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December 22, 2006

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
SPECIAL PROCEDURE: PHASE III –
DRAFT WASTEWATER FACILITIES PLAN/DEIR

PROJECT NAME : Area 5 Sewers/Wastewater Facilities Plan
PROJECT MUNICIPALITY : Barnstable
PROJECT WATERSHED : Cape Cod
EOEA NUMBER : 6553
PROJECT PROPONENT : Town of Barnstable
DATE NOTICED IN MONITOR : October 25, 2006

As Secretary of Environmental Affairs, I hereby determine that the Phase III Draft Wastewater Facilities Plan/Draft Environmental Impact Report (DEIR) submitted on this project **adequately and properly** complies with the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62H) and with its implementing regulations (301 CMR 11.00). However, for the Final Wastewater Facilities Plan/Final Environmental Impact Report (FEIR) to be found adequate, I am requiring the proponent to provide additional information in the Phase III FEIR document specifically pertaining to groundwater impacts, growth management and mitigation. This information is necessary to ensure that the requirements of 301 CMR 11.07 are met, that the aspects and issues of the project have been clearly described, that the proponent has committed to a set of mitigation measures that will allow the state agencies to satisfy their Section 61 obligations, and that there will be meaningful opportunities for public review of the additional analysis prior to any Agency action.

The proponent has also requested a Phase I Waiver to allow the construction to proceed, in advance of the Final Wastewater Facilities Plan/FEIR for the project, on a new Main Street pump station to accommodate existing and projected future wastewater flows, and the replacement of an existing force main within existing Town road right-of-ways to convey wastewater flows from the Old Colony Road pump station to the Hyannis WPCF. A description of these proposed Phase I Waiver activities was presented within the DEIR submittal.

In a Draft Record of Decision (DROD), also issued today, I propose to **grant** a Phase I Waiver allowing portions of the proponent's Wastewater Facilities Plan to proceed to permitting and construction while the Final Wastewater Facilities Plan/FEIR is being prepared.

I want to acknowledge the Town of Barnstable's significant on-going efforts on this comprehensive approach to wastewater management planning and groundwater resources management. I also appreciate the thoughtful and detailed comments provided by the Cape Cod Commission, the Department of Environmental Protection (MassDEP), Coastal Zone Management (CZM), and the public. It is my expectation that the Phase III Final Wastewater Facilities Plan (FEIR) will bring us closer to providing a sound basis for regional wastewater treatment and disposal decision-making that will benefit Cape Cod and the residents of the Town of Barnstable alike.

PROJECT OVERVIEW

As described in the original September 1997 Environmental Notification Form (ENF), the project involved the sewerage of Area 5 of the Town of Barnstable. The Secretary's Certificate on the ENF authorized the installation of the proposed sewers while the proponent prepared an EIR to address the need for a Sewer Master Plan including options for improving the Hyannis Water Pollution Control Facility (WPCF). The Certificate also required the Town to limit connections to only those sites with documented failing on-site septic systems until the MEPA process was completed. A scope for an EIR was established in the ENF Certificate issued June 1987.

A Notice of Project Change (NPC) was filed in March 1996 that proposed to expand the project to include a comprehensive Town-wide wastewater facilities plan (WWFP) designed to quantify the Town's long-term wastewater treatment and water supply protection needs, and identify alternative approaches for meeting those needs through the 2014 planning period. A Special Review Procedure was established for this project, consisting of a Phase I - Needs Report, Phase II – Screening of Alternatives (Interim Report of the Wastewater Facilities Plan), and Phase III - Draft and Final Wastewater Facilities Plan/EIR. The Secretary's Certificate on the NPC (April 1996), adopted the proponent's proposed scope for a Wastewater Facilities Plan/Environmental Impact Report (WWFP/EIR) and provided for the establishment of a Citizens Advisory Committee (CAC) to provide input into the plan's development.

