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February 15, 2007

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS  
ON THE  
SINGLE ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Central Cohasset Wastewater System Phase IV –  
Collection System and Wastewater Treatment Plant  
Expansion  
PROJECT MUNICIPALITY : Cohasset  
PROJECT WATERSHED : South Coastal  
EOEA NUMBER : 13872/10275  
PROJECT PROPONENT : Town of Cohasset Board of Sewer Commissioners  
DATE NOTICED IN MONITOR : January 9, 2007

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H), I hereby determine that this project adequately and properly complies with MEPA and its implementing regulations (301 CMR 11.00). No further MEPA review is required.

Project Description

As described in the Expanded Environmental Notification Form (EENF) and the Single Environmental Impact Report (EIR), this project consists of expanding sewer service within the Town of Cohasset and the upgrading and expansion of its existing wastewater treatment plant (WWTP). The project will cost approximately \$13.2 million and is projected to be under complete (including service connections) by 2012. The expansion will serve three areas: the Little Harbor watershed, Jerusalem Road (including Deep Run/Rust Way) and Atlantic Avenue (to the east of Little Harbor). Wastewater from the Little Harbor and Atlantic Avenue area will be treated and discharged by the Cohasset WWTP. Wastewater from the Jerusalem Road District would flow through the Hingham pump station for treatment and discharge by the Hull WWTP (subject to consistency with an Intermunicipal Agreements (IMA) between Hingham, Cohasset and Hull). The project is being constructed consistent with the Second

Amended Final Judgment between the Town of Cohasset and the Commonwealth and it is intended to eliminate septic system pollution, protect water resources and facilitate the re-opening of area shellfish beds. In addition to town-wide Facility Plans reviewed previously by MEPA (EOEA #10275), additional studies have been conducted to evaluate alternatives for addressing water quality within the Little Harbor area. These include a March 2000 Water Quality Study, a January 2001 Feasibility Study and the 2006 Environmental Assessment and Facility Plan Supplement submitted with the EENF. These reports have led to the identification of an expansion in sewer service and the WWTP as the preferred alternative.

The project site includes the WWTP and the miles of roadways throughout Cohasset and along the coast where sewer lines will be installed. The WWTP is located on Elm Street within Jacob's Meadow, a salt marsh connected to the harbor with a self-regulating tide gate, and is adjacent to a residential area. The WWTP uses a membrane filtration activated sludge system and UV light disinfection system to treat wastewater to permitted levels. It discharges to Cohasset Cove using a force main and a three port submerged diffuser. Maps provided with project filings outline the proposed areas for sewerage. These are located primarily in the northern area of the town and are proposed to address areas of environmental sensitivity. They will traverse previously developed areas that include barrier beaches (Sandy Beach and Pleasant Beach), flood prone areas, coastal dunes and other wetland resources. The project area includes shellfish habitat including soft shelled clams, blue mussels and quahogs. As described in previous plans and updated in the EENF and Single EIR, the harbor and its resources are suffering from pollution. The water quality study indicated that, in addition to wet weather non-point pollution, failing septic systems are a major source of pollution (51% of loadings in Little Harbor and 70% of loadings within Inner Little Harbor). Poor soils, shallow ledge, high groundwater and tidal influences limit the effectiveness and use of traditional septic systems.

The project entails the construction of 10.6 miles of low-pressure sewers and the discharge an additional 150,000 gallons per day (gpd) from the existing WWTP for a total discharge of 450,000 gpd. The Jerusalem Road District could contribute an additional 12,870 gpd to the Hull WWTP. The EENF and Single EIR describe how the WWTP will be upgraded and expanded to support additional capacity. These improvements include an increase in available membrane surface area and upgrading of pumping, screening, chemical feed, flow monitoring and UV disinfection components. Potential impacts are associated with an increase in wastewater discharge and construction period impacts (including 1,300 linear feet of sewer lines within barrier beaches and 9,430 linear feet within Land Subject to Coastal Storm Flowage). In addition, the expansion in sewer service could result in secondary growth impacts. The EENF and the Single EIR describe measures that will be employed to avoid, minimize and mitigate these impacts.

