

Public Hearing – Town of Kensington

**Large Groundwater Withdrawal Permit-
Preliminary Application for Exeter's Test Production Well
Exeter, NH**

Agenda

- I. Large Groundwater Withdrawal Permitting Process (NHDES)
- II. Presentation on the Proposed Well Project (Applicant)
- III. Informal Q&A
- IV. Testimony Phase (Hearing)

February 22, 2023 - Kensington Town Hall



Large Groundwater Withdrawal Permitting in New Hampshire

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**NH Department of Environmental Services
Drinking Water and Groundwater Bureau
Hydrology and Conservation Section**

February 22, 2023



Different types of groundwater withdrawals have different testing requirements

- 1) New wells for large and small community water systems (<40 gpm)
- 2) Replacement/backup wells for community water systems
- 3) Deepening or hydrofracturing community wells.
- 4) Non-community public water system wells.
- 5) Bottled water source wells
- 6) All withdrawals from wells installed after July 1998 that exceed 57,600 gallons over any 24-hour period (40 gpm) - *Large Groundwater Withdrawal*

Statutes and Administrative Rules Applicable to this Application

RSA 485-C: Groundwater Protection Act

RSA 485: Safe Drinking Water Act

<http://www.gencourt.state.nh.us/>

Env-Wq 403: Large Groundwater Withdrawals

Env-Dw 302: Large Production Wells and Wells for Large Community Water Systems

Env-Wq 2101: Water Conservation

Env-Dw 503: Public Water System Operational Requirements

Env-Dw 504: Public Water System Maintenance Requirements

Env-Dw 404: Design Standards for Large Public Water Systems

<https://www.des.nh.gov/rules-and-regulatory/administrative-rules>

Statutory Definition of a Large Groundwater Withdrawal

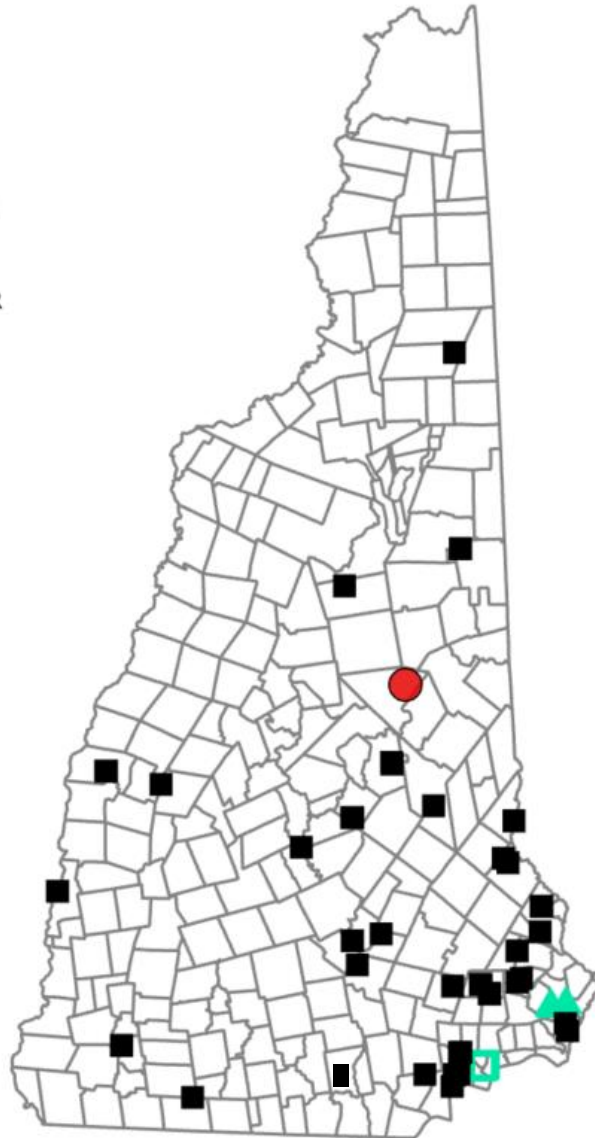
Any withdrawal from groundwater of 57,600 gallons or more of water in any 24-hour period at a single property or place of business except withdrawals associated with short-term use.

