



*The Commonwealth of Massachusetts*  
*Executive Office of Energy and Environmental Affairs*  
*100 Cambridge Street, Suite 900*  
*Boston, MA 02114*

Charles D. Baker  
GOVERNOR

Karyn E. Polito  
LIEUTENANT GOVERNOR

Matthew A. Beaton  
SECRETARY

Tel: (617) 626-1000  
Fax: (617) 626-1181  
<http://www.mass.gov/envir>

March 2, 2018

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE  
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Town of Eastham Water System – Phase 2  
PROJECT MUNICIPALITY : Eastham  
PROJECT WATERSHED : Cape Cod  
EEA NUMBER : 15273  
PROJECT PROPONENT : Town of Eastham  
DATE NOTICED IN MONITOR : January 24, 2018

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62I) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Draft Supplemental Environmental Impact Report (DSEIR) and hereby determine that it **adequately and properly complies** with MEPA and its implementing regulations. This Certificate includes a Scope for additional analysis and information to be provided in the Final Supplemental EIR (FSEIR).

Project Description and Procedural History

The original project (Phase 1) consisted of the construction of a municipal water system in the Town of Eastham. Construction of the Phase 1 system is substantially complete and the water system is now in operation.

Phase 1 was proposed to provide water service to approximately one-third of the properties in Eastham (2,021 properties) in the vicinity of the former town landfill. The groundwater in this area has been impacted by leachate from the landfill and nutrients from septic systems. The water system will replace the private drinking water wells that currently serve these properties. The project has been designed to meet an average water demand of

415,000 gallons per day (gpd) and will include sufficient capacity in the distribution system to support future expansion to the remainder of the Town.

Phase 1 included the following components:

- Two wells (comprised of well fields) with a combined capacity of 1,878,000 gpd;
- Two pump station buildings, one for each well, with well pump controls and water conditioning chemicals;
- A 130-foot high water storage tank with a capacity of 750,000 gallons;
- 45 miles of distribution system piping; and
- Fire hydrants associated with the distribution system to add fire protection for 80 percent of Eastham.

Two test wells were converted into production wells by equipping them with submersible pumps. The District G well and the Nauset Regional High School (NRHS) well are located on Town-owned land in the northern part of Eastham. A third well site, the District H well field, was identified as a potential source to expand the water system to the remainder of the Town.

The storage tank is located on Town-owned land in the vicinity of the District G well. The distribution system includes 12-inch diameter mains located primarily within the paved shoulders of Route 6 and the Town's other main roadways. The pipes have been constructed as looped transmission mains that will serve both as the backbone for an expanded town-wide system and service connections for abutting properties. Eight-inch lateral pipes were installed in secondary and subdivision roadways and in the landfill area to provide service connections to the municipal water system.

A Certificate on the Single EIR was issued on January 30, 2015, which indicated that no additional review was required for Phase 1 and that the project could proceed to permitting. The Certificate also noted that expansion of the water system would require additional MEPA review.

A NPC (1<sup>st</sup> NPC) was filed in 2015 to disclose an additional State Agency Action for Phase 1 and to provide an opportunity for State Agency and public comment. Phase 1 required permanent subsurface easements on two sections of the Department of Conservation and Recreation's (DCR) Cape Cod Rail Trail (CCRT) right-of-way (ROW) which consisted of a conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to a purpose not in accordance with Article 97. As a result, Phase 1 required Article 97 legislation and a Construction and Access Permit from DCR. A Certificate on the 1<sup>st</sup> NPC was issued on June 19, 2015, which indicated that no additional MEPA review was required for Phase 1.

The second NPC (2<sup>nd</sup> NPC) proposed the expansion of the recently constructed municipal water system to provide water service to all remaining parcels not served under Phase 1 and described project components and potential impacts. Phase 2 includes the following components:

- Development of a third well field (District H);
- Construction of a second pump station building with well pump controls and water conditioning chemicals (District H);

- Construction of a second water storage tank (135-foot high) with a capacity of 750,000 gallons (District H);
- Installation of 82 miles of distribution system piping; and
- Installation of fire hydrants to extend fire protection to the remainder of the Town.

