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January 8, 2021

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ESTABLISHING A SPECIAL REVIEW PROCEDURE

PROJECT NAME : Barnstable Comprehensive Wastewater Management Plan
PROJECT MUNICIPALITY : Barnstable
PROJECT WATERSHED : Cape Cod
EEA NUMBER : 16148
PROJECT PROPONENT : Town of Barnstable
DATE NOTICED IN MONITOR : November 23, 2020

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62I) and Section 11.09 of the MEPA regulations, I hereby establish a Special Review Procedure (SRP) to guide the implementation of the Comprehensive Wastewater Management Plan (CWMP) for the Town of Barnstable. Notice of the issuance of this SRP will be published in the next edition of the Environmental Monitor on January 22, 2021.

Project Description

As previously described in the Expanded Environmental Notification Form (EENF)/Comprehensive Wastewater Management Plan (CWMP), the CWMP describes the Town of Barnstable's plan to address water quality management concerns resulting from population growth and increased development. The CWMP is a 30-year plan focused on traditional sewerage solutions to replace the current dependence on septic systems; these solutions will be implemented in three 10-year phases. The plan has been designed to address multiple goals and needs of the community, specifically: nutrient removal, pond protection, drinking water protection, economic development and other related concerns regarding wastewater management.

Project Site

The Town of Barnstable is located in the central section of Cape Cod. Its year-round population is 45,193 (US Census 2010) while seasonal population can grow to more than three times that amount. The Town contains eight watersheds, including the Popponesset Bay Watershed, Rushy Marsh Watershed, Three Bays System Watershed, Centerville River System Watershed, Halls Creek Watershed, Lewis Bay Watershed, Barnstable Harbor Watershed, and a very small portion of the Scorton Creek Watershed. Of these watersheds, three are contained solely within the Town's borders (Centerville River System Watershed, Halls Creek Watershed and Rushy Marsh Watershed), while the rest are shared with neighboring communities. Five of the eight watersheds have a Total Maximum Daily Load (TMDL) for nitrogen. A TMDL is the maximum pollutant load a water body can receive and still meet water quality standards. As of the submittal date of the Single EIR/CWMP, TMDLs are in place for Popponesset Bay, the Three Bays System, the Centerville River System, Halls Creek, and Lewis Bay.

The Town's existing wastewater infrastructure includes the Barnstable Water Pollution Control Facility (WPCF) located in Hyannis and a smaller wastewater plant in Marstons Mills referred to as the Marstons Mills Wastewater Treatment Plant (MMWWTP). The WPCF treats an average daily flow of 1.67 million gallons per day (mgd) and has a maximum-month average daily flow of 1.97 mgd (2018 flow data). The WPCF is permitted for a treatment capacity of 4.2 MGD and an effluent disposal capacity of 2.7 mgd.

The Federal Emergency Management Agency (FEMA) prepared a series of Flood Insurance Rate Maps (FIRM), effective July 16, 2014, that depict flood zones across the town. Coastal Flood Zones with Velocity Hazard (VE zone) are located along the Town's northern and southern coasts and the 100-year flood plain extends landward from the coasts with varying Base Flood Elevations (BFE).

Permitting and Jurisdiction

The SRP addresses multiple CWMP projects, which may meet/exceed MEPA review thresholds both individually and cumulatively. Said review thresholds may include 301 CMR 11.03(5)(a)(3), construction of one or more new sewer mains of ten or more miles in length; 301 CMR 11.03(3)(b)(1)(f), alteration of one half or more acres of any other wetlands; 301 CMR 11.03(5)(b)(2), expansion of an existing wastewater treatment and/or disposal facility by the greater of 100,000 gpd or 10% of existing capacity; 301 CMR 11.03(5)(a)(1), construction of a new wastewater treatment and/or disposal facility with a capacity of 2,500,000 or more gpd; and, 301 CMR 11.03(5)(b)(1), construction of a new wastewater treatment and/or disposal facility by the greater of 100,000 or more gpd. Individual CWMP projects may require permitting from Massachusetts Department of Environmental Protection (MassDEP) and from the Massachusetts Department of Transportation (MassDOT). Individual CWMP projects may also require review under the Massachusetts Endangered Species Act (MESA) by the Natural Heritage Endangered Species Program (NHESP); review by the Massachusetts Historical Commission under Section 106 of the National Historic Preservation Act of 1966 and M.G.L. Chapter 9, sections 26-27C (950 CMR 70-71); and/or Federal Consistency Review with the Massachusetts Coastal Zone Management Office.

