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June 8, 2007

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Baldwin Pond Water Treatment Facility
PROJECT MUNICIPALITY : Wayland
PROJECT WATERSHED : SuAsCo
EOEEA NUMBER : 14027
PROJECT PROPONENT : **Wayland** Water Department
DATE NOTICED IN MONITOR : May 9, 2007

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.03 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report (EIR).

As described in the Environmental Notification Form (ENF), the project consists of the construction of a new 1.5 million gallon Water Treatment Facility (WTF) located adjacent to Baldwin Pond, off Old Sudbury Road (Route 27). The new facility will replace the current chemical feed station located at this site. The construction of a new WTF is required by the Massachusetts Department of Environmental Protection (MassDEP) under an Administrative Consent Order with Penalty (ACOP) issued to the Town in 2005. The WTF will encompass approximately 7,000 square feet (sf) on a 12.9-acre parcel owned by the Town of Wayland Water Department (WWD). Additional improvements to the site will include: an expansion of the current vehicle storage building, a water treatment residuals building, utility upgrades, site grading and stormwater management controls installation, and the connection of one replacement well to the distribution system.

The WWD is not requesting an increase in withdrawal from the three Baldwin Pond wells, presently permitted at 1.51 million gallons per day (mgd), as part of this project. Historically, raw water samples collected from the Baldwin Pond wells have tested positive for coliform bacteria. This project will bring the Baldwin Pond well site into compliance with MassDEP drinking water standards and the Federal Safe Drinking Water Act. The WTF has also been proposed because of increasing levels of iron and manganese at the wells. By nature of the project, it is ideal to have the WTF located adjacent to the well sites. Construction of the WTF will be done in conjunction with upgrades and expansion of existing facilities related to WWD activities. The project site is constrained by wetland resource areas, steep slopes and protective wellhead areas (Zone I and Zone II). The project will directly impact approximately 4,300sf of Bordering Land Subject to Flooding (BLSF) and significant portions of the WTF and appurtenant structures will be located within the 100-foot buffer zone to wetland resource areas.

The project is undergoing review pursuant to Section 11.03 (4)(b)(4) because the project requires a state permit and will involve the construction of a new drinking water treatment plant with a capacity of 1,000,000 or more gallons per day. The project requires an Approval to Construct a Facility to Treat One Million Gallons per Day or Greater (BRP WS 24) from MassDEP. If the project includes a septic system, the project will require Approval of Variance granted by Board of Health from MassDEP (BRP WP 59b). The project will require a Surface Water Discharge Permit under the National Pollutant Discharge Elimination System (NPDES) program. The project will require a Permit to Access a State Highway from the Massachusetts Highway Department (MassHighway) to allow the connection of water mains to those presently located in the Route 27 layout. Finally, the project will require an Order of Conditions from the Wayland Conservation Commission, or in the case of an appeal, a Superseding Order of Conditions from MassDEP.

Because the proponent is not seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that may have significant environmental impacts and that are within the subject matter of required or potentially required state permits. In this case, MEPA jurisdiction exists over water, wetlands, wastewater, traffic, and stormwater.

Water

The project site presently contains several maintenance and storage buildings, including a chemical feed facility used to treat the three existing Baldwin Pond wells. The project includes the demolition of the existing chemical feed and control building and two small storage buildings. An addition will be added to an existing vehicle storage building, allowing for an additional garage bay, and a covered water treatment residuals structure (the lagoons) will also be constructed. MassDEP has indicated that the treatment to be provided at the WTF will include ultrafiltration using a Koch™ membrane system, ozone for pre-oxidation, polyaluminum chloride for coagulation of suspended solids, packed-tower aeration for removal of carbon dioxide and volatile organics, sodium hypochlorite for disinfection, and sodium fluoride for fluoridation. The Baldwin Pond Wells, which are presently equipped with high-lift pumps, will be retrofitted with low-lift pumps.

