

**ENF**

**Environmental  
Notification Form**

|  |              |
|--|--------------|
| For Office Use Only<br>Executive Office of Environmental Affairs |              |
| EOEA No.:  | 13439        |
| MEPA Analyst:  | BRIONY ANGUS |
| Phone:   | 617-626-1029 |

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:<br>Test Well 12-03  |   |  |
| Street: <b>South Street at Warren Road</b>  |   |  |
| Municipality: <b>Townsend</b>   | Watershed: <b>Nashua</b>                                  |  |
| Universal Transverse Mercator<br>Coordinates: <b>281144.06; 4724972.87</b>                    | Latitude: <b>42°38'46"</b><br>Longitude: <b>71°40'11"</b> |  |
| Estimated commencement date: <b>Spring 2005</b>   | Estimated completion date: <b>2005</b>                    |  |
| Approximate cost: <b>\$650,000</b>  | Status of project design: <b>50</b>                       | %complete                                  |
| Proponent: <b>Townsend Board of Water Commissioners</b>                                       |   |  |
| Street: <b>540 Main Street</b>  |   |  |
| Municipality: <b>Townsend</b>   | State: <b>MA</b>  | Zip Code: <b>01469</b>                     |
| Name of Contact Person From Whom Copies of this ENF May Be Obtained:<br><b>Maura Callahan</b> |   |  |
| Firm/Agency: <b>Earth Tech</b>  | Street: <b>196 Baker Avenue</b>                           |  |
| Municipality: <b>Concord</b>  | State: <b>MA</b>  | Zip Code: <b>01742</b>                     |
| Phone: <b>(978) 371-4008</b>  | Fax: <b>(978) 371-2468</b>                                | Email: <b>Maura.Callahan@earthtech.com</b> |

- 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 301 CMR 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): State Revolving Funds (SRF Project #2866)

Are you requesting coordinated review with any other federal, state, regional, or local agency?  
 Yes (Specify Department of Environmental Protection)  No

List Local or Federal Permits and Approvals:  
New Source Approval (BRP WS 19)  
Water Management Act Permit Amendment (BRP WM 02)

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

- |   |                                       |  |
|---|---------------------------------------|--|
| <input type="checkbox"/> Land             | <input type="checkbox"/> Rare Species | <input type="checkbox"/> Wetlands, Waterways, & Tidelands      |
| <input checked="" type="checkbox"/> Water | <input type="checkbox"/> Wastewater   | <input type="checkbox"/> Transportation                        |
| <input type="checkbox"/> Energy           | <input type="checkbox"/> Air          | <input type="checkbox"/> Solid & Hazardous Waste               |
| <input checked="" type="checkbox"/> ACEC  | <input type="checkbox"/> Regulations  | <input type="checkbox"/> Historical & Archaeological Resources |

| Summary of Project Size & Environmental Impacts                | Existing | Change          | Total           | State Permits & Approvals   |
|--|----------|-----------------|-----------------|---|
| <b>LAND</b>  |          |                 |                 | <input type="checkbox"/> Order of Conditions<br><input type="checkbox"/> Superseding Order of Conditions<br><input type="checkbox"/> Chapter 91 License<br><input type="checkbox"/> 401 Water Quality Certification<br><input type="checkbox"/> MHD or MDC Access Permit<br><input checked="" type="checkbox"/> Water Management Act Permit<br><input checked="" type="checkbox"/> New Source Approval<br><input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit<br><input type="checkbox"/> Other Permits<br>(including Legislative Approvals) – Specify: |
| Total site acreage   | 24       | 0               | 24              |   |
| New acres of land altered                                      | 0        | 0.26            | 0.26            |   |
| Acres of impervious area                                       | 0        | 0.005           | 0.005           |   |
| 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               |   |
| <b>STRUCTURES</b>  |          |                 |                 |   |
| Gross square footage   | 0        | 200             | 200             |   |
| Number of housing units  | 0        | 0               | 0               |   |
| Maximum height (in feet)                                       | 0        | 12              | 12              |   |
| <b>TRANSPORTATION</b>  |          |                 |                 |   |
| Vehicle trips per day  | 0        | 2               | 2               |   |
| Parking spaces   | 0        | 2               | 2               |   |
| <b>WATER/WASTEWATER</b>  |          |                 |                 |   |
| Gallons/day (GPD) of water use                                 | 0        | 0               | 0               |   |
| GPD water withdrawal   | 0        | 1.0 MGD maximum | 1.0 MGD maximum |   |
| GPD wastewater generation/ treatment                           | 0        | 0               | 0               |   |
| Length of water/sewer mains (in miles)                         | 0        | 0.15            | 0.15            |   |

**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? **The site was formerly a gravel pit. The area adjacent to the property has been identified as an Estimated Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife and Certified Vernal Pools.**

Yes (Specify \_\_\_\_\_ )  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 Squannassit ACEC )  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.)

The Townsend Water Department is proposing to construct a municipal water supply well. A one-story pumping station (approximately 10 by 20 feet) will be built to house the pumping equipment associated with the well. Approximately 800 linear feet of 10 to 12-inch diameter water main will connect the new gravel-packed well to the existing distribution system. A semi-pervious gravel road will be constructed within an existing easement for access to the site. A locus map and surveyed site plan are included in Attachment A.

#### Purpose

The proposed well will add capacity, flexibility and reliability to the Town's water supply system. Currently, the Town has two operating water supply sources, the Main Street Wellfield, a tubular wellfield developed in the 1930s and expanded in the 1950s and the Cross Street Well, a gravel-packed well constructed in the early 1980s. In 2001, a new well site (TW 3-98) was permitted at the Main Street site to reduce the strain on the aging tubular wellfield. A water supply well at TW 3-98 has not yet been constructed.