Permitting requirements in RSA 485-C:21 apply to withdrawals from wells sited after July 31, 1998

Active Large Groundwater Withdrawal Permit Locations

Active LGWP Sites in NH

-  BOTTLED/BULK WATER
-  COMMUNITY WATER SUPPLY
-  GOLF COURSE IRRIGATION
-  GOLF COURSE IRRIGATION/
COMMUNITY WATER



Summary of Large Groundwater Withdrawal Permitting in NH

Permits Issued to Date (39)

- 6 Bottled Water Facilities (1 withdrawal active; 2 permits expired)
- 4 Golf Courses (3 withdrawals Active; 1 permit expired)
- 35 Public Water Supplies (31 withdrawals active)

Permit Applications Pending (4)

- All Public Water Supplies

Large Groundwater Withdrawal Permit Website

<https://www.des.nh.gov/water/groundwater/water-use-and-withdrawal/large-groundwater-withdrawal>



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Large Groundwater Withdrawal

Required permit for wells that withdraw groundwater at an average rate of 40 gallons per minute or 57,600 gallons per day or more.



A large groundwater withdrawal is a withdrawal from well/s installed after August 1998 of more than 57,600 gallons over any 24-hour period (equivalent to an average of 40 gallons per minute). Large groundwater withdrawals require a permit from the New Hampshire Department of Environmental Services (NHDES). Withdrawals from wells installed prior to August 1998 are exempt and do not have to comply with these requirements in accordance with [RSA 485-C:22](#).

In order to obtain a large groundwater withdrawal permit, the well owner or applicant (typically a public water supplier, bottled water manufacturer, or golf course) must complete an extensive testing and review process. The details of the permitting process and requirements can be found in RSA 485-C:21-25 and NHDES administrative rules [Env-Wq 403, Large Groundwater Withdrawals](#).

Resources

[LGWP Fact Sheet](#)

[Permit Application Notification Form](#)

