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February 25, 2013

Secretary Richard K. Sullivan Jr.
Executive Office of Energy and Environmental Affairs
Attn: MEPA Unit
100 Cambridge St., Suite 900 (9th Floor)
Boston, Massachusetts 02114

Subject: Expanded Environmental Notification Form
Draft Comprehensive Wastewater Management Plan
Town of Harwich, Massachusetts - Proponent

Dear Secretary Sullivan:

On behalf of the Town of Harwich (Town), CDM Smith Inc. (CDM Smith) is pleased to submit this Expanded Environmental Notification Form (EENF) and Draft Comprehensive Wastewater Management Plan (CWMP) in accordance with the MEPA Regulations. This EENF/ CWMP is being filed concurrently with the Cape Cod Commission (CCC) for joint review pursuant to the November 1991 Memorandum of Understanding regarding joint MEPA/CCC review for Developments of Regional Impact.

The Town is pursuing a long-term, multi-phased wastewater management program with regional and centralized treatment to reduce nutrient loading to coastal waters, meet anticipated total maximum daily loads (TMDLs) for estuary/embayments along Nantucket Sound, and support viable business activity in town centers. The Town is working with the UMass-Dartmouth School of Marine Science and Technology and the Massachusetts Estuaries Project (MEP) to identify nutrient loads and devise a wastewater management program to meet water quality criteria. The attached Draft CWMP is the culmination of planning and design completed to date to achieve these identified goals.

The Town respectfully requests a Phase 1 waiver for the Muddy Creek culvert replacement project. The widening of the Muddy Creek opening under Route 28 at the Harwich and Chatham corporate boundary, is concomitantly identified by the Pleasant Bay Alliance (Alliance) as a project to improve the creek and estuarine habitats and water quality. Although the Muddy Creek culvert project is mentioned in the CWMP it is a severable project from the rest of the CWMP. An anticipated condition of the Phase 1 Waiver is the requirement for a Notice of Project Change (NPC) for the bridge opening when the project is advanced to a design stage sufficient to initiate MEPA review and other state permitting.





Secretary Richard K. Sullivan Jr.
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Please find two copies of the EENF/ CWMP attached. We look forward to continuing our coordination with MEPA on this important project. Feel free to contact Rob Musci at 617-452-6642, or Andrew Poyant 617-452-6602 with questions regarding this document.

Sincerely,

A handwritten signature in blue ink, appearing to read "David F. Young".

David F. Young, P.E., BCEE
Vice President
CDM Smith Inc.

cc: Cape Cod Commission
Agencies and individuals identified on the attached Distribution List



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- 4. Water Supply Section**
- 5. Wastewater Section**
- 6. Transportation/Traffic Generation Section**
- 7. Roadways and Other Transportation Facilities Section**
- 8. Energy Section**
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Appendix A – Phase One Waiver

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Draft Comprehensive Wastewater Management Plan (Bound in Back)

Environmental Notification Form

For Office Use Only

EEA#: _____

MEPA Analyst: _____

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Draft Comprehensive Wastewater Management Plan		
Street Address: Various streets throughout Harwich and Chatham		
Municipality: Harwich, and Chatham	Watershed: Cape Cod	
Universal Transverse Mercator Coordinates:	Latitude: 41°41'47"N Longitude: 70°05'11"W	
Estimated commencement date: 2013/2014	Estimated completion date: 2052	
Project Type: Wastewater	Status of project design: 5% complete	
Proponent: Town of Harwich, Massachusetts, James Merriam – Town Administrator		
Street Address: 732 Main Street		
Municipality: Harwich	State: MA	Zip Code: 02645
Name of Contact Person: Andrew R. Poyant		
Firm/Agency: CDM Smith Inc.	Street Address: 50 Hampshire Street	
Municipality: Cambridge	State: MA	Zip Code: 02139
Phone: 617-452-6602	Fax: 617-452-6602	E-mail: poyantar@cdmsmith.com

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?

☒ Yes ☐ No

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:

a Single EIR? (see 301 CMR 11.06(8))

☒ Yes ☐ No

a Special Review Procedure? (see 301 CMR 11.09)

☐ Yes ☒ No

a Waiver of mandatory EIR? (see 301 CMR 11.11)

☐ Yes ☒ No

a Phase I Waiver? (see 301 CMR 11.11)

☒ Yes ☐ No

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

Wastewater

301 CMR 11.03(5)(a)(3) Construction of one or more New sewer mains ten or more miles in length

301 CMR 11.03(5)(b)(1) Construction of a New wastewater treatment and/or disposal facility with a Capacity of 100,000 gpd or more.

Which State Agency Permits will the project require?

MassDOT or MDC Access Permit
 DEP Sewer Connection/Extension Permit
 DEP Groundwater Discharge Permit

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

An application for Clean Water State Revolving Fund (CWSRF) through the Massachusetts Department of Environmental Protection will be submitted for each phase, up to the total project cost, see Section 13.3 of Draft Comprehensive Wastewater Management Plan (CWMP) for greater detail.

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	111.5		
New acres of land altered		10.2	
Acres of impervious area	111.5	2.3	113.8
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		Land Under Water: 1,350 sf Coastal Bank: approximately 135 lf If Riverfront Area: approximately 26,000 sf (within rights-of-way) Land Subject to Coastal Storm Flowage: approximately 207,000 sf (within rights-of-way) Bordering Land Subject to Flooding: approximately 30,000 sf (within rights-of way)	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	0	86,700	86,700
Number of housing units	0	0	0
Maximum height (feet)	0	20	20

TRANSPORTATION

Vehicle trips per day	N/A	N/A	N/A
Parking spaces	0	30	30

WASTEWATER

Water Use (Gallons per day)	0	0	0
Water withdrawal (GPD)	0	0	0
Wastewater generation/treatment (GPD)	0 - Harwich 1,300,000 - Chatham*	1,260,000 - Harwich - Chatham	1,260,000 - Harwich - Chatham
Length of water mains (miles)	0	0	0
Length of sewer mains (miles)	0	92	92

Has this project been filed with MEPA before?

☐ Yes (EEA # _____) ☒ No

Has any project on this site been filed with MEPA before?

☐ Yes (EEA # _____) ☒ No

*Chatham flow accounted in Chatham CWMP (EEA #11510), and inter-municipal flows described in Harwich CWMP, attached.

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site:

The Town of Harwich (the Town) is proposing a town-wide wastewater collection and treatment system, with work located throughout the Town. The recommended areas to be serviced by sewer are depicted on Figure 13-1 which shows the parcels to be served by sewer, the proposed wastewater treatment plant (WWTP) locations and the proposed effluent recharge facility locations. The proposed sewer mains are located in existing paved roads. The proposed WWTP and effluent recharge basins on a town-owned parcel HR-12, are adjacent to and east of the capped landfill. The proposed area for effluent recharge basins located on parcel PB-3 is forested.

Describe the proposed project and its programmatic and physical elements:

The Town is recommending a traditional wastewater program that includes: approximately 92 miles of sewer pipes, 30 pumping stations and two centralized treatment facilities. Each of these components will be phased over 40 years. For this program, the treatment will occur at the existing facility in Chatham and a new facility in Harwich. Implementing this program will allow Harwich to meet its water resource management needs as defined throughout the CWMP, including consistency with the Massachusetts Estuaries Project (MEP) nitrogen reduction goals as well as protecting freshwater resources, including ponds and drinking water resources. Section 13 of the CWMP describes the recommended program components. It also presents the wastewater phasing plan and identifies the potential cost recovery strategy being developed by the Town. Section 13 also describes the recommended non-infrastructure program components which include fertilizer and stormwater management programs, potential land use changes, and community based conservation and pollution reduction programs.

NOTE: The project description should summarize both the project's direct and indirect impacts (including construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, and reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

Over the course of the CWMP development, the Town considered many alternatives to system layouts and locations: effluent recharge sites and uses, and cost recovery approaches. Each of these alternatives is discussed in Section 13.10 of the CWMP, which focuses on the large-scale alternatives to the recommended program. Specifically, the No-Build Alternative, regional alternatives, and options to installing sewers to more or less areas of Town.

NOTE: *The purpose of the alternatives analysis is to consider what effect changing the parameters*

and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

This project is designed to improve water quality by reducing nitrogen discharges to ground water and surface water. Construction period mitigation measures will be implemented to minimize construction impacts and relate disruptions to the built and natural environments.

If the project is proposed to be constructed in phases, please describe each phase:

The overall wastewater program presented in the CWMP cannot be constructed as one project and will take several years to construct thus, a phasing plan is proposed. This will ensure that the wastewater plan (which is a combination of several smaller projects) progresses efficiently while meeting the needs of the Town including economic development of town centers; addressing financial constraints; minimizing traffic impacts; and addressing environmental protection. Section 13.4 presents the suggested wastewater phasing program.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN:

Is the project within or adjacent to an Area of Critical Environmental Concern?

☒ Yes (Specify Pleasant Bay)

☐ No

If yes, does the ACEC have an approved Resource Management Plan? ☒ Yes ☐ No;

If yes, describe how the project complies with this plan.

This Expanded ENF/CWMP complies with the Pleasant Bay Resource Management Plan 2008 Update because all proposed work located within the Area of Critical Environmental Concern (ACEC) is in existing roadways.

Will there be stormwater runoff or discharge to the designated ACEC? ☐ Yes ☒ No;

If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC.

RARE SPECIES:

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see http://www.mass.gov/dfwele/dfw/nhESP/regulatory_review/priority_habitat/priority_habitat_home.htm)

☒ Yes (Specify: The proposed WWTP off of Queen Anne Road is located in Priority Habitat and Estimated Habitat of eastern box turtle (*Terrapene carolina*) and pine barrens bluet (*Enallagma recurvatum*), see attached correspondence with NHESP) ☐ No

HISTORICAL /ARCHAEOLOGICAL RESOURCES:

Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

☒ Yes (Specify: There are 550 cultural resources in Harwich and 1,184 cultural resources in Chatham listed in the Massachusetts Cultural Resource Information System. The majority of the work is located within existing Town-owned rights of way and the construction of the WWTP, pumping stations and effluent recharge basins do not propose to demolish any structures. CDM Smith has coordinated with the Massachusetts Historical Commission (MHC) and will Continue to do so.) ☐ No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources? ☐ Yes (Specify _____) ☒ No

WATER RESOURCES:

Is there an Outstanding Resource Water (ORW) on or within a half-mile radius of the project site? ☒ Yes ___ No; if yes, identify the ORW and its location.

Pleasant Bay ACEC

(NOTE: Outstanding Resource Waters include Class A public water supplies, their tributaries, and bordering wetlands; active and inactive reservoirs approved by MassDEP; certain waters within Areas of Critical Environmental Concern, and certified vernal pools. Outstanding resource waters are listed in the Surface Water Quality Standards, 314 CMR 4.00.)

Are there any impaired water bodies on or within a half-mile radius of the project site? ☒ Yes ___ No; if yes, identify the water body and pollutant(s) causing the impairment:

Herring River, and Saquatucket Harbor are impaired by fecal coliform; and Muddy Creek is impaired by pathogens.

Is the project within a medium or high stress basin, as established by the Massachusetts Water Resources Commission? ___ Yes ☒ No

STORMWATER MANAGEMENT:

Generally describe the project's stormwater impacts and measures that the project will take to comply with the standards found in MassDEP's Stormwater Management Regulations:

The Town is developing a stormwater Best Management Practices (BMP) program that will focus on applying appropriate BMPs at drain features throughout Harwich. The program will identify targeted portions of the most sensitive water sources; and will apply stormwater controls and/or practices to all new drainage systems. As the program is developed, the Town will select the most appropriate controls on a site specific basis. CWMP Section 13.7.3 further describes this program.