The Massachusetts Department of Environmental Protection (MassDEP) issued a New Source Approval for the District H well field which allows a withdrawal rate up to 1,310,000 gpd. The storage tank will be located on Town-owned property in the north-central area of District H near the existing water supply and groundwater monitoring wells.

Phase 2 will be constructed in a continuous effort between 2017 and 2022 and include five sub-phases (Phases 2A through 2E) for contracting purposes. A Certificate on the 2<sup>nd</sup> NPC was issued on April 14, 2017. It indicated that the project change required the preparation of a DSEIR primarily to analyze alternatives to the District H well field and storage tank and potential impacts to a state-listed toad, the Eastern Spadefoot.

All of the phases include expansion of the distribution system; Phase 2B also includes construction of the District H wellfield and storage tank. The Town submitted a third NPC (3<sup>rd</sup> NPC) and a Phase 1 Waiver Request in May 2017 to construct Phase 2A of the municipal water system prior to completion of the DSEIR process for the remainder of Phase 2. A Final Record of Decision (FROD) was issued on July 28, 2017 which granted the Town a Phase 1 Waiver and allowed Phase 2A to proceed prior to submission of the DSEIR.

Phase 2A includes installation of additional water mains in three areas of Town (north, central, and south Eastham) as an extension of the Phase 1 water system. Phase 2A consists of approximately 21 miles of water mains, the majority of which will be eight-inch diameter and will be located primarily within existing roadways. Approximately 60 percent of these roads are paved; 40 percent are dirt roads. Fire hydrants will be installed approximately every 500 feet. A curb box for service connections will be provided for each property at the edge of the roadway ROW. The water system has adequate capacity to meet demand associated with Phase 2A.

Phase 2A has received funding through the MassDEP Drinking Water State Revolving Fund (SRF) program. Phase 2A construction commenced in December 2018 and is expected to require one year for completion. Construction activities associated with Phase 2B and District H are anticipated to commence in the fall of 2018. The Town conducted a habitat assessment of the Eastern Spadefoot in the vicinity of District H and coordinated with the Natural Heritage and Endangered Species Program (NHESP) which determined that the project was consistent with the performance standards of a Conservation and Management Plan (CMP). Early construction of Phase 2A expedited the provision of a safe and reliable water supply to Eastham residents.

### Project Site

Eastham is bordered to the east by Cape Cod Bay, to the west by the National Park Service's Cape Cod National Seashore (CCNS), to the south by the town of Orleans, and to the north by the town of Wellfleet. A portion of the Inner Cape Cod Bay Area of Critical Environmental Concern (ACEC) extends into the southern part of Eastham.

The District G site is located on Town-owned land about one-half mile south of the Eastham-Wellfleet municipal boundary, east of DCR's CCRT and north of Oakleaf Road. The 400-foot diameter Zone I wellhead protection area around the District G well is also located on Town-owned property. The land use within the Zone II wellhead protection area is predominately residential and forested. No potential sources of contamination have been identified in the Zone I area.

The NRHS well is located in the northeast corner of property owned by the NRHS. It is located 3,000 feet north of the intersection of Cable Road and Nauset Road. The high school is served by a well at this site that will be discontinued once the municipal system becomes operational. The Zone I wellhead protection area is located on land owned by the NRHS District and the CCNS. Land uses within the Zone II area are predominately forested and residential, with a small number of commercial and recreational uses. No potential sources of contamination have been identified within the Zone II.

The District H site is located in the east-central area of the Town and consists of a series of properties that comprise the Water Resource Protection District H zoning district. The District consists of parcels owned by the Town, CCNS, and some private owners. The well field is located approximately 900 feet east of the intersection of Nauset Road and Schoolhouse Road. The Zone I is located on land owned by the Town and CCNS. Municipal zoning was established to protect the District H well field. It prohibits any activities that would result in contamination of the groundwater and surface water resources at District H.

Portions of the project will be located in or adjacent to historic districts or properties listed in the State and National Register of Historic Places, including the CCNS, the Old Towne Center Historic District, and several cemeteries. In addition, portions of the project site are located within areas mapped as *Priority Habitat* for state-listed rare species by NHESP in the Massachusetts Natural Heritage Atlas (14<sup>th</sup> Edition).