The WWD is not requesting an increase in withdrawal from the three Baldwin Pond wells, presently permitted at 1.51 million gallons per day (mgd), as part of this project. If additional water withdrawals were sought in the future, the WWD would need to receive additional review and approvals from MassDEP. Furthermore, I recognize the efforts put forth by the Town of Wayland to comply with the ACOP issued by MassDEP through the construction of the WTF. In conjunction with these efforts, I strongly encourage the Town of Wayland to pursue additional efforts to curb and reduce water use, limit irrigation, and plan for the future water needs of its citizens.

As part of the permit application for a BRPWS24 permit (Approval to Construct a Facility to Treat One Million Gallons per Day or Greater), the WWD must provide sufficient data to satisfy approval criteria set by MassDEP. MassDEP has indicated that the initial application had several deficiencies which must be resolved prior to issuance of the WTF permit. Several commenters expressed a concern regarding the potential relationship between the contaminated groundwater at a nearby Raytheon facility, water withdrawals at the Wayland Country Club and the proposed WTF at Baldwin Pond. I am confident that as part of the MassDEP approval process, that MassDEP will evaluate the proposed WTF in the context of existing groundwater and water well withdrawal information within the surrounding areas. Additionally, review under the MassDEP permitting process will evaluate the consistency of the proposed project with the governing regulations associated with allowed and prohibited uses within the Zone I and Zone II wellhead protection areas. If revisions to the WTF as presently proposed are necessary to comply with applicable regulations, the WWD will need to do so prior to receipt of a permit.

Residual waste from the WTF process will be stored in covered lagoons to allow materials to dry prior to removal from the project site. The WWD and its consultant should work with the Wayland Board of Health and the Wayland Conservation Commission to address concerns related to supernatant water discharges, odor, public health concerns, and operational procedures as outlined in their respective ENF comment letters. Finally, the WWD should clarify during the permitting process the consistency of chemical storage, vehicle use, and site maintenance with applicable safety, health and wetlands regulations.

Wetlands

The project site is characterized by the presence of Baldwin Pond, areas of floodplain associated with the Sudbury River, and Bordering Vegetated Wetlands (BVW). The project will impact approximately 4,306 sf of BLSF, but will not directly alter BVW. Work will be conducted within the 100-foot buffer zone to BVW and Baldwin Pond. If filling of BLSF cannot be avoided, the project will need to meet the performance standards for alteration of BLSF, pursuant to 310 CMR 10.57(4), by providing compensatory storage for all flood storage volumes that will be filled at each elevation which would be lost by the proposed project. The compensatory storage must also have an unrestricted hydraulic connection to the same water body. Additionally, the WWD has indicated that the wells will be designed in such a manner to mitigate impact to well operations during periods of extreme flooding.

I encourage the proponent to work with the Wayland Conservation Commission to further determine ways to reduce impact within the 100-foot buffer zone to wetland resource areas (i.e. maintaining or enhancing vegetated buffers, reduce grading, etc.). Additionally, the WWD should work with the Wayland Conservation Commission to devise a suitable and appropriately-scaled wetland monitoring plan, which may include wetland monitoring wells, to evaluate impacts on adjacent wetlands once maximum site pumping capacity (1.5 mgd) has been brought online.

Stormwater

The project site is located within a Zone I and Zone II wellhead protection area to a public drinking water supply well. Stormwater discharges from the site to a designated Outstanding Resource Water (ORW) associated with the Concord River. Stormwater discharges from the project site must meet applicable MassDEP standards with regards to quality and quantity of stormwater runoff from the site. The ENF indicates that roof runoff from the buildings will be infiltrated to allow for groundwater recharge. The WWD should revise site plans as necessary to meet the infiltration recharge requirements outlined in the MassDEP comment letter with regards to type of runoff that may be infiltrated and the location of recharge structures within the Zone I.

The WWD should continue to discuss with the Wayland Conservation Commission ways in which to reduce stormwater runoff from the project site, either through the use of new technologies (like porous pavement), low-impact development techniques, or enhanced vegetated buffer zones. The project should strive to maintain or improve existing conditions of stormwater runoff in a post construction state.