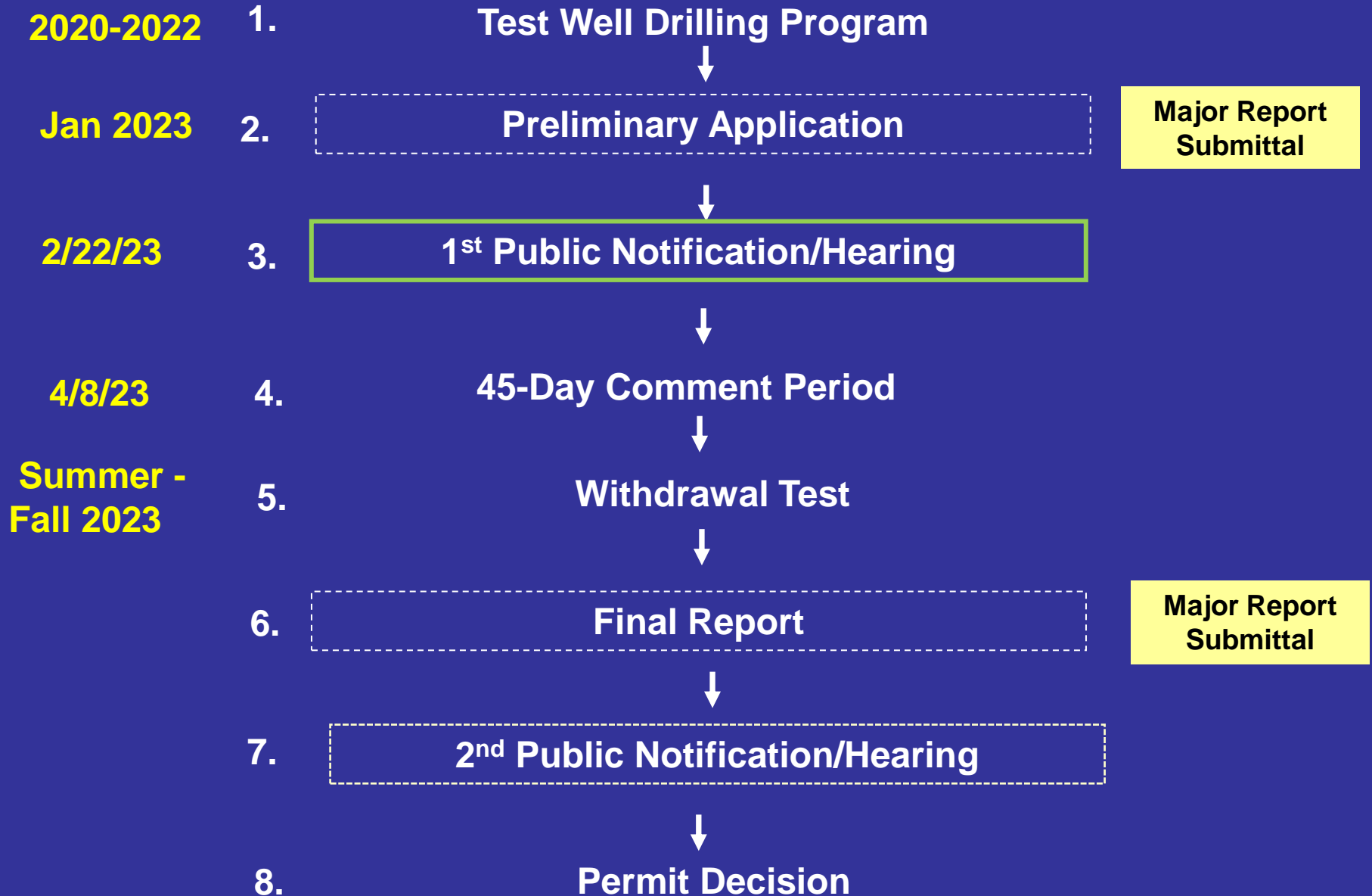
[Large Groundwater Withdrawal Permit Summary Table](#)

Related Content

[Water Use](#)

[Source Water Protection](#)

