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August 1, 2008

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS

ON THE PHASE III: DRAFT EIR/FACILITIES PLAN

PROJECT NAME : Comprehensive Wastewater Management Plan
PROJECT MUNICIPALITY : Tyngsborough
PROJECT WATERSHED : Merrimack
EOEA NUMBER : 11788
PROJECT PROPONENT : Town of Tyngsborough
DATE NOTICED IN MONITOR : June 25, 2008

As Secretary of Environmental Affairs, I hereby determine that the Phase III: Draft Environmental Impact Report (EIR)/ Facilities Plan submitted for this project **adequately and properly complies** with the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and with its implementing regulations (301 CMR 11.00). The Town may prepare and submit for review the Phase IV: Final Environmental Impact Report (EIR)/Facilities Plan.

Project Description

This project involves the development of a town-wide Comprehensive Wastewater Management Plan (CWMP) for Tyngsborough. The goal of the CWMP is to examine the full range of wastewater management needs and identify environmentally sustainable treatment and disposal alternatives that respond to the community's needs while meeting water quality and public health standards. The Town has identified alleviating non-point source pollution, protecting water quality, and promoting groundwater recharge as priorities. The Draft EIR/ Facilities Plan presents a recommended wastewater management plan that outlines how the Town of Tyngsborough will treat and dispose of its wastewater over the next 20 years.

Currently, one third of the Town's wastewater management needs are met through existing sewers in the areas of Mascuppic Lake, Dunstable Road and the southern end of Pawtucket Boulevard. The Tyngsborough Sewer Commission is responsible for administering, maintaining, and operating these sewage collection systems. Sewage is conveyed from Tyngsborough to the Lowell Regional Wastewater Utility (LRWU) for treatment via sewage collection systems Dracut, Chelmsford and Lowell. Wastewater flow limits are established through intermunicipal agreements (IMAs) with each of these communities. The remaining two thirds of the wastewater management needs are met through on-site systems located throughout the town. Seventy percent of the Town's water needs are met through local aquifers and, as noted previously, protection of groundwater resources is an important priority of the CWMP.

The Draft EIR concludes that the Town should manage present and future wastewater needs through a combination of sewer extensions and continued use of on-site disposal systems. The Town is proposing to extend sewers within seven of the Needs Areas, and convey wastewater flows to the LRWU for treatment and discharge, subject to the limitations contained in the IMAs. The plan includes construction of over 135,000 linear feet (lf) of sewers (gravity and low pressure), over 14,000 lf of force mains, 10 pump stations and 32 low-pressure pump stations. The cost of the plan is estimated at \$42.4 million dollars. The construction of wastewater infrastructure is proposed in six phases from 2009 through 2028.

MEPA History

In the fall of 1998, the Town of Tyngsborough filed an Environmental Notification Form (ENF) for the CWMP. In December of that year, a Certificate on the ENF was issued defining a Special Review Procedure (SRP) for the CWMP and allowing a portion of the proposed plan, east of the Merrimack River, to proceed as Phase I prior to completion of the EIR for the overall project. On April 6, 2001, a Certificate was issued on a Notice of Project Change (NPC) granting the Town's request to add a section of sewers to the Phase I project to support the development of Sycamore Networks, a campus-style office park off Potash Hill Road.

The SRP required the Town of Tyngsborough to file four documents. Phase I: Needs and Growth Management Analysis included an assessment of existing conditions and an analysis of wastewater management needs. On May 15, 2003, a Certificate was issued on the Phase I document which indicated that it adequately and properly complied with MEPA regulations and established the Scope for the Phase II document. Phase II: Screening of Alternatives included the development and screening of water resources and wastewater management alternatives to address the needs defined in the Phase I document. The report assessed 10 potential sites for locating wastewater management facilities and concluded that none of these sites were appropriate for one or several of the following reasons: soils (moderate to severe), land use restrictions (many sites are under conservation restrictions), water supply impacts (many are located within Interim Wellhead Protection Areas (IWPA)) or other environmental impacts (endangered species habitat, proximity to surface waters). On July 28, 2006, a Certificate was

issued on the Phase II document which indicated that it adequately and properly complied with MEPA, required the Town to re-evaluate some of the sites that were proposed to be sewerred and directed the Town to prepare and submit the Phase III: Draft EIR/Facilities Plan. The Draft EIR further evaluates feasible options for wastewater management and presents a draft plan. The Phase IV: Final EIR/Facilities Plan will present the final proposed plan and incorporate and respond to any outstanding comments and issues.

