

ENF Environmental Notification Form

For Office Use Only
Executive Office of Environmental Affairs

EOEA No.: 13877
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: NEW GREAT POND WATER TREATMENT PLANT, WEYMOUTH, MASSACHUSETTS		
Street: 80 PINE CIRCLE		
Municipality: WEYMOUTH	Watershed: BOSTON HARBOR (FORE RIVER)	
Universal Tranverse Mercator Coordinates:	Latitude: 42° 9' 54.88" N Longitude: 70° 57' 53.90" W	
Estimated commencement date: 7/1/2007	Estimated completion date: 7/1/2009	
Approximate cost: \$35,000,000	Status of project design: 20% complete	
Proponent: TOWN OF WEYMOUTH, DEPARTMENT OF PUBLIC WORKS		
Street: 120 WINTER STREET		
Municipality: WEYMOUTH	State: MA	Zip Code: 02188
Name of Contact Person From Whom Copies of this ENF May Be Obtained: STEPHEN C. OLSON, P.E., SENIOR PROJECT MANAGER		
Firm/Agency: ENVIRONMENTAL PARTNERS GROUP, INC.	Street: 1900 CROWN COLONY DRIVE SUITE 402	
Municipality: QUINCY	State: MA	Zip Code: 02169
Phone: (617) 657-0200	Fax: (617) 657-0201	E-mail: sco@envpartners.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. 13593) 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):
 DRINKING WATER STATE REVOLVING FUND ADMINISTERED BY DIVISION OF MUNICIPAL SERVICES OF THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE MASSACHUSETTS WATER POLLUTION ABATEMENT TRUST – FINANCING OF 100% CONSTRUCTION COSTS

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

List Local or Federal Permits and Approvals:

WETLANDS PROTECTION ACT – NOTICE OF INTENT AND ORDER OF CONDITIONS
 BRP WS 24 – APPROVAL TO CONSTRUCT WATER TREATMENT FACILITY >1 MGD

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 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 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> WPA – Notice of Intent (Weymouth Conservation Commission and NHESP) Bureau of Resource Protection Water Supply 24 – Approval to Construct a Water Treatment Facility (> 1 million gallons per day) Emergency Engine and Emergency Turbine Environmental Results Program Certification
Total site acreage	34			
New acres of land altered		2.5		
Acres of impervious area	6.15	2.05	8.2	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		0		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage	187,000	46,000	233,000	
Number of housing units	0	0	0	
Maximum height (in feet)	33	7	40	
TRANSPORTATION				
Vehicle trips per day	10	0	10	
Parking spaces	8	22	30	
WATER/WASTEWATER				
Gallons/day (GPD) of water use	105	395	500	
GPD water withdrawal	4 MGD	0	4 MGD	
GPD wastewater generation/ treatment	105	395	500	
Length of water/sewer mains (in miles)	NA	NA	NA	

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: Priority Habitat for Plymouth Gentian) 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.*)

(A) The proposed New Great Pond Water Treatment Plant (GPWTP) is to be located in South Weymouth at 80 Pine Circle on the eastern shore of Great Pond adjacent to the existing GPWTP (refer to Site Locus, Attachment 3). The proposed GPWTP is being undertaken to allow the Town to produce drinking water that is expected to meet existing and future proposed State and Federal drinking water standards. The proposed work is tentatively scheduled for construction starting in July 2007 and to be completed in July 2009. Both the existing and the proposed treatment facilities are located on a 34 acre parcel owned by the Town of Weymouth. The parcel is partially developed by the existing treatment facility and its appurtenant structures/facilities (residuals pump station, lined residuals lagoons, raw water intake house, CT-Tank, sodium bicarbonate silo, etc.) and partially undeveloped forestland. The proposed work is to be concentrated in the area located between the existing treatment facility and the lined residuals lagoons. This area is partially developed by existing treatment facilities/structures and is partially forested woodland (refer to Existing Conditions Plan, Attachment 1). The proposed work includes construction of the new treatment facility, a raw water pump station (addition to residuals pump station), yard piping, appurtenant structures/facilities (e.g., parking, driveway, fencing, etc.), and rehabilitation of the existing raw water intake house (refer to Proposed Site Plan, Attachment 2). The existing lined residuals lagoons and residuals pump station will be reused. The new treatment facility, its treatment processes, appurtenant structures and ancillary facilities are discussed in greater detail in the attached Conceptual Design Report (refer to Attachment 5). The proposed treatment facility includes a closed loop geothermal heating and cooling system that will be comprised of several cased boreholes extending into bedrock. Finished water will be used as the thermodynamic fluid for the treatment facility's HVAC system. The demolition of the existing treatment facility and several of its appurtenant structures/facilities (i.e., CT Tank, generator building, sedimentation basins, sodium bicarbonate silo and some ancillary asphalt paving) will also be addressed under this project (refer to Demolition Plan, Attachment 8). Demolition is tentatively scheduled to commence following DEP approval and successful start-up of the new treatment facility.