### Jurisdiction

The project is subject to review and mandatory preparation of an EIR pursuant to Section 11.03 (5)(a)(3) because it requires a state permit and consists of construction of sewers totaling 10 miles or more in length. It requires a Sewer Connection Permit from the Department of Environmental Protection (MassDEP) and Federal Consistency Review by Coastal Zone Management (CZM). Also, it requires a National Pollutant Discharge Elimination System

(NPDES) Permit from MassDEP and EPA and an Order of Conditions from the Cohasset Conservation Commission (issued on October 30, 2006). The project may receive funding through the State Revolving Fund (SRF). Because the proponent is seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction extends to all aspects of the project that may cause significant Damage to the Environment. These include land, wastewater, water quality, wetlands, hazardous waste and construction period impacts.

In accordance with Section 11.05 (7) of the MEPA regulations, the proponent submitted an EENF with a request that I allow the proponent to fulfill its EIR obligations under MEPA with a Single EIR, rather than the usual process of a Draft and Final EIR. Based on a review of the EENF and consultation with state agencies, I found that the EENF met the regulatory requirements and permitted the proponent to file a Single EIR in fulfillment of Section 11.03 of the MEPA regulations. Because the EENF and previous reports included extensive analysis of alternatives, the Scope was limited to ensuring that issues and impacts associated with the proponent's preferred alternative were fully analyzed and addressed.

### Review of the Single EIR

The Single EIR provides an updated project description, discusses project phasing, provides updates on the status of each state permit or agency action required, or potentially required, for the project and addresses its ability to meet applicable performance standards. It provides additional information on available capacity, addresses growth management concerns and analyzes the Town's ability to limit new connections to the system. It summarizes recent water quality testing, addresses construction period impacts and provides a commitment to implement measures to avoid, minimize and mitigate environmental impacts.

MassDEP comments indicate support for the proposed project and note that it is consistent with the Second Amended Final Judgment. CZM comments identify several issues that should be addressed through permitting and/or consultation with the Town but it does not recommend further MEPA review.

Overall, other commentors either support, or do not oppose, the expansion of the sewer system and WWTP while identifying issues that warrant additional review. Some of the comments call for additional review of alternatives (including further consideration of septic system upgrades and review of the outfall location). The alternatives identified have been raised and addressed in previous review by MEPA and/or state agencies. Although certain aspects of the project require additional analysis and provision of technical details, these issues can be addressed during permitting. I remind commentors that conclusion of MEPA review does not signify approval of this project or terminate the Commonwealth's review of the project. The project will be reviewed in detail by DEP and EPA, through the NPDES permitting process, and by CZM, through federal consistency review. These reviews can, and I am confident they will, address outstanding issues identified by commentors, including the establishment of protective nitrogen limits, consistency with antibacksliding and antidegradation provisions of water quality standards and requirements to reduce extraneous flow to the wastewater system (Infiltration/Inflow (I/I)).

### Wastewater Issues

Comments on the EENF requested additional information on the Standard Operating Procedures (SOP) during extreme wet weather events to avoid overflows and highlighted the importance of addressing I/I issues prior to expansion of the sewer system. In addition, the Scope on the EENF identified the need for additional information on capacity within the North Cohasset Sewer District.

The Single EIR includes an SOP for the existing plant and an SOP for the proposed upgrade developed to avoid overflows and discharge of untreated sewage. The Single EIR includes an update on town-wide efforts to address I/I (although it does not include a commitment to specific projects or estimates of potential I/I removal) and acknowledges that I/I is a significant problem, particularly during wet weather events. The capacity of the existing plant is 350,000 gpd; however, flows have reached 1.4 million gpd during extreme wet weather events. The Town has approved \$1 million for an I/I study to evaluate and assess the extent of the problem. This study will be used to develop strategies for reducing I/I. As many commentors have noted, this should be established as a priority prior to completion of the WWTP expansion and I expect it will be a requirement of the NPDES permit.