Permits and Jurisdiction

The project is undergoing MEPA review and subject to preparation of a mandatory EIR pursuant to Section 11.03 (5)(a)(3) because it requires a state permit and will include construction of one or more new sewer mains ten or more miles in length. It will require sewer extension and connection permits from the Department of Environmental Protection (MassDEP) and review by the Natural Heritage and Endangered Species Program (NHESP). It may require Construction Access Permits from the Massachusetts Highway Department (MHD) and it may require review by the Massachusetts Historical Commission (MHC). Work proposed on conservation land may be considered a conveyance of an interest in land that would be considered a land transfer and be subject to the Executive Office of Energy and Environmental Affairs' (EEA) Article 97 Policy.

The project will require Orders of Conditions from the Tyngsborough Conservation Commission (and a Superseding Order of Conditions from MassDEP if the local Order is appealed). In addition, it may require National Pollutant Discharge Elimination System (NPDES) permits from the U.S. Environmental Protection Agency (EPA). Because the project will receive funding or financial assistance from MassDEP under the State Revolving Fund (SRF), MEPA jurisdiction extends to all aspects of the project that may cause Damage to the Environment.

Review of the Phase III: Draft EIR/Facilities Plan

The Phase III report further assesses alternatives for wastewater management, includes a draft wastewater management plan, identifies potential environmental impacts, identifies measures to minimize environmental impacts and includes responses to comments.

The report identifies sewer capacity available through existing intermunicipal agreements (IMAs) and describes associated flow limits. Total available capacity within existing IMAs is 1,430,000 gallons per day (gpd) and existing flows are estimated at 458,000 gpd. Remaining capacity for existing sewer areas and needs areas is 972,000 gpd. Projected wastewater flow based on full build-out is 1,775,200 gpd which exceeds the current available total capacity of 1.43 in the IMAs.

Based on the review of alternatives and technologies and the site selection analysis, the report identifies expansion of the existing sewer system for seven of the study areas and use of on-site wastewater disposal systems for remaining areas. Expansion of the sewer system is proposed for:

- Needs Area 1 – Norris Road;
- Needs Area 2 - Merrimack East;
- Needs Area 6 - Althea Lake;
- Needs Area 7 - Merrimack West;
- Needs Area 8 - Middlesex North;
- Needs Area 9 – Locust North; and
- Needs Area 11 - Flint Pond.

Based on comments on the previous document and in recognition of capacity constraints, extension of the sewer system is no longer proposed for Needs Area 3 – Coburn Road and Needs Areas 10 – Locust South. In addition, the extent of sewerage has been minimized within Needs Area 1 - Norris Road and Needs Area 9 - Locust North. Corresponding flow allocations have been developed for each of the IMAs and are included in the following table:

Proposed Flow Allocations to Intermunicipal Agreements

IMA	IMA Capacity	Average Existing Flows	Available Capacity	Allocated Flow for Existing Sewered Areas	Allocated Flow for Needs Areas
North Chelmsford	350,000	56,000	294,000	184,000	110,000
Dracut	1,000,000	382,000	618,000	171,585	446,515
Lowell	80,000	20,000	60,000	45,489	14,511
TOTAL	1,430,000	458,000	972,000	401,074	571,026

To ensure that flow limits will not be exceeded, the Town will establish sewer districts and require monitoring and reporting of flows. The Town will develop and implement Septage Management Plans (SMPs) to effectively track and manage the construction, operation, and maintenance of these systems for areas that will continue to depend on them. The Draft EIR

describes the sewer districts and SMPs in general but does not identify specifically how these programs will be developed and implemented.

The Draft EIR indicates that the plan will be constructed in the following six phases: Phase 1: 2009 - 2013, Phase 2: 2011 - 2015, Phase 3: 2015 – 2018, Phase 4: 2019 to 2022, Phase 5: 2023 to 2025 and Phase 6: 2026 to 2028. The Draft EIR provides a general summary of potential environmental impacts associated with the project. It indicates that, because the majority of work will take place within existing roadways, environmental impacts will be minimized. Work is proposed within the buffer zone to wetlands, riverfront area, the 100-year floodplain and within rare species habitat. Phase 2 will include installation of a twin force main under the Merrimack River. To avoid and minimize impacts, the force mains will be installed with directional drilling. The EIR does not provide a detailed analysis of wetlands impacts nor does it quantify these impacts.

The Draft EIR indicates that installation of sewers will occur in roads near conservation land, including the Times Farm Area (Needs Area 2 - Merrimack East), the Lowell Dracut Tyngsborough State Forest (Needs Area 6 - Althea Lake) and the Hunter Property (Needs Area 7 - Merrimack West). In addition, the River Road pump station is proposed to be constructed within the Hunter Property.

Construction of proposed pump stations may impact historic and archaeological resources. The Draft EIR indicates that the Town will screen locations for impacts to historic and archaeological resources and will consult with MHC regarding review requirements. In addition, the Town will consult with NHESP to discuss siting and construction alternatives prior to filing related Notices of Intent.