MASSACHUSETTS CONTINGENCY PLAN:

Has the project site been, or is it currently being, regulated under M.G.L.c.21E or the Massachusetts Contingency Plan? Yes ___ No ☒; if yes, please describe the current status of the site (including Release Tracking Number (RTN), cleanup phase, and Response Action Outcome classification): _____

Is there an Activity and Use Limitation (AUL) on any portion of the project site? Yes ___ No ☒; if yes, describe which portion of the site and how the project will be consistent with the AUL: _____

Are you aware of any Reportable Conditions at the property that have not yet been assigned an RTN? Yes ___ No ☒; if yes, please describe: _____

SOLID AND HAZARDOUS WASTE:

If the project will generate solid waste during demolition or construction, describe alternatives considered for re-use, recycling, and disposal of, e.g., asphalt, brick, concrete, gypsum, metal, wood:

asphalt and concrete waste from sewer installation will be separated on-site and trucked off-site for recycling.

(NOTE: Asphalt pavement, brick, concrete and metal are banned from disposal at Massachusetts landfills and waste combustion facilities and wood is banned from disposal at Massachusetts landfills. See 310 CMR 19.017 for the complete list of banned materials.)

Will your project disturb asbestos containing materials? Yes ___ No ☒;

if yes, please consult state asbestos requirements at <http://mass.gov/MassDEP/air/asbhom01.htm>

Describe anti-idling and other measures to limit emissions from construction equipment:

Prohibit motor vehicle engines from idling more than five minutes (in compliance with the Massachusetts 5-minute idle law, 310 CMR 7.11), unless the engine is being used to operate a lift or refrigeration unit.

DESIGNATED WILD AND SCENIC RIVER:

Is this project site located wholly or partially within a defined river corridor of a federally designated Wild and Scenic River or a state designated Scenic River? Yes ___ No X;
if yes, specify name of river and designation:

If yes, does the project have the potential to impact any of the "outstandingly remarkable" resources of a federally Wild and Scenic River or the stated purpose of a state designated Scenic River? Yes ___ No ___; if yes, specify name of river and designation: _____;

if yes, will the project will result in any impacts to any of the designated "outstandingly remarkable" resources of the Wild and Scenic River or the stated purposes of a Scenic River.

Yes ___ No ___;

if yes, describe the potential impacts to one or more of the "outstandingly remarkable" resources or stated purposes and mitigation measures proposed.

ATTACHMENTS:

1. List of all attachments to this document.
2. U.S.G.S. map (good quality color copy, 8-½ x 11 inches or larger, at a scale of 1:24,000) indicating the project location and boundaries.
- 3.. Plan, at an appropriate scale, of existing conditions on the project site and its immediate environs, showing all known structures, roadways and parking lots, railroad rights-of-way, wetlands and water bodies, wooded areas, farmland, steep slopes, public open spaces, and major utilities.
- 4 Plan, at an appropriate scale, depicting environmental constraints on or adjacent to the project site such as Priority and/or Estimated Habitat of state-listed rare species, Areas of Critical Environmental Concern, Chapter 91 jurisdictional areas, Article 97 lands, wetland resource area delineations, water supply protection areas, and historic resources and/or districts.
5. Plan, at an appropriate scale, of proposed conditions upon completion of project (if construction of the project is proposed to be phased, there should be a site plan showing conditions upon the completion of each phase).
6. List of all agencies and persons to whom the proponent circulated the ENF, in accordance with 301 CMR 11.16(2).
7. List of municipal and federal permits and reviews required by the project, as applicable.

CERTIFICATIONS:

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

(Name) Cape Cod Times (Date) 3-6-13

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

Signatures:

Date	<u>Jan 2 Merriam</u>	Date	<u>2-25-13 David F. Young</u>
	Signature of Responsible Officer or Proponent		Signature of person preparing NPC (if different from above)
<u>James Merriam</u>		<u>David F. Young</u>	
Name (print or type)		Name (print or type)	
<u>Town of Harwich</u>		<u>CDM Smith</u>	
Firm/Agency		Firm/Agency	
<u>732 Main Street</u>		<u>50 Hampshire Street</u>	
Street		Street	
<u>Harwich, MA 02645</u>		<u>Cambridge, MA 02139</u>	
Municipality/State/Zip		Municipality/State/Zip	
<u>508-430-7514</u>		<u>617-452-6544</u>	
Phone		Phone	



Application Cover Sheet

Cape Cod Commission
3225 Main Street, PO Box 226
Barnstable, MA 02630
Tel: (508) 362-3828 • Fax: (508) 362-3136

For Commission Use Only

Date Received:
Fee (\$):
Check No:
File No:

A Type of Application (check all that apply)

- ☒ Development of Regional Impact (DRI) ☐ Hardship Exemption ☐ Limited DRI Review
☐ Jurisdictional Determination ☐ DRI Exemption ☒ Request for Joint MEPA/DRI Review

B Project Information

Project Name: Harwich Comprehensive Wastewater Management Plan Total Site Acreage: 113.8

Project/Property Location: Various streets - Harwich, Massachusetts Zoning: _____

Brief Project Description:

Include total square footage of proposed and existing development, gross floor area, number of lots existing or to be created, specific uses, description of existing conditions, as applicable (attach additional sheets if necessary).

See attached MEPA Environmental Notification Form (ENF)

C Owner(s) of Record

List the following information for all involved parcels. Provide copies of each Deed and Purchase and Sale Agreement and/or evidence of leasehold interest, if applicable, for all involved parcels. Proof of ownership/legal rights for Applicant(s) to proceed with the proposed development must be documented prior to the Commission deeming any application complete (attach additional sheets if necessary).

Map/Parcel	Owner's Name	Lot & Plan	Land Court Certificate of Title #	Registry of Deeds Book/Page #

There **ARE/ARE NOT** (circle one) court claims, pending or completed, involving this property (if yes, please attach relevant information).

D Certification

I hereby certify that all information provided on this application form and in the required attachments is true and accurate to the best of my knowledge. I agree to notify the Cape Cod Commission of any changes on the information provided in this application, in writing, as soon as is practicable. I understand failure to provide the required information and any fees may result in a procedural denial of my project.

NOTE: For wireless communication facilities, a licensed carrier should be either an applicant or a co-applicant.

APPLICANT	Applicant(s) Name: <u>Town of Harwich, James Merriam</u> Tel: <u>508-430-7513</u> Fax: <u>508-432-5039</u>
	Address: <u>732 Main Street, Harwich, MA 02645</u>
	Signature: <u>James Merriam</u> Date: <u>2/20/13</u>

CO-APPLICANT	Co-Applicant(s) Name: _____ Tel: _____ Fax: _____
	Address: _____
	Signature: _____ Date: _____

CONTACT	Contact: <u>CDM Smith Inc., David F. Young</u> Tel: <u>617-452-6544</u> Fax: <u>617-452-6544</u>
	Address: <u>50 Hampshire Street, Cambridge, MA 02139</u>
	Signature: <u>David F. Young</u> Date: <u>2-25-13</u>

PROPERTY OWNER	Property Owner: _____ Tel: _____ Fax: _____
	Address: _____
	Signature: _____ Date: _____

BILLABLE ENTITY	Name: _____ Tel: _____ Fax: _____
	Address: _____

REQUIRED FILING MATERIALS

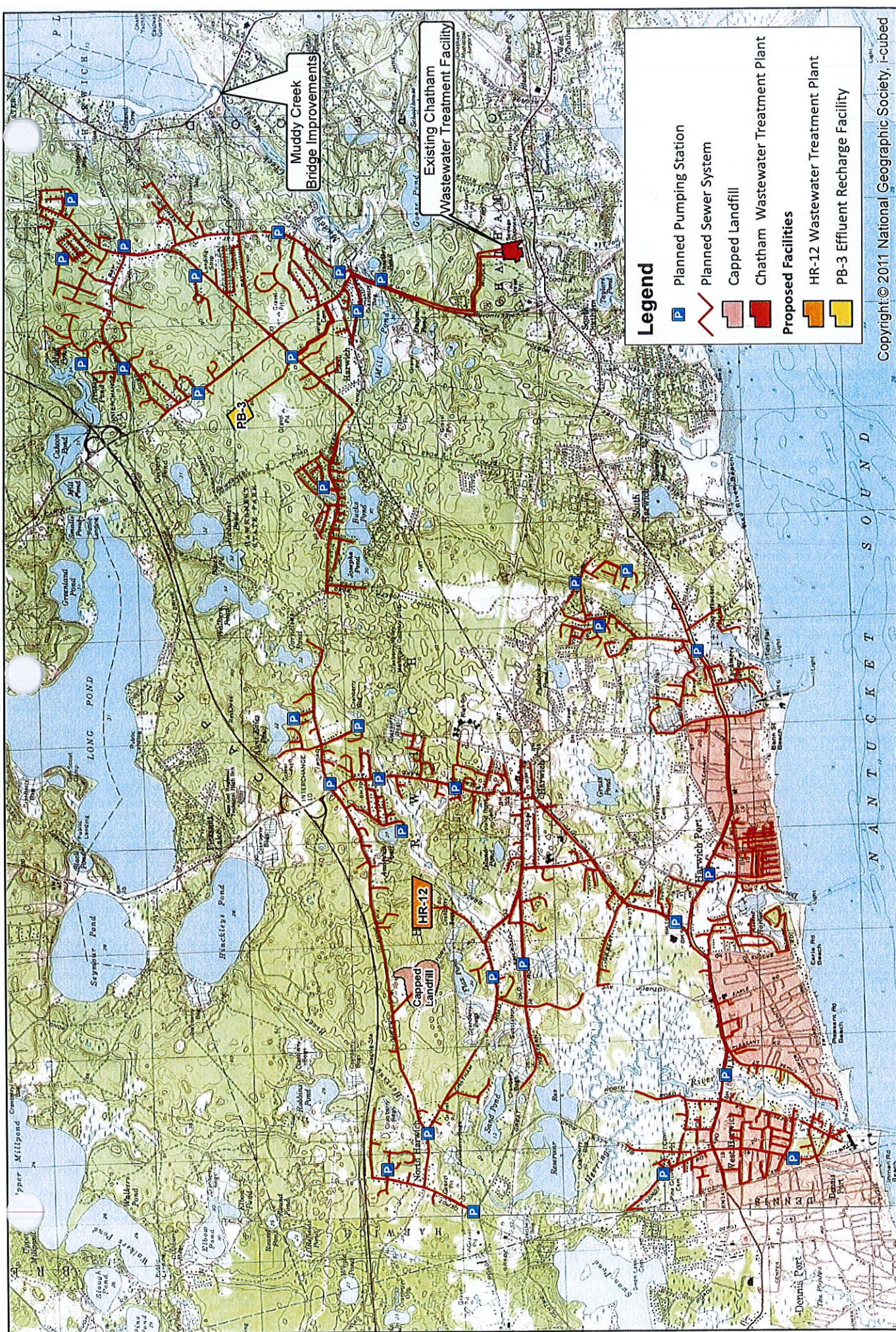
The following must be attached to the Application Form at the time of its filing:

- ☐ Certified List of Abutters (required for all application types except Attachment 5, Jurisdictional Determination). A list of abutting property owners within 300 feet of the boundaries of the development site and their addresses. Include both local and off-Cape addresses when applicable.
 - ☐ This list **must** be formatted in three columns consistent with the Standard Label Format designed to print on Avery Labels #5160.
 - ☐ List must be certified by the Town Assessor's office. Note: Assessor's offices may take up to 10 days to certify an abutter's list.
 - ☐ If there are more than 50 abutters, applicants must provide **three sets** of the certified list on self-adhesive labels.
- ☐ Required Filing Fee. Please calculate according to the Schedule of Fees (see Enabling Regulations, Section 14). Please make check payable to **BARNSTABLE COUNTY TREASURER**.
- ☒ An 8 1/2"x 11" copy of the U.S.G.S. quadrangle map of the area, containing sufficient information for the Commission to locate the site of the proposed development.
- ☒ Development Plans. File as required for each application type you are making. See list of Attachment(s) below for specific instructions.
- ☒ Permits or Actions. List of local, state, or federal agencies or boards from which a permit or other actions have, will, or may need to be sought. Include agency/board name, type of permit, date filed, and file number. If one of the listed permits or actions requires the filing of an Environmental Notification Form under the Massachusetts Environmental Policy Act (MEPA), please contact the Commission's Chief Regulatory Officer to discuss the potential for joint Commission and MEPA review. For information on MEPA regulations contact the Executive Office of Energy and Environmental Affairs, MEPA Unit, at (617) 626-1020. Please attach all relevant MEPA documents and describe the status of the MEPA filing.