Individual CWMP projects may also require Orders of Conditions (OC) from the Barnstable Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions (SOC) from MassDEP). The projects may be subject to review by the Cape Cod Commission (CCC) to determine consistency with the Section 208 Area-wide Water Quality Management Plan. The projects may also require a National Pollutant Discharge Elimination System (NPDES) Construction Activities Permit from the U.S. Environmental Protection Agency (EPA) and authorizations from the U.S. Army Corps of Engineers (ACOE) under the General Permits for Massachusetts.

SPECIAL REVIEW PROCEDURE

The Town of Barnstable has requested the Secretary establish an SRP for the development and implementation of the CWMP under MEPA. As requested by the Town of Barnstable, notice of the request was published in the Environmental Monitor on November 23, 2020 which commenced a 30-day public comment period. No comment letters on the SRP request were received although MassDEP, NHESP, and the Cape Cod Commission provided comments on the Single EIR.

As described in the SRP request, Town plans to address the water quality and wastewater needs of the community through implementation of a number of improvements which fall into the following project categories:

- Sewer system expansion;
- WPCF Rehabilitation Projects;
- WPCF Expansion Projects;
- Expansion of the Effluent Disposal Capacity;
- Non-traditional solutions; and
- Inter-municipal partnerships.

The above improvements will be implemented in three 10-year phases. The Town's CWMP has been reviewed at the master planning level through a Single EIR and has provided sufficient disclosures on the proposed sewer expansion and other elements of the project; however, sufficient information is not currently available to enable review of some of the remaining future improvements. The purpose of the SRP is to separate implementation of the CWMP into phases, and to allow expansion of the sewer system and other components to proceed with permitting and construction prior to remaining future improvements.

Based on the information in the SRP request, consultation with state agencies, and this office's expertise with tailored project reviews, I concur that a project specific procedure, as provided for in Section 11.09 of the MEPA regulations, will enhance the review of this project. The SRP will benefit the environment and serve the purposes of MEPA by providing meaningful opportunities for public review, analysis of alternatives, and consideration of cumulative environmental impacts as discrete projects comprising the CWMP are implemented. I note that

any material changes to the CWMP itself may require submittal of separate filings other than those identified below.

As outlined below in greater detail, no additional MEPA review is required for expansion of the sewer system (provided it is located within an identified Wastewater Needs Area and does not materially increase environmental impacts from those previously disclosed), WPCF Rehabilitation Projects, or Non-traditional solutions that do not exceed a MEPA review threshold. Additional MEPA review in the form of a Notice of Project Change (NPC) may be required for WPCF Expansion Projects, expansion of the effluent disposal capacity, non-traditional solutions that exceed a MEPA review threshold, and projects implemented through an inter-municipal partnership. As described below, the Secretary may require further review of any NPC through the filing of an Environmental Impact Report (EIR), and in such case, a Single EIR will be presumptively required. For any projects that independently exceed EIR thresholds, an EIR will be required. An NPC filing that seeks to file a Single EIR must contain such request and follow the procedures in 301 CMR 11.05(7) and 301 CMR 11.06(8).

