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May 1, 2020

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

PROJECT NAME	: Bridgewater Comprehensive Wastewater Management Plan – Recommended Plan
PROJECT MUNICIPALITY	: Bridgewater
PROJECT WATERSHED	: Taunton River
EEA NUMBER	: 16162
PROJECT PROPONENT	: Town of Bridgewater
DATE NOTICED IN MONITOR	: March 11, 2020

Pursuant to the Massachusetts Environmental Policy Act (MEPA) (M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** an Environmental Impact Report (EIR).

The project was published in the Environmental Monitor on March 11, 2020. The Proponent consented to an extension of the comment period which closed on April 14, 2020. The deadline for issuance of this Certificate was extended from April 24, 2020 pursuant to the Governor's Covid-19 Order No. 17: Order Suspending State Permitting Deadlines and Extending the Validity of State Permits.

Project Description

The Town of Bridgewater (Town) completed a Comprehensive Wastewater Management Plan (CWMP) in 2019 to address its wastewater needs and water quality goals for a 20-year planning period. The Environmental Notification Form (ENF) included a copy of the CWMP and describes a Recommended Plan for improvements to the wastewater collection, treatment and disposal systems designed to meet the conditions of a 2016 National Pollutant Discharge Permitting System (NPDES) permit issued by the U.S. Environmental Protection Agency (EPA)

and Massachusetts Department of Environmental Protection (MassDEP) and to provide reliable wastewater infrastructure for the next 20 years.

EPA and MassDEP issued an NPDES permit to the Town on September 30, 2016. The permit was a renewal of the NPDES permit issued in 2003 and included more stringent nutrient (phosphorous and nitrogen) removal requirements than the 2003 permit. The Town appealed the new permit and entered into a Consent Order with the EPA and MassDEP in April 2017. The Consent Order allows the Town's Wastewater Treatment Facility (WWTF) to discharge effluent to the Town River in accordance with the 2003 permit nutrient limits and established a schedule for the Town to prepare a CWMP and implement changes to the wastewater system to meet the 2016 permit requirements.

The Recommended Plan includes the following improvements to the Town's WWTF:

- Enhanced nitrogen removal by rehabilitating components of the rotating biological contactors (RBC)[1], adding blowers to facilitate mixing with diffused air, modifying and adding treatment tanks with mixers and other ancillary equipment, rehabilitating two existing clarifiers and possibly adding a third clarifier and modifications to the waste sludge pumping system;
- Addition of an influent screen and rehabilitation of grit removal and septage receiving tanks and pump systems at the headworks;
- Upgraded primary treatment by replacing the two existing primary clarifiers;
- A new effluent filtration system;
- Conversion of the disinfection system from gas to liquid chlorination and dechlorination;
- Modernization of sludge press feed pumping systems and belt filter press equipment with new dewatering presses and renovation of the sludge conveying systems that transport dewatered sludge from the presses to the storage garage; and
- Modifications to chemical storage and feed facilities and piping and pumping systems to support new processes.

In addition to improving its pollutant removal capability, the changes to the WWTF will expand the treatment capacity from 1.44 million gallons per day (mgd) to 1.54 mgd. The project also includes renovations to the interior and exterior of the WWTF buildings, including an addition to the administration building to provide restrooms, locker rooms and space for electrical system upgrades and new walkways and improvements to the stormwater management system. The third clarifier and new effluent filtration system would be constructed in a second phase if they are determined to be necessary based on an evaluation of the performance of the other improvements with respect to meeting permitting requirements and the needs of facility operations.

[1] An RBC system is a biological treatment process in which degradation of sewage occurs by microorganisms growing in a film on parallel discs mounted on a slowly rotating shaft in tanks filled with wastewater that has undergone primary treatment. See the EPA's "Summary of Design Information on Rotating Biological Contactors" at https://nepis.epa.gov/Exe/ZyPDF.cgi/2000GGPR.PDF?Dockey=2000GGPR.PDF

The Recommended Plan also proposes the construction of 7.6 miles of sewer mains and four pump stations to extend the wastewater collection system to 326 properties in the following Needs Areas identified in the CWMP:

- Lakeside Drive;
- Goodwater Way/ Pleasant Street;
- Dundee Drive/ Aberdeen Lane;
- Norlen Park;
- Whitman Street; and,
- Hayward Street.

Project Site

The Town's wastewater collection and treatment systems serve approximately one-third of the developed properties in the Town. These properties are located in northern Bridgewater (primarily in the Downtown area and surrounding neighborhoods), along Route 104 and parts of Route 18, and within the campus of Bridgewater State University. The remaining properties are served by on-site septic systems.

The WWTF is located on an approximately three-acre site on Morris Avenue. It is surrounded by undeveloped land and wetlands associated with the Town River. The facility is designed and permitted for an average daily flow design capacity of up to 1.44 mgd, but wastewater flows to the WWTF average approximately 1.0 mgd. The WWTF provides secondary biological treatment with nitrification through the use of sewage grinding and grit removal, primary settling tanks, secondary treatment by RBC units, secondary clarification and disinfection. Treated effluent is discharged via a 20-inch diameter outfall pipe to the Town River. Sludge is dewatered on two belt filter presses and composted; the compost is suitable for reuse and land application. The Town's collection system consists of 35 miles of gravity sewers ranging in diameter from five inches to 15 inches, 15 miles of low pressure sewer mains ranging from two inches to five inches in diameter and 15 pump stations, including eight maintained by the Town and seven that are privately owned.