See ENF form.

Applicants must also submit the necessary attachment(s) based on the type of application(s) being made:

- | | |
|---------------|---|
| Attachment 1: | DRI Application Filing Procedures & Requirements |
| Attachment 2: | DRI Exemption Application Filing Procedures & Requirements |
| Attachment 3: | Hardship Exemption Application Filing Procedures & Requirements |
| Attachment 4: | Limited DRI Review Application Filing Procedures & Requirements |
| Attachment 5: | Jurisdictional Determination Application Filing Procedures & Requirements |
| Attachment 6: | Joint MEPA/DRI Review Application |





Muddy Creek
Bridge Improvements

Existing Chatham
Wastewater Treatment Facility

Legend

- Planned Pumping Station
- Planned Sewer System Pipes
- Capped Landfill
- Chatham Wastewater Treatment Plant

Proposed Facilities

- HR-12 Wastewater Treatment Plant
- PB-3 Effluent Recharge Facility

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Town of Harwich Massachusetts
Comprehensive Wastewater Management Plan (CWMP)

Figure 1A
USGS Quadrangle Map
**CDM
Smith**



Legend

- * NHESP Certified Vernal Pools
- P Planned Pumping Station
- Planned Sewer System
- Capped Landfill
- Chatham Wastewater Treatment Plant

Proposed Facilities

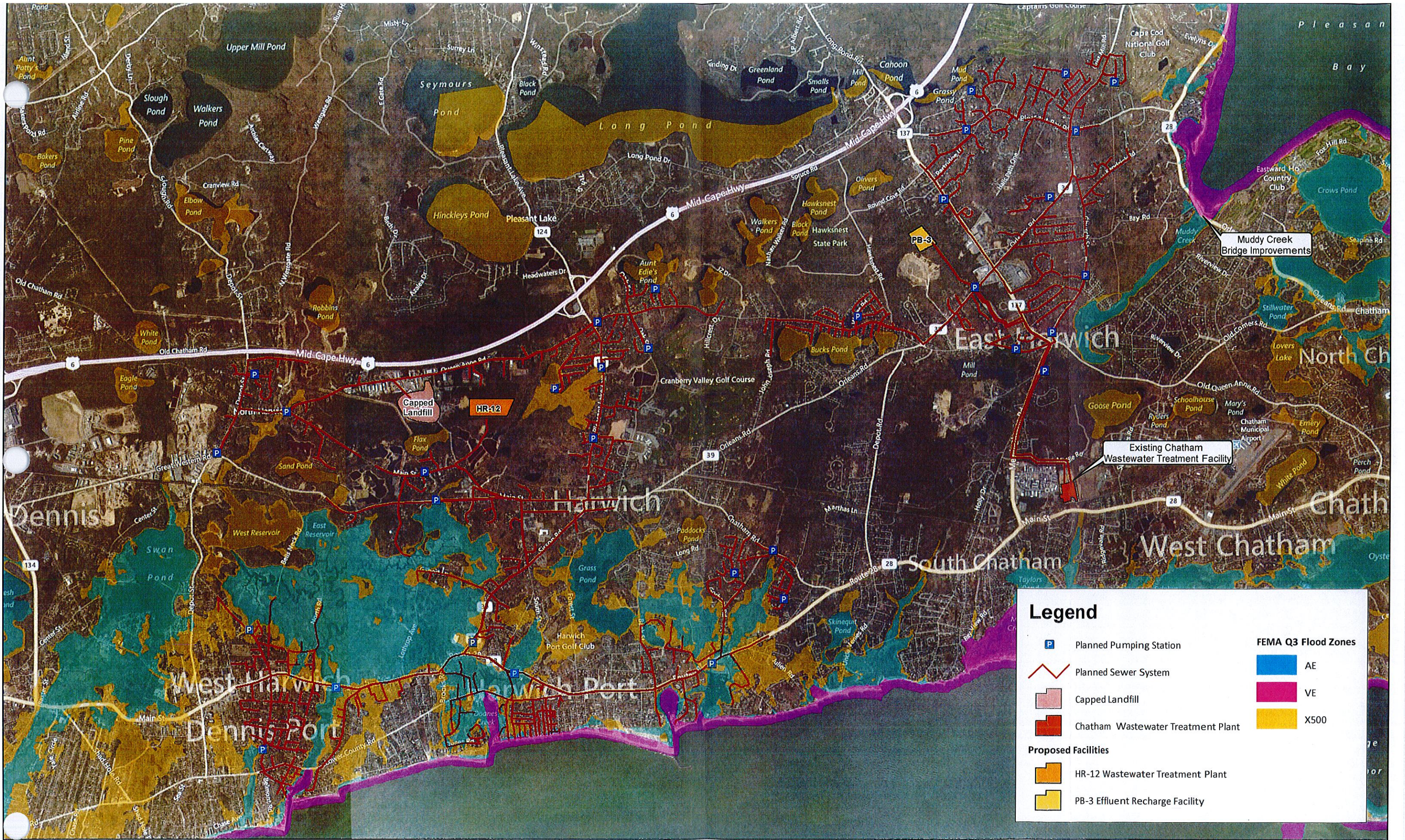
- HR-12 Wastewater Treatment Plant
- PB-3 Effluent Recharge Facility
- NHESP Estimated Habitats of Rare Wildlife
- NHESP Priority Habitats of Rare Species



Town of Harwich Massachusetts
Comprehensive Wastewater Management Plan (CWMP)

1 inch = 3,000 feet
0 1,000 2,000 4,000 Feet

Figure 2
NHESP Habitats Map
CDM Smith



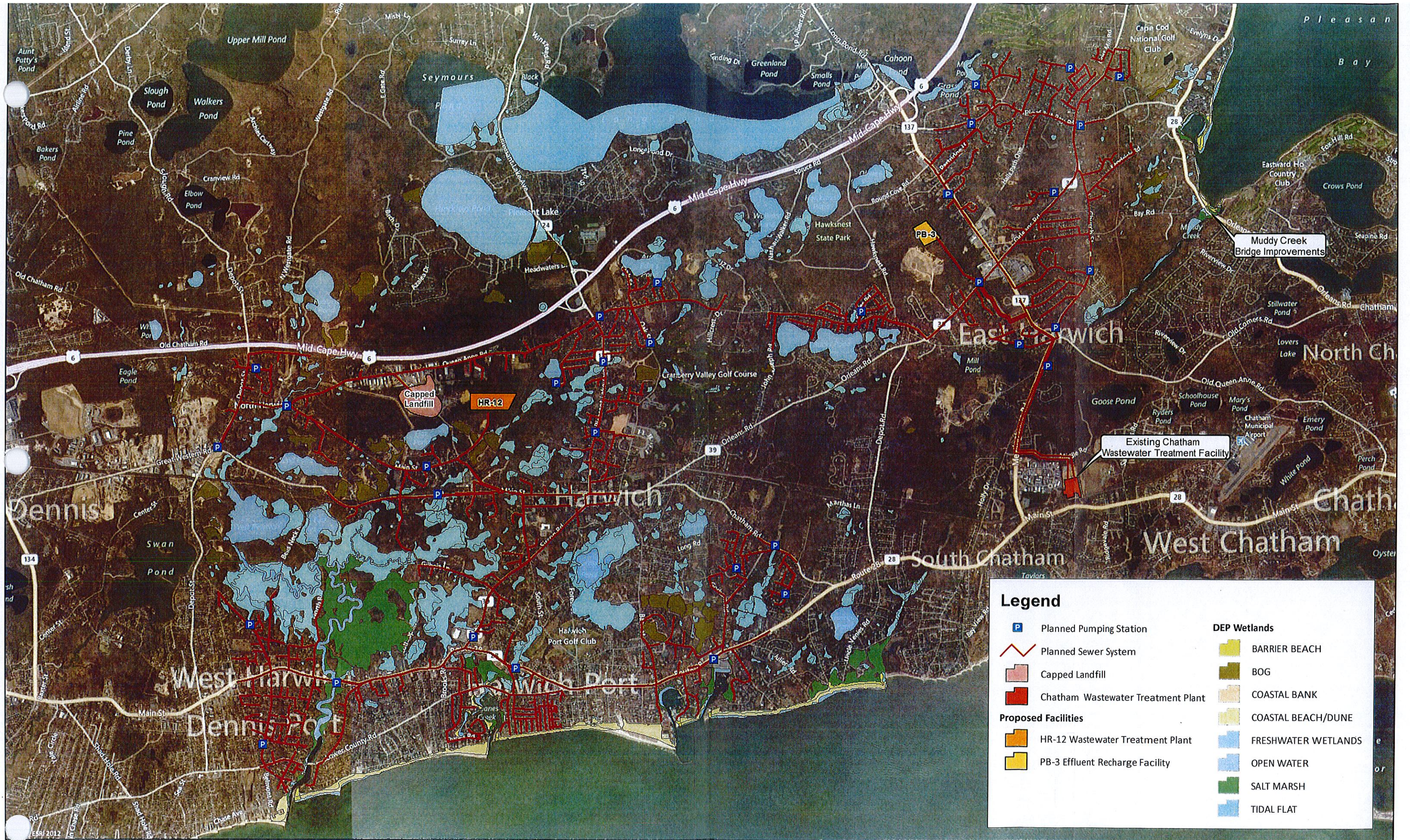
Town of Harwich Massachusetts
Comprehensive Wastewater Management Plan (CWMP)

Figure 3
Flood Insurance Rate Map
CDM
Smith



Town of Harwich Massachusetts
Comprehensive Wastewater Management Plan (CWMP)

1 inch = 3,000 feet
0 1,000 2,000 4,000 Feet



Town of Harwich Massachusetts
Comprehensive Wastewater Management Plan (CWMP)

Figure 5
DEP Wetlands
CDM Smith

LAND SECTION – all proponents must fill out this section

I. Thresholds / Permits

- A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1))
___ Yes ☒ No; if yes, specify each threshold:

II. Impacts and Permits

- A. Describe, in acres, the current and proposed character of the project site, as follows:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Footprint of buildings	<u>0</u>	<u>2 ac</u>	<u>2 ac</u>
Internal roadways	<u>111.5 ac</u>	<u>0</u>	<u>111.5 ac</u>
Parking and other paved areas	<u>0</u>	<u>0.2 ac</u>	<u>0.2 ac</u>
Other altered areas	<u>0</u>	<u>0</u>	<u>0</u>
Undeveloped areas	<u>0</u>	<u>7.9 ac</u>	<u>7.9 ac</u>
Total: Project Site Acreage	<u>111.5 ac</u>	<u>10.1 ac</u>	<u>121.6 ac</u>

- B. Has any part of the project site been in active agricultural use in the last five years?
___ Yes ☒ No; if yes, how many acres of land in agricultural use (with prime state or locally important agricultural soils) will be converted to nonagricultural use?
- C. Is any part of the project site currently or proposed to be in active forestry use?
___ Yes ☒ No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a forest management plan approved by the Department of Conservation and Recreation:
- D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97? ___ Yes ☒ No; if yes, describe:
- E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction? ___ Yes ☒ No; if yes, does the project involve the release or modification of such restriction? ___ Yes ___ No; if yes, describe:
- F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? ___ Yes ☒ No; if yes, describe:
- G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? Yes ___ No ☒; if yes, describe:

III. Consistency

- A. Identify the current municipal comprehensive land use plan
Title: Town of Harwich Local Comprehensive Plan Date: May 3, 2011
- B. Describe the project's consistency with that plan with regard to:
- 1) economic development: as stated in both the CWMP (see Section 1.2.3) and the Town of Harwich Local Comprehensive Plan (page 34 and Section 6).
 - 2) adequacy of infrastructure: one of the purposes of the CWMP is to provide adequate wastewater infrastructure to the Town (see Section 1.1).
 - 3) open space impacts: the majority of the proposed work will occur within existing roadways, see Figure 13.1.
 - 4) compatibility with adjacent land uses: the majority of the proposed work will

occur within existing roadways, see Figure 13.1.

