

Commonwealth of Massachusetts
Executive Office of Environmental Affairs ■ MEPA Office

ENF Environmental Notification Form

<i>For Office Use Only</i> <i>Executive Office of Environmental Affairs</i>
EOEA No.: <u>14461</u>
MEPA Analyst: <u>Bill Engle</u>
Phone: 617-626- <u>1025</u>

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: Well Pumping Station and Water Main Extension		
Street: Leominster-Shirley Road		
Municipality: Lunenburg	Watershed: Nashua	
Universal Transverse Mercator Coordinates: N4712995 E279987	Latitude: 42° 32' 17.29"	Longitude: 71° 40' 43.40"
Estimated commencement date: 12/01/2009	Estimated completion date: 12/01/2010	
Approximate cost: \$4.3M	Status of project design: 25 %complete	
Proponent: Lunenburg Water District		
Street: P.O. Box 375, 50 Lesure Avenue		
Municipality: Lunenburg	State: MA	Zip Code: 01462
Name of Contact Person From Whom Copies of this ENF May Be Obtained: George Allan, P.E.		
Firm/Agency: Stantec Consulting Inc.	Street: 5 LAN Drive – Suite 300	
Municipality: Westford	State: MA	Zip Code: 01886
Phone: (978) 577-1425	Fax: (978) 692-4578	E-mail: george.allan@stantec.com

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): None

Are you requesting coordinated review with any other federal, state, regional, or local agency?
 Yes (Specify **MA DEP**) No

List Local or Federal Permits and Approvals: Town of Lunenburg Order of Conditions

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

- | | | |
|---|--|--|
| <input type="checkbox"/> Land | <input checked="" 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 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
LAND				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input type="checkbox"/> Chapter 91 License <input checked="" type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input checked="" type="checkbox"/> Water Management Act Permit <input checked="" type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i>
Total site acreage	17.4			
New acres of land altered		0.23		
Acres of impervious area	0	0	0	
Square feet of new bordering vegetated wetlands alteration		4,600		
Square feet of new other wetland alteration		0		
Acres of new non-water dependent use of tidelands or waterways		n/a		
STRUCTURES				
Gross square footage	175	928	1,103	
Number of housing units	0	0	0	
Maximum height (in feet)	10	7'-6"	17'-6"	
TRANSPORTATION				
Vehicle trips per day	0	1	1	
Parking spaces	0	2	2	
WASTEWATER				
Gallons/day (GPD) of water use	0	0	0	
GPD water withdrawal	0	1.4 mgd	1.4 mgd	
GPD wastewater generation/treatment	0	0	0	
Length of water/sewer mains (in miles)	0	0.16 on-site 4.17 off-site	4.33	

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: **Site is shown to be within Priority Habitat.**) 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 **Letter sent to MHC to confirm.**

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify _____) No **Letter sent to MHC to confirm.**

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.)

In order to provide operational flexibility and meet peak demands, the Lunenburg Water District is pursuing the permitting of a new public drinking water well referred to as the Keating Well. This new well is not intended to increase the District's overall withdrawal permitted under the Water Management Act, but to improve the quality and reliability of the District's overall supply. As the new well is somewhat remote from the bulk of the existing water supply infrastructure within the community, the construction of approximately 22,000 linear feet of 18-inche diameter water main will also be required.

A more complete description of the project is included on an attached sheet.

WELL PUMPING STATION AND WATER MAIN EXTENSION LUNENBURG, MA

PROJECT DESCRIPTION

Existing Conditions

In order to provide operational flexibility and to help meet peak demands, the Lunenburg Water District is pursuing the permitting of a new public drinking water well referred to as the Keating Well. This ENF is being submitted pursuant to the Massachusetts Environmental Policy Act Regulations because the project exceeds the MEPA threshold 301 CMR 11.03(4)(b)(1), "new withdrawal or expansion in withdrawal of 100,000 or more gallons per day (gpd) from a water source that requires New construction for the withdrawal." The project will not result in an overall increase in permitted withdrawal within the community, which is regulated by the Water Management Act (WMA) and is presently limited to an average of 0.51 million gallons per day (mgd). The driving force behind the development of the new well is a need to improve both the quality and reliability of the District's water supply. This project is being funded under the Drinking Water State Revolving Fund program and has a commitment of federal stimulus money under the American Recovery and Revitalization Act.