A second Notice of Project Change (2nd NPC) was filed in May 2003, that proposed to proceed with portions of the Scope for the Phase III – DEIR to provide, in the near term, sewerage and advanced nitrogen removal for those Areas of Concern (AOCs) located in close proximity to the Hyannis WPCF. As described in the 2nd NPC, the Town proposed to wait until such time as the ongoing Massachusetts Estuaries Project establishes appropriate nitrogen loading limits to determine appropriate treatment and discharge options for sewage flows from those AOCs located in the western and southwestern sections of Barnstable.

In February 2005, a third Notice of Project Change (3rd NPC) was filed with the MEPA Office that proposed to proceed with the construction of interim improvements to the Hyannis Water Pollution Control Facility (WPCF) that would enable the town to increase the wastewater flow capacity of the WPCF from 2.7 mgd to 4.2 mgd. Specifically, the proposed improvements to the WPCF include the addition of a third aeration tank, replacement of the existing grit removal system, and installation of a Supervisory Control and Data Acquisition (SCADA) system. The proposed facility modifications will result in approximately 6,000 sf of land alteration and approximately 8,000 sf of new impervious surface area.

The Town of Barnstable filed a fourth Notice of Project Change (4th NPC) on October 25, 2006 and proposed a number of comprehensive sewer construction activities in advance of the proponent's completion and submittal of the Draft and Final Wastewater Facilities Plan/EIR including: 1) construction of an 18" effluent force main within the Route 132 right-of-way from the Hyannis WPCF to the proponent's proposed effluent disposal site (McManus site) located near Exit 6 off Route 6, and construction of a sewer main from the Cape Cod Community College to the Route 132 effluent force main; 2) construction of the proposed McManus effluent disposal facility; and, 3) construction of two sewer extensions to limited areas in Hyannis (North Street, Pleasant Street). The proposed force main construction was designed by the Town to convey 1.3 mgd of treated wastewater effluent from the Hyannis WPCF to a new McManus effluent disposal site. The proponent has worked closely with MassDEP, MHD and others to coordinate its proposed effluent force main construction with the construction of the Route 132 Reconstruction Project (EOEA #13526). A Secretary's Certificate on the Route 132 Reconstruction Project was issued in June 2005 and determined that no further MEPA review was required.

DRAFT RECOMMENDED WASTEWATER FACILITIES PLAN

The Town of Barnstable's draft recommended Draft Recommended Wastewater Facilities Plan (WWFP) proposes to extend new municipal sewers to eight wastewater areas of concern (AOCs) in Barnstable. I note that many of the proposed new sewer areas are located within or in close proximity to wellhead protection areas contributing to public drinking water supplies. As described in the DEIR, improvements to the Town of Barnstable's Hyannis Water Pollution Control Facility (WPCF) (3rd NPC, February 2005) will be completed in 2007, and will enable the facility to increase its wastewater treatment capacity from 2.7 mgd to 4.2 mgd. The Town conducted a review of its groundwater modeling analysis subsequent to the issuance of the Secretary's Certificate on the 4th NPC, and concluded that the Hyannis WPCF site, together with the proposed McManus groundwater discharge site (0.5 mgd), can accommodate up to 4.2 mgd of treated wastewater discharge to groundwater with no adverse effects on surrounding properties and groundwater resources. The Town has also developed an Adaptive Management Plan (AMP) to monitor any potential groundwater impacts to downgradient properties and groundwater resource areas from the facility's increased groundwater discharges.

The AMP contains threshold groundwater elevations that will be used to trigger immediate corrective action alternatives to mitigate the high groundwater elevations resulting from the facility's increased groundwater recharge. As described in the DEIR, possible corrective action alternatives will include:

- relocation of discharges within the Hyannis WPCF site,
- dewatering and recharge at an appropriate location,
- relocation of 0.5 mgd of treated wastewater to the McManus wastewater discharge site,
- implementation of additional remote wastewater discharge locations,
- purchase of impacted property(s), and,
- institution of a sewer connection moratorium.