- C. Identify the current Regional Policy Plan of the applicable Regional Planning Agency (RPA)
RPA: Cape Cod Commission

Title: Cape Cod Regional Wastewater Management Plan Date: December 2012

- D. Describe the project's consistency with that plan with regard to:
- 1) economic development: the CWMP promotes growth by providing the necessary wastewater infrastructure to the Town, which also improves regional water quality.
 - 2) adequacy of infrastructure: one of the purposes of the CWMP is to provide adequate wastewater infrastructure to the Town (see Section 1.1).
 - 3) open space impacts: the majority of the proposed work will occur within existing roadways, see Figure 13.1.

RARE SPECIES SECTION

I. Thresholds / Permits

- A. Will the project meet or exceed any review thresholds related to **rare species or habitat** (see 301 CMR 11.03(2))? ☐ Yes ☒ No; if yes, specify, in quantitative terms:

(NOTE: If you are uncertain, it is recommended that you consult with the Natural Heritage and Endangered Species Program (NHESP) prior to submitting the ENF.)

- B. Does the project require any state permits related to **rare species or habitat**? ☐ Yes ☒ No
- C. Does the project site fall within mapped rare species habitat (Priority or Estimated Habitat?) in the current Massachusetts Natural Heritage Atlas (attach relevant page)? ☒ Yes ☐ No.
- D. If you answered "No" to all questions A, B and C, proceed to the **Wetlands, Waterways, and Tidelands Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Rare Species section below.

II. Impacts and Permits

- A. Does the project site fall within Priority or Estimated Habitat in the current Massachusetts Natural Heritage Atlas (attach relevant page)? ☒ Yes ☐ No. If yes,
1. Have you consulted with the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP)? ☒ Yes ☐ No; if yes, have you received a determination as to whether the project will result in the "take" of a rare species? ☐ Yes ☒ No; if yes, attach the letter of determination to this submission.

2. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? ☐ Yes ☒ No; if yes, provide a summary of proposed measures to minimize and mitigate rare species impacts

The majority of the proposed work is located within existing Town-owned rights-of-way and the proposed pumping stations are located within ten feet from the edge of existing paved roads thus are exempt from review requirements. CDM Smith has coordinated with NHESP and will continue to do so for the WWTP, effluent recharge basins and sewer phases, see attached correspondence.

3. Which rare species are known to occur within the Priority or Estimated Habitat?

Eastern box turtle (*Terrapene carolina*), and pine barrens bluet (*Enallagma recurvatum*)

4. Has the site been surveyed for rare species in accordance with the Massachusetts Endangered Species Act? ☐ Yes ☒ No

4. If your project is within Estimated Habitat, have you filed a Notice of Intent or received an Order of Conditions for this project? ☐ Yes ☒ No; if yes, did you send a copy of the Notice of Intent to the Natural Heritage and Endangered Species Program, in accordance with the Wetlands Protection Act regulations? ☐ Yes ☐ No

- B. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? ☐ Yes ☒ No; if yes, provide a summary of proposed measures to minimize and mitigate impacts to significant habitat:

CDM Smith has coordinated with NHESP and will continue to do so to avoid a "take".



50 Hampshire Street
Cambridge, Massachusetts 02139
tel: +1 617 452-6000
fax: +1 617 452-8000
cdmsmith.com

February 6, 2013

Regulatory Review
Natural Heritage and Endangered Species Program
MA Division of Fisheries and Wildlife
100 Hartwell Street, Suite 230
West Boylston, MA 01583

Subject: Comprehensive Wastewater Management Plan
Harwich, Massachusetts
NHESP Tracking No.: 11-29877

To whom it may concern:

On behalf of the Town of Harwich (the Town), CDM Smith Inc. (CDM Smith) is preparing a draft Comprehensive Wastewater Management Plan (CWMP) and an Expanded Environmental Notification Form (EENF) for the Town's wastewater management program. The purpose of this program is to reduce nitrogen loading to local embayments as a part of the Massachusetts Estuaries Project (MEP) along with other related goals such as drinking water supply protection, growth management and to support local planning and development. Constructing this new infrastructure will occur over a 40 year period and will be constructed in eight phases.

Phase 1 is scheduled to begin in 2013, after both the Massachusetts Environmental Policy Act (MEPA) process is completed and the Cape Cod Commission approves the plan through their Development of Regional Impact (DRI) Review. Phase 1 includes: 1) the widening of the Muddy Creek Bridge to a 24-foot opening to increase tidal flushing in the Muddy Creek and will help restore the ecological integrity of the estuary; 2) evaluating portions of the Cold Brook former cranberry bog network off Bank Street with the ultimate goal of increasing the natural nitrogen attenuation via ponds and wetland complexes; 3) purchasing land for the effluent recharge facility at PB-3; and 4) initiating restoration efforts in Hinkleys Pond.

The limits of proposed 40 year wastewater plan are shown on the attached figures. The proposed program includes constructing: a Wastewater Treatment Plant (WWTP), effluent recharge basins, 30 pump stations, and approximately 92 linear miles of sewer mains. The WWTP with effluent recharge facilities are proposed on a 20 acre site (HR-12) off of Queen Anne Road. The plan also includes a 10-acre effluent recharge only facility at PB-3 off of Halls Path. The 92 miles of sewer mains are proposed within existing paved roadways and the pumping stations will be located adjacent to the sewer mains. All proposed work areas are shown on Figure 1.





Natural Heritage and Endangered Species Program
February 6, 2013
Page 2

Previous correspondence with Natural Heritage and Endangered Species Program (NHESP) occurred in September 2011 for the proposed Wastewater Treatment Plant (WWTP) and effluent recharge basins at 205 Queen Anne Road. This parcel has several constraints: the western portion of the parcel comprises the Town capped landfill; Flax Pond and cranberry bogs are located to the south and east, and Queen Anne Road is the northern limit of the site. The WWTP and effluent recharge basins are located in Priority Habitat 1424 (PH1424) and Estimated Habitat 19 (EH19). The following state-listed rare species have been found previously in the vicinity of the WWTP and effluent recharge basin site off of Queen Anne Road: eastern box turtle (*Terrapene carolina*), and pine barrens bluet (*Enallagma recurvatum*), see attached correspondence.

Although a portion of the proposed work is located adjacent to Priority Habitat of Rare Species, and Estimated Habitat of Rare Wildlife, the majority of the proposed work is located within existing roadways and is therefore exempt to MESA review, per 321 CMR 10.14 (10) which reads in part: *installation, repair, replacement, and maintenance of utility lines (gas, water, sewer, phone, electrical) for which all associated work is within ten feet from the edge of existing paved roads...* Portions of the proposed WWTP site are located within Priority Habitat of Rare Species, and Estimated Habitat of Rare Wildlife, see Figure 2.

Please review the attached figures depicting the program work areas and advise us in writing of any priority habitats of rare species, estimated habitats of rare wildlife or certified vernal pools within the project area. We appreciate a written response to this request at your earliest convenience so that relevant information can be incorporated into the design and MEPA review processes. Please contact me at (617) 452-6602 if you have any questions. Thank you in advance for your attention to this matter.

Very truly yours,

Andrew R. Poyant
Environmental Scientist
CDM Smith Inc.

Enclosed:

NHESP Letter - September 16, 2011
CDM Smith Letter - September 2, 2011
CDM Smith Letter - July 19, 1022
Figure 1 - USGS Quadrangle



Natural Heritage and Endangered Species Program

February 6, 2013

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Figure 1A – USGS Quadrangle Map

Figure 2 – NHESP Habitats Map

Figure 3 – Not used for purposes of this submittal

Figure 4 – Aerial Photo

cc: J. Merriam, Harwich Town of Administrator

D. Young, CDM Smith

R. Musci, CDM Smith

MESA Information Request Form

Please complete this form to request site-specific information from the Natural Heritage & Endangered Species Program
(Please submit only one project per request form).

Please include a check for \$50.00 made out to the Comm. of MA - NHESP

Requestor Information

Name: Andrew R. Poyant

Affiliation: CDM Smith Inc.

Address: 50 Hampshire Street

City: Cambridge

State: MA

Zip Code: 02139

Daytime Phone: 617-452-6602

Ext.

Email address: poyantar@cdmsmith.com

Project Information

Project or Site Name: Harwich Comprehensive Wastewater Management Plan

Location: various streets

Town: Harwich

Name of Landowner or Project Proponent: Town of Harwich

Acreage of the Property:

Description of Proposed Project and Current Site Conditions: (If necessary attach additional sheet)

Construction of sewerage facilities (sewers, pumping stations and wastewater treatment facility) in town-owned streets and parcels:
PB-3 off of Halls Path and HR-12 off of Queen Anne Road.

- ☒ Will this project be reviewed as a Notice of Intent by the local Conservation Commission?
- ☒ Will this project be undergoing MEPA review for reasons other than rare species?
- ☒ Have you enclosed the required copy of a USGS topographic map in the scale 1:24,000 or 1:25,000 (not copy reduced) with the site location clearly marked and centered on the copy page? (Copies of Natural Heritage Atlas pages are not accepted)

Please **mail** this completed form and topographic map to:

Regulatory Review
Natural Heritage and Endangered Species Program
MA Division of Fisheries and Wildlife
100 Hartwell Street, Suite 230
West Boylston, MA 01583

Questions regarding this form should be directed according to the county that the property is located:

Berkshire, Essex, Franklin, Hampshire, Hampden, Middlesex & Worcester Counties call: 508-389-6361

Barnstable, Bristol, Dukes, Nantucket, Norfolk, Plymouth & Suffolk Counties call: 508-389-6364

Persons requesting information will receive a written response within 30 days of receipt of all information required. Please do not ask for an expedited review. *If you are requesting information for habitat management or conservation purposes and you are a non-profit conservation group, government agency or working with a government agency please fill out a Data Release Form.



MassWildlife

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

September 16, 2011

Magdalena Lofstedt
Camp Dresser & McKee, Inc.
50 Hampshire Street
Cambridge MA 02139

RE: Project Location: 205 Queen Anne Road
Town: HARWICH
NHESP Tracking No.: 11-29877

To Whom It May Concern:

Thank you for contacting the Natural Heritage and Endangered Species Program ("NHESP") of the MA Division of Fisheries & Wildlife for information regarding state-listed rare species in the vicinity of the above referenced site. Based on the information provided, this project site, or a portion thereof, is located **within** Priority Habitat 1424 (PH 1424) and Estimated Habitat 19 (EH 19) as indicated in the *Massachusetts Natural Heritage Atlas* (13th Edition). Our database indicates that the following state-listed rare species have been found in the vicinity of the site:

<u>Scientific name</u>	<u>Common Name</u>	<u>Taxonomic Group</u>	<u>State Status</u>
<i>Terrapene carolina</i>	Eastern Box Turtle	Reptile	Special Concern
<i>Enallagma recurvatum</i>	Pine Barrens Bluet	Damselfly	Threatened

The species listed above are protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). State-listed wildlife are also protected under the state's Wetlands Protection Act (WPA) (M.G.L. c. 131, s. 40) and its implementing regulations (310 CMR 10.00). Fact sheets for most state-listed rare species can be found on our website (www.nhesp.org).