The Lakeside Drive and Goodwater Way/Pleasant Street areas are located within Priority Habitat of rare species. According to the Natural Heritage and Endangered Species Program (NHESP), sewer main construction in these areas may not require review under the Massachusetts Endangered Species Act (MESA) pursuant to exemptions for sewer lines within or adjacent to roadways at 321 CMR 10.14 (6) and (10).

Environmental Impacts and Mitigation

Potential environmental impacts of the project include alteration of 7.2 acres of land and creation of 0.3 acres of impervious area associated with the construction of new sewer mains, pump stations and upgrades to the WWTF. Extension of sewer mains will increase flow to the WWTF by 384,000 gpd.

The project will improve surface and groundwater quality by upgrading treatment processes at the WTWTF and directing wastewater from septic systems to treatment at the WWTF. Impacts associated with construction of new facilities at the WWTF and new sewer

mains are primarily temporary in nature and will be mitigated by the use of measures to minimize sedimentation and air and noise impacts.

Permitting and Jurisdiction

The project is undergoing MEPA review and requires the filing of an ENF because it will require an Agency Action and it meets the review threshold at 301 CMR 11.03(5)(b)(3)(b), construction of new sewer mains five or more miles in length. The Recommended Plan requires approval by MassDEP through the State Revolving Fund (SRF) program or a Plan Approval for New/Modified Wastewater Treatment Facility.

The project requires an Order of Conditions from the Bridgewater Conservation Commission (or, on appeal, a Superseding Order of Conditions from MassDEP). As discussed, a 2016 NPDES permit for the wastewater system sets the conditions under which effluent from the Town's wastewater system may be discharged into surrounding waters. The project requires a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the EPA.

Because the project may receive Financial Assistance from MassDEP through the SRF, MEPA jurisdiction is broad in scope and extends to all aspects of the project that may cause Damage to the Environment, as defined in the MEPA regulations.

Review of the ENF/CWMP

The ENF included a comprehensive CWMP that provided a detailed description of the existing wastewater management system, identified the Town's future wastewater needs, and evaluated system alternatives to meet future wastewater needs and to comply with NPDES discharge limits. It reviewed and provided maps of environmental conditions, including flood zones, wetlands and rare species habitat. The ENF included a review of treatment system technologies and alternative sewer main construction methods. It described the components of the Recommended Plan and identified environmental impacts and mitigation measures associated with its construction. The CWMP and Recommended Plan will be submitted to MassDEP for its review and approval prior to construction of the proposed facilities.

In addition to analyzing the Town's wastewater management needs, the CWMP includes brief evaluations of the Town's drinking water supply and stormwater systems. Necessary upgrades to the water system include replacement of undersized and asbestos/concrete water mains, adding water main loops to improve reliability, and replacement of water meters. The Town will reevaluate its water conservation programs and evaluate options for increasing groundwater recharge and acquiring land for watershed protection purposes. The Town will develop a Stormwater Management Plan (SWMP) outlining activities and measures that the Town will implement to meet the EPA's Municipal Separate Storm Sewer Systems (MS4) permitting requirements. Measures to address stormwater pollution will include identifying and eliminating illicit connections, adopting and administering bylaws regarding pre- and post-construction stormwater controls for development projects and developing a Stormwater Pollution Prevention Plan (SWPP) to guide municipal operations. The ENF did not describe the environmental impacts of improvements to the Town's drinking water or stormwater systems described in the CWMP or identify any State Agency Actions that may be required for their

implementation. The Town should consult with the MEPA Office if any proposed activities meet or exceed MEPA review thresholds.

Needs Analysis

The CWMP included a Needs Analysis that defines the wastewater needs of the Town based on evaluations of conditions in unsewered areas, projected wastewater flows and expected permit conditions. It reviewed the Town's planning documents for residential and commercial development and wastewater infrastructure.

Wastewater flow is projected to increase by approximately 384,000 gpd during the 20-year planning period. The Town's population of 26,562 (based on the 2010 census) is expected to grow to approximately 28,000 by the year 2030. The CWMP estimated that wastewater flows will increase by approximately 309,000 gpd based on projections of population increase, commercial and residential development, planned connections to unsewered properties and growth of the Bridgewater State University campus.

Sewering of the Needs Areas will add approximately 75,000 gpd to the wastewater collection system. The CWMP evaluated eight potential Needs Areas comprised of residential neighborhoods with on-site septic systems located in unsuitable areas with high groundwater, poor soils and/or small lots. The six Needs Areas identified earlier were prioritized based on their construction feasibility, cost and environmental benefits. The Lakeside Drive, Goodwater Way/ Pleasant Street, Dundee Drive/ Aberdeen Lane, Norlen Park and Hayward Street Needs Areas are adjacent to either the Town River, Lake Nippenicket or wetland areas. Sewering of these areas will improve water quality by reducing pollutants in groundwater contributing to those surface waters. The Whitman Street Needs Area was selected for sewering because repairing or replacing septic systems in the area is expected to be difficult due to soil conditions and high groundwater.

Wastewater Management

Wastewater management alternatives reviewed in the CWMP included on-site septic systems, shared Title 5 (septic) systems, decentralized treatment systems and a centralized treatment system (WWTF). The Recommended Plan includes both maintenance of private on-site septic systems for most properties in the Town and expansion of the wastewater collection system to connect six Needs Areas to the WWTF. This combination of wastewater management strategies will minimize impacts as it avoids constructing sewers to serve all properties in Bridgewater and addresses areas where septic systems may fail or may be difficult to maintain.

