Commonwealth of Massachusetts
Executive Office of Environmental Affairs ■ MEPA Office

ENF Environmental Notification Form

For Office Use Only *Executive Office of Environmental Affairs*
EOEA No.: 13147
MEPA Analyst: Bill Gage
Phone: 617-626- 1025

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Public Supply Well at Site 16-00		
Street: Nashua Road (State Hwy 111)		
Municipality: Pepperell	Watershed: Nashua	
Universal Transverse Mercator Coordinates: 290447.6 East, 4730724.0 North	Latitude: 42° 42' 8.5" North Longitude: 71° 33' 30.5" West	
Estimated commencement date: Sept 2004	Estimated completion date: Dec 2005	
Approximate cost: $1.5 Million	Status of project design: 0 %complete	
Proponent: Department of Public Works		
Street: Town Hall, 1 Main Street		
Municipality: Pepperell	State: MA	Zip Code: 01463
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Douglas De Natale		
Firm/Agency: Earth Tech	Street: 196 Baker Avenue	
Municipality: Concord	State: MA	Zip Code: 01742
Phone: 978-371-4085	Fax: 978-371-2468	E-mail:

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
☐Yes ☒No

Has this project been filed with MEPA before?
☐Yes (EOEA No._____) ☒No

Has any project on this site been filed with MEPA before?
☐Yes (EOEA No._____) ☒No

Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:

a Single EIR? (see 301 CMR 11.06(8))	☐Yes	☒No
a Special Review Procedure? (see 301CMR 11.09)	☐Yes	☒No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	☐Yes	☒No
a Phase I Waiver? (see 301 CMR 11.11)	☐Yes	☒No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): **Not applicable**

Are you requesting coordinated review with any other federal, state, regional, or local agency?
☒Yes (Specify: DEP New Source Approval, Water Management Permit) ☐No

List Local or Federal Permits and Approvals:
Notice of Intent and Order of Conditions, Pepperell Conservation Commission

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- ☐ Land
- ☒ Water
- ☐ Energy
- ☐ ACEC
- ☒ Rare Species
- ☐ Wastewater
- ☐ Air
- ☐ Regulations
- ☐ Wetlands, Waterways, & Tidelands
- ☐ Transportation
- ☐ Solid & Hazardous Waste
- ☐ Historical & Archaeological Resources

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	0	18 acres	18 acres
New acres of land altered	0	0.7	0.7
Acres of impervious area	0	0.1	0.1
Square feet of new bordering vegetated wetlands alteration	0	0	0
Square feet of new other wetland alteration	0	0	0
Acres of new non-water dependent use of tidelands or waterways	0	0	0
STRUCTURES			
Gross square footage	0	960	960
Number of housing units	0	0	0
Maximum height (in feet)	0	15	15
TRANSPORTATION			
Vehicle trips per day	0	2	2
Parking spaces	0	2	2
WATER/WASTEWATER			
Gallons/day (GPD) of water use	0	0	0
GPD water withdrawal	0	720,000	720,000
GPD wastewater generation/ treatment	0	0	0
Length of water/sewer mains (in miles)	0	.05	.05

State Permits & Approvals

- ☒ Order of Conditions
- ☐ Superseding Order of Conditions
- ☐ Chapter 91 License
- ☐ 401 Water Quality Certification
- ☐ MHD or MDC Access Permit
- ☒ Water Management Act Permit
- ☒ New Source Approval
- ☐ DEP or MWRA Sewer Connection/ Extension Permit
- ☐ Other Permits (*including Legislative Approvals*) – Specify:

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

☐Yes (Specify_____) ☒No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

☐Yes (Specify_____) ☒No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of

Rare Species, or Exemplary Natural Communities?
☒Yes (Specify: See attached Map) ☐No

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?
☐Yes (Specify_____) ☒No
If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?
☐Yes (Specify_____) ☒No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?
☐Yes (Specify_____) ☒No

PROJECT DESCRIPTION: The project description should include **(a)** a description of the project site, **(b)** a description of both on-site and off-site alternatives and the impacts associated with each alternative, and **(c)** potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

General

The project site is in a rural part of Pepperell, approximately 250 feet south of the municipal boundary with Hollis, New Hampshire and 1,400 west of Nashua Road (state highway Route 111). The 18-acre site is approximately 80 % wooded wetland, though the proposed well site is in wooded upland. The wetland is seasonally inundated, normally dry during the summer months. The proposed well will be constructed on an esker, a low ridge-shaped glacial feature, consisting largely of sand, gravel, and cobbles. The proposed access road will reach the well from the north through New Hampshire. The land is currently privately held. The Town has an agreement with the landowner to purchase the property pending final state and local approvals of the well site.

The proposed well site is located at 71^0 33' 30.5" West longitude and 42^0 42' 8.5" North latitude, and is shown on the attached Locus.

The Town is pursuing development of this well site to add capacity, operational flexibility and redundancy to its water system, and to improve fire protection. Proposed project activities will include the construction of an access road, a well, connecting water main and pumping station. The well is expected to produce up to 720,000 gallons per day.