The Draft Recommended WPCF plan also calls for an ongoing evaluation of additional effluent discharge sites including; Full McManus Site (Site B), Airport Site (Site C), Cape Cod Community College Site (Site D), Larusso Site (Site E), Hospital Abandoned Cranberry Bog Site (Site W1), and the Makepeace Abandoned Cranberry Bog Site (Site W2).

IMPACTS TO GROUNDWATER RESOURCES

A number of commenters have expressed concern with the proposed increase of groundwater recharge at the Hyannis WPCF site and the potential local impacts to nearby surface and groundwater levels, and potential regional impacts to the watersheds serving numerous water resource areas. According to CCC's comments, increasing groundwater discharge capacity at the Hyannis WPCF site to 4.2 mgd will impact the existing water table mound height and could expand the area of effluent flow and nutrient loading in groundwater to additional resource receptors including the Mary Dunn Wells and Mill Creek, the Craigville Wells and the Centerville River.

In their comments MassDEP has indicated that the Hyannis WPCF is currently unable to consistently meet MassDEP's water reuse guidelines and water quality standards for groundwater discharges to Zone II areas associated with multiple municipal water supply wells. I anticipate that MassDEP will require the Town to monitor the treated wastewater effluent and down gradient water resources as a condition of MassDEP's Groundwater Discharge Permitting process. The FEIR should respond to comments received from CCC and MassDEP.

GROUNDWATER MONITORING & ADAPTIVE MANAGEMENT PLAN

As currently proposed, the Town of Barnstable's WWFP includes the implementation of an Adaptive Management Plan (AMP) which has been developed to monitor groundwater levels and nutrient loads from the Hyannis WPCF's increased groundwater discharges, and any potential groundwater impacts to downgradient properties and water resources. The AMP contains threshold groundwater elevation triggers for initiating immediate corrective action mitigation alternatives to respond to high groundwater elevations resulting from the facility's increased groundwater recharge.

As described in the DEIR submittal, the Town's proposed mitigation alternatives include the relocation of 0.5 mgd of treated wastewater to the McManus wastewater discharge site, and the accelerated implementation of additional remote wastewater discharge sites.

The Cape Cod Commission has recommended that the Town expand the proposed AMP to address the potential impacts of heightened effluent groundwater mounding to regional watersheds and the Martha's Vineyard/Nantucket Sound and Cape Cod Bay regional groundwater divide. The FEIR should include a revised AMP that responds to comments received from CCC and others. Specifically, the Town should consult with the CCC and MassDEP to revise the AMP to include an analysis of the relationship between the height of the groundwater discharge mound at the Hyannis WPCF for discharge rates up to 4.2 mgd, and the potential impacts to groundwater flow direction resulting from the heightened groundwater discharge mound. The revised AMP should incorporate existing monthly water level readings and water quality data, collected since the early 1990's, to better understand the relationship and potential impacts associated with groundwater discharges from the Hyannis WPCF and groundwater levels.

McManus Site

As described in the Phase III DEIR document, the Town has proposed to convey approximately 0.5 mgd of treated wastewater effluent from the Hyannis WPCF to a 6.9-acre portion of the 44-acre McManus site, located at the intersection of the Route 6 Mid-Cape Highway and Route 132, for subsurface disposal. The McManus effluent discharge site is located within a marine recharge area to Barnstable Harbor, the Wellhead Protection Area for Barnstable Fire District Wells (BFD) #3 and #4, and the recharge area for Lake Wequaquet, Shallow Pond and Hinckley Pond. As part of the MEPA review of the 4th NPC submittal, the proponent provided additional information to the MEPA Office indicating that prior to the purchase of the 44-acre McManus parcel in March 2002, the Town of Barnstable also acquired a use easement associated with 6.9 acres of the McManus site specifically for effluent mitigation use as a groundwater discharge facility ("easement area"). According to the proponent, this easement area could accommodate the construction of a groundwater discharge facility to accept 0.5 mgd of treated wastewater effluent from the Hyannis WPCF. Based on a review of the information provided in the NPC4 submittal and additional information provided by the proponent pertaining to the 6.9-acre easement area, the Secretary's Certificate on the 4th NPC (January 20, 2006) found that the Town's proposed use of the 6.9-acre easement area located within the McManus site for the disposal of treated wastewater effluent appeared to be consistent with the intended uses and activities described by the use easement documentation.