The Single EIR indicates that, based on recorded water use, adequate capacity is available to service the Jerusalem Road area at the Hull WWTP (governed by an IMA between Hingham, Cohasset and Hull). The IMAs included with the Single EIR indicate that Cohasset is authorized to discharge an average daily flow of up to 80,000 gpd. The Single EIR estimates that Cohasset is contributing approximately 61,000 gpd and that the additional connections would increase flow by approximately 8,190 gpd (based on 39 units at 210 gpd). Using a consistent approach for estimating demand (based on the Central Cohasset and Atlantic Avenue area), this expansion would generate 12,870 gpd. The Single EIR indicates that no previous authorization is required prior to establishing new connections and that, upon completion of the improvements, the Town must provide as-built plans to Hull and Hingham. The Town of Hingham submitted comments indicating that flows from Cohasset are not metered prior to entering the Hingham system and, without such metering, compliance with authorization limits and available capacity cannot be determined accurately. The Single EIR does not address this issue in any detail; however, the proponent's consultant has indicated that the installation of a flow meter is proposed and installation of a flow meter on Jerusalem Road is indicated on plans submitted with the Single EIR. The proponent should install the flow meter and consult with Hingham and Hull regarding existing and projected flows prior to expanding the system.

### Wetlands and Water Quality

The Scope on the EENF required the proponent to include the results of recent data collection within Cohasset Harbor in the Single EIR, if available. The monitoring was coordinated by the Mass Bays Program and includes testing of salinity, temperature, dissolved oxygen, conductivity, pH, turbidity, light penetration and nutrients. The data have not been published but the proponent did consult with EPA regarding preliminary findings. According to the proponent, these findings suggest the following: 1) some stress is associated with non-point pollution during wet weather; 2) measurements for total nitrogen (including those taken when

dilution would be at a minimum) do not reflect concentrations that would contribute to eutrophic conditions; and 3) there are no ambient conditions that would prevent expansion of the WWTP consistent with the proposed increase in capacity and design criteria. In addition, the Single EIR notes that dives conducted by EPA indicate a healthy ecosystem with signs of increased recovery since the last harbor dredging project.

Since the filing of the Single EIR, CZM has reviewed the Mass Bays data in more detail and indicates that results should be interpreted conservatively. CZM indicates that reliance on existing observable conditions may not be representative of impacts associated with current levels of effluent (as the proponent has only recently reached its maximum discharge limits). In addition, CZM comments support other commentors assertion that flushing rates may not be as high as indicated by previous modeling and that additional information should be developed regarding the residence time of WWTP effluent, and the associated potential for nutrient uptake, within the Cove. CZM recommends that, during permitting, nitrogen limits be established, monitoring of eelgrass beds be conducted to identify stress/degradation in the outer harbor and that provisions to tighten standards be developed if receptors indicate unacceptable degradation or decline in eelgrass.

CZM notes that the Cat Dam on Nichols Road, which separates Little Harbor and Inner Little Harbor, prevents regular flushing of Inner Little Harbor and associated habitat and fisheries benefits. CZM suggests that the proposed project may not be adequate to attain water quality goals for Inner Little Harbor. While the proposed project will reduce septic system pollution significantly, nutrients will remain in the sediments and cycle through the water column. Increased tidal exchange between Little Harbor and Inner Little Harbor could contribute to attainment of water quality goals, allow for fish passage and provide overall habitat improvements. I strongly encourage the proponent to consult with CZM, which can identify technical assistance, financing and outreach opportunities, to address this issue.

### Planning for Growth

The Single EIR addresses the potential for the project to contribute to growth (and therefore increase impacts to wetlands and other resources) and its consistency with state policies. The Single EIR includes the text of existing zoning and wetland regulations and describes how these manage growth within sensitive resource areas (i.e. barrier beach, high hazard and flood prone areas). Also, it includes draft language that could be used to strengthen these regulations. The Single EIR indicates that approximately 20% of vacant lots (37 of 187) within the limits of the proposed sewer expansion districts are potentially developable. If developed, these could contribute an additional 12,210 gpd of wastewater generation to the system. I urge the proponent to strengthen its bylaws prior to completion of the project to avoid inappropriate growth in sensitive areas. I encourage the proponent to consult with CZM, MassDEP and other relevant agencies regarding proposed changes and to provide opportunities for review.