Please note that projects and activities located within Priority and/or Estimated Habitat **must** be reviewed by the NHESP for compliance with the state-listed rare species protection provisions of MESA (321 CMR 10.00) and/or the WPA (310 CMR 10.00).

Wetlands Protection Act (WPA)

If the project site is within Estimated Habitat and a Notice of Intent (NOI) is required, then a copy of the NOI must be submitted to the NHESP so that it is received at the same time as the local conservation commission. If the NHESP determines that the proposed project will adversely affect the actual Resource Area habitat of state-protected wildlife, then the proposed project may not be permitted (310 CMR 10.37, 10.58(4)(b) & 10.59). In such a case, the project proponent may request a consultation with the NHESP to discuss potential project design modifications that would avoid adverse effects to rare wildlife habitat.

A streamlined joint MESA/WPA review process is available. When filing a Notice of Intent (NOI), the applicant may file concurrently under the MESA on the same NOI form and qualify for a 30-day

www.masswildlife.org

Division of Fisheries and Wildlife

Field Headquarters, North Drive, Westborough, MA 01581 (508) 389-6300 Fax (508) 389-7891

An Agency of the Department of Fish and Game

streamlined joint review. For a copy of the NOI form, please visit the MA Department of Environmental Protection's website: <http://www.mass.gov/dep/water/approvals/wpaform3.doc>.

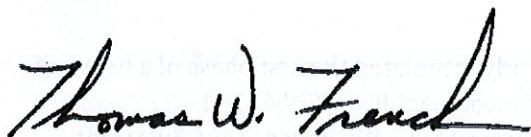
MA Endangered Species Act (MESA)

If the proposed project is located within Priority Habitat and is not exempt from review (see 321 CMR 10.14), then project plans, a fee, and other required materials must be sent to NHESP Regulatory Review to determine whether a probable "take" under the MA Endangered Species Act would occur (321 CMR 10.18). Please note that all proposed and anticipated development must be disclosed, as MESA does not allow project segmentation (321 CMR 10.16). For a MESA filing checklist and additional information please see our website: www.nhesp.org ("Regulatory Review" tab).

We recommend that rare species habitat concerns be addressed during the project design phase prior to submission of a formal MESA filing, as avoidance and minimization of impacts to rare species and their habitats is likely to expedite endangered species regulatory review.

This evaluation is based on the most recent information available in the Natural Heritage database, which is constantly being expanded and updated through ongoing research and inventory. If you have any questions regarding this letter please contact Amy Coman-Hoenig, Endangered Species Review Assistant, at (508) 389-6364.

Sincerely,

A handwritten signature in black ink that reads "Thomas W. French". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Thomas W. French, Ph.D.
Assistant Director



One Cambridge Place, 50 Hampshire Street
Cambridge, Massachusetts 02139
tel: +1 617 452-6000
fax: +1 617 452-8000

September 2, 2011

Regulatory Review
Natural Heritage and Endangered Species Program
MA Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

Subject: MESA Information Request
Wastewater Treatment and Disposal Facilities, Town of Harwich

To Whom It May Concern:

The Town of Harwich, Massachusetts (the Town) has recently completed the first phase of a two-phase process to develop a Comprehensive Wastewater Management Plan (CWMP). The wastewater planning performed during Phase 1 has been completed with guidance and oversight from the Town's Wastewater Management Subcommittee (WMS), working with the Town's consultant Camp Dresser & McKee Inc. (CDM).

At the present time, Harwich has no Town-owned treatment facilities, and residents and businesses rely strictly on on-site wastewater management systems regulated by the Massachusetts State Environmental Code, Title 5 (310 CMR 15). While Title 5 systems provide an adequate level of treatment for pathogens originating from wastewater, little nutrient (nitrogen and phosphorus) removal is achieved with a traditional Title 5 system. With Town population growth resulting from a change from a seasonal to a year-round community for many of its residents, continued reliance on Title 5 systems town-wide has become problematic. In order to meet adequate nutrient removal, alternative means of wastewater treatment and disposal are required.

One of the options that the Town is exploring utilizes a wastewater treatment facility and effluent recharge fields at the site of the Town landfill located at 205 Queen Anne Road. The eastern portion of the Town landfill parcel, identified on Town Assessors Maps as map and parcel 58-M1-O-E, is being considered as a site for a future treatment and recharge facility. The site screening process for the CWMP identified this site as a high priority site that should be further evaluated in the final selection evaluations. This portion of the Town landfill parcel of land is a mature pine-oak forest which has not been disturbed by landfill activities. Flax Pond and cranberry bogs and

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NHESP
September 2, 2011
Page 2

ditches borders the site to the south and east. Queen Anne Road borders the site to the north, and the Town landfill facility borders the proposed site to the west.

However, a portion of the Town owned parcel is located within a mapped polygon of Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife according to the 13th Edition of the Massachusetts Natural Heritage Atlas (October 1, 2008)(see attached Figure 1). Both the Town and CDM understand that since part of the parcel is listed with the Massachusetts Natural Heritage and Endangered Species Program (NHESP), there may be site constraints that would restrict or limit the siting and construction of the proposed facilities at the site. Please review the attached Figure 1 showing the preliminary layout of the treatment facility and effluent recharge beds, and advise us in writing of any priority habitats of rare species, estimated habitats of rare wildlife or certified vernal pools within the project area. At this point, the Town and CDM is hoping to get an initial determination from NHESP of the limits of protected habitat on the Town-owned parcel and any restrictions that may be put on the siting and/or during construction of a treatment and recharge facility on this parcel. It is the intent of the Town to site the treatment facility and the recharge beds in a location that will not impact Priority or Estimated Habitats of Rare Species.

Enclosed please find the MESA Information Request Form along with a check for \$50.00 made out to the Comm. of Mass - NHESP. We appreciate a written response to this request at your earliest convenience so that relevant information can be incorporated into the next phase of the CWMP.

Please contact me at (617) 452-6597 if you have any questions. Thank you in advance for your attention to this matter.

Very truly yours,

Magdalena Lofstedt, PWS
Environmental Scientist
Camp Dresser & McKee Inc.

Enclosures:

MESA Information Request Form
Figure 1 – Project Location/Estimated Habitat Map

cc: Robert Musci, CDM



MESA Information Request Form

Please complete this form to request site-specific information from the Natural Heritage & Endangered Species Program
(Please submit only one project per request form).

Please include a check for \$50.00 made out to the Comm. of MA - NHESP

Requestor Information

Name: Magdalena Lofstedt

Affiliation: Camp Dresser & McKee Inc. (CDM)

Address: 50 Hampshire Street

City: Cambridge

State: MA

Zip Code: 02139

Daytime Phone: 617-452-6597

Ext.

Email address: lofstedtmh@cdm.com

Project Information

Project or Site Name: Wastewater Treatment and Disposal Facilities

Location: Queen Anne Road

Town: Harwich

Name of Landowner or Project Proponent: Town of Harwich

Acreage of the Property: 138.5 acres

Description of Proposed Project and Current Site Conditions: (If necessary attach additional sheet)

The Town of Harwich in the first phase of a two-phase process to develop a Comprehensive Wastewater Management Plan (CWMP) identified the Town landfill (parcel ID: 58-M1-0-E) on 205 Queen Anne Road as a high priority site for a future wastewater treatment and disposal facility. The site is a mature pine-oak forest bordered by Flax Pond, cranberry bogs, and ditches to the south and east, by Queen Anne Road to the north, and by the Town landfill facility to the west. See cover letter for additional information.



Will this project be reviewed as a Notice of Intent by the local Conservation Commission?



Will this project be undergoing MEPA review for reasons other than rare species?



Have you enclosed the required copy of a USGS topographic map in the scale 1:24,000 or 1:25,000 (not copy reduced) with the site location clearly marked and centered on the copy page? (Copies of Natural Heritage Atlas pages are not accepted)

Please **mail** this completed form and topographic map to:

Regulatory Review
Natural Heritage and Endangered Species Program
MA Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

Questions regarding this form should be directed according to the county that the property is located:
Berkshire, Essex, Franklin, Hampshire, Hampden, Middlesex & Worcester Counties call: 508-389-6361
Barnstable, Bristol, Dukes, Nantucket, Norfolk, Plymouth & Suffolk Counties call: 508-389-6364

Persons requesting information will receive a written response within 30 days of receipt of all information required. Please do not ask for an expedited review. *If you are requesting information for habitat management or conservation purposes and you are a non-profit conservation group, government agency or working with a government agency please fill out a Data Release Form.

June 2009



Figure 1: Project Location Map

WETLANDS, WATERWAYS, AND TIDELANDS SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wetlands, waterways, and tidelands** (see 301 CMR 11.03(3))? ___ Yes ☒ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits (or a local Order of Conditions) related to **wetlands, waterways, or tidelands**? ☒ Yes ___ No; if yes, specify which permit:

Orders of Conditions from the Chatham and/or Harwich Conservation Commission will be required for each construction phase for activities in Coastal Bank, Riverfront Area, flood plains (Land Subject to Coastal Storm Flowage and Bordering Land Subject to Flooding) and buffer zones.

C. If you answered "No" to both questions A and B, proceed to the **Water Supply Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wetlands, Waterways, and Tidelands Section below.

II. Wetlands Impacts and Permits

A. Does the project require a new or amended Order of Conditions under the Wetlands Protection Act (M.G.L. c.131A)? ☒ Yes ___ No; if yes, has a Notice of Intent been filed? ___ Yes ☒ No; if yes, list the date and MassDEP file number: _____; if yes, has a local Order of Conditions been issued? ___ Yes ___ No; Was the Order of Conditions appealed? ___ Yes ___ No. Will the project require a Variance from the Wetlands regulations? ___ Yes ☒ No.

B. Describe any proposed permanent or temporary impacts to wetland resource areas located on the project site:

Phase 1 includes widening of the Muddy Creek culvert to a 24-foot wide bridge opening, which will increase the tidal flushing in the Muddy Creek and will help restore the ecological integrity of the estuary. The proposed widening designed by Fuss & O'Neill impacts approximately 135 linear feet of Coastal Bank (Route 28 embankment), 1,350 square feet of Land Under Water, 1,600 square feet of Land Subject to Coastal Storm Flowage (LSCSF). Approximately 26,000 square feet of Riverfront Area (RFA), 207,000 square feet of LSCSF, and 30,000 square feet of Bordering Land Subject to Flooding (BLSF) will be temporarily altered for sewer construction within existing roadways. Approximately 1,000 square feet of RFA will be altered during installation of the proposed pumping stations.

C. Estimate the extent and type of impact that the project will have on wetland resources, and indicate whether the impacts are temporary or permanent:

<u>Coastal Wetlands</u>	<u>Area (square feet) or Length (linear feet)</u>	<u>Temporary or Permanent Impact?</u>
Land Under the Ocean	0	
Designated Port Areas	0	
Coastal Beaches	0	
Coastal Dunes	0	
Barrier Beaches	0	
Coastal Banks	135 linear feet	Permanent
Rocky Intertidal Shores	0	
Salt Marshes	0	
Land Under Salt Ponds	0	
Land Containing Shellfish	0	
Fish Runs	0	

Land Subject to Coastal Storm Flowage 1,600 and 207,000 sq ft Temporary and permanent

Inland Wetlands

Bank (If)	<u>0</u>	<u></u>
Bordering Vegetated Wetlands	<u>0</u>	<u></u>
Isolated Vegetated Wetlands	<u>0</u>	<u></u>
Land under Water	<u>1,350 square feet</u>	<u>Permanent</u>
Isolated Land Subject to Flooding	<u>0</u>	<u></u>
Bordering Land Subject to Flooding	<u>30,000 square feet</u>	<u>Temporary</u>
Riverfront Area	<u>26,000 and 1,000 sq ft</u>	<u>Temporary and permanent</u>

D. Is any part of the project:

1. proposed as a **limited project**? ☒ Yes ☐ No; if yes, what is the area (in sf)?