Sewer System Expansion Program

The sewer system expansion program is the core of the Town's CWMP and will consist of the construction of 86 pump stations and the installation of ± 190 miles of new sewer infrastructure, serving $\pm 11,816$ properties and collecting ± 2.1 million gallons per day (MGD) of new flow (± 4.6 MGD total including existing flow and buildout projections). Due to the massive size of this program, it will be necessary to execute the program as dozens of smaller, more manageable projects over the course of 30 years, which are defined by logical project boundaries (i.e. topography/sewershed, neighborhoods, etc.). MEPA review will not be necessary for implementation of these future sewer expansion projects (including construction of pump stations), provided they are located within the Wastewater Needs Areas identified in the CWMP and do not result in material changes to environmental impacts from those disclosed in the CWMP as shown in Figure 2-24: Wastewater Needs Areas. In particular, a material change to the sewer main extension program to locate a significant portion outside already paved rights of way, or other changes that materially increase wetland or land impacts or that will require new or different permits from those previously disclosed may require review. The Town should consult with the MEPA Office to determine the need for additional MEPA review of changes to the proposed sewer expansion program (including construction of associated pump stations) as stated above.

WPCF Rehabilitation Projects

The projects that fall into the rehabilitation category will improve existing facilities that need rehabilitation due to age of the infrastructure and include the following projects: Solids Handling Facility, Headworks Facilities, and Backup Power. The main goal of these projects is to rehabilitate existing aging infrastructure. These projects will consider the increased flow as a result of the sewer expansion program, but will not increase the permitted flow to the WPCF nor require modification to the WPCF's Groundwater Discharge Permit (GWDP). These projects may utilize SRF funding and will require a Treatment Works Plan Approval by MassDEP, but they are not anticipated to exceed any MEPA review thresholds. The WPCF is not located within mapped rare species habitat and there are no wetland resource areas near the WPCF.

Implementation of the WPCF Rehabilitation projects will not require further review provided they do not meet/exceed a MEPA review threshold.

WPCF Expansion Projects

The projects that fall into the treatment plant capacity expansion category are projects required in order to accommodate the increase in flow at the WPCF and will require a modification to the WPCF's GWDP. The treatment plant capacity expansion projects include: Aeration Tanks/System, Nutrient Removal Technologies, and Secondary Clarifiers. The SRP request indicated that these projects may meet or exceed the MEPA review threshold at 301 CMR 11.03(5)(b)(2) - Expansion of an existing wastewater treatment and/or disposal facility by the greater of 100,000 gpd or 10% of existing capacity. Should this or other applicable thresholds be exceeded, the Town should submit an NPC to the MEPA Office that cumulatively addresses the WPCF Expansion Projects. If these projects will occur in phases, future filings should provide a cumulative (envelope) buildout analysis and provide supplemental information on specific project designs for components that will proceed on an earlier timeframe. However, the expansion projects should be considered cumulatively for purposes of determining applicability of MEPA review thresholds.

Expansion of the Effluent Disposal Capacity

The sewer expansion program will require an expansion of the effluent disposal capacity for the WPCF. The Town is actively evaluating options for effluent disposal expansion. The SRP requested indicated that the proposed expansion of the effluent disposal capacity may meet or exceed the following MEPA review thresholds depending upon the design capacity and location of the effluent disposal expansion facility:

- 301 CMR 11.03(5)(a)(1) - Construction of a new wastewater treatment and/or disposal facility with a capacity of 2,500,000 or more gpd;
- 301 CMR 11.03(5)(b)(1) - Construction of a new wastewater treatment and/or disposal facility by the greater of 100,000 or more gpd;
- 301 CMR 11.03(5)(b)(2) - Expansion of an existing wastewater treatment and/or disposal facility by the greater of 100,000 gpd or 10% of existing capacity; and,
- 301 CMR 11.03(4)(c)(2) - New discharge or expansion in discharge to groundwater of 50,000 or more gpd of sewage within any other area.

The Town should submit an NPC to the MEPA Office that addresses the proposed effluent disposal expansion once details are available. The filing should describe all proposed locations for effluent disposal and all associated impacts. It should set forth an alternatives analysis that shows that all feasible alternatives that would avoid or minimize environmental impacts associated with the selected sites were considered.