The residuals from the water treatment process will be discharged to two lagoons proposed within a single covered structure. After settling of solids, the supernatant water will be discharged to Baldwin Pond. This process will require a National Pollutant Discharge Elimination System (NPDES) permit to ensure appropriate water quality and quantities are achieved prior to discharge. Furthermore, the WWD should incorporate erosion and sedimentation controls, as directed pursuant to the Order of Conditions, into the construction process to reduce the likelihood of impact to adjacent wetland resource areas associated with stormwater runoff. These erosion and sedimentation controls should include a discussion of dewatering techniques and mitigation measures to be used on site during the construction period.

Historical

The Massachusetts Historical Commission (MHC) has noted that new construction is proposed largely within previously disturbed areas of the existing WTF. However, according to MHC, other portions of the project area are highly archaeologically sensitive. In accordance with a request by MHC, the WWD should conduct an intensive (locational) archaeological survey (950 CMR 70) within the archaeologically sensitive portions of the project impact area.

The goal of the investigation should be to determine if the project will affect any significant historic or archaeological resources. Additionally, in accordance with MHC's request, the project's historical consultant should submit project information to the Wayland Historical Commission for review and comment.

Wastewater

The Preferred Alternative presented in the ENF proposes an upgrade of the existing septic system from 180 gpd to 200 gpd. The existing septic system will be taken off-line as a result of building reconfiguration and expansion and a new system will be constructed adjacent to the entrance drive, as far from wetland resource areas as feasible and just outside the Zone I. While the ENF notes that a septic system will be designed in compliance with applicable local and State regulations, the proximity to the septic system to drinking water supply wells warrants further investigation of wastewater alternatives. At the time of the ENF site consultation session, on-site soils testing had yet to be completed to determine soil suitability for on-site wastewater discharge. I encourage the WWD to work with MassDEP and Wayland Board of Health to evaluate the feasibility of an on-site tight tank versus a septic system.

Traffic

The ENF states that a permit will be required from MassHighway to facilitate connection of the upgraded water mains leading from the proposed WTF to the existing water mains located within the State Highway layout of Route 27. The WWD should coordinate design with MassHighway as necessary to ensure compliance with applicable design standards. The project is not anticipated to result in a significant change in vehicle traffic trips beyond existing conditions.

Construction

The project includes demolition and reconstruction, which will generate a significant amount of construction and demolition (C&D) waste. The WWD should seek ways to incorporate C&D recycling activities as a sustainable measure for the project. Additionally, I encourage the WWD to the maximum feasible extent, incorporate sustainable design elements into the project design. The basic elements of a sustainable design program may include, but not be limited to, the following measures:

- Optimization of natural day lighting, passive solar gain, and natural cooling;
- Use of energy efficient HVAC and lighting systems, appliances and other equipment, and use of solar preheating of makeup air;
Favoring building supplies and materials that are non-toxic, made from recycled materials, and made with low embodied energy;
- Provision of easily accessible and user-friendly recycling system infrastructure into building design;

- Development of a solid waste reduction plan;
- Development of an annual audit program for energy consumption, waste streams, and use of renewable resources;
- LEED certification; and
- Water conservation and reuse of wastewater and stormwater.

Based on the information in the ENF and after consultation with relevant public agencies, I find that the potential impacts of the project and appropriate mitigation can be addressed during the permitting process. No further MEPA review is required at this time.

June 8, 2007

Date


Ian A. Bowles

Comments received:

05/11/2007	Massachusetts Historical Commission
05/24/2007	Massachusetts Department of Environmental Protection - NERO
05/29/2007	Wayland Conservation Commission
05/29/2007	Wayland Board of Health
05/29/2007	Sudbury, Assabet and Concord Wild and Scenic River Stewardship Council
05/29/2007	Blair Davies
05/29/2007	Wayland Surface Water Quality Committee
05/29/2007	Molly Upton
05/29/2007	Linda Segal

IAB/HSJ/hsj