

For Office Use Only
 Executive Office of Environmental Affairs
 EOE No.: 12897
 MEPA Analyst: Arthur Pugsley
 Phone: 617-626-1029

ENF Environmental Notification Form

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 #11 Water Treatment Plant and Transmission Pipeline Project		
Street: South Street		
Municipality: Norwell	Watershed: South Coastal (North and South Rivers)	
Universal Transverse Mercator Coordinates: UTM 19 348655E 4666422N	Latitude: 42° 08' 14" north (Treatment Plant) Longitude: 70° 49' 53" west	
Estimated commencement date: Jul. 2003	Estimated completion date: Nov. 2004	
Approximate cost: \$7.2 million	Status of project design: 5 %complete	
Proponent: Town of Norwell, Board of Water Commissioners		
Street: 345 Main Street, P.O. Box 295		
Municipality: Norwell	State: MA	Zip Code: 02061
Name of Contact Person From Whom Copies of this ENF May Be Obtained: John C. Yaney, P.E.		
Firm/Agency: Fay, Spofford & Thorndike	Street: 33 Broad Street, 5th Floor	
Municipality: Boston	State: MA	Zip Code: 02109
Phone: 617-723-8882	Fax: 617-723-9995	E-mail jyaney@fstinc.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. 11429) 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): **Town is pursuing funding from Mass DEP Drinking Water State Revolving Fund in the amount of \$7.151 million.**

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

List Local or Federal Permits and Approvals: **(1) NOI and Order of Conditions with Norwell ConCom, and (2) Programmatic General Permit II with U.S. Army Corps of Engineers.**

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	State Permits & Approvals
LAND				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superceding 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 type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i> <u>Bureau of Resource Protection</u> <u>Water Supply Form 42 for Water Treatment Plant</u> <u>DEP Drinking Water Permits:</u> <u>BRP WS 23,24-</u> <u>Approval to construct water water treatment facility</u> <u>BRP WS 32-</u> <u>Distribution modifications for systems that serve >3300 people</u>
Total site acreage	283			
New acres of land altered		2		
Acres of impervious area	0.2	0.9	1.1	
Square feet of new bordering vegetated wetlands alteration		83,200		
Square feet of new other wetland alteration		0		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage	7,000	15,000	22,000	
Number of housing units	0	0	0	
Maximum height (in feet)	20	0	20	
TRANSPORTATION				
Vehicle trips per day	24	16	40	
Parking spaces	10	6	16	
WATER/WASTEWATER				
Gallons/day (GPD) of water use	100	60	160	
GPD water withdrawal	490,000	576,000	1.07mgd	
GPD wastewater generation/ treatment	90	54	154	
Length of water/sewer mains (in miles)	85 mi	1.6 mi	86.6	

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 _____) No

See attached maps from Massachusetts Natural Heritage Atlas

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.)

The project is two fold: (1) construct a new water treatment plant to serve Well #11, and (2) loop the water system with a new transmission line to provide water supply reliability and adequate fire protection in the event of a break in the existing 10-inch transmission line. Well #11 was previously approved by MEPA (EOEA 11429), has DEP approval, and has been installed.

Well #11 is located on Town-owned land off South Street in Norwell, near the Old Pond Meadows (see Attach. 2). A new treatment plant to serve this well is proposed to be located adjacent to an existing plant that serves Well #1 and Well #6. Plant construction will have no impacts to natural resources. A 20-foot wide gravel roadway connects the sites of Well #11 and the proposed treatment plant and is within the 100-foot buffer zone of the Old Pond Meadows. A raw water transmission main 3000 feet long will be installed in this roadway to connect Well #11 with the new treatment plant. Its installation at an estimated cost of \$365,000 will result in 12,000 s.f. of construction within the buffer zone.

Two alternatives have been evaluated with regard to the finished pipeline that would transmit the treated water from Well #11 to the Town's water distribution system. Alternative A would run from the new plant east, doubling back on the raw water line, and then continue east under Wildcat Brook and tie-in with the existing system at Tiffany Road. It would have a total length of 5,500 ft. and would result in temporary wetland impacts of approx. 83,200 s.f. Its cost would be \$670,000. Alternative B would route the pipeline south on South Street, crossing Third Herring Brook, across wetlands into Hanover where it would be installed in Pond Street, Route 53, and East Street and then crossing Third Herring Brook, returning to Norwell for a tie-in at Tiffany Road. With a total length of 8,700 ft., its cost would be \$1,150,000. Temporary impacts to approx. 35,200 s.f. of wetlands would occur during construction. Wetlands would be protected by hay bales and/or silt fences during construction. The brook would be temporarily diverted into drainpipes while the water main is installed. Disturbed vegetation along the pipeline paths would be stacked and returned to the site following pipeline installation, supplemented by seeding with new vegetation. Alternative A is the preferred Alternative.

The Town of Norwell's existing water supplies are inadequate to meet present and projected demands per Massachusetts Department of Environmental Protection (DEP) guidelines. They indicate that a water system should meet maximum day demand with the largest well out of service. In Norwell, maximum day demand is 2.16 MGD. With Well #6 out of service, the available supply is 2.04 MGD. Normally, the system operates without Wells #3 and #9 due to poor water quality in these wells. Operating without Wells #3 and #9 and the largest well out of service results in an available water supply of 1.79 MGD. As a result, Norwell developed an 0.58 MGD well (Well #11) that will require a supporting treatment plant.

The purpose of the installation of the dedicated treatment plant for the existing Well #11 is to provide water that meets Safe Drinking Water Act requirements and aesthetic quality goals for this additional source of supply should one of the existing wells fail. DEP's guidelines and policies for public water systems require that the Town meet the maximum day demand with the largest well out of service, which is not possible without Well #11.

A 150' x 100' building is proposed, within which a membrane filtration system will be employed. Its proposed site is in an upland area located approx. 200 feet from a wetland area.

The current lack of a return loop in the pipeline system gives cause to unacceptable water quality as well as a situation where accidental pipe breakage could leave a large portion of the town without water service and fire protection.

The following table summarizes the characteristics of the transmission pipeline routes associated with Alternatives A and B.

	Alternative A	Alternative B
Total pipeline distance	5,500 linear feet	8,700 linear feet
Temporary wetland impacts	83,200 square feet	35,200 square feet
Number of brook crossings	1 crossing	2 crossings
Estimated Construction Cost	\$670,000	\$1,150,000
Other	N/A	Construction outside of Norwell town boundary and in State Highway 53

Based upon the preceding data, while Alternative A's temporary wetland impacts are approximately 48,000 square feet larger than Alternative B's, the construction cost of Alternative A is almost \$500,000, or 40 percent, less than that of Alternative B. Additionally, Alternative B requires construction in over 1.3 miles of public road, including construction in the heavily traveled State Highway 53 in Hanover, while Alternative A does not require disruption of traffic. Alternative B also requires an additional 3,200 linear feet of pipe that represents an increased future maintenance cost.

Consequently, given its lower present and future costs, absence of traffic disruption during construction, and with a commitment to completely restore all temporary wetland impacts, Alternative A is the proposed Alternative.

The proposed pipelines are for the purpose of water transmission, not distribution. No new development is possible along the routing of the pipelines associated with Alternative A.

It is estimated that the raw water main will take approximately 3-4 weeks to construct, while construction of the finished water pipeline associated with Alternative A will require a time period of approximately two months.