Additional Effluent Reuse and Discharge Sites & Nutrient Management Program -

The Town of Barnstable has identified a number of additional alternative remote sites that are potentially suitable for the disposal of treated wastewater effluent from its Hyannis WPCF, including the expansion of the proposed 6.9-acre McManus site to include the entire 44-acre parcel (Full McManus Site (Site B)).

In their comments on the 4th NPC submittal and this DEIR/5th NPC submittal, the CCC indicated that a proposed increase in effluent discharge beyond 0.5 mgd at the McManus site may cause changes to aquifer flows, and may result in potential nutrient (nitrogen, phosphorous) loading impacts to downgradient public water supplies and Lake Wequaquet.

CCC continues to recommend that the Town's proposed discharge of wastewater effluent at the McManus site be limited to 0.5 mgd to maintain the existing aquifer flows in this area, until the Town can complete additional needed groundwater evaluations to satisfactorily demonstrate the feasibility of increasing the proponent's McManus effluent discharge proposal. I adopt these comments as my own and will condition my approval of the Town's 5th NPC/Phase I Waiver Request to allow the Town to proceed to permitting for the construction and operation of the McManus site to accept 0.5 mgd of treated wastewater effluent from the Hyannis WPCF. I continue to request that the Town of Barnstable work closely with CCC, DEP and others to identify and complete any additional groundwater modeling and/or nutrient loading analysis that may be needed to determine the feasibility of increasing the proponent's McManus effluent discharge proposal beyond 0.5 mgd. The Final Wastewater Facilities Plan/FEIR should contain the results of the Town's additional analysis and a detailed description of the Town's mitigation plan. The FEIR should respond to the comments received by CCC.

Article 97/Open Space

A number of commenters have questioned the consistency of the Town's use of the remaining McManus Article 97 lands (37.1 acres) with the use conditions and restrictions established for the McManus site pursuant to the Cape Cod Land Bank Acquisitions Program (Chapter 293 Act of 1998, and Chapter 127 Act of 1999). The McManus site was acquired in March 2002 for the purposes described in the Cape Cod Land Bank Acquisitions Program documentation, including the protection of public drinking water supplies, open space, and conservation land, the creation of walking trails and bicycling trails, and the creation of recreational areas. The proponent must provide additional information in any subsequent filings for this project to demonstrate the consistency of the proponent's proposed use of the remainder 37.1 acres of the McManus site for wastewater effluent disposal with the intended Article 97 purposes and interests in land outlined in the Cape Cod Land Bank Acquisitions Program (Chapter 293 Act of 1998, and Chapter 127 Act of 1999). The proponent will need to propose adequate mitigation for any proposed use of Article 97 lands, and interests in lands, that are not in compliance with the intended Article 97 purposes and interests in land outlined in the Cape Cod Land Bank Acquisition Program. Article 97 of the Massachusetts Constitution bespeaks the high value placed upon the preservation of existing open space lands, including lands subject to Conservation Restrictions. The goal of this policy is to ensure no net loss of Article 97 lands and interests in lands under the ownership and control of the Commonwealth and its political subdivisions. To further the Commonwealth's open space goals, the EOE A Article 97 Land Disposition Policy requires a demonstration that a proponent has explored alternatives to avoid and/or minimize the Article 97 disposition. The Draft Wastewater Facilities Plan/DEIR should clarify how the McManus site will be used after project implementation.