Sewer Collection System Technologies

For each Needs Area to be sewered, the CWMP evaluated the feasibility of the following technologies:

- Conventional gravity sewers with pump stations and force mains;
- Grinder pumps and low-pressure sewers;

- Innovative and alternative (I/A) technologies such as septic tank effluent pump systems, vacuum sewer systems, and small diameter variable slope gravity sewer systems; and,
- A combination of these technologies (a hybrid system).

The Town's existing wastewater collection system is a hybrid of gravity and low-pressure sewers. Conventional gravity sewers are feasible where the topography allows for wastewater to flow from higher elevations to the WWTF; such systems include pump stations at low points to collect and pump the wastewater to the WWTF or to the nearest high point in the sewer system, where the wastewater may again flow by gravity. Low-pressure sewers are used in areas of varying topography to connect a site to the nearest gravity sewer. Small diameter polyvinyl chloride (PVC) or high-density polyethylene (HDPE) pipes are used to convey wastewater from a grinder tank that macerates the solids present in the wastewater to a slurry. Low-pressure sewers are buried close to the surface and minimize construction impacts associated with conventional sewer mains. The analysis of I/A technologies concluded that these systems are not feasible due to associated nuisance odors, poor performance in cold climates or topography of the Needs Areas. The Recommended Plan includes the use of both gravity and low-pressure sewers.

Sewer Construction

The CWMP reviewed alternative pipe installation methods that may be used in place of conventional trenching. These alternatives include trenchless technologies such as pipe jacking, microtunneling, pipe ramming, and horizontal directional drilling. Excavation associated with these methods is limited to a pit where a section of pipe is inserted into the ground and a pit at the other end of the installed pipe. Pipes are installed by being pushed or pulled through the soil through borings or casings. Each of these methods minimizes impacts associated with surface excavation and can be used to cross under roadways or wetlands without causing direct impacts to traffic or resource areas. According to the ENF, the use of trenchless technologies will be evaluated during the final design of the project.

Wastewater Treatment Techniques

The 2016 NPDES permit will require the Town to reduce the concentration of Total Phosphorous in the effluent from the limit of 1.0 milligrams per liter (mg/l) allowed in the 2003 NPDES permit to 0.3 mg/l, and establishes a Total Nitrogen limit of 60 pounds per day (lbs/day), which did not have a numerical limit in the 2003 permit. Upgrades to the WWTF will increase its treatment capacity by approximately 100,000 gpd to 1.54 mgd. The Town will continue to operate within the 1.44 mgd capacity allowed in the NPDES for the foreseeable future and will seek an amendment of its permit if necessary. .

The CWMP included a screening analysis that considered 16 combinations of chemical and treatment processes to remove phosphorous and nitrogen from wastewater. The alternatives were evaluated on the basis of their effectiveness in meeting NPDES permit limits, potential for installation within the limited space available at the WWTF site and compatibility with the existing treatment technologies used at the WWTF. The following three alternatives were selected for a more detailed review:

- Replacement of the existing RBC process with and a Sequencing Batch Reactor (SBR)[2] activated sludge configuration, with multi-point chemical feed for phosphorus removal and effluent polishing filters;
- Replacement of the existing RBC process with a new five stage Bardenpho[3] treatment process, with multipoint chemical feed for phosphorus and polishing filters; and
- Refurbishment of the existing RBCs to enhance nutrient removal, with multi-point chemical feed for phosphorus removal and effluent polishing filters (Preferred Alternative)

The Recommended Plan identifies the refurbishment of the existing RBCs as the Preferred Alternative for wastewater treatment. It was selected because it involves a modification of the existing process technology that the WWTF staff is familiar with and has successfully operated and maintained, rather than removal of the RBCs and construction of new systems. Moreover, the upgrades can be added within the footprint of disturbed areas at the WWTF and will not result in impacts to adjacent wetland areas. This alternative will meet nutrient removal requirements in the 2016 NPDES permit and add sufficient treatment capacity to address added flows from sewering the Needs Areas and future growth. The Preferred Alternative will minimize the potential for releases of untreated wastewater during the construction period because the existing systems will not be replaced and will continue to function while the WWTF is modified.

Public concerns have been raised in recent years regarding the presence of per- and polyfluoroalkyl substances (PFAS) in drinking water, groundwater and possibly effluent discharges from wastewater treatment plants. While there are currently no state or federal effluent standards for PFAS, MassDEP is evaluating the implications of PFAS in wastewater, including the potential effects of elevated PFAS concentrations in the effluent on downstream water supplies. To the extent these efforts lead to modified permit conditions, the Town will need to comply with such conditions in the future.

Climate Change

Governor Baker's Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth (EO 569; the Order) was issued on September 16, 2016. The Order recognizes the serious threat presented by climate change and direct Executive Branch agencies to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The Order seeks to ensure that Massachusetts will meet Greenhouse Gas (GHG) emissions reduction limits established under the Global Warming Solution Act of 2008 (GWSA) and will work to prepare state government and cities and towns for the impacts of climate change. The MEPA statute directs all State Agencies to consider reasonably foreseeable climate change impacts, including additional greenhouse gas

[2] SBR is a biological treatment process in which wastewater is broken down by microorganisms contained in an activated sludge in tank that is mixed and aerated. See EPA's "Wastewater Technology Fact Sheet: Sequencing Batch Reactors" at https://www3.epa.gov/npdes/pubs/sbr_new.pdf

[3] The Bardenpho treatment process involves passing wastewater through alternating anaerobic and aerobic zones containing sludge with microorganisms to remove nitrogen and phosphorous. See EPA's "Nutrient Control Design Manual" at https://www.epa.gov/sites/production/files/2019-02/documents/nutrient-control-design-manual.pdf.

emissions, and effects, such as predicted sea level rise, when issuing permits, licenses and other administrative approvals and decisions. M.G.L. c. 30, § 61.