To minimize extraneous clean water (Infiltration/Inflow (I/I)) within the system and to secure additional capacity, the Town is continuing efforts to study sources of I/I and develop a plan to eliminate sources of I/I. The Town has requested additional funds from MassDEP to build on its October 2002 I/I study and further evaluate I/I within the Long Pond area and the Mascuppic Lake area.

The Draft EIR includes a water balance impact analysis, as required. It indicates that under full build-out there will continue to be an export of water out of the Needs Areas within the Merrimack River watershed. The analysis notes that the Merrimack River watershed has been identified as a non-stressed basin and that the water will remain within the Merrimack River watershed. The analysis assumes that all developed and developable lots in Tyngsborough are or will become customers of the municipal water system.

Comments from MassDEP indicate that the proposed wastewater management plan is reasonable and appropriate and emphasize the importance of tracking flows and implementing I/I reductions and identify issues that should be addressed in the Final EIR. Comments from

NHESP identify areas that will be subject to its review and includes issues that should be addressed in more detail in the Final EIR.

Based on a review of the Draft EIR, consultation with state agencies and a review of comment letters, I hereby determine that the Draft EIR adequately and properly complies with MEPA and its implementing regulations. The Scope for the Final EIR is outlined below.

SCOPE

The Town should work with MassDEP to refine and finalize the Scope of Work for the Phase IV document. The Town should file the revised Scope of Work for the Phase IV: Final EIR/Facilities Plan document with the MEPA Office for publication of a Notice of Availability in the *Environmental Monitor*, and it should distribute copies of the revised Scope of Work to all commentors to the Phase III document.

Permitting and Consistency

The Final EIR should briefly describe each state permit required or potentially required for each phase of the project and it should demonstrate consistency with applicable performance standards.

Wastewater

As noted previously, MassDEP comments emphasize the importance of monitoring flows during the implementation phase of the recommended plan and ensuring that flows remain in compliance with the IMAs. Sewer extension permits will be required for implementation of each phase of the sewerage work and MassDEP will review compliance with the IMAs at the time of application for each permit. MassDEP comments indicate its support for establishment of sewer districts and the development of SMPs. These programs and their implementation should be addressed in more detail in the Final EIR.

MassDEP also indicates that the SRF application should include a detailed Scope of Work for the I/I program and include a commitment to produce a final report and a schedule for implementation of the work. The Final EIR should summarize the findings of the I/I studies and provide a schedule for implementation.

The Final EIR should include plans at a readable scale that more clearly define proposed improvements, including installation of the force mains under the Merrimack River. The Town should consult with MassDEP regarding the level of detail of plans to be included in the Final EIR.

Wetlands and Rare Species

The Final EIR should identify the wetlands and buffer zones impacted by the project, quantify the impacts, describe the nature of the impacts (temporary or permanent), and show the areas of proposed construction in the vicinity of the wetlands on a site plan at a readable scale. The Final EIR should demonstrate consistency with performance standards in the wetlands regulations.

Comments from NHESP identify additional areas that are within Priority and Estimated Habitat as indicated in the 12th Edition of the MA Natural Heritage Atlas. NHESP indicates that Needs Areas 2, 3, 6, 7, 8, 9, 10, and 11 are located within Priority and Estimated Habitat. In addition, initial review of the working draft of the 13th Edition of the Massachusetts Natural Heritage Atlas indicates that Study Areas 3, 8, and 10 will likely not be mapped as Priority Habitat and that designated habitat within Needs Area 6 will likely be expanded. The Final EIR should provide an updated map and plans that clearly illustrates the location of mapped habitat in relation to proposed projects.

Comments from NHESP express concern that extension of the sewer system has the potential to affect the hydrology within the sub-basins of the watershed, which may affect state-listed species and their habitats, and identify the need for more information regarding water supply. These comments indicate that the Town should continue to explore alternatives to minimize potential impacts to water hydrology. The Final EIR should address NHESP comments regarding the impacts of hydrology on rare species and consider how the Town can minimize potential impacts through further reduction in sewerage, through infiltration and/or through expanded water conservation strategies.

NHESP comments note that some portions of the project (e.g. work within existing roadways or within ten feet of an existing roadway) may be exempt from Massachusetts Endangered Species Act (MESA) review pursuant to 321 CMR 10.14. MassDEP comments note that permitting under the limited project provisions of the wetlands regulations (310 CMR 10.24 (7) (b)) will require confirmation from NHESP that proposed activities will not have an adverse impact on areas within Priority or Estimated Habitat of Rare Wildlife.

