoring Request	Proposed Monitoring Well
Exeter	093-006-0000	40 DRINKWATER RD				
Exeter	093-007-0000	42 DRINKWATER RD				
Exeter	093-008-0000	44 DRINKWATER RD				
Exeter	093-009-0000	46 DRINKWATER RD				
Exeter	093-010-0000	48 DRINKWATER RD				
Exeter	106-001-0000	54 DRINKWATER RD				
Exeter	106-003-0000	56 DRINKWATER RD				
Exeter	106-004-0000	72 DRINKWATER RD				
Exeter	107-001-0000	58 DRINKWATER RD				
Exeter	107-002-0000	64 DRINKWATER RD				
Exeter	107-004-0000	68 DRINKWATER RD				
Exeter	109-001-0000	74 DRINKWATER RD				
Exeter	109-002-0000	80 DRINKWATER RD				
Kensington	18-001-003	119 DRINKWATER ROAD				
Kensington	18-001-004	117 DRINKWATER ROAD				
Kensington	18-002-000	115 DRINKWATER ROAD				
Kensington	18-004-000	103 DRINKWATER ROAD				
Kensington	18-005-000	101 DRINKWATER ROAD				
Kensington	18-028-000	104 DRINKWATER ROAD				
Kensington	18-029-000	106 DRINKWATER ROAD				
Kensington	18-030-000	108 DRINKWATER ROAD				
Kensington	18-031-000	114 DRINKWATER ROAD				
Kensington	18-007-000	1 OAK RIDGE ROAD				
Kensington	18-008-000	3 OAK RIDGE ROAD				
Kensington	18-009-000	5 OAK RIDGE ROAD				
Kensington	18-010-000	7 OAK RIDGE ROAD				
Kensington	18-011-000	9 OAK RIDGE ROAD				
Kensington	18-024-000	8 OAK RIDGE ROAD				
Kensington	18-025-000	6 OAK RIDGE ROAD				
Kensington	18-026-000	4 OAK RIDGE ROAD				
Kensington	18-013-000	11 OAK RIDGE ROAD				
Kensington	18-014-000	13 OAK RIDGE ROAD				
Kensington	18-015-000	15 OAK RIDGE ROAD				
Kensington	18-012-021	2 KADY LANE				
Kensington	18-012-022	4 KADY LANE				
Kensington	18-012-023	6 KADY LANE				
Kensington	18-012-024	8 KADY LANE				
Kensington	18-012-025	12 KADY LANE				
Kensington	18-012-026	5 KADY LANE				
Kensington	18-012-027	3 KADY LANE				
Kensington	18-012-028	1 KADY LANE				
Kensington	18-012-25A	10 KADY LANE				
Kensington	18-012-26A	7 KADY LANE				
Kensington	18-016-000	2 LAUREL LANE				
Kensington	18-017-000	4 LAUREL LANE				
Kensington	18-018-000	6 LAUREL LANE				
Kensington	18-019-000	8 LAUREL LANE				
Kensington	18-020-000	10 LAUREL LANE				
Kensington	18-021-000	12 LAUREL LANE				
Kensington	18-022-000	14 LAUREL LANE				

Appendix C – Water Level Sampling Intervals

APPENDIX C - ADDENDUM TABLE
Proposed Monitoring Intervals for the Long Term Pumping Test Program on Production Well SG1-TPW
Preliminary Preliminary Application, Exeter, New Hampshire

Time Span Relative to Start of Test	Monitoring Location	Measurement Interval*	Measurement Type
Pre-Pumping (≤ 7 to 0 days) Pumping Period (0 to 7 days) Recovery Period (7 days to ≥ 14 days)	Production Well SG1-TPW, All Exploratory Test Wells within 1,000 feet, and Monitoring Well SG-10	0.5 hours Variable** Variable**	Automated Datalogger Automated Datalogger Automated Datalogger
Pre-Pumping (≤ 7 to 0 days) Pumping Period (0 to 7 days) Recovery Period (7 days to ≥ 14 days)	All Monitoring Wells Beyond 1,000 feet, plus Surface Water Stations and Shallow Piezometers	0.5 hours 0.5 hours 0.5 hours	Automated Datalogger Automated Datalogger Automated Datalogger
Pre-Pumping (≤ 7 to 0 days) Pumping Period (0 to 7 days) Recovery Period (7 days to ≥ 14 days)	All Domestic Wells	0.5 hours 0.5 hours 0.5 hours	Automated Datalogger Automated Datalogger Automated Datalogger
Pre-Pumping (≤ 7 to 0 days) Pumping Period (0 to 7 days) Recovery Period (7 days to ≥ 14 days)	Exeter's Lary Lane, Stadium, and Gilman Production Wells	0.5 hours 0.5 hours 0.5 hours	Automated Datalogger Automated Datalogger Automated Datalogger

* Water level measurement intervals using automated water level data loggers.

** One-minute intervals for at least 2.5 hours and then 30-minute intervals thereafter.