#### Site Location and Description

The Site is located on the USGS topographic Townsend Quadrangle at latitude 42°38'46" and longitude 71°40'11". Test Well 12-03 is located on approximately 60 acres of land – formerly a gravel pit – in the southeastern corner of Townsend (see Figures 1-1 and 1-2). About half of the property (the northwestern corner) is currently under development as a residential subdivision. Townsend recently acquired about 24 acres of land around TW Site 12-03 for wellhead protection. The former gravel pit is bordered by wetlands and abandoned farmland on the south; private residences on Warren Road on the west; Massachusetts Department of Environmental Management (DEM) conservation land on the east; and a New England Business Service (NEBS) manufacturing facility on the north.

#### Regulatory Background

In pursuing this new supply, the Water Department has been careful to consider state, local and federal regulations, and to minimize environmental impacts. TW Site 12-03 was placed outside wetlands to avoid direct impacts and minimize indirect impacts to wetlands. Access to the well site is proposed along an existing unpaved access road. To meet Zone I restrictions, TW Site 12-03 was situated more than 400 feet from abutting properties.

Early Notification was published in the Environmental Monitor on July 24 (Volume 62, Issue 6) and the Site Screening Worksheet, Conservation Plan, Request for Site Exam and Prolonged Pumping Test Proposal were submitted to DEP on August 6, 2004. DEP held a Site Visit on August 19, 2004 and the approval to conduct the prolonged pumping test was received from DEP on September 7, 2004. A prolonged pumping test was conducted from September 30 to October 7, 2004 to evaluate the well yield, water quality, potential well interference and impacts to sensitive receptors. The Prolonged Pumping Test and New Source Final Report was submitted to DEP in November 2004.

Currently, Townsend Water Department is authorized to withdraw a total of 0.499 million gallons per day of groundwater from the Nashua River Basin (registration #2-11-299.02 and permit #9P2-2-11-299.01). System wide demand is not projected to exceed this authorized withdrawal volume by 100,000 gallons per day (gpd) on an annual average daily basis during the term of their existing permit, thus no increase in withdrawal volumes are requested. A request to amend the existing withdrawal permit by adding a new withdrawal point (BRP WM 02) was submitted in January 2005.

#### Alternatives

The Townsend Water Department has carried out several test-well programs in the southeastern corner of town dating back to the 1970s. In 1978, a high-yielding well site (Site 7-78 on Figure 1-2) was identified on land owned by the South Fitchburg Hunting & Fishing Club; about one-third mile south of TW Site 12-03, but an agreement with the landowners that would enable development of a town well was never reached. Similarly in 2002, Townsend explored on the Leahy land – formerly farmland – about one-quarter mile south of TW Site 12-03, and identified another high capacity well site (TW 6-02 on Figure 1-2). However, this land could not be

obtained by the Water Department. The Witch Brook Water Company – a private water company, which serves about 500 homes – owns and operates two high capacity wells about 3,000 feet west of TW Site 12-03. (An Alternatives Analysis was submitted as part of the Site Screening Worksheet, a copy is included in this submittal).

#### Well Installation

A gravel-packed well is proposed in the location of existing Test Well Site 12-03. The well will consist of a 24-inch diameter steel well casing and screen installed to depth of 60 feet. Artificial sand or gravel packing will be installed in the annular space around the well screen and pipe to a diameter of 36 inches to improve well efficiency. The well will be installed using a conventional truck- or trailer-mounted "pull down" drill rig. A small excavator, dump truck, flatbed pipe truck and pickup trucks will also be onsite from time to time during well construction.

#### Pump Station

The pumping equipment associated with the well will be housed in a small building (approximately 10 by 20 feet). This building will house pumping equipment, meters, valves, water-quality monitoring equipment, etc. The pump station will be a one-story structure, approximately 12 feet in height. 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 will be constructed on property previously disturbed by gravel mining activities. Two parking spots will be created of impervious material. Additional clearing and grading will not be necessary to create a space of approximately 55 by 70 feet for pumping station construction.

#### Access Road

Access to the site will be made along an existing unpaved road within a 50-foot wide easement shown in Figure 1-3. The improvements made to this road will not require the clearing of any trees along the alignment, only minor grading is anticipated, and placing of up to 1 foot of gravel. The road will be approximately 14-foot wide to accommodate water department vehicles. The water main will be located within the existing road right-of-way. The proposed access road location was chosen based on existing conditions with the goal of minimizing disturbance to the land surface and vegetation.

#### Water main Installation

In order to connect the new well to the existing water distribution system, the town will install approximately 800 linear feet of 10- or 12-inch diameter water main. The main will extend from the well site along an existing access easement to connect with the distribution system at Harbor Trace Road (see Figure 1-3). The work will include trenching to a depth of 7 to 8 feet and backfilling after the installation is complete. An excavator will be utilized to complete this work. The route was selected with the goal of minimizing disturbance to the land surface and vegetation.

#### Proposed Mitigation Measures

An examination of the most recent Massachusetts Natural Heritage Atlas (effective June 1, 2003) indicates that the well site is located adjacent to land identified as Estimated Habitats of Rare Wildlife and Priority Habitats of Rare Species by the State's Natural Heritage & Endangered Species Program (see Figure 1-4). TW Site 12-03 is also within a newly designated Area of Critical Environmental Concern, the Squannassit ACEC. However, the well site is located in a former gravel pit and has thus been previously disturbed.

The project has been designed to avoid any work within any wetland resource or resource buffer zone. The access road and water main route were selected based on existing conditions (existing access road) with the goal of minimizing disturbance to the land surface and vegetation. 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 (see Appendix A for Figure 1-2 Site Plan). 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.