310 CMR 10.24(7)(b) 207,000 sf of LSCSF and 310 CMR 10.53 (3)(d) 30,000 sf BLSF and 26,000 sf RFA construction, reconstruction operation and maintenance of underground and overhead public utilities

2. the construction or alteration of a **dam**? ☐ Yes ☒ No; if yes, describe:

3. fill or structure in a **velocity zone** or **regulatory floodway**? ☒ Yes ☐ No

Approximately 450 linear feet of sewer mains and proposed work on the Muddy Creek culvert replacement are located in a velocity zone.

4. dredging or disposal of dredged material? ☐ Yes ☒ No; if yes, describe the volume of dredged material and the proposed disposal site:

5. a discharge to an **Outstanding Resource Water (ORW)** or an **Area of Critical Environmental Concern (ACEC)**? ☐ Yes ☒ No

6. subject to a wetlands restriction order? ☐ Yes ☒ No; if yes, identify the area (in sf):

7. located in buffer zones? ☒ Yes ☐ No; if yes, how much (in sf)

103,400 square feet

E. Will the project:

1. be subject to a local wetlands ordinance or bylaw? ☒ Yes ☐ No

2. alter any federally-protected wetlands not regulated under state law? ☐ Yes ☒ No; if yes, what is the area (sf)?

III. Waterways and Tidelands Impacts and Permits

A. Does the project site contain waterways or tidelands (including filled former tidelands) that are subject to the Waterways Act, M.G.L.c.91? ☒ Yes ☐ No; if yes, is there a current Chapter 91 License or Permit affecting the project site? ☐ Yes ☐ No; if yes, list the date and license or permit number and provide a copy of the historic map used to determine extent of filled tidelands:

The culvert replacement under Route 28 for the Muddy Creek Wetland Restoration will be filed separately as a Phase 1 waiver and will require a Chapter 91 License. The CWMP element, widening the Muddy River culvert under Rte. 28 (Harwich and Chatham corporate boundary), is concomitantly identified by the Pleasant Bay Alliance (Alliance) as a project to improve the creek and estuarine habitats and water quality. Widening the culvert improves tidal flushing which both improves habitat and water quality. The culvert replacement, as standalone project, is subject to MEPA review as work will occur in the Pleasant Bay ACEC. The alliance has been studying this option and is currently seeking an engineer to design and permit this project separate from the CWMP design and construction project; i.e. as a standalone project. One

potential Muddy Creek culvert replacement option is included, see project plan RP-401. The Alliance is seeking proposals for final design.

- B. Does the project require a new or modified license or permit under M.G.L.c.91? ☒ Yes ☐ No; if yes, how many acres of the project site subject to M.G.L.c.91 will be for non-water-dependent use? Current 0 Change 0 Total 0

If yes, how many square feet of solid fill or pile-supported structures (in sf)?

- C. For non-water-dependent use projects, indicate the following:

Area of filled tidelands on the site: _____

Area of filled tidelands covered by buildings: _____

For portions of site on filled tidelands, list ground floor uses and area of each use:

Does the project include new non-water-dependent uses located over flowed tidelands?

Yes ☐ No ☐

Height of building on filled tidelands _____

Also show the following on a site plan: Mean High Water, Mean Low Water, Water-dependent Use Zone, location of uses within buildings on tidelands, and interior and exterior areas and facilities dedicated for public use, and historic high and historic low water marks.

- D. Is the project located on landlocked tidelands? ☐ Yes ☒ No; if yes, describe the project's impact on the public's right to access, use and enjoy jurisdictional tidelands and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

- E. Is the project located in an area where low groundwater levels have been identified by a municipality or by a state or federal agency as a threat to building foundations? ☐ Yes ☒ No; if yes, describe the project's impact on groundwater levels and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

- F. Is the project non-water-dependent **and** located on landlocked tidelands **or** waterways or tidelands subject to the Waterways Act **and** subject to a mandatory EIR? ☐ Yes ☐ No;

(NOTE: If yes, then the project will be subject to Public Benefit Review and Determination.)

- G. Does the project include dredging? ☐ Yes ☒ No; if yes, answer the following questions:

What type of dredging? Improvement ☐ Maintenance ☐ Both ☐

What is the proposed dredge volume, in cubic yards (cys) _____

What is the proposed dredge footprint _____ length (ft) _____ width (ft) _____ depth (ft);

Will dredging impact the following resource areas?

Intertidal Yes ☐ No ☐; if yes, _____ sq ft

Outstanding Resource Waters Yes ☐ No ☐; if yes, _____ sq ft

Other resource area (i.e. shellfish beds, eel grass beds) Yes ☐ No ☐; if yes _____ sq ft

If yes to any of the above, have you evaluated appropriate and practicable steps to: 1) avoidance; 2) if avoidance is not possible, minimization; 3) if either avoidance or minimize is not possible, mitigation?

If no to any of the above, what information or documentation was used to support this determination?

Provide a comprehensive analysis of practicable alternatives for improvement dredging in accordance with 314 CMR 9.07(1)(b). Physical and chemical data of the sediment shall be included in the comprehensive analysis.

Sediment Characterization

Existing gradation analysis results? ☐ Yes ☐ No; if yes, provide results.

Existing chemical results for parameters listed in 314 CMR 9.07(2)(b)6? ☐ Yes ☐ No; if yes, provide results.

Do you have sufficient information to evaluate feasibility of the following management options for dredged sediment? If yes, check the appropriate option.

Beach Nourishment ☐

Unconfined Ocean Disposal ☐

Confined Disposal:

Confined Aquatic Disposal (CAD) ☐

Confined Disposal Facility (CDF) ☐

Landfill Reuse in accordance with COMM-97-001 ☐

Shoreline Placement ☐

Upland Material Reuse ☐

In-State landfill disposal ☐

Out-of-state landfill disposal ☐

(NOTE: This information is required for a 401 Water Quality Certification.)

IV. Consistency:

A. Does the project have effects on the coastal resources or uses, and/or is the project located within the Coastal Zone? ☒ Yes ☐ No; if yes, describe these effects and the projects consistency with the policies of the Office of Coastal Zone Management:

The CWMP was developed with assistance from UMass-Dartmouth School of Marine Science and Technology and the Massachusetts Estuaries Project (MEP) to identify nutrient loads and devise a wastewater management program to meet water quality criteria. The proposed CWMP is a multi-phased wastewater management program with centralized treatment to reduce nutrient loading to coastal waters, meet anticipated total maximum daily loads (TMDs) for estuary/embayments along Nantucket Sound, and support viable business activity in town centers. The purpose of this project is to improve significant resource areas.

B. Is the project located within an area subject to a Municipal Harbor Plan? ☐ Yes ☒ No; if yes, identify the Municipal Harbor Plan and describe the project's consistency with that plan:

WATER SUPPLY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **water supply** (see 301 CMR 11.03(4))? ☐ Yes ☒ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **water supply**? ☐ Yes ☒ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Wastewater Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Water Supply Section below.

II. Impacts and Permits

A. Describe, in gallons per day (gpd), the volume and source of water use for existing and proposed activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Municipal or regional water supply	_____	_____	_____
Withdrawal from groundwater	_____	_____	_____
Withdrawal from surface water	_____	_____	_____
Interbasin transfer	_____	_____	_____

(NOTE: Interbasin Transfer approval will be required if the basin and community where the proposed water supply source is located is different from the basin and community where the wastewater from the source will be discharged.)

B. If the source is a municipal or regional supply, has the municipality or region indicated that there is adequate capacity in the system to accommodate the project? ☐ Yes ☐ No

C. If the project involves a new or expanded withdrawal from a groundwater or surface water source, has a pumping test been conducted? ☐ Yes ☐ No; if yes, attach a map of the drilling sites and a summary of the alternatives considered and the results. _____

D. What is the currently permitted withdrawal at the proposed water supply source (in gallons per day)? _____ Will the project require an increase in that withdrawal? ☐ Yes ☐ No; if yes, then how much of an increase (gpd)? _____

E. Does the project site currently contain a water supply well, a drinking water treatment facility, water main, or other water supply facility, or will the project involve construction of a new facility? ☐ Yes ☐ No. If yes, describe existing and proposed water supply facilities at the project site:

	<u>Permitted Flow</u>	<u>Existing Avg Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Capacity of water supply well(s) (gpd)	_____	_____	_____	_____
Capacity of water treatment plant (gpd)	_____	_____	_____	_____

F. If the project involves a new interbasin transfer of water, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

G. Does the project involve:

1. new water service by the Massachusetts Water Resources Authority or other agency of the Commonwealth to a municipality or water district? ☐ Yes ☐ No
2. a Watershed Protection Act variance? ☐ Yes ☐ No; if yes, how many acres of alteration?
3. a non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking

water supply for purpose of forest harvesting activities? ____ Yes ____ No

III. Consistency

Describe the project's consistency with water conservation plans or other plans to enhance water resources, quality, facilities and services:

WASTEWATER SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wastewater** (see 301 CMR 11.03(5))? ☒ Yes ☐ No; if yes, specify, in quantitative terms: New sewer mains ten or more miles in length (approximately 92), and Construction of a New wastewater treatment and/or disposal facility with a Capacity of 100,000 or more gpd (1,260,000 gpd).

B. Does the project require any state permits related to **wastewater**? ☒ Yes ☐ No; if yes, specify which permit: DEP Sewer Connection Permit, and DEP Groundwater Discharge Permit

C. If you answered "No" to both questions A and B, proceed to the **Transportation -- Traffic Generation Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wastewater Section below.

II. Impacts and Permits

A. Describe the volume (in gallons per day) and type of disposal of wastewater generation for existing and proposed activities at the project site (calculate according to 310 CMR 15.00 for septic systems or 314 CMR 7.00 for sewer systems):

The below volumes reflect flows generated in and treated/disposed of in Harwich. Existing as of 2013, total of full build out in 2053.

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge of sanitary wastewater	<u>0</u>	<u>1,260,000</u>	<u>1,260,000</u>
Discharge of industrial wastewater	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	<u>0</u>	<u>1,260,000</u>	<u>1,260,000</u>
	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge to groundwater	<u>0</u>	<u>0</u>	<u>0</u>
Discharge to outstanding resource water	<u>0</u>	<u>0</u>	<u>0</u>
Discharge to surface water	<u>0</u>	<u>0</u>	<u>0</u>
Discharge to municipal or regional wastewater facility	<u>0</u>	<u>1,260,000</u>	<u>1,260,000</u>
TOTAL	<u> </u>	<u> </u>	<u> </u>

B. Is the existing collection system at or near its capacity? ☐ Yes ☒ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

C. Is the existing wastewater disposal facility at or near its permitted capacity? ☐ Yes ☒ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

D. Does the project site currently contain a wastewater treatment facility, sewer main, or other wastewater disposal facility, or will the project involve construction of a new facility? ☒ Yes ☐ No; if yes, describe as follows:

The Town of Harwich does not currently have a wastewater treatment facility. Below presents flows for the proposed facility in Harwich. Remaining flow will be treated in Chatham.

	<u>Permitted</u>	<u>Existing Avg</u> <u>Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Wastewater treatment plant capacity (in gallons per day)	<u>900,000</u>	<u>0</u>	<u>900,000</u>	<u>900,000</u>

E. If the project requires an interbasin transfer of wastewater, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or new?

No interbasin transfer is required for this project.