Article 97 Land

The Draft EIR indicates that the project may impact conservation land which is protected under Article 97 of the Articles of Amendment to the Constitution of the Commonwealth of Massachusetts. These areas include the Lowell/Dracut/Tyngsboro State Forest, the Times Farm Area and the Hunter Property. The Final EIR must describe all impacts to Article 97 land and how these impacts will be mitigated. It should identify land ownership and the type (temporary or permanent) and extent of impacts. The Final EIR should include plans that show the areas of proposed construction within or adjacent to Article 97 land on a site plan at a readable scale. It

should include an analysis of the project's consistency with the EEA's Article 97 Policy and address the requirements for an alternatives analysis and compensatory parkland. I encourage the Town to consult with EEA's Division of Conservation Services (DCS) staff regarding the applicability of the Article 97 Policy to project elements.

Article 97 addresses the high value placed upon the preservation of existing protected open space lands. To further the Commonwealth's open space goals, EEA's Article 97 Land Disposition Policy requires that all feasible options to avoid the transfer/change in use of public land have been examined. The EIR should identify any alternative sites that would avoid or minimize impacts to Article 97 land and provide a detailed explanation as to why these other alternative sites would not be feasible.

If alternative sites prove infeasible, the Final EIR should include a proposed Article 97 mitigation package consistent with the EEA Policy identifying compensatory open space land and/or parkland (at a 1:1 basis, at a minimum, of replacement land to converted land) that could be permanently protected. The EIR should provide a detailed description of the land area(s) proposed as Article 97 compensation and should also discuss the value of the land in terms of the resources they provide and the opportunities for active and/or passive recreation they afford. I note that compensatory mitigation for previous projects has been at a higher than 1:1 basis (and as high as 7:1).

Water Supply

The proposed sewer alignments extend into public water supply recharge areas, including Zone IIs and Interim Wellhead Protection Areas (IWPAs). The Final EIR should identify any sewer extensions into Zone I areas for the public water supply wells and confirm that any extensions into Zone I areas are necessary to eliminate existing sources of pollution in accordance with 314 CMR 7.06(3). As noted previously, NHESP comments express concern about the export of water from watershed sub-basins and potential impacts on rare species. The comments note that plans for water supply will have a significant impact on the export of water from sub-basins. The water balance analysis assumes that all developed and developable lots in Tyngsborough are or will become customers of the municipal water system. The Final EIR should assess the accuracy of this assumption to assist NHESP in assessing the impact of proposed projects on rare species habitat.

Greenhouse Gases (GHG)

Consistent with this Administration's efforts to address climate change and promote clean energy and energy efficiency, MassDEP is revising its selection criteria for the SRF Program to include incentives for wastewater and drinking water projects that incorporate renewable energy and energy conservation measures. MassDEP's website (<http://www.mass.gov/dep/energy.htm> - massdep) identifies eligible project types including the use of energy efficient motors and pumps.

I strongly encourage the Town to evaluate opportunities to reduce greenhouse gas emissions by designing and selecting equipment to optimize energy-efficiency.

Mitigation

The Final EIR should include a separate section on mitigation measures, which should include draft Section 61 Findings for all state permits and a summary table of proposed mitigation. The Final EIR should provide a clear description of mitigation measures, identify the cost of measures, provide a schedule for implementation and identify parties responsible for funding and implementing the mitigation measures.

Responses to Comments

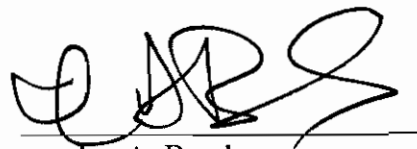
To ensure that the issues raised by commentors are addressed, the Final EIR should include responses to comments. This directive is not intended to, and shall not be construed to, enlarge the scope of the Final EIR beyond what has been expressly identified in the initial scoping Certificate or this Certificate. The Final EIR should include a copy of this Certificate and a copy of each comment letter received. I defer to the Town as it develops the format for this section, but it should provide clear answers to questions raised.

Circulation

The Final EIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should be sent to any state agencies from which the Town will seek permits or approvals, to the list of "comments received" below, and to Tyngsborough officials. A copy of the Final EIR should be made available for review at the Tyngsborough public library.

As noted previously, the Town should file the revised Scope of Work for the Phase IV: Final EIR/Facilities Plan document with the MEPA Office for publication of a Notice of Availability in the *Environmental Monitor*, and it should distribute copies of the revised Scope of Work to all commentors to the Phase III document.

August 1, 2008
Date


Ian A. Bowles

Comments received:

- 7/25/08 Department of Environmental Protection/Northeast Regional Office (DEP/NERO)
- 7/23/08 Division of Fisheries & Wildlife/Natural Heritage & Endangered Species Program (DFW/NHESP)
- 7/25/08 Northern Middlesex Council of Governments
- 7/25/08 Town of Tyngsborough/Economic Development Committee

IAB/CDB/cdb