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January 22, 2010

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

PROJECT NAME : Hen Cove Maintenance Dredging and Beach Nourishment
PROJECT MUNICIPALITY : Bourne
PROJECT WATERSHED : Red Brook Harbor
EEA NUMBER : 14521
PROJECT PROPONENT : Town of Bourne Selectmen
DATE NOTICED IN MONITOR : December 23, 2009

Pursuant to the Massachusetts Environmental Policy Act (M.G. L. c. 30, ss. 61-62I) and Section 11.06 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).

According to the Environmental Notification Form (ENF), the proposed project involves the maintenance dredging of 19,855 cubic yards (cys) of sand from within the 14.5-acre foot print of the Hen Cove anchorage area and the 4.4-acre Hen Cove entrance channel. The project also includes improvement dredging of 921 cys of material associated with the proposed relocation of a 400 lf section of the southern end of the Hen Cove entrance channel in deeper water to provide for safe navigation to deep keeled vessels. The Town's proposed maintenance and improvement dredging project has been designed to provide safe boating operations from the Town's existing Circuit Avenue municipal pier and boat ramp, within the Hen Cove anchorage and through the Hen Cove channel to the Red Brook Harbor Turning Basin. The project would also maintain the water quality of Hen Cove and stabilize eroding barrier beaches and coastal dunes.

Approximately 9,025 cys of dredge material will be used for beach nourishment at several publicly accessible beaches located within the Town of Bourne including Circuit Avenue Beach, Patuisset Beach and Bell Buoy Road Beach. These three beach nourishment areas were previously reviewed and permitted by applicable local and State permitting authorities. Approximately 3,500 cys of dredge material will be used as dune nourishment/enhancement on Bassetts Island, an historic dredge disposal site, in accordance with MassDEP Waterways Permit #367 (EEA #11555, 1998). According to the Town, 11,751 cys of dredge material will not be suitable for use as beach nourishment or dune enhancement, and will be disposed of at the Bourne landfill for use as daily cover under a Massachusetts Department of Environmental Protection (MassDEP) Beneficial Use Determination (BUD).

State Permits and Jurisdiction

This project is subject to review pursuant to Sections 11.03(2)(b(1), 11.03(3)(b)(1)(a), 11.03(3)(b)(1)(e), 11.03(3)(b)(3) and 11.03(3)(b)(1)(f) of the MEPA regulations because it will require State Agency action and will alter a designated significant habitat, will alter a coastal dune/barrier beach, will add new fill within a velocity zone or regulatory floodway, will dredge 10,000 or more cys of material, and will alter 0.5 or more acres of any other wetlands. The project will require review by the Natural Heritage and Endangered Species Program (NHESP) under the Massachusetts Endangered Species Act because portions of the project site contain Priority and Estimated Habitat. The project will require a Chapter 91 Dredge Permit (c.91 Permit) and a 401 Water Quality Certificate (401 WQC) from the Massachusetts Department of Environmental Protection (MassDEP). It will also need to obtain an Order of Conditions from the Bourne Conservation Commission for impacts to wetland resource areas and, on appeal only, a Superseding Order of Conditions from MassDEP. The project will need to obtain a Section 404 Programmatic General Permit (PGP) from the U.S. Army Corps of Engineers (U.S. ACOE) for the dredging activities, and may require an additional PGP from the ACOE for the placement of dredged material on a coastal beach. The project may require Federal Consistency Review by the Massachusetts Office of Coastal Zone Management (MCZM). The project should comply with the National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges from a construction site.

Because the Town is not seeking financial assistance from the Commonwealth, MEPA jurisdiction is limited to those aspects of the project that are within the subject matter of any required or potentially required state permits and that may cause Damage to the Environment, as defined in the MEPA regulations. In this case, pursuant to 301 CMR 11.01(2)(a)(3), MEPA jurisdiction is functionally equivalent to broad scope jurisdiction because the project requires a Chapter 91 License.