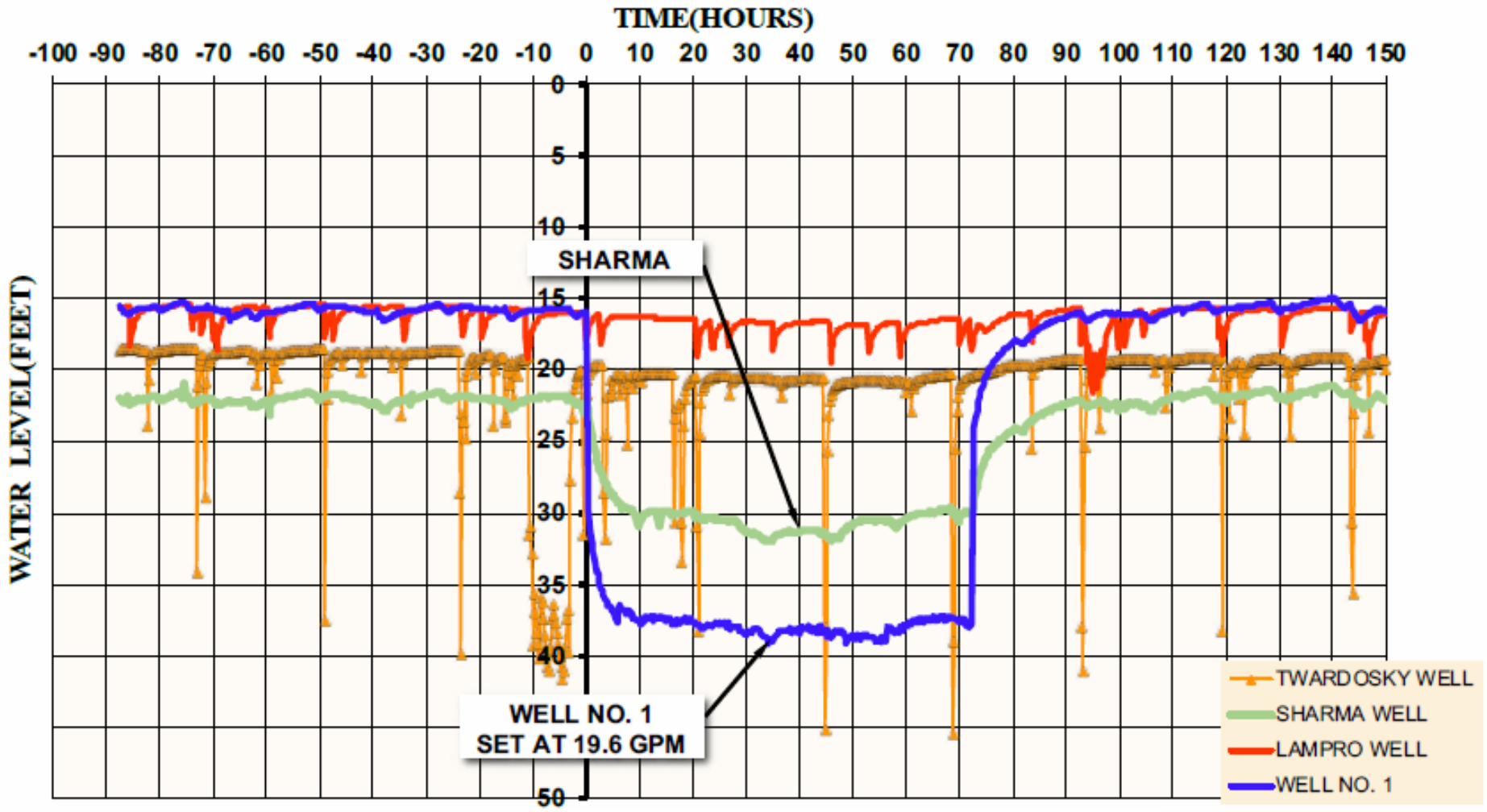
Primary Steps in Permitting Process



Components of the Preliminary Application

- a) Describe the proposed withdrawal;
- b) Provide hydrogeologic information;
- c) Identify nearby water users and natural resources;
- d) Assess potential impacts to water users and natural resources;
- e) Design a pumping/withdrawal testing program;
- f) Estimate the wellhead protection area (WHPA);
- g) Assess potential contaminant sources (PCSs) in the WHPA; and
- h) Describe the water quality sampling program to be conducted during the withdrawal test.

Water Level Monitoring During a Pumping Test



WATER LEVEL VS TIME

Components of the Final Report

- a) Provide detailed description and analysis of all of the observations and measurements collected during the withdrawal test;
- b) Provide an assessment of the potential impacts of the withdrawal on water users and natural resources relative to the adverse impacts criteria in statute;
- c) Propose a long-term monitoring, reporting and mitigation program, if necessary, if results indicate that an adverse impact may occur;
- d) Approved Water Conservation Plan;
- e) Revise WHPA and develop a Wellhead Protection Program; and
- f) Assess the need for drinking water treatment based on results of water quality sampling.

Summary of Monitoring Requirements of Issued Large Groundwater Withdrawal Permits

- An impact monitoring and reporting program is often required to validate pumping test results and verify that adverse impacts do not occur during operations.
- Permits can be modified if unanticipated impacts are observed during monitoring.
- Permits typically require long-term monitoring of groundwater, surface water, and/or wetlands and reporting to NHDES.
- Reporting is typically annually, although frequency can be increased based on site conditions.
- Triggers to reduce the production volume based on drought conditions or groundwater levels.

NHDES Contact Information for the Large Groundwater Withdrawal Permitting Program

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