Adaptation and Resiliency

The region's climate is expected to experience more frequent and intense storms. The Northeast Climate Science Center at the University of Massachusetts at Amherst has developed projections of changes in temperature, precipitation and sea level rise for Massachusetts. This data is available through the Climate Change Clearinghouse for the Commonwealth at www.resilientMA.org. By the end of the century, the average annual total precipitation in the Taunton River Basin is projected to increase by 0.4 to 7.3 inches, which may be associated with more frequent and more intense storms. The WWTF and several of the Needs Areas are located adjacent to surface water bodies and wetlands and within floodplains. The ENF did not review potential conditions at the site under future climate change scenarios or how the project design will make this infrastructure resilient under those conditions. I encourage the Proponent to consider future climate change conditions as the design of the project is finalized and proceeds to permitting. Comments from MassDEP indicate that it will consider the climate change resiliency of the proposed design in its evaluation of the CWMP.

Greenhouse Gas (GHG) Emissions

The CWMP identified features of the wastewater management system that could be designed to save energy and minimize GHG emissions. As described in the ENF, RBCs are among the least energy-intensive treatment processes because mixing and aeration are accomplished by the slow rotation of the discs rather than by air blowers and pumps used in the SBR and Bardenpho systems. Additional energy savings could be realized by using premium efficiency motors and variable speed drives in all water and sewer pumping systems and wastewater treatment projects, improving the building envelope of new or renovated buildings at the WWTF and using high-efficiency heating, ventilation and air conditioning (HVAC) and lighting systems.

The Town should consult MassDEP's comment letter, which offered technical resources for planning, designing and implementing measures to improve the resiliency and energy efficiency of the wastewater management system.

Construction

The Proponent will implement sediment and erosion control measures, including silt curtains in the river surrounding work areas, to minimize water quality impacts. Mats will be used to minimize direct contact between construction machinery and habitat and resource areas. The Proponent should minimize the potential for releases of oil and/or other hazardous materials and consider requiring that construction equipment working near the river use biodegradable hydraulic fluid and through the development and implementation of a spills contingency plan. The project must comply with the Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. c.40, s. 54. I refer the Proponent to comments from MassDEP regarding construction-period requirements regarding air quality, spills prevention and solid waste management. The Proponent should notify MassDEP in accordance with the Massachusetts Contingency Plan (310 CMR 40.00) if oil and/or hazardous materials are found during construction.

Conclusion

The ENF has adequately described and analyzed the project and its alternatives, and assessed its potential environmental impacts and mitigation measures. Based on review of the ENF and comments received on it, and in consultation with State Agencies, I have determined that an EIR is not required. Remaining issues can be addressed through the local, state and federal permitting and review processes.

K. Theoharides

May 1, 2020
Date

Kathleen A. Theoharides

Comments received:

04/02/2020 Division of Marine Fisheries (DMF)
04/09/2020 Natural Heritage and Endangered Species Program (NHESP)
04/14/2020 Massachusetts Department of Environmental Protection (MassDEP) – Southeast Regional Office (SERO)

KAT/AJS/ajs

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April 14, 2020

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Executive Office of Energy and Environmental Affairs
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RE: ENF Review. EOEEA 16162
BRIDGEWATER. Comprehensive Waste Water Management Plan – Town Wide

Dear Secretary Theoharides,
The Southeast Regional Office of the Department of Environmental Protection (MassDEP) has reviewed the Environmental Notification Form (ENF) for the Comprehensive Waste Water Management Plan – Town Wide, Bridgewater, Massachusetts (EOEEA 16162). The Project Proponent provides the following information for the Project:

The CWMP's recommended plan includes two distinct project types: upgrades to Bridgewater's WWTF and sewer expansion to residential needs areas across town. Upgrades to the WWTF will be maintained within the boundary of the existing WWTF. Sewer extensions are proposed for residential areas and will be mainly limited to existing roadways. As the CWMP takes the entire Town into consideration, an excerpt from the CWMP is provided, describing existing conditions in the Town and the project planning area in Attachment B.

General Note:
The submittals included with the ENF contained aspects of the Proponent's Water Resource Management Plan. Due to the limits and difficulties encountered during the current COVID-19 emergency, MassDEP has focused its review on the Comprehensive Wastewater Management Plan (CWMP) and made only a cursory review of the non-CWMP portions of the document attached to the ENF.

Bureau of Water Resources Comments:
Wetlands and Waterways. The Wetlands and Waterways Program has reviewed the ENF for the Bridgewater Comprehensive Wastewater Management Plan and offers the following comments:

Wetlands: Portions of the Project may meet the regulatory requirements to be considered a Minor Exempt Activity. The Project Proponent should review 310 CMR 10.02(2)(b) 1. & 2.j. prior to

preparing and submitting any Notices of Intent. Other portions of the Project may meet the requirements of a Limited Project under the Wetlands Protection Act Regulations (310 CMR10.53 (3)(d)).