(NOTE: Interbasin Transfer approval may be needed if the basin and community where wastewater will be discharged is different from the basin and community where the source of water supply is located.)

F. Does the project involve new sewer service by the Massachusetts Water Resources Authority (MWRA) or other Agency of the Commonwealth to a municipality or sewer district? ☐ Yes ☒ No

G. Is there an existing facility, or is a new facility proposed at the project site for the storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, wastewater reuse (gray water) or other sewage residual materials? ☒ Yes ☐ No; if yes, what is the capacity (tons per day): *approximately 3 tons per day of sludge will be produced from the proposed facility. Preliminary Design has not begun and the ultimate method for disposal/treatment of sludge has not been decided.

	<u>Existing</u>	<u>Change</u>	<u>Total</u> <u>*3 tons/day</u>
Storage	<u> </u>	<u> </u>	<u> </u>
Treatment	<u> </u>	<u> </u>	<u> </u>
Processing	<u> </u>	<u> </u>	<u> </u>
Combustion	<u> </u>	<u> </u>	<u> </u>
Disposal	<u> </u>	<u> </u>	<u> </u>

H. Describe the water conservation measures to be undertaken by the project, and other wastewater mitigation, such as infiltration and inflow removal.

Water conservation programs are described in Section 13.7.7

III. Consistency

A. Describe measures that the proponent will take to comply with applicable state, regional, and local plans and policies related to wastewater management:

This CWMP was developed to comply with the Town of Harwich Local Comprehensive Plan as well as Cape Cod Commission requirements. The CWMP was developed to comply with the MEP and its goals as described in Section 6 of the CWMP.

B. If the project requires a sewer extension permit, is that extension included in a comprehensive wastewater management plan? ☐ Yes ☒ No; if yes, indicate the EEA number for the plan and whether the project site is within a sewer service area recommended or approved in that plan:

TRANSPORTATION SECTION (TRAFFIC GENERATION)

I. Thresholds / Permit

A. Will the project meet or exceed any review thresholds related to **traffic generation** (see 301 CMR 11.03(6))? ____ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **state-controlled roadways**? X Yes ____ No; if yes, specify which permit:

Massachusetts Department of Transportation (Mass DOT) Highway Division Access Permit for sewer construction.

C. If you answered "No" to both questions A and B, proceed to the **Roadways and Other Transportation Facilities Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Traffic Generation Section below.

II. Traffic Impacts and Permits

A. Describe existing and proposed vehicular traffic generated by activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Number of parking spaces	0	20	20
Number of vehicle trips per day	0	0	0
ITE Land Use Code(s):	0	0	0

B. What is the estimated average daily traffic on roadways serving the site?

<u>Roadway</u>	<u>Existing</u>	<u>Change</u>	<u>Total</u>
1. Belmont Rd. south of Rte. 28	1100	0	1100
2. Chatham Rd. north of Rte. 28	2000	0	2000
3. Great Western Rd. east of Depot St.	5700	0	5700
4. Lower County Rd. west of Chase Rd.	5700	0	5700
5. Main St.	500-4400	0	500-4400
6. Oak St.	1500-3400	0	1500-3400
7. Pleasant Lake Ave.	7000	0	7000
8. Queen Anne Rd.	3100-4900	0	3100-4900
9. Route 28	5500-10700	0	5500-10700
10. Route 39	5300-9800	0	5300-9800
11. Route 124	4800-10300	0	4800-10300
12. Route 137	7500-8800	0	7500-8800

C. If applicable, describe proposed mitigation measures on state-controlled roadways that the project proponent will implement:

The project requires installing sewer mains in state Routes 28, 39, 124, and 137. Proposed work on state-controlled roadways will occur outside of the summer months (Memorial Day to Labor Day) to minimize traffic impacts.

D. How will the project implement and/or promote the use of transit, pedestrian and bicycle facilities and services to provide access to and from the project site?

Temporary disruption during utility construction.

C. Is there a Transportation Management Association (TMA) that provides transportation demand management (TDM) services in the area of the project site? ____ Yes X No; if yes, describe if and how will the project will participate in the TMA:

- D. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation facilities? ____ Yes ☒ No; if yes, generally describe:
- E. If the project will penetrate approach airspace of a nearby airport, has the proponent filed a Massachusetts Aeronautics Commission Airspace Review Form (780 CMR 111.7) and a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA) (CFR Title 14 Part 77.13, forms 7460-1 and 7460-2)?

III. Consistency

Describe measures that the proponent will take to comply with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services:

Temporary traffic disruptions during utility construction will be mitigated in consultation with Mass DOT.

TRANSPORTATION SECTION (ROADWAYS AND OTHER TRANSPORTATION FACILITIES)

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **roadways or other transportation facilities** (see 301 CMR 11.03(6))? ___ Yes ☒ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **roadways or other transportation facilities**? ☒ Yes ___ No; if yes, specify which permit:

Mass DOT Access Permit to construct sewer mains.

C. If you answered "No" to both questions A and B, proceed to the **Energy Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Roadways Section below.

II. Transportation Facility Impacts

A. Describe existing and proposed transportation facilities in the immediate vicinity of the project site:

Approximately 92 miles of new sewer mains are proposed to be installed within existing roadways. Roads will not be widened and new roads will not be constructed as a part of this project.

B. Will the project involve any

- | | |
|--|----------|
| 1. Alteration of bank or terrain (in linear feet)? | <u>0</u> |
| 2. Cutting of living public shade trees (number)? | <u>0</u> |
| 3. Elimination of stone wall (in linear feet)? | <u>0</u> |

III. Consistency -- Describe the project's consistency with other federal, state, regional, and local plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services, including consistency with the applicable regional transportation plan and the Transportation Improvements Plan (TIP), the State Bicycle Plan, and the State Pedestrian Plan:

Harwich will coordinate with Mass DOT to minimize traffic impacts during summer months.

ENERGY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **energy** (see 301 CMR 11.03(7))?
___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **energy**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Air Quality Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Energy Section below.

II. Impacts and Permits

A. Describe existing and proposed energy generation and transmission facilities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Capacity of electric generating facility (megawatts)	_____	_____	_____
Length of fuel line (in miles)	_____	_____	_____
Length of transmission lines (in miles)	_____	_____	_____
Capacity of transmission lines (in kilovolts)	_____	_____	_____

B. If the project involves construction or expansion of an electric generating facility, what are:

1. the facility's current and proposed fuel source(s)?
2. the facility's current and proposed cooling source(s)?

C. If the project involves construction of an electrical transmission line, will it be located on a new, unused, or abandoned right of way? ___ Yes ___ No; if yes, please describe:

D. Describe the project's other impacts on energy facilities and services:

III. Consistency

Describe the project's consistency with state, municipal, regional, and federal plans and policies for enhancing energy facilities and services:

AIR QUALITY SECTION

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **air quality** (see 301 CMR 11.03(8))? ___ Yes ☒ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **air quality**? ☒ Yes ___ No; if yes, specify which permit:

While emissions from the wastewater processes are not anticipated to require permits, combustion sources, specifically emergency generators at the WWTP and larger pumping stations which will burn either diesel or natural gas, will be required to comply with the Environmental Results Program (ERP). While this does not require a pre-construction permit, certification of the equipment will be required within 60 days of startup.

C. If you answered "No" to both questions A and B, proceed to the **Solid and Hazardous Waste Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Air Quality Section below.

II. Impacts and Permits

A. Does the project involve construction or modification of a major stationary source (see 310 CMR 7.00, Appendix A)? ___ Yes ☒ No; if yes, describe existing and proposed emissions (in tons per day) of:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Particulate matter	_____	_____	_____
Carbon monoxide	_____	_____	_____
Sulfur dioxide	_____	_____	_____
Volatile organic compounds	_____	_____	_____
Oxides of nitrogen	_____	_____	_____
Lead	_____	_____	_____
Any hazardous air pollutant	_____	_____	_____
Carbon dioxide	_____	_____	_____

B. Describe the project's other impacts on air resources and air quality, including noise impacts:

Following the guidance provided in the *Revised MEPA Greenhouse Gas Emissions Policy and Protocol*, greenhouse gas (GHG) emissions that should be reviewed and considered in the project baseline include methane emissions from wastewater processes, carbon dioxide emissions from stationary combustion sources, and indirect GHG emissions associated with electricity consumption. Of these project sources, the largest sources of GHGs are likely to be from the direct and indirect combustion sources. While methane is a more potent GHG than carbon dioxide, the aerobic processes associated with the proposed wastewater facility will produce measurably lower methane emissions than a facility with anaerobic digestion.

The energy alternatives and efficiencies discussed in this Expanded ENF will provide reductions in indirect GHG emissions. Furthermore, the project will be offset by the Harwich Photovoltaic (PV) project, a 3.96 MW solar electric generation facility located on e.i. on parcel HR-12, CWMP Section 13.9 describes in detail the alternative technologies the CWMP proposes.

III. Consistency

A. Describe the project's consistency with the State Implementation Plan:

Harwich will operate in accordance with air quality standards. The emergency generators will comply with environmental performance standards as included in the ERP and as provided in the equipment certification.

B. Describe measures that the proponent will take to comply with other federal, state, regional, and local plans and policies related to air resources and air quality:

As noted above, energy efficiency measures will also provide reductions in GHG emissions. The Town requests a waiver from addressing GHG emissions analysis in the EENF. As stated in 13.9 of the CWMP the Town supports the use of newer alternative technologies which are incorporated in the CWMP.

SOLID AND HAZARDOUS WASTE SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **solid or hazardous waste** (see 301 CMR 11.03(9))? ___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **solid and hazardous waste**? ___ Yes X No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Historical and Archaeological Resources Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Solid and Hazardous Waste Section below.

II. Impacts and Permits

A. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of solid waste? ___ Yes ___ No; if yes, what is the volume (in tons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment, processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

B. Is there any current or proposed facility at the project site for the storage, recycling, treatment or disposal of hazardous waste? ___ Yes ___ No; if yes, what is the volume (in tons or gallons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Recycling	_____	_____	_____
Treatment	_____	_____	_____
Disposal	_____	_____	_____

C. If the project will generate solid waste (for example, during demolition or construction), describe alternatives considered for re-use, recycling, and disposal:

D. If the project involves demolition, do any buildings to be demolished contain asbestos?
___ Yes ___ No

E. Describe the project's other solid and hazardous waste impacts (including indirect impacts):

III. Consistency

Describe measures that the proponent will take to comply with the State Solid Waste Master Plan:

HISTORICAL AND ARCHAEOLOGICAL RESOURCES SECTION

I. Thresholds / Impacts

A. Have you consulted with the Massachusetts Historical Commission? ☒ Yes ___ No; if yes, attach correspondence. For project sites involving lands under water, have you consulted with the Massachusetts Board of Underwater Archaeological Resources? ___ Yes ☒ No; if yes, attach correspondence

The work proposed within Land Under Water consists of widening the Muddy Creek culvert under Route 28. This portion of the CWMP will be filed separately as a Phase 1 waiver and the Massachusetts Board of Underwater Archaeological Resources will be contacted for consultation.

B. Is any part of the project site a historic structure, or a structure within a historic district, in either case listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes ☒ No; if yes, does the project involve the demolition of all or any exterior part of such historic structure? ___ Yes ___ No; if yes, please describe:

C. Is any part of the project site an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes ☒ No; if yes, does the project involve the destruction of all or any part of such archaeological site? ___ Yes ___ No; if yes, please describe:

D. If you answered "No" to all parts of both questions A, B and C, proceed to the **Attachments and Certifications** Sections. If you answered "Yes" to any part of either question A or question B, fill out the remainder of the Historical and Archaeological Resources Section below.