The Single EIR indicates that the Town is confident that it can minimize the potential for the project to contribute to growth by limiting connections to existing homes. It includes a legal analysis of this position and its consistency with state law (MGL Chapter 83, Section 3). This

approach may be subject to future legal action. A comment letter on behalf of Avalon Cohasset (EOEA #13803), a housing project proposed under MGL Ch. 40B, asserts that it is entitled to connect to the municipal wastewater system and that the Town is obligated to provide such a connection. Peak wastewater flow associated with the Avalon project is estimated at 38,000 gpd (based on Title 5) although its proponent argues that average generation will be in the order of 22,000 to 27,000 gpd. In the event that the Town provides, or is required to provide, sewer service to this development and this requirement prevents the Town from meeting its obligations to sewer the Little Harbor watershed, the proponent should file a Notice of Project Change (NPC) with MEPA.

### Construction Period Impacts

The Single EIR describes the phasing of the project. It indicates that the North Cohasset District expansion will be initiated first, followed by the expansion of the WWTP and the Inner Harbor sewer connections. The Atlantic Avenue area will be the final phase of the project. The WWTP expansion is planned to be constructed from 2007 through 2010. Service connections will be made by 2012. The Single EIR notes that planned utility improvements (water, gas and drainage) will be coordinated with this project to the extent possible to minimize construction period impacts and disruption to residents. The Single EIR describes construction methods and techniques that will be used to traverse roads near barrier beaches and to ensure sewer facilities can withstand surge and storm erosion conditions. The Single EIR provides plans clearly illustrating the area of work and specifies how the project will be designed and constructed to minimize impacts within sensitive resources. It addresses comments from the Division of Marine Fisheries (DMF) regarding prevention of fresh water from entering the marine ecosystem. In addition, the proponent has indicated that it will participate in DEP's Diesel Construction Retrofit Program to minimize air quality impacts of diesel construction vehicles and notes that such participation will be required as a condition of SRF funding.

### Mitigation

The Single FEIR includes updated mitigation commitments and Section 61 Findings. It indicates that the proponent is committed to the measures summarized below to avoid, minimize and mitigate project impacts. This mitigation is offered in the context of a project that is intended to eliminate septic system pollution, protect water resources and facilitate the re-opening of area shellfish beds.

- The system is designed to minimize nitrogen to 10 micrograms per cubic liter (mg/l).
- The proponent will assess and address I/I on a town-wide basis including, but not limited to, pipe relining, manhole repair, service line improvements and sump pump inspections.
  - To minimize I/I influence associated with the new system, ductile iron piping will be used in specific areas to safeguard water resources components or to traverse difficult subsurface conditions and watertight manhole covers will be used in flood-prone areas.
  - A flow meter will be installed in Jerusalem Road to measure flows from the North Cohasset District.
  - The Town will take steps to minimize the potential for the project to contribute to growth in sensitive resource areas.

- Work will be contained within existing roadways and sewer pipes will be fully encased in concrete and buried with five feet of cover to safeguard the piping system within Atlantic Avenue.
- Siltation barriers (silt fence and/or hay bales) will be used to minimize erosion and sedimentation. Catch basin filters or pavement drainage silt interceptors will be used to prevent silt entering existing drainage structures.
- Construction dewatering basins will be used to detain, settle and infiltrate trench water and recharge pits proximate to the area of work will be used to re-infiltrate trench water if salty tidally influenced soils are traversed.
- The proponent has indicated that it will participate in MassDEP's Diesel Construction Retrofit Program to minimize air quality impacts of diesel construction vehicles.

Based on a review of the Single EIR, consultation with public agencies and a review of public comments, I find that the Single EIR adequately and properly complies with MEPA and its implementing regulations. Outstanding issues can be addressed through state and federal review and permitting. No further MEPA review is required.

February 15, 2007

Date



Ian A. Bowles

Comments received:

2/2/07	Coastal Zone Management
2/8/07	<b>Department of Environmental Protection</b> Southeast Regional Office (MassDEP/SERO)
2/5/07	Cohasset Water Department
2/8/07	<b>Norfolk RAM Group</b> on behalf of the Cohasset Stormwater Committee
2/8/07	Steven Schwartz, Goulston & Storrs, on behalf of Avalon Cohasset, Inc.
2/4/07	Jim Drysdale
1/24/07	Karen Quigley

IAB/CDB/cdb