The Proponent is advised to determine if there are any known wetland resource areas or buffer zones in the Project area prior to construction. The ENF states that a Notice of Intent will be submitted to the Bridgewater Conservation Commission and the MassDEP as necessary

Waterways
Portions of the Project may require licensing under M.G.L. Chapter 91. An example of a potential need for a c. 91 license would be a sewer line on a bridge over a navigable waterway. MassDEP is available for consultation if there are any questions of the applicability of c. 91.

Wastewater Management. The Proponent has provided a comprehensive review of the conditions in the town of Bridgewater that prioritizes areas that will benefit the most by the extension of the current sewer collection system. To supplement this analysis, MassDEP suggests a review of the Bridgewater Health Department's water quality records of private wells and MassDEP's records for the Public Water Supply at Stiles and Hart to determine if water supplies have been impacted by contaminants associated with onsite septic systems. If any water supplies have been impacted, the Proponent should consider the following mitigations to protect public health: (1) repair and/or relocate the identified septic system(s) and/or private well(s); (2) connect the impacted dwelling to the public water system or (3) connect the impacted area as a whole to the public sewer system.

The design and construction of the Project should follow the requirements contained in the New England Interstate Water Pollution Control Commission Technical Report 16 (TR-16) Guides for the Design of Wastewater Treatment Works. This report can be found at this website: https://neiwpcc.org/learning-center/tr-16-guides-design-wastewater-treatment-works/

Although the report describes the system wide estimate of Infiltration and Inflow (I/I) in Section 2.2.2, there is no description of the Proponent's recent and planned efforts to investigate, remove and mitigate the impacts of I/I. This information should be included in the Final CWMP.

The Proponent identifies the need to accommodate for a minimal increase in the discharge flow at the WWTP to meet expected wastewater flows over the life of the Project. EPA's current practice does not to allow an increase in wastewater discharge volume even if the pollutant load does not affect water quality to the receiving waters of the Taunton River watershed due to anoxic conditions that occur in Narragansett Bay. Other strategies to implement the Project and remain within current permit flows should be aggressively pursued. These include the reduction of I/I, encouraging water conservation including the use of low flow devices and water reuse, etc. The ENF mentions potential new construction at Bridgewater State University (BSU). Prior to any new construction and/or remodeling at BSU, the Proponent should encourage BSU to install a water reuse ("purple pipe") system while it is cost effective to do so. Other construction projects, where it is feasible to deliver water for reuse, should also be engaged to construct water reuse systems.

The Proponent identified the use of chlorine and sulfur dioxide gas at the treatment plant for disinfection. MassDEP supports a change in the disinfection process to change to hypochlorite and bisulfate due to the safety risks to treatment plant staff and the general public associated with the shipping and use of chlorine and sulfur dioxide gas.

Industrial Stormwater Permit. The Project appears to be a subject to the U.S. Environmental Protection Agency (US EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) for stormwater discharges from industrial activity as an activity under Sector T: Treatment Works. The ENF did not mention that the Project was covered under the MSGP. MassDEP reviewed the Notices of Intent (NOI) available for the 2015 MSGP, EPA ECHO and E-enterprise databases and found that the facility was covered by the 2008 MSGP but did not find an NOI for the Facility for the 2015 MSGP. More information on the MSGP may be found at: https://www.epa.gov/sites/production/files/2015-10/documents/sector_t_treatmentworks.pdf

Water Management Act. The Proponent is currently in the process of renewing renewal of its Water Management Act (WMA) permit. Documenting reductions of I/I and improvements in stormwater management can be used for the mitigation necessary during the WMA permitting process. Initial estimates of the impacts of this Project will require additional WMA mitigation, due to the removal of recharge provided by Title 5 systems, during future WMA permit renewals.

Construction Activities. The Project construction activities have the potential to exceed an acre of land and therefore, may require a NPDES Stormwater Permit for Construction Activities. This permit is issued by the U.S. Environmental Protection Agency where the Proponent can access information regarding the NPDES Stormwater requirements and an application for the Construction General Permit at the EPA website: https://www.epa.gov/sites/production/files/2017-07/documents/cgp_flow_chart_do_i_need_a_permit2.pdf

The Proponent should also determine if any of the following U.S. EPA NPDES permits are necessary prior to commencing Project construction:

Dewatering General Permit - https://www.epa.gov/npdes-permits/dewatering-general-permit-dgp-massachusetts-new-hampshire.

Remediation General Permit - https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire.

Additional information regarding these permits may be found at: http://www.epa.gov/region1/npdes/stormwater/assets/pdfs/CGP-DGP-RGP-Flow-Chart.pdf

Bureau of Waste Site Cleanup Comments:

ENF #16162 - Based upon the information provided, the Bureau of Waste Site Cleanup (BWSC) searched its databases for disposal sites and release notifications that have occurred at or might impact the proposed Project area. A disposal site is a location where there has been a release to the environment of oil and/or hazardous material that is regulated under M.G.L. c. 21E, and the Massachusetts Contingency Plan [MCP – 310 CMR 40.0000].