The Town has been pursuing new sources of water supply on a more or less continuous basis for the past 40 years. Unfortunately, new sources of municipal water supply are not easy to come by, considering the natural, regulatory and land use criteria that must be met to develop a water supply. The proposed well site is perhaps one of the few remaining sand-and-gravel aquifer sites in Pepperell suitable for a municipal supply. The Town has also considered developing wells drilled into bedrock aquifers, or connecting with a supply in neighboring Dunstable. However, these alternatives have their own blend of technical, financial, political and regulatory constraints. The proposed well site offers several advantages, including: good water quality, high yield, remoteness from development and sources of pollution, and adding balance to the water-distribution system.

Well Installation

The permanent well is proposed at the location of existing Test Well Site 16-00. The well will consist of a 24-inch diameter (maximum) steel, well casing and screen installed to depth of about 64 feet below the existing grade. Artificial sand or gravel packing may be installed in the annular space around the well screen to improve well efficiency. The well will be installed using a conventional truck- or trailer-mounted "pull down" drill rig or similar equipment. A small excavator, dump truck, flatbed pipe truck and pickup trucks will also be on-site from time to time during well construction. The clearing for the well site will be enlarged to approximately 80

feet by 80 feet to accommodate drilling equipment, supplies and construction materials. Trees and other vegetation will have to be removed to facilitate work, and it is likely that much of the existing ridge will be excavated and removed.

Access Road Construction

The Town is proposing to build an access road from the north through Hollis, New Hampshire. Approximately 250 feet of access road will be in Pepperell. The exact layout and dimensions of the proposed road has not been determined, but it will be constructed in upland and the roadway is expected to be not more than 15 feet wide. The construction of this road will require the clearing of trees along the alignment, removal of earth, and placing of up to 1 foot of gravel. An alternative route was considered for both the access road and the water main alignment. However, this alternative route would have been through wetlands in Massachusetts. The proposed access road was chosen based on current site topography with the goal of minimizing disturbance to the land surface, wetlands and vegetation.

Water Main Installation

In order to connect the new well to the existing water distribution system, the town will install approximately 250 linear feet of 8-inch diameter water main in Massachusetts. The main will extend northerly from the proposed well site into New Hampshire. The work will include trenching to a maximum depth of 7 to 8 feet and backfilling after the installation is complete. Some clearing will take place to facilitate the work. An excavator will be utilized to complete this work. The water main route was chosen to minimize disturbance.

Pumping Station

The pumping equipment associated with the well will be housed in a small building (approximately 24 by 40 feet) similar to other pumping stations in Pepperell. This building will house pumping equipment, meters, valves, water-quality monitoring equipment, water treatment equipment, etc. The building will also include an emergency generator in case electric service is interrupted. A conventional propane storage tank will be installed outside the building to service this generator. The building may house containment for a chemical, such as potassium hydroxide, which may be needed to adjust the pH of the water before it is pumped into the water distribution system. Tanker trucks will deliver chemicals in bulk along the proposed access road. The building will be constructed in the clearing associated with the proposed well, estimated to be 80 feet by 80 feet.

Proposed Mitigation Measures

No work will occur within any state or locally regulated resource area. However, all work will occur within the locally regulated 100-foot buffer zone. The location of the well and wetlands preclude the avoidance of work within the buffer zone. A Notice of Intent will be filed with the Pepperell Conservation Commission. The access road alignment was chosen to eliminate disturbance to wetlands. Gravel was chosen for the road surface to reduce impervious surfaces and reduce run-off.

At all times during construction, hay bales and silt fencing will be located between the work and any wetland resource area, as a means of sediment control and to define the limit of work. Care will be taken during construction to minimize disturbance to the buffer zones of wetlands. Refueling of all vehicles (except the drilling rig, which will be stationary, once erected) will take place outside of resource areas and their buffer zones. All areas temporarily disturbed by construction activities will be restored (mulched and reseeded) prior to the removal of the sedimentation and erosion control barrier.

Regulatory Background

In pursuing this new supply, the Town has been careful to consider state, local and federal regulations, and to minimize environmental impacts. Test Well Site 16-00 was placed outside wetlands to avoid direct impacts and minimize indirect impacts to wetlands. The Pepperell Conservation Agents were consulted on several occasions regarding the placement of the test wells and proposed well, pumping station and access road. The Commission's Agents visited the site on two occasions, and were in agreement conceptually with the proposed activities. A Request For Site Exam and Prolonged Pumping Test Proposal for the site were submitted to DEP's Central Regional Office in February 2001. DEP approved the site for further testing in a letter of May 22, 2001. The prolonged pumping test was conducted and a Pumping Test Report (attached to this ENF) was submitted to DEP in March 2002. The DEP approved the New Source on June 4, 2003. A Water Management Permit Amendment application was submitted to DEP in May 2002. DEP is awaiting the outcome of the ENF process before issuing a WMA Permit Amendment.