The proposed well site is currently owned by the Trustees of the Paul J. Keating family. MassDEP regulations require that the water supplier obtain a protective radius around the well site, referred to as Zone 1. In order to secure this protective radius and the necessary access from Leominster-Shirley Road, the well field being proposed will encompass a total of approximately 17.4 acres.

The site is largely undeveloped. An existing well is found on the property and is currently used for process water associated with a nearby sand and gravel operation run by the Keating family. Access to the existing well is presently provided via a gravel road on other Keating land. There is an extensive wetland system in the area and approximately 8 acres of the parcel are wetlands. An existing gravel driveway (presently unused) from Leominster-Shirley Road is present on the property to be acquired. This driveway crosses the wetlands at three locations and is partially overgrown with vegetation in many locations. At present there are no provisions for surface water flow across the driveway at any of the three crossings. The entire site falls within Priority Habitat, as delineated by the Massachusetts Natural Heritage and Endangered Species Program (NHESP).

A portion of the property is shown on the FEMA mapping for Lunenburg as being within a Zone B. A Zone B is defined by FEMA as "areas between limits of the 100-yr flood and 500-yr flood; or certain areas subject to 100-yr flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood." This same area is shown on the MassGIS as being an X500 flood zone (500 year flooding) and it is thus assumed that the area is above the 100-yr flood elevation of the general area. This project will not displace flood waters such that any change in current flood

elevations will occur. As a result, no compensation for lost flood storage is required, and none is provided in association with this project.

Proposed Activities/Improvements

The development of the site as a public water supply will require both on-site and off-site improvements. On-site improvements are to consist of the development of the wells, improvement of the existing gravel driveway, construction of a small structure to house pump controls and supplies and the installation of required power lines and water main piping. These improvements are shown on the attached plan set.

The new structure is to be located on uplands found immediately south of Leominster-Shirley Road. An existing gravel driveway will be used to access this structure, but it will be necessary to widen the driveway to accommodate the trucks delivering the chemicals required for the adjustment of pH and disinfection. The layout and width of this driveway are shown on the attached plans. To the south of the new structure the driveway to the well field needs to be only 10 feet wide, allowing access for a service vehicle. This latter portion of the site access will be widened and elevated only as necessary to allow access to the actual location of the wells.

There will be three (3) wells on this site: the existing well and two (2) additional wells. The existing well is 18" in diameter, approximately 90-feet deep and is a natural developed well. The existing well will not need an upgrade other than cleaning. The two new wells will also be approximately 90-feet in depth and will be gravel packed wells. The total yield from all three wells will be 1000 gallons per minute (gpm) for a total yield of 1.44 million gallons per day (mgd). MassDEP will consider the three wells as a single source and they will have a common ID number. The Water District's current WMA Permit limits the withdrawal from all wells in the community to an average of 0.51 mgd, and this new well will not increase that limit.

Off-site improvements consist of the installation of approximately 22,000 feet of 16-inch diameter water main, required to connect the new well to the existing distribution system. This new water main will be installed within the limits of existing roadways. It will run from the driveway of the new well on Leominster-Shirley Road, west on Leominster-Shirley Road to Reservoir Road. The pipe will then turn and run north up Reservoir Road to the intersection with Page Street. On Page Street the pipe will run west to Lancaster Avenue where it will be connected to an existing water main in Lancaster Avenue. Along the way the new main will be required to pass over or under some existing streams and/or wetland resource areas. All of these crossings are anticipated to be within the roadway footprint. All such crossings will be included in the Notice of Intent, which will be filed with the local Conservation Commission.

Alternatives

The Lunenburg Water District has been searching for a new and acceptable new source of water for some time now. The location where the new well field is being proposed is the only site within the community that has been proven to have the favorable hydrogeologic conditions required for a large capacity municipal supply. There have been extensive discussions with the

owners of the property and the required land for both the wells and the MassDEP required protective zone is available to the Water District. Further, much of land beyond the protective zone is wetland and further protected from development pressures, affording significant protection of the quality of the supply. There are no available off-site alternatives.