In addition to the proposed expanded McManus effluent disposal site, the Town of Barnstable has identified a number of additional potentially suitable sites for the disposal of treated wastewater effluent from its Hyannis WPCF, including; the Barnstable Municipal Airport Site – Site C, the Cape Cod Community College Site – Site D, the Lorusso Site – Site E, the Hospital Abandoned Cranberry Bog Site (Site W1), and the Makepeace Abandoned Cranberry Bog Site (Site W2). In their comments on the Phase IV/DEIR submittal, the Town of Yarmouth has indicated that the airport property is located within the recharge areas (Zones 1 and 2) for public water supplies serving the Barnstable Water District, Hyannis and the Town of Yarmouth. The Town of Yarmouth has expressed concern with the potential impacts to groundwater and public water supply resources resulting from Barnstable's disposal of treated wastewater effluent from its Hyannis WPCF. Barnstable should coordinate its evaluation of potentially suitable alternative wastewater discharge sites and its Nutrient Management Program study efforts with the Town of Yarmouth's study of the airport expansion.

Given the project's potential impacts to groundwater resources, drinking water supplies and Article 97 lands, I strongly encourage the Town of Barnstable to incorporate a mix of effluent disposal and reuse alternatives to accommodate the Town of Barnstable's future wastewater flows. Specifically, the Final Wastewater Facilities Plan/FEIR should discuss a wastewater effluent disposal plan alternative for the Town of Barnstable that incorporates the use of the McManus site at 0.5 mgd, together with use of one or more additional effluent disposal sites including but not limited to the Cape Cod Community College Site – Site D. The Town of Barnstable should also continue to evaluate the feasibility of incorporating wastewater effluent reuse alternatives such as groundwater recharge on Cape Cod Hospital property, and lawn irrigation for town-owned properties, to accommodate the Town of Barnstable's long term wastewater treatment and disposal needs.

OTHER ISSUES

Sewering and Growth Management

Executive Order #385 requires that state and local agencies engage in protective and coordinated planning oriented towards resource protection and sustainable economic development. For reasons of both environmental protection and fiscal prudence, investments in public infrastructure should be carefully targeted toward those areas for which clear existing needs have been established and for areas where denser development is appropriate, thereby relieving development pressures on open space, agricultural lands, and other valuable natural resources.

As described in the Phase III DEIR submittal, the Craigville Beach sewer area (CE1) is a barrier beach located in a coastal high hazard area within the velocity zone of the 100-year storm event. In their comments, CZM has indicated that the DEIR has demonstrated that the proposed sewerage of the Craigville Beach area has been designed to eliminate or minimize potential storm damage risks associated with sewerage this barrier beach area by locating proposed pump stations outside of the 100-year flood zone and protecting this portion of the Town's proposed sewer collection system from potential wave action.

CZM has recommended that the proponent incorporate a system of check valves into the new sewer collection system for this area to minimize impacts in the event of a storm-related breach to the collection system. The Final Wastewater Facilities Plan/FEIR should include a detailed discussion of the potential future build-out of the proposed new sewer areas and the consistency of the Town's WWFP with Executive Order #385 and Executive Order 181 which discourages unintended growth within areas planned for sewerage and discourages sewerage on barrier beaches, respectively. Specifically, the FEIR should include any new by-laws or regulations proposed by the Town for controlling new future development requesting municipal sewer service and located in areas outside of the AOC's and the proposed new sewer areas. I strongly encourage the proponent to consult with MassDEP, CCC and CZM in developing growth-neutral policies and a strategy to prohibit and/or discourage future new development within the Craigville Beach Area (CE1). In their comments, CZM and CCC have recommended that the Town adopt any proposed growth by-laws, regulations, and policies prior to the construction of new sewers extensions. The FEIR should respond to the comments received from CZM and CCC.