Non-traditional Solutions

The sewer expansion program has been designed to meet the nitrogen TMDLs in the estuaries, thus achieving the regulatory requirement without the use of non-traditional projects. However, the Town has designed the CWMP with the ability to integrate non-traditional projects

in the last phase (Phase 3) based on the results of demonstration projects. The non-traditional demonstration projects will be implemented in the first phase of the Project, and then monitored and reported to MassDEP, with the goal of potentially reducing the need for Phase 3 sewer expansion projects in certain areas. The focus area of the future non-traditional strategy will be in the Three Bays Watershed.

The CWMP identified the following non-traditional demonstration projects that will be implemented, monitored, and potentially incorporated into the CWMP:

- Improving nutrient attenuation in the cranberry bogs in the upper end of the Marston's Mills River. Potential environmental impacts, mitigation measures and potentially applicable MEPA thresholds are unknown at this time and will be dependent upon the recommended nutrient attenuation technique to be implemented in the bogs. The Town anticipates that this project will require review/permits from numerous regulatory agencies.
- Dredging of Mill Pond. The Town anticipates that this project will require review/permits from numerous regulatory agencies.
- Innovative/alternative (I/A) septic system technologies focused on nutrient removal. No permitting is anticipated for the installation of I/A systems (other than local approvals) as it is assumed that only I/A septic systems that have been approved for general use by MassDEP will be utilized.
- Nutrient reduction BMPs at horse farms. Potential environmental impacts, mitigation measures, permitting requirements and potentially applicable MEPA thresholds are unknown at this time and will be dependent upon the recommended nutrient reduction technology that is implemented.
- Dredging and establishment of an aquaculture nursery in Warren's Cove. Potential environmental impacts, mitigation measures and potentially applicable MEPA thresholds are unknown at this time and will be further evaluated during design development.
- Dredging and inlet widening of Sampson's Island to improve flushing within the Three Bays. This project was subject to a prior MEPA review which studied and identified the environmental impacts and mitigation measures (EEA# 15197, Dead Neck/Sampson's Island Restoration and Management Project). The Certificate on the Expanded ENF, issued June 27, 2014 indicated that the project did not require further MEPA review. In a separate Final Record of Decision (FROD) issued July 25, 2014, a Waiver was granted from the requirement to prepare a mandatory EIR for the project. Implementation of the project began in 2018 and will be completed in the winter of 2020. No further permitting is required, and the Town is currently working with MassDEP to develop a monitoring plan for the project.
- Installation of Stormwater BMPs focused on nutrient reduction. These BMPs will generally replace and/or supplement existing traditional stormwater infrastructure that are less effective at removing nutrients from stormwater runoff. No permitting is anticipated to be necessary for the installation of Stormwater BMPs, except when the BMPs are within areas subject to the Wetlands Protection Act which will require Conservation Commission approval.

Each non-traditional solution will require unique regulatory review which will be further identified through discussions with regulatory agencies as the projects are developed. It is unclear at this time whether any of the non-traditional solutions identified above, or additional non-traditional solutions that may be proposed in the future, will exceed MEPA thresholds. The Town should submit an NPC for each of the above non-traditional projects or others that may be proposed in the future, to the extent such projects exceed one or more MEPA review thresholds and require Agency Actions. The NPC should demonstrate that the non-traditional solution has been designed to minimize environmental impacts while achieving water quality benefits and it should include a comparison of the impacts associated with the non-traditional and traditional solutions that achieve similar water quality benefits. For sake of expediency, the Town is encouraged to make a combined filing for non-traditional solutions that may proceed on a similar time frame. Each filing should provide details on the strategy being pursued, an analysis of the impacts associated with the strategy and mitigation measures, and an update on the status of the other non-traditional solutions that were disclosed in the Single EIR, including whether the Town intends to formally incorporate the non-traditional solution(s) into the CWMP to seek credit towards achieving nutrient removal goals. If so, the NPC should include a justification for why incorporation of the non-traditional solution is warranted, including, to the extent available, a summary of any monitoring data for the non-traditional solution that was included in the 5-year adaptive management plan updates provided to other regulatory agencies, and a description of any changes that may be made to other components of the CWMP (such as the sewerage component) as a result of adopting non-traditional solutions into the CWMP. The MEPA Office should be consulted to determine applicability of review thresholds. The Town anticipates, at a minimum, that a NPC will be required to disclose impacts associated with efforts to improve nutrient attenuation in the cranberry bogs at the upper end of Marston's Mills River, the dredging of Mill Pond, and dredging and establishment of an aquaculture nursery in Warren's Cove.