Pursuant to 301 CMR 13.02, I am declining to require an additional Public Benefit Review for the project. Furthermore, as a water-dependent project, it is presumed that this project will provide adequate public benefit in accordance with 301 CMR 13.04. I am satisfied that the project's impacts to tideland resources can be adequately addressed during the permitting process.

REVIEW OF THE ENF

Wetlands, Waterways and Tidelands

As described in the ENF, a total of 20,776 cubic yards (cys) of material will be dredged from the anchorage footprint and relocated entrance channel. The Town has estimated that the proposed dredging activities will impact approximately 15.22 acres of Land Under Ocean and 12.2 acres of Land Containing Shellfish. Impacts to 2.15 acres of Coastal Beach and Land Subject to Coastal Storm Flowage are associated with the creation of two dewatering basins and coastal beach and coastal dune nourishment activities.

Dredging

The Hen Cove anchorage area will be dredged to a depth of -5.0 feet Mean Low Water (MLW) with a -0.5 foot overdredge allowance, and the reconfigured Hen Cove entrance channel area would be dredged to a depth of -7 feet Mean Low Water (MLW) with a -1 foot overdredge allowance. These proposed maintenance dredging depths are consistent with those previously approved and permitted.

The ENF indicates that dredging activities will be performed using the Barnstable County Dredge (the Cod Fish). The Cod Fish is a hydraulic cutterhead dredge, using mechanical agitation and suction to dredge material and pump it to two receiving dewatering basins located at Circuit Avenue Beach and Bassets Island to prepare materials for use in beach nourishment and coastal dune restoration activities. The Circuit Avenue Beach dewatering basin is in the same location and approximately the same size as that used for Hen Cove anchorage and channel dredging activities previously completed by the ACOE in 1960, and 1970 (MassDEP Waterways Contract #2121). The Bassets Island dewatering basin is in the same location and approximately the same size as that used for previous dredging activities (EEA #11555). Dewatered dredged material will spread by front end loader as beach nourishment on Town beaches. According to the Town's soil analysis, the dredged sand is compatible to the sand in the beach and coastal dune nourishment areas. To minimize impacts to shellfish resources, the area within and around the work zone has been opened to shellfishing to reduce the population that could be impacted by the project. The proposed dredging and beach nourishment activities will be completed between October 1st and February 15th. I note that MassDEP has requested additional information on dredging protocols as part of MassDEP's Chapter 91 licensing process. I expect that these protocols will include Best Management Practices (BMPs) to limit impact to water quality and wetland resource areas during the dredging period.

Beach Nourishment/Dune Restoration

The Town's proposed beach nourishment activities will impact 4.33 acres of Coastal Beach, 2.24 acres of Coastal Dunes and 21.4 acres of Land Subject to Coastal Storm Flowage. Sediment testing and grain size analyses performed to date indicate that approximately 5,525 cys of material is suitable for beach nourishment and 3,500 cys will be suitable as dune enhancement. The remaining 11,751 cys are not-suitable for nourishment or enhancement purposes and will therefore be used as daily cover in accordance with the Bourne Landfill BUD.

All beach nourishment and dune enhancement activities should be performed in accordance with the applicable permits, including all conditions pertaining to time of year, locations, elevations, etc. The Town of Bourne should confirm that all proposed beach nourishment sites are located on publically-owned beaches. The Town will be required to provide this beach ownership information as part of the c.91 Permit application. The Town should also confirm that all permits remain valid for each receiving beach prior to commencing dredging activities.

Fisheries and Rare Species Habitat

Land Containing Shellfish

As described in the ENF, the project site lies within mapped shellfish habitat for Soft Shell Clams (*Mya arenaria*), Quahogs (*Marcenaria mercenaria*) Oysters (*Crassostrea virginica*) and Razor Fish (*Ensis directus*) that are afforded protection under the Massachusetts Wetlands Protection Act (310 CMR 10.34). According to the Town, recent shellfish surveys were completed by the Town and identified a moderate presence of Soft Shell Clams and Quahogs in the project area within the inter-tidal zone and the dredge drop-off shelf. Based upon information provided by the Town at the January 6, 2010 MEPA site consultation session, the Town has also opened the areas located within and around the Hen Cove anchorage and entrance channel areas to shellfishing to reduce the potential impacts to shellfish resources within these waters. The Town has committed to work closely with the Town of Bourne to remove and replant any shellfish found during project construction.