The proposed Comprehensive Wastewater Management Plan involves installation of town-wide sewer lines over a twenty year period. There are many MCP sites located near and possibly within the proposed Project areas across Bridgewater. Some of these MCP sites have been closed, but other sites require on-going response actions and reporting until final closure under the MCP. A list of all MCP sites will not be presented here. Interested parties may view a map showing the location of BWSC disposal sites using the MassGIS data viewer (Oliver) at: http://maps.massgis.state.ma.us/map_ol/oliver.php. Under "Available Data Layers" select "Regulated Areas", and then "DEP Tier Classified 21E Sites". MCP reports and the compliance

status of specific disposal sites may be viewed using the BWSC Waste Sites/Reportable Release Lookup at: https://eeaonline.eea.state.ma.us/portal#!/search/wastesite

The Project Proponent is advised that if oil and/or hazardous material are identified during the implementation of this Project, notification pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000) must be made to MassDEP, if necessary. A Licensed Site Professional (LSP) should be retained to determine if notification is required and, if need be, to render appropriate opinions. The LSP may evaluate whether risk reduction measures are necessary if contamination is present. The BWSC may be contacted for guidance if questions arise regarding cleanup.

If OHM is encountered during the construction of this Project, addressing OHM encountered could likely be accomplished using the Utility-related Abatement Measures provisions at 310 CMR 40.0461 through 40.0469.

The Proponent is advised to determine if there are any known OHM releases that could impact the Project area prior to construction and note any areas where OHM is encountered on the as-built plans.

Spills Prevention. A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and potential on-site activity releases

Bureau of Air and Waste Comments:

Air Quality. Construction and operation activities shall not cause or contribute to a condition of air pollution due to dust, odor or noise. To determine the appropriate requirements please refer to:

310 CMR 7.09 Dust, Odor, Construction, and Demolition
310 CMR 7.10 Noise

Construction-Related Measures

MassDEP requests that all non-road diesel equipment rated 50 horsepower or greater meet EPA's Tier 4 emission limits, which are the most stringent emission standards currently available for off-road engines. If a piece of equipment is not available in the Tier 4 configuration, then the Proponent should use construction equipment that has been retrofitted with appropriate emissions reduction equipment. Emission reduction equipment includes EPA-verified, CARB-verified, or MassDEP-approved diesel oxidation catalysts (DOCs) or Diesel Particulate Filters (DPFs). The Proponent should maintain a list of the engines, their emission tiers, and, if applicable, the best available control technology installed on each piece of equipment on file for Departmental review.

Massachusetts Idling Regulation

The ENF reports that the Project Proponent proposes simply to "minimize idling." MassDEP reminds the Proponent that unnecessary idling (i.e., in excess of five minutes), with limited exception, is not permitted during the construction and operations phase of the Project (Section 7.11 of 310 CMR 7.00). With regard to construction period activity, typical methods of reducing idling include driver training, periodic inspections by site supervisors, and posting signage. In addition, to ensure compliance with this regulation once the Project is occupied, MassDEP requests that the Proponent install permanent signs limiting idling to five minutes or less on-site.

Hazardous Waste Management. If any occupant of the Project generates hazardous waste and/or waste oil, that entity must register with the MassDEP or EPA to obtain a permanent identification

number, as applicable, in accordance with 310 CMR 30.000 for legally generating and managing regulated waste. The Proponent is advised to consult at this MassDEP website https://www.mass.gov/guides/hazardous-waste-generation-generators to determine if the Proponent qualifies as a generator of hazardous waste and/or waste oil.

Spills Prevention. A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and potential on-site activity releases.

Solid Waste Management. MassDEP Solid Waste staff have reviewed the Environmental Notification Form ("ENF") for the Bridgewater Comprehensive Wastewater Management Plan ("Project" or "Site"), and offers the following comments regarding the management of solid waste/ recyclable and asbestos materials generated from the Project pursuant to Massachusetts Solid Waste Regulations 310 CMR 16.00: *Site Assignment Regulations For Solid Waste Facilities,* 310 CMR 19.000: *Solid Waste Management* and 310 CMR 7.15: Asbestos Regulations.

Solid Waste Comments:

1. *Waste Ban Regulations*: MassDEP enforces solid waste regulations that restrict certain recyclable materials from disposal. Known as "waste bans", these regulations (310 CMR 19.017) prohibit the disposal of recyclable materials as solid waste. Waste materials that are determined to be solid waste (e.g., construction and demolition waste) and/or recyclable material (e.g., metal, asphalt, brick, and concrete) shall be disposed, recycled, and/or otherwise handled in accordance with the Solid Waste Regulations including 310 CMR 19.017: Waste Bans.

   Asphalt, brick and concrete (ABC) rubble, such as the rubble generated by the demolition of buildings or other structures must be handled in accordance with the Solid Waste regulations. These regulations allow, and MassDEP encourages, the recycling/reuse of ABC rubble. The Proponent should refer to MassDEP's Information Sheet, entitled " Using or Processing Asphalt Pavement, Brick and Concrete Rubble, Updated February 27, 2017 ", that answers commonly asked questions about ABC rubble and identifies the provisions of the solid waste regulations that pertain to recycling/reusing ABC rubble. This policy can be found on-line at the MassDEP website: https://www.mass.gov/files/documents/2018/03/19/abc-rubble.pdf

   For more information on how to prevent banned materials from entering the waste stream the Proponent should contact the RecyclingWorks in Massachusetts program at (888) 254-5525 or via email at info@recyclingworksma.com. RecyclingWorks in Massachusetts also provides a website that includes a searchable database of recycling service providers, available at https://recyclingworksma.com/.

2. Demolition and Asbestos Containing Waste Material: The proposed Project includes the demolition of structures, piping, pumps, and/or other materials which may contain asbestos. The Project Proponent is advised that demolition activity must comply with both Solid Waste and Air Quality Control regulations. Please note that MassDEP promulgated revised Asbestos Regulations (310 CMR 7.15) that became effective on June 20, 2014. The new regulations contain requirements to conduct a pre-demolition/renovation asbestos survey by a licensed asbestos inspector and post abatement visual inspections by a licensed asbestos Project monitor. The Massachusetts Department of Labor and Work Force Development, Division of Labor Standards

(DLS) is the agency responsible for licensing and regulating all asbestos abatement contractors, designers, Project monitors, inspectors and analytical laboratories in the state of Massachusetts.