### Environmental Impacts and Mitigation

Phase 1 will withdraw an average of 415,000 gpd of water from two wells. Ultimately it will withdraw water from all three wells. Phase 2 will withdraw an average of 748,000 gpd of water from three wells. The total water demand for the project is 1,083,000 gpd, increasing to 1,163,000 gpd as vacant properties are built out. However, there will be little to no increase in pumping from the aquifer because it currently supplies water for the Town's residents through private drinking wells.

Phase 1 will temporarily alter 21.8 acres of land and Phase 2 will temporarily alter 42.1 acres of land associated with the installation of water mains, primarily within existing roadway areas. In Phase 2, the storage tank and well field at District H will be constructed in a 0.46-acre undisturbed area. Portions of the project are located within the CCNS, the Inner Cape Cod Bay ACEC, and within the buffer zone of wetlands resource areas. Phase 1 required the installation of water main under two sections of DCR parkland, totaling 12,700 square feet (sf) and resulted in a "take" of a state-listed rare plant species habitat (Common's Panic-Grass). Phase 2 will likely result in the "take" of Eastern Spadefoot.

### Jurisdiction and Permitting

Phase 1 was subject to MEPA review and required the preparation of a mandatory EIR pursuant to 301 CMR 11.03(4)(a)(3) because it requires State Agency Actions and will construct new water mains ten or more miles in length. It also exceeds the ENF threshold pursuant to 301 CMR 11.03(11)(b) because it is located in an ACEC. Phase 1 will require a State Highway Access Permit from the Massachusetts Department of Transportation (MassDOT), a permanent easement and a Construction and Access Permit from DCR, and several permits from MassDEP, including a Water Withdrawal Permit (BRP WM 03), Approval to Construct Water Supply Source greater than 70 gallons per minute (BRP WS 20), and an approval for Drinking Water Systems that serve more than 3,300 people (BRP WS 32). Phase 1 required a CMP from the NHESP. The project is subject to the MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol.

Phase 1 also required an Order of Conditions (OOC) from the Eastham Conservation Commission and a National Pollutant Discharge Elimination System Construction General Permit (NPDES CGP) from the U.S. Environmental Protection Agency (EPA). Phase 1 was reviewed and approved by the Cape Cod Commission (CCC) as a Development of Regional Impact (DRI).

Phase 2 is also subject to MEPA review and, if reviewed as a separate project, would exceed a mandatory EIR threshold pursuant to 301 CMR 11.03(4)(a)(3) because it requires State Agency Actions and will construct new water mains ten or more miles in length. Phase 2 also exceeds ENF thresholds at 301 CMR 11.03(2)(b)(2) because it will disturb greater than two acres of designated priority habitat that results in a “take” of a state-listed rare species and at 301 CMR 11.03(11)(b) because it is located in an ACEC. Phase 2 will require a modification to the Water Withdrawal Permit (BRP WM 03)<sup>1</sup>, Approval to Construct Water Supply Source greater than 70 gallons per minute (BRP WS 20), and an approval for Drinking Water Systems that serve more than 3,300 people (BRP WS 32) from MassDEP. Phase 2 will require a CMP from NHESP. Phase 2 will also require an OOC from the Eastham Conservation Commission (and, on appeal only, a SOC from MassDEP) and a NPDES CGP from EPA. Phase 2A was incorporated into the Town’s Phase 1 DRI approval. The balance of Phase 2 will require further review by CCC as a new DRI.

Because the Town is seeking Financial Assistance from the Commonwealth for all phases of the project, MEPA jurisdiction is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment, as defined in the MEPA regulations. Review of the DSEIR

The DSEIR identifies the need for the project, describes existing conditions in the project area, provides a description and plans of Phase 2, analyzes alternatives to the project, describes project-related impacts, and proposes mitigation measures associated with Phase 2. There are no substantive changes to the project since the filing of the 3<sup>rd</sup> NPC. The DSEIR describes the project’s consistency with applicable regulatory standards and requirements, and local and

---

<sup>1</sup> The Town will request a modification of the water withdrawal permit, which authorizes overall water withdrawals from all of the well fields, to increase withdrawal from 415,000 gpd to 1,163,000 gpd to accommodate the Phase 2 system demand.

regional policy plans. It provides draft Section 61 Findings and a summary of mitigation commitments. Comments from MassDEP, CCC, and the Association for the Preservation of Cape Cod (APCC) strongly support the Town's efforts to develop a Town-wide municipal water supply.