II. Impacts

Describe and assess the project's impacts, direct and indirect, on listed or inventoried historical and archaeological resources:

Indirect impacts to state registered historic sites are limited to the temporary visual impact of the construction of the sewer mains adjacent to the registered sites. Coordination with the Massachusetts Historical Commission will be conducted at each phase to minimize impacts from constructing pump stations, WWTF, and effluent recharge basins.

III. Consistency

Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources:

Only indirect, temporary impacts will occur due to the construction of the sewer mains located adjacent to historic sites. Coordination with the Massachusetts Historical Commission will be conducted at each phase to minimize impacts from constructing pump stations, WWTF, and effluent recharge basins.



The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

January 25, 2013

Andrew R. Poyant
CDM Smith, Inc.
50 Hampshire Street
Cambridge, MA 02139

RE: Comprehensive Wastewater Management Plan, Harwich, MA. MHC # RC.53649.

Dear Mr. Poyant:

Staff of the Massachusetts Historical Commission have reviewed the Project Notification Form (PNF), received January 14, 2013, for the project referenced above. The proposed project consists of comprehensive wastewater management planning for the Town of Harwich. New construction proposed as part of the phased project described in the PNF includes widening of the Muddy Creek Bridge, restoration of Hinkleys Pond, construction of a Wastewater Treatment Plant (HR-12) off Queen Anne Road, a 10-acre groundwater recharge facility (PB-3) of Halls Path, effluent recharge basins, 30 pump stations, and approximately 92 linear miles of sewer mains in Harwich.

The MHC understands that the proposed project will utilize federal funding through the State Revolving Fund administered by the Massachusetts DEP. The MHC will review the project under Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), in consultation with the DEP. The project will also require MEPA review, and a copy of the draft Comprehensive Wastewater Management Plan and the Environmental Notification Form (ENF) and/or Environmental Impact Statement (EIS) should be submitted to the MHC when it is filed with the MEPA office.

The MHC proposes to review phased water supply, wastewater and stormwater management projects as they are designed. The submittal of information to the MHC should occur as early as possible, once a feasible location and design has been selected. The submittal should not wait until final plans are developed.

Project planners should submit scaled project plans showing existing and proposed conditions for the preferred alternative wastewater treatment plant location(s), recharge areas, pump stations, equipment storage and materials staging areas and cross-country sewer right-of-ways, for each phase of improvements or expansion projects. MHC review will assist to determine if any, as yet unidentified, historic and archaeological resources may be affected by project elements. For example, archaeological survey may be requested for project elements located in archaeologically sensitive areas.

The MHC is unable to determine if all proposed pumping stations will also be installed within roadways. If the above-ground pumping stations are in historically significant areas that are significant for their setting, then considerations should be made for the structure design, materials, massing, landscaping, etc. to avoid or minimize any adverse effects from the new construction.

Project planners should consult the Inventory of Historic and Archaeological Assets of the Commonwealth for identified historic and archaeological properties. The MHC's Inventory of Historic and Archaeological Assets of the Commonwealth (which includes current State Register listings) is available for research at our office, without an appointment, during normal business hours. Researchers should be aware, however, that consultation of the Inventory is not sufficient to identify all significant historic and archaeological resources that may be affected by a project (see 36 CFR 800.4).

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), Massachusetts General Laws, Chapter 9, Sections 26-27C (950 CMR 71) and MEPA (301 CMR 11). If you have questions or require additional information please contact Jonathan K. Patton at this office.

Sincerely,



Brona Simon
State Historic Preservation Officer
Executive Director
State Archaeologist
Massachusetts Historical Commission

xc: James Merriam, Harwich Town Administrator
John Felix, DEP
DEP-SERO-DWPC
Secretary Richard K. Sullivan, Jr., EEA, Attn: MEPA Unit
Sara Korjeff, Cape Cod Commission
Harwich Conservation Commission
Harwich Historical Commission
Harwich Historic District Commission

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FEB 01 2012

MASS. HIST. COMM

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

RC 52055

APPENDIX A

MASSACHUSETTS HISTORICAL COMMISSION

220 MORRISSEY BOULEVARD

BOSTON, MASS. 02125

617-727-8470, FAX: 617-727-5128

PROJECT NOTIFICATION FORM

Project Name: Muddy Creek Tidal Restoration Project

Location / Address: Rt. 28 @ Muddy Creek, Chatham/Harwich town line

City / Town: Chatham / Harwich

Project Proponent

Name: Town of Chatham / Town of Harwich

Address: 549 Main St. / 732 Main St.

City/Town/Zip/Telephone: Chatham MA 02633 / Harwich Center, MA 02645

Agency license or funding for the project (list all licenses, permits, approvals, grants or other entitlements being sought from state and federal agencies).

Agency Name

Type of License or funding (specify)

See Attached Sheet

Project Description (narrative):

The project will restore historic tidal flow to Muddy Creek by replacing 2 undersized 3'x4' stone culverts with a 24' opening

Does the project include demolition? If so, specify nature of demolition and describe the building(s) which are proposed for demolition. No demolition of buildings. Project will remove a section of stone base of Rt 28 to replace culverts with open-span bridge.

Does the project include rehabilitation of any existing buildings? If so, specify nature of rehabilitation and describe the building(s) which are proposed for rehabilitation.

No.

Does the project include new construction? If so, describe (attach plans and elevations if necessary).

Yes. Construction of new open-span bridge to allow for restoration of historic tidal flow to 65 acres of upstream wetlands and coastal

5/31/96 (Effective 7/1/93) - corrected

After review of MHC files and materials you submitted, it has been determined that this project is unlikely to affect significant historic or archaeological resources.

RC 52055

Jonathan K. Patton

Archaeologist / Preservation Planner

Massachusetts Historical Commission

1001 Beacon Street, Boston, MA 02116
Katie Atwood, USACE-NEO

2/29/12
Date

950 CMR: OFFICE OF THE SECRETARY OF THE COMMONWEALTH

APPENDIX A (continued)

To the best of your knowledge, are any historic or archaeological properties known to exist within the project's area of potential impact? If so, specify:

No. Native sites within project watershed, but not within area of construction.
What is the total acreage of the project area?

Woodland	0	acres	Productive Resources:
Wetland	4,500 SF	acres	Agriculture
Floodplain	4,500 SF	acres	Forestry
Open space	4,500 SF	acres	Mining/Extraction
Developed	0	acres	Total Project Acreage

Restoration of tidal flow will affect approximately 65 acres of upstream wetlands.
What is the acreage of the proposed new construction? 20.8 acres
New construction will be within footprint of existing road and right of way.
What is the present land use of the project area?
Construction area land use is roadway (Rt. 28)
The area to receive tidal restoration is primarily wetland.

Please attach a copy of the section of the USGS quadrangle map which clearly marks the project location.

This Project Notification Form has been submitted to the MHC in compliance with 950 CMR 71.00.

Signature of Person submitting this form: McRheinhardt Date: 1/31/12
Name: Martha Craig Rheinhardt - Cape Cod Conservation District
Address: P.O. Box 678
City/Town/Zip: Barnstable, MA 02630
Telephone: 508-771-8757 x107

REGULATORY AUTHORITY

950 CMR 71.00: M.G.L. c. 9, §§ 26-27C as amended by St. 1988, c. 254.

Appendix A

Project Narrative

The following provides additional information to augment the Expanded Environmental Notification Form (EENF). The Draft Comprehensive Wastewater Management Plan (CWMP) provides a thorough review of alternatives considered, and the selected approach to manage wastewater and improve estuarine water quality. On behalf of the Town of Harwich (Town) CDM Smith Inc. (CDM Smith) respectfully requests a Phase 1 Waiver to widen the Muddy Creek culvert under Route 28, within the Pleasant Bay Area of Critical Environmental Concern (ACEC), as described below.

The CWMP element, widening the Muddy Creek culvert under Route 28, Harwich and Chatham corporate boundary, is concomitantly identified by the Pleasant Bay Alliance (Alliance) as a project to improve the creek and estuarine habitats and water quality. Widening the culvert improves tidal flushing which both improves habitat and water quality. The culvert replacement, as a standalone project, is subject to MEPA review as work will occur in the Pleasant Bay ACEC. The Alliance has been studying this option and is currently seeking an engineer to advance final design and secure permits for this project, separate from the CWMP design and construction project; i.e. as a standalone project.

Although both the Harwich CWMP and the Alliance's plan to replace the culvert can be viewed as separate and distinct projects, the inclusion of the water quality (nutrient reduction) benefit via culvert widening in the CWMP links these two projects, which otherwise would proceed on their own permitting and design paths.

Consistent with the Massachusetts Environmental Policy Act (MEPA) policy to avoid project segmentation the Muddy Creek culvert replacement is identified in the EENF, with a request for a Phase 1 Waiver. The widening is identified in the CWMP, but will proceed as a standalone project championed by the Alliance. Because no other CWMP elements are dependent on the widening, and likewise the culvert replacement is not dependent upon other CWMP components; separating future reviews of these two actions has merit. An anticipated condition of the Phase 1 Waiver is the requirement for a Notice of Project Change (NPC) for the culvert replacement when the project is advanced to a design stage sufficient to initiate MEPA review and pursue other state permitting.

Phase One Waiver Request for the Muddy Creek Culvert Replacement

The proponent respectfully requests a Phase 1 Waiver to allow the Muddy Creek Culvert replacement to proceed as a standalone project. In support of this Waiver request the review factors identified in 310 CMR 11.11 (4) are reviewed below. Those factors are identified below in *italics typeface* and responses are provided in *normal typeface*.

(a) *the potential environmental impacts of phase one, taken alone, are insignificant;*

The basic project purpose of Phase One, i.e. the widening of the Muddy Creek culvert, is to improve the water quality of Muddy Creek and its estuary via improved tidal flushing. Temporary construction period impacts will be mitigated via industry standard best management practices (BMP's). Local and state permitting agencies will review and approve BMP's prior to construction. In conclusion,

potential construction impacts will be mitigated to avoid/minimize impacts and thus are considered to be insignificant. The long-term benefits of increased tidal flushing will outweigh potential adverse construction period impacts.

Although there will be temporary environmental impacts during construction, the long term benefits of improved water quality (nutrient reduction) outweigh these impacts. The Alliance will minimize construction impacts by using BMP's.

(b) ample and unconstrained infrastructure facilities and services exist to support phase one;

Ample and unconstrained infrastructure exists to support the culvert replacement. The proposed culvert replacement is located under Route 28. There is ample work space along the state highway right-of-way to provide construction access to the culvert. Thus, no new facilities are required to construct this project element.

(c) the Project is severable, such that phase one does not require the implementation of any other future phase of the Project or restrict the means by which potential environmental impacts from any other phase of the Project may be avoided, minimized or mitigated; and

The Alliance is advancing this project as a standalone construction project. Thus, the culvert replacement is severable from the other CWMP elements. Neither the widening of the Muddy Creek culvert is dependent on other CWMP elements, nor are other CWMP elements dependent on the widening of the culvert. The phases are only connected by both advance water quality improvements of estuarine waters.

(d) the Agency Action on phase one will contain terms such as a condition or restriction in a Permit, contract or other relevant document approving or allowing the Agency Action, or other evidence satisfactory to the Secretary, so as to ensure due compliance with MEPA and 301 CMR 11.00 prior to Commencement of any other phase of the Project.

The Muddy Creek culvert replacement will require MEPA, MassDOT and MassDEP approval. The proponent will comply with conditions and restrictions placed on such approvals.

Conclusion

Although the Muddy Creek culvert replacement is mentioned in the CWMP because of water quality improvements it is severable from the rest of the CWMP. The short term impacts of the culvert replacement construction are outweighed by the long term water quality improvements in the Muddy Creek and associated estuaries. Widening of the culvert will be reviewed independently by MEPA and MassDEP via a NPC; and during the design phase and as such we respectfully request a Phase 1 waiver for this CWMP element.

Harwich Expanded ENF/Draft CWMP

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