The Division of Marine Fisheries (DMF) has indicated that the waters of Red Brook Harbor and surrounding embayments including Hen Cove have been identified as an diadromous fish run for winter flounder (*Pseudopleuronectes americanus*) passage, migration and spawning habitat. Winter flounder enter these areas and spawn from January through May, laying clumps of eggs directly on the substrate. Every effort should be taken to protect flounder spawning habitat. The project site also lies within mapped habitat for soft-shelled clams (*Mya arenaria*), American oysters (*Crassostrea virginica*), bay scallops (*Argopecten irradians*) and quahogs (*Mercenaria mercenaria*), which is afforded protection under the Wetlands Protection Act (310 CMR 10.34). Mapped land containing shellfish is deemed significant to the interest of the Wetlands Protection Act and the protection of marine fisheries. Beaches on the east and west sides of Bassett's Island are mapped by DMF as horseshoe crab (*Limulus polyphemus*) spawning habitat. Based upon these collective fisheries habitat concerns, DMF has recommended that all dredging and silt producing activities and dredge disposal activities be prohibited from January 15 through July 30. The Town should incorporate these time of year (TOY) restrictions as a fisheries impact mitigation measure within its permit applications.

Rare Species

The ENF notes that portions of the project site are located within *Priority* and *Estimated Habitat* as indicated in the 13th Edition of the MA Natural Heritage Atlas. Therefore this project requires review through a direct filing with NHESP for compliance with the Massachusetts Endangered Species Act (MESA 321 CMR 10.00).

According to the Proponent, nearly all of the proposed areas to be dredged and the Patuisset Beach nourishment area are located within mapped as habitat for Diamondback Terrapin (*Malaclemys terrapin*). According to the comments received from NHESP, the proposed dredging and nourishment activities will not result in a prohibited take, a formal determination in writing will be issued subsequent to the completion of a MESA checklist (321 CMR 10.20).

Underwater Resources

The Board of Underwater Archaeological Resources (BUAR) has noted that while there is no historical record of any underwater archaeological resources in the project area, the BUAR cannot conclude that there are in fact no such resources within the project boundaries. Should heretofore-unknown submerged cultural resources be encountered during the course of the project, the BUAR expects that the Town will take steps to limit adverse effects and notify the BUAR in accordance with the *Policy Guidance for the Discovery of Unanticipated Archaeological Resources*.

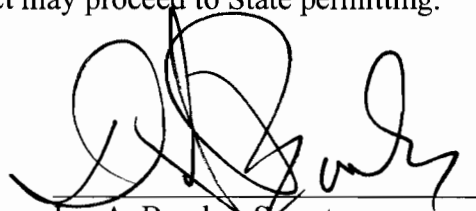
Construction and Stormwater

I refer the Town to MassDEP's comment letter for additional guidance on potential notification requirements pursuant to the Massachusetts Contingency Plan as well as guidance on NPDES Stormwater Permit requirements for Construction Activities. The Town should ensure that appropriate containment techniques are used during construction and any dewatering activities to prevent contamination of the nearby salt marsh or other marine resources.

Conclusion

Based on a review of the information provided by the Town and after consultation with the relevant public agencies, I find that the potential impacts of this project do not warrant the preparation of an EIR. The project may proceed to State permitting.

January 22, 2010
Date



Ian A. Bowles, Secretary

Comments received: (continued on next page)

01/12/2010	Division of Marine Fisheries (DMF)
01/04/2010	BSC Group
01/07/2010	Natural Heritage and Endangered Species program (NHESP)

Comments received: (continued)

01/08/2010 Cape Cod Commission (CCC)

01/12/2010 Massachusetts Department of Environmental Protection (MassDEP) - SERO

IAB/NCZ/ncz

ENF # 14521