### *Rare Species*

The District H site is located within an area mapped as Priority Habitat for the following rare species: Eastern Box Turtle (*Terrapene carolina*), the Eastern Spadefoot (*Scaphiopus holbrookii*), and several species of *Lepidoptera*, an order of insects that includes moths and butterflies. District H is also located within the vicinity of at least 12 certified vernal pools. Activities at the District H location will require a CMP for Eastern Spadefoot and a Turtle Protection Plan to avoid a "take" of the Eastern Box Turtle.

The Town will continue to actively consult with NHESP during its assessment of impacts to state-listed species and their habitats, as well as its evaluation of potential avoidance, minimization and mitigation measures. Projects resulting in a "take" of state-listed species may only be permitted if they meet the following performance standards for a CMP: adequately assess alternatives to both temporary and permanent impacts to state-listed species; demonstrate that an insignificant portion of the local population would be impacted by the project; and the Proponent agrees to carry out a CMP that provides a long-term Net Benefit to the conservation of the state-listed species impacted.

The DSEIR includes a habitat assessment for Eastern Spadefoot that was performed in July 2017. The Town also conducted additional groundwater modeling as requested by NHESP to assess alternatives to avoid and minimize potential impacts associated with proposed groundwater pumping. Modeling results indicate that at a steady-state pumping rate of 250,000 gpd<sup>2</sup> split between Zone B (shallower semi-confined aquifer) and C (deeper confined aquifer), the maximum water level drawdown in vernal pool 11 (VP-11) will be 0.96 inches. Under the transient (month to month) pumping condition using the same withdrawal rate, the maximum water level drawdown in VP-11 will be 3.36 inches. According to the DSEIR, these drawdown effects will only occur when groundwater elevations are within the range of the vernal pool stage.

NHESP comments indicate that the Town proposes to increase reliance on the deeper Zone C aquifer; increase reliance on the District G/NRHS well fields, particularly during the Spadefoot breeding season; schedule routine maintenance of the District G and NRHS well fields outside of the Spadefoot breeding season; and gradually increase withdrawal rates at District H over time while evaluating the effects of water withdrawals on vernal pool hydrology in conjunction with a comprehensive monitoring program.

Based on consultation with NHESP, the Town will complete the following:

- Submission of a Turtle Protection Plan to NHESP for review and approval prior to the start of any construction activities at District H. This Plan will be prepared by a

---

<sup>2</sup> 250,000 gpd is the projected rate for the District H well field upon full build-out of the water system.

- qualified biologist pre-approved by NHESP and will describe the procedures for protection of turtles during construction.
- Submission of a CMP application to NHESP to demonstrate that the project will meet the performance standards including:
    - Permanently protecting approximately 19.90 acres of the property as open space and state-listed species habitat through an Executive Office of Energy and Environmental Affairs approved conservation restriction, to be held by a qualified land trust, nonprofit organization or government entity;
    - Restoring and/or creating approximately 2.4 acres of high quality early-successional habitat within the proposed open space pursuant to a NHESP-approved habitat restoration and long-term management plan;
    - Developing a dedicated funding plan to ensure long-term monitoring and management of early-successional habitats;
    - Implementing a NHESP-approved plan to protect state-listed species during construction;
    - An alternatives analysis on operations of the proposed District H well field and management of withdrawals from the two supply wells to minimize groundwater drawdown effects at VP-11 to the extent possible;
    - Details of a long-term vernal pool monitoring program that will occur in conjunction with phasing water withdrawal rates over time as monitoring data is collected. Initial monitoring in the first two years prior to operation will establish baseline conditions. During the first three years of operation, District H daily average withdrawals will be limited to approximately an average of 100,000 gpd during April through September, and up to 200,000 gpd the remainder of the year.

If no impacts on Spadefoot breeding conditions are identified, withdrawals at District H may increase to approximately 250,000 gpd on a year-round basis. The Town will work with NHESP to refine the details of the proposed vernal pool monitoring and reporting program; evaluate the results of the monitoring program on an ongoing basis; and regularly reevaluate well field operations and withdrawal rates. Based on the results of the monitoring program, further refinements of well field operations and or adjustments to withdrawal rates may be necessary to further avoid, minimize or mitigate impacts to state-listed species.