With the exception of improvements to an existing gravel driveway, all of the on-site improvements will be constructed on upland portions of the site. Delineation of the wetlands on the parcel has included portions of the existing driveway as "wetland", and the location of these wetlands makes it impractical to develop this property without crossing wetlands. It is proposed to widen the footprint of the existing driveway only as is required to provide proper site access and cover over utilities and a cross culvert which is to be installed. The slope of the embankments at the crossing where the culvert is to be installed is being steepened to 1.5:1 to reduce wetland impacts. Walls and/or a bridge structure are felt to be cost prohibitive and will not be pursued. In order to reduce runoff volumes and concerns, the surface of all portions of the new driveway will be gravel.

The installation of the new water main is required to connect the new supply to the existing water distribution system of the town. The 22,000 feet of new pipe will be installed within the footprint of existing roadways, and alternatives with less impact are not available.

Where a crossing of a wetland resource will be required for the water main extension, it is envisioned that it will be accomplished either within the footprint of the pavement or within 10-feet of the edge of the existing pavement. Consideration is being given to directional drilling of select crossings in order to reduce or avoid wetland impacts. The final determination of how best to make each crossing will be made during final design, and will be presented to the Lunenburg Conservation Commission for review and approval.

Potential Impacts

Construction

The potential environmental impacts associated with well and site development include the need to improve the access to the site. At present it is estimated that encroachment will entail the filling of 4,600 square feet (sf) of Border Vegetated Wetland (BVW).

The existing gravel driveway will require widening and improvement. That section of the existing driveway between Leominster-Shirley Road and the proposed pump station will need to be widened to accommodate larger trucks. The improvement and widening of this segment will result in some encroachment upon local wetland resources. Similarly, the driveway between the pump station and the actual well field will also require some widening.

Additional construction activities will occur within the wetland buffer zone. These impacts include clearing and the development of the new pump station structure, and the development of the new wells.

A Notice of Intent (NOI) will be filed with the Lunenburg Conservation Commission and it is acknowledged that the project cannot proceed without this approval. Mitigation for lost

wetland resources will be prepared and submitted to the Commission for review and approval. The Town of Lunenburg requires wetland mitigation at a ratio of 2:1, and as such the mitigation area is anticipated to be approximately 9,200 sf in area. Best Management Practices (BMP) will be employed and impacts are anticipated to be acceptable and to be approved of by the Commission.

The entire site falls within Priority Habitat, as delineated by the Massachusetts Natural Heritage and Endangered Species Program (NHESP). Coordination with NHESP regarding the potential presence of rare species on the site will thus be required. If rare species issues are identified by NHESP they will be addressed to avoid a "Take", as defined in the Massachusetts Endangered Species Act (MESA).

Pipeline installation in the local roadways is anticipated to have only the minimal, localized impacts normally associated with this type of construction. The pipeline will require a nominal cover of about five (5) feet and thus excavations will typically be shallow. Where a stream crossing is required it is anticipated that this crossing will occur within the footprint of the existing roadway. Determinations as to how best to accomplish each crossing will be made during final design of the project and submitted to the Lunenburg Conservation Commission in the NOI for approval. Dewatering will be addressed in the construction documents.

Operational

Potential impacts include an amendment to the Water District's Water Management Act Permit. Please note that this amendment does not increase the total permitted withdrawal but gets the new well site listed as an additional withdrawal point. The addition of another well within the community will allow the District to better manage its water supply. The new source will also allow for withdrawal volumes to be spread between two local aquifers within the community. This will give the District another option to meet demand while minimizing impact on local streamflow and water supplies.

Pump testing has been completed and a report on this issue is presently being prepared. When this report is complete it will be submitted to MEPA for review. No impact upon local water levels or wetlands is anticipated to occurring with the development of the new well field.

Consistency with Federal, State, Regional and Local Plans and Policies

The project will secure all required approvals. The Water District has an obligation to meet the demands for water within the community and the proposed project will provide the Water District with an additional means to meet these obligations, both now and in the future.

The project has widespread support within the community. A letter is attached to this ENF from the Lunenburg Planning Board testifying to the project's compliance with local regulations and voicing its support of the project.