In accordance with the revised Asbestos Regulations at **310 CMR 7.15(4),** any owner or operator of a facility or facility component that contains suspect asbestos containing material (ACM) shall, prior to conducting any demolition or renovation, employ a DLS licensed asbestos inspector to thoroughly inspect the facility or facility component, to identify the presence, location and quantity of any ACM or suspect ACM and to prepare a written asbestos survey report. As part of the asbestos survey, samples must be taken of all suspect asbestos containing building materials and sent to a DLS certified laboratory for analysis, using USEPA approved analytical methods.

If ACM is identified in the asbestos survey, the Proponent must hire a DLS licensed asbestos abatement contractor to remove and dispose of any asbestos containing material(s) from the facility or facility component in accordance with **310 CMR 7.15**, prior to conducting any demolition or renovation activities. The removal and handling of asbestos from the facility or facility components must adhere to the Specific Asbestos Abatement Work Practice Standards required at **310 CMR 7.15(7)**. The Proponent and asbestos contractor will be responsible for submitting an ***Asbestos Notification Form ANF-001*** to MassDEP at least ten (10) working days prior to beginning any removal of the asbestos containing materials as specified at **310 CMR 7.15(6).**

The Proponent shall ensure that all asbestos containing waste material from any asbestos abatement activity is properly stored and disposed of at a landfill approved to accept such material in accordance with **310 CMR 7.15 (17).** The Solid Waste Regulations at **310 CMR 19.061(3)** list the requirements for any solid waste facility handling or disposing of asbestos waste. Pursuant to **310 CMR 19.061(3) (b) 1,** no asbestos containing material; including VAT, asphaltic-asbestos felts or shingles; may be disposed at a solid waste combustion facility.

If you have any questions regarding the Solid Waste Management Program comments above, please contact Mark Dakers at (508) 946-2847.

Climate Change Comments:

Climate Change – Greenhouse Gas Emissions. Pursuant to the Global Warming Solutions Act of 2008 (GWSA) (Chapter 298 of the Acts of 2008) and the Commonwealth's Clean Energy and Climate Plan the Commonwealth has established economy-wide greenhouse gas (GHG) emission reduction limits for Massachusetts that will achieve reductions of 25 percent below statewide 1990 GHG emission levels by 2020 and 80 percent below statewide 1990 GHG emission levels by 2050. Furthermore, Section 7 of the GWSA amended Section 61 of Chapter 30 of the Massachusetts General Laws by inserting, "in considering and issuing permits, licenses and other administrative approvals and decisions, the respective agency, department, board, commission or authority shall also consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise."

The Proponent should consider potential GHG impacts (e.g., energy demand, use of renewable energy sources, transportation modes, etc.) of its Project in the context of furthering the Commonwealth's goals and recommended GHG mitigation policies in the *Clean Energy and Climate Plan for 2020*. Additional information on the Commonwealth's efforts to reduce GHG emissions can be found at: http://www.mass.gov/eea/air-water-climate-change/climate-change/massachusetts-global-warming-solutions-act/.

Climate Change – Adaptation. Section 7 of the Global Warming Solutions Act of 2008 (GWSA) (Chapter 298 of the Acts of 2008), amended Section 61 of Chapter 30 of the Massachusetts General Laws by inserting, "in considering and issuing permits, licenses and other administrative approvals and decisions, the respective agency, department, board, commission or authority shall also consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise."

MassDEP recommends that the Proponent review and consider the data and recommendations identified in the 2011 Massachusetts Climate Change Adaptation Report issued by the Executive Office of Energy and Environmental Affairs (EEA) (http://www.mass.gov/eea/docs/eea/energy/cca/eea-climate-adaptation-report.pdf), the 2014 National Climate Assessment, specifically the Northeast region section, (https://nca2014.globalchange.gov/) and the 2017 U.S. Global Change Research Program Climate Science Special Report (https://science2017.globalchange.gov/) to address potential climate change impacts and adaptation measures feasible for implementation on the Project site. MassDEP also recommends that you check the following link for updates to the Massachusetts State Hazard Mitigation and Climate Adaptation Plan (https://resilientma.com/updates/) which is anticipated to be finalized in 2018. Once completed, this plan will include more usable data and information.

Wastewater & Drinking Water Treatment Facilities and Climate Change. The Proponent should consider the potential impacts of climate change as part of the planning, design and operation of the proposed expansion of the Headworks Facilities and upgrade of the WWTF. Wastewater treatment plants are among the largest energy consumers in many cities and towns across Massachusetts. Therefore, minimizing the life-cycle operational costs and associated greenhouse gas emissions will have long-term economic and environmental benefits for the community and the Commonwealth.

MassDEP suggests review of the following resources, as well as any other governmental, industry, or research institute reports to identify GHG and energy reduction strategies, and climate resilience and adaptation measures that the Proponent, as feasible, should commit to implement or continue to explore upon completion of the MEPA review. The resources listed below under Implementation also include potential funding sources.