In addition to the above filings, the Town is directed to submit each 5-year adaptive management plan update to the MEPA Office and other applicable regulatory agencies (including at a minimum, MassDEP and NHESP). The 5-year update should provide data demonstrating the efficacy of the non-traditional solutions in achieving any nitrogen reduction credits proposed by the Town and contain the information identified in the *Adaptive Management Plan* section of the Single EIR Certificate. The update shall be published in the Environmental Monitor for a 30-day public comment period. The purpose of this is to notify individuals and agencies of the availability of the 5-year update and to afford them an opportunity to review the update and provide comments and feedback directly to the Town. The Secretary will not issue a Certificate on the 5-year update. The Town should consider comments received in seeking regulatory approvals, including approval from MassDEP for nitrogen reduction credit. A copy of comments received and written responses should be included in future MEPA filings to the extent applicable. This procedure shall not supersede the Town's obligation under 301 CMR 11.10 to file an NPC to disclose material changes to the CWMP that may result from a 5-year adaptive management plan update. The Town should consult with the MEPA Office to determine whether future changes to the CWMP will require additional review beyond the filings outlined above.

Inter-Municipal Partnerships

The Town has been and will continue to actively engage with neighboring communities to explore the potential of inter-municipal partnerships to address wastewater needs. Should an intermunicipal wastewater partnership materialize in the future and result in projects that meet/exceed any applicable MEPA review thresholds, the Town should consult with the MEPA Office to determine the appropriate filing (ENF or NPC). Barnstable shares watersheds with the towns of Mashpee, Sandwich, and Yarmouth.

Notice of Project Change Format

The NPCs should provide, at a minimum, a level of detail consistent with an Environmental Notification Form (ENF) and include an overview of the proposed work, analyses of project alternatives and potential cumulative impacts, and address climate change impacts, including greenhouse gas emissions (GHG) and climate change adaptation.

The NPCs will be noticed in the Environmental Monitor for review by state permitting agencies and the general public. For any NPC filing for which the Secretary requires further review through preparation of an EIR, a Single EIR will be presumptively required but the NPC must contain the request. The Town may request a Single EIR or a partial or full Waiver from the requirement to submit an EIR. The NPC must provide a level of detail sufficient to support the request, in accordance with the relevant provisions for Expanded ENFs within the MEPA regulations. In reviewing any submission by the Town under this SRP, I retain the discretion as Secretary to require, or not to require, the preparation of an EIR, irrespective of whether the project exceeds mandatory EIR thresholds, consistent with the provisions of the MEPA regulations governing Notices of Project Change at 301 CMR 11.10. However, the EIR thresholds shall remain informative in this regard. This SRP shall not supersede the Secretary's ability to require review if otherwise required by law, and shall not preclude any voluntary filings by the Town in consultation with the MEPA Office.

Circulation Requirements

The MEPA documents submitted pursuant to this SRP should be circulated to each Town, Federal, and State Agency from which the Town will seek permits or approvals and to those identified in 301 CMR 11.10(7) as related to EEA# 16148. Filings submitted to the MEPA Office pursuant to this SRP must include a digital copy (e.g., CD-ROM, USB drive) of the complete document.

Term / Modification

This SRP shall remain in effect during the 30-year implementation period as outlined in the CWMP, unless otherwise modified before such time. If Town of Barnstable (the Proponent) wishes to modify any provision in this SRP, it may file a request for modification of the SRP in the form of an NPC.

Conclusion

The Proponent's signature below indicates consent to the establishment of a SRP and the specific provisions outlined in this Certificate.

January 8, 2021
Date



Kathleen A. Theoharides

January 8 , 2021
Date



Daniel Santos, Director
Town of Barnstable,
Department of Public Works

Comments received:

None

KAT/ACC/acc