(B) The existing Great Pond water treatment facility and associated infrastructure and buildings are over 70-years old. Although much of the equipment has been replaced and upgraded over the years to modern day standards, the core infrastructure (concrete basins, process piping, building space) is deteriorating and exceeded its useful life. Although the facilities still function to produce water that meets existing drinking water standards, it is anticipated that these treatment systems will not be able to meet new regulations associated with disinfection by-products. Prior engineering studies were conducted that considered replacing or supplementing the Town's primary water supply (Great Pond) with drinking water from the MWRA, other regional options, and local resources (refer to Reference 1 and 2). These alternative water supply options were determined to be inadequate, unsuitable or uneconomical for meeting the Town's existing and future water supply needs. Therefore, based on intensive facility maintenance and upkeep needs associated with frequent equipment failures and the lack of a more suitable drinking water supply solution, the Town embarked on a program of identifying treatment systems for the reliable production of potable water which meets and exceeds both existing and future proposed drinking water standards.

A pilot study of drinking water treatment alternatives was conducted in 2005 which reviewed and evaluated 11 different technologies for producing drinking water from Great Pond source water (refer to Attachment 11). That study was approved by DEP Water Supply (included in Attachment 11). Coincident with the piloting endeavor, the Town elected to proceed with a facility siting study (refer to Attachment 6). The facility siting study evaluated four different options for locating the new Great Pond Water Treatment Plant. A site was recommended and selected by the Town based on an evaluation of costs, neighborhood impacts, permitting requirements, general constructability, and operations. The proposed site for the new Great Pond WTP is shown on Attachment 2.

(C) Potential on-site impacts are to the bordering vegetated wetland located north of the proposed treatment facility, Great Pond and the bordering vegetated wetland associated with its shoreline, the recharge area for public water supply (i.e., Great Pond), and the botanical priority habitat for Plymouth Gentian. No work is proposed for within the bordering vegetated wetland or Great Pond; however, work is proposed within 100 feet of both critical areas. In addition to filing the necessary Wetlands Protection Act Form 3 Notice of Intent with the Town of Weymouth Conservation Commission and the Massachusetts Natural Heritage and Endangered Species Program (NHESP), prior to construction, erosion and sediment controls will be placed between the limits of work and the wetland boundaries (refer to Proposed Erosion/Sediment Control Plan, Attachment 9). To resolve the potential impact upon the recharge area for the Great Pond public water supply, stormwater best management practices will be implemented in accordance with the Massachusetts Stormwater Management Policy and Handbook in order to properly manage, and treat stormwater (i.e., removal of total suspended solids). The best management practices will include stormwater collection devices, which discharge to water quality swales and a constructed wetland, which is proposed to discharge adjacent to the existing wetland area north of the proposed treatment facility. To resolve the potential impact upon the botanical priority habitat for Plymouth Gentian, no work is proposed for the areas identified by NHESP as priority habitat, which includes Great Pond and its shoreline. A Massachusetts Endangered Species Act Information Request Form was submitted to NHESP on August 3, 2006 and botanical surveys were completed in 2003 and 2004 (Attachment 7) on select portions of the parcel in support of work associated with the construction of the existing lined residuals lagoons and decommissioning of the facility's unlined residuals lagoons, respectively. No botanical plots of Plymouth Gentian were found along the outfall area of the new lagoons (Northwest corner of the site). Additionally, erosion and sediment controls, as mentioned above, will be installed between the limits of work and the resource areas prior to start of construction (Attachment 9).