NHESP comments indicate that a suitable long-term Net Benefit can be achieved as detailed above and anticipates being able to issue a CMP for Phase 2B. NHESP comments identify outstanding issues associated with the proposed mitigation plan that the Town will be required to address prior to issuance of a CMP. NHESP anticipates these outstanding issues can be resolved through the MESA review process. The Town should continue to work with NHESP to finalize the exact details of the CMP.

#### *Solid Waste Management and MCP*

The DSEIR indicates that the Phase 2 distribution system is not in the vicinity of any former railroad beds such as the Cape Cod Rail Trail. If oil and/or hazardous material are identified during implementation of the project, notification will be made to MassDEP in accordance with the requirements of the Massachusetts Contingency Plan (MCP).

### *Greenhouse Gas Emissions*

The DSEIR specifies mitigation measures that were implemented as part of Phase 1 for the reduction of GHG emissions and electrical demand including, variable frequency drives on the pumps at each well station, insulated walls and ceilings at the well station buildings, high efficiency lighting, and the preparation of a Water Conservation Plan. These measures will also be incorporated into the construction of the District H wellfield and the Water Conservation Plan will apply to the entire Town-wide system.

### *Cultural Resources*

The DSEIR includes a summary of ongoing identification efforts for historic and archaeological resources for Phase 2 project impacts. The Town will continue to consult with MHC, CCC, CCNS, and Public Archaeological Laboratory, Inc. (PAL) to address archaeologically sensitive areas and ensure the overall project will avoid, minimize, and mitigate impacts to historic and archaeological resources. The DSEIR provides an update on these consultations. The Town should also consult with the Mashpee Wampanoag Tribal Council as part of the archaeological investigations. PAL conducted an intensive (locational) archaeological survey within the Phase 2A and District H wellfield portions of the project area and submitted a technical report to MHC for its review and approval.

### Conclusion

Based on a review of the DSEIR, the Scope for the DSEIR, comments letters, and consultation with State Agencies, I have determined that the DSEIR adequately and properly complies with MEPA and its implementing regulations. The Town is required to provide a detailed response to comments submitted on the DSEIR and outstanding issues identified regarding rare species and wetlands in comments on the 3<sup>rd</sup> NPC. The Town should submit a FSEIR that provides updated project information, including any additional details regarding mitigation for impacts to rare species in accordance with the limited Scope below.

## SCOPE

### General

The FSEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. The FSEIR should clearly demonstrate that the Town has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible.

### Mitigation and Draft Section 61 Findings

The Single EIR and 1<sup>st</sup> NPC contained draft Section 61 Findings associated with each separate State Agency Action identified for Phase 1. The FSEIR should include an updated and revised chapter that summarizes proposed mitigation measures for Phase 2 and completed mitigation measures. This chapter must include Final Section 61 Findings that have been issued for Phase 1 and proposed draft Section 61 Findings for each Permit to be issued by State



Agencies for Phase 2. The FSEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and a schedule for implementation.

### Responses to Comments

The FSEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the FSEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended to, and shall not be construed to, enlarge the Scope of the FSEIR beyond what has been expressly identified in this Certificate.

### Circulation

The Town should circulate the FSEIR to those parties who commented on the EENF, Single EIR, NPC, 2<sup>nd</sup> NPC, 3<sup>rd</sup> NPC, and DSEIR, to any State Agencies from which the Town will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. Per 301 CMR 11.16(5), the Town may circulate copies of the FSEIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Town must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Town should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The copy of the FSEIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the FSEIR should be made available for review at the Eastham Public Library.



March 2, 2018

Date

Matthew A. Beaton

### Comments received:

02/09/2018	Massachusetts Division of Marine Fisheries (DMF)
02/20/2018	Massachusetts Historical Commission (MHC)
02/21/2018	Association to Preserve Cape Cod (APCC)
02/22/2018	Massachusetts Department of Environmental Protection (MassDEP) – Southeast Regional Office (SERO)
02/23/2018	Massachusetts Natural Heritage and Endangered Species Program (NHESP)
02/23/2018	Cape Cod Commission (CCC)

MAB/PPP/ppp