Costs to Homeowners

The Town's recommend plan will be constructed over several years and will cost an estimated \$164, 200,000.00. The FEIR should provide capital and operating cost estimates for the recommended WWFP, a projection of the impact on local sewer rates, and a comparison of the resulting local sewer rates to MWRA and statewide averages. The financial analysis should include a presentation of cost estimates and funding options that includes the average household costs (capital and O&M) for: 1) households located within a sewer service area connected to the sewer system, 2) households located within a sewer service area and not connected to the municipal sewer system, and 3) households not located within a sewer service. The Town should consult with MassDEP during the preparation of this section of the Phase III/FEIR document.

Rare Species

According to the comments received from the Natural Heritage and Endangered Species Program (NHESP), portions of the proposed sewer expansion project are located within known Priority Habitats. In particular, NHESP has expressed concern with the project's potential impacts to the hydrology of Wequaquet Lake, Shallow Pond and Long Pond which support a variety of state-listed rare plants. NHESP has requested that the Town identify opportunities to minimize the water balance impacts to these resource areas. The FEIR should respond to NHESP's comments.

Mitigation

The FEIR should include a separate chapter on mitigation measures. This chapter on mitigation should include Draft Section 61 Findings for all state agency actions. The Draft Section 61 Findings should contain a clear commitment to mitigation, an estimate of the individual costs of the proposed mitigation and the identification of the parties responsible for implementing the mitigation. A schedule for the implementation of mitigation should also be included.

The FEIR should provide a detailed description of the proponent's proposed mitigation plan, and should also discuss the value of the proposed mitigation in terms of the resources it provides and the opportunities for open space protection, and active and/or passive recreation it affords. The Town of Barnstable may consider public accessible open sandplain grassland habitat and recreational fields developed as part of project, and public access to the remaining forested open spaces, if any, as possible compensation or mitigation for impacts. I ask that the proponent consult with EOE staff, CCC and DEP to provide advice to the Town on feasible mitigation alternatives.

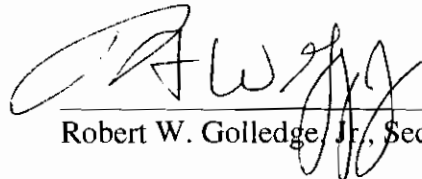
Comments

The Town of Barnstable should respond to the issues identified in the comments received by the CCC, the MassDEP, Office of Coastal Zone Management (CZM) and others on this DEIR/5th NPC submittal, and the comments received on the Town's prior ENF and NPC submittals to the MEPA Office. I ask the Town to continue to work closely with CCC, MassDEP, and the CZM, to design and implement a sustainable Comprehensive Wastewater Facilities Plan and mitigation plan for the Town of Barnstable that will help to offset the proposed project's municipal water withdrawal and sewerage impacts. The Town should continue to prepare the Phase IV – Final Wastewater Facilities Plan/FEIR for the project in accordance with Section 11.07 of the MEPA regulations as modified by this Certificate. The FEIR should include a copy of this Certificate and the Certificate granting a Phase I Waiver Request. The FEIR document should also contain copies of the comments received. The proponent should circulate the FEIR to those who commented on the ENF, and each of the previous four NPC submittals, and to any party required by regulation.

Circulation

The Final Wastewater Facilities Plan/FEIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should also be sent to the list of "comments received" below and to Town of Barnstable and Town of Yarmouth officials. A copy of the FEIR should be made available for public review at the Barnstable and Yarmouth Public Libraries.

December 22, 2006
DATE


Robert W. Golledge, Jr., Secretary

Comments received: (continued on next page)

11/20/06	Massachusetts Coastal Zone Management (CZM)
11/28/06	Department of Conservation and Recreation (DCR)
12/08/06	Massachusetts Department of Environmental Protection – SERO

Comments received: (continued)

12/11/06 Gary Lopez
12/11/06 James M. Walsh
12/11/06 John Julius
12/13/06 Town of Yarmouth
12/14/06 Natural Heritage and Endangered Species Program (NHESP)
12/15/06 Cape Cod Commission (CCC)

DEIR/NPC(5th) /Phase I Waiver #6553
RWG/NCZ/ncz