Planning and Design

- TR-16 – Guides for the Design of Wastewater Treatment Works (2011 Edition as Revised in 2016) issued by the New England Interstate Water Pollution Control Commission (NEIWPCC);
- BMP guidance documents (Evaluation of Energy Conservation Measures for Wastewater Treatment Facilities EPA 832-R-10-005, September 2010) https://www.epa.gov/sites/production/files/2016-01/documents/p1008sbm.pdf;
- EPA's Emerging Technologies and for Wastewater Treatment and In-Plant Wet Weather Management (2013).

Assessment

- Energy Efficiency and Renewable Energy Opportunities at Water and Wastewater Facilities-http://www.mass.gov/eea/agencies/massdep/climate-energy/energy/water-utilities/energy-efficiency-at-water-and-wastewater-facilities.html
- EPA's Energy Efficiency in Water and Wastewater Facilities – 2013 https://www.epa.gov/sites/production/files/2017-06/documents/wastewater-guide.pdf;
- EPA's Climate Resilience Evaluation and Awareness Tool (CREAT) – 2016 https://www.epa.gov/crwu/creat-risk-assessment-application-water-utilities; and

- Massachusetts Municipal Vulnerability Preparedness Program - https://www.mass.gov/municipal-vulnerability-preparedness-program.

Implementation

- MassDEP's Clean Energy Results Program – Achieving Positive Cash Flow Through Energy Saving Upgrades at Water Infrastructure Facilities – 2014 http://www.mass.gov/eea/docs/dep/energy/cash-flow.pdf;

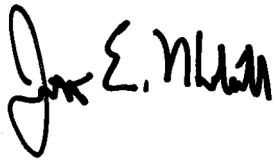
Proposed s.61 Findings

The "Certificate of the Secretary of Energy and Environmental Affairs on the Environmental Notification Form" may indicate that this Project requires further MEPA review and the preparation of an Environmental Impact Report. Pursuant to MEPA Regulations 301 CMR 11.12(5)(d), the Proponent will prepare Proposed Section 61 Findings to be included in the EIR in a separate chapter updating and summarizing proposed mitigation measures. In accordance with 301 CMR 11.07(6)(k), this chapter should also include separate updated draft Section 61 Findings for each State agency that will issue permits for the Project. The draft Section 61 Findings should contain clear commitments to implement mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.

Other Comments/Guidance

The MassDEP Southeast Regional Office appreciates the opportunity to comment on this EENF. If you have any questions regarding these comments, please contact George Zoto at (508) 946-2820.

Very truly yours,



Jonathan E. Hobill,
Regional Engineer
Bureau of Water Resources

JH/GZ

Cc: DEP/SERO

ATTN: Millie Garcia-Serrano, Regional Director
David Johnston, Deputy Regional Director, BWR
Gerard Martin, Deputy Regional Director, BWSC
Seth Pickering, Deputy Regional Director, BAW
Jennifer Viveiros, Deputy Regional Director, ADMIN
Daniel Gilmore, Wetlands and Waterways, BWR
David Burns, Chief, Municipal Services, BWR
Duane LeVangie, Chief, Water Management Act, BWR/Boston
Shi Chen, Water Management Act, BWR/Boston
Mark Dakers, Solid Waste, BAW
Alison Cochrane, Solid Waste, BAW
Allen Hemberger, Site Management, BWSC

MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

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April 9, 2020

Kathleen A. Theoharides, Secretary
Executive Office of Environmental Affairs
Attention: MEPA Office
Anne Canaday, EEA# 16162
100 Cambridge Street
Boston, Massachusetts 02114

Project Name:	*Bridgewater Comprehensive Wastewater Management Plan - Recommended Plan*
Proponent:	*Town of Bridgewater*
Location:	*Town-Wide*
Document Reviewed:	*Environmental Notification Form*
EEA No.:	*16162*
NHESP No.:	*20-39164*

Dear Secretary Theoharides:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the "Division") has reviewed the *Environmental Notification Form* (dated January 2020) for the Town of Bridgewater's Comprehensive Wastewater Management Plan (CWMP; the Project) and would like to offer the following comments regarding state-listed species and their habitats.

The Town of Bridgewater's ponds, rivers, and wetlands provide critical foraging, breeding, migration and over-wintering habitats for a suite of state-listed rare species. We commend the Town for its efforts to improve water quality within these critical habitats, and for its consideration of both traditional and non-traditional approaches to wastewater and nutrient management.

Portions of the Town of Bridgewater are mapped as Priority Habitat for state-listed rare species. All projects proposed within Priority Habitat, which are not otherwise exempt from review pursuant to 321 CMR 10.14, will require review through a direct filing with the Division pursuant to the Massachusetts Endangered Species Act (M.G.L. c. 131A) and its implementing regulations (MESA; 321 CMR 10.00). The MESA is administered by the Division and prohibits the Take of state-listed species, which is defined as "in reference to animals…harm…kill…disrupt the nesting, breeding, feeding or migratory activity…and in reference to plants…collect, pick, kill, transplant, cut or process…Disruption of nesting, breeding, feeding, or migratory activity may result from, but is not limited to, the modification, degradation, or destruction of Habitat" of state-listed species (321 CMR 10.02).

To the extent possible, the Division has evaluated and provided comments below on the recommended actions outlined within the ENF (Sections 6.4.1, Figure 5.2 & 6.5.14, Figure 6.3). For the proposed actions, the Division has not yet received a direct filing pursuant to the MESA; therefore, the comments provided below should be considered preliminary in nature.

Upgrading the Wastewater Treatment Facility
The Division notes that the Town's existing wastewater treatment facility does not appear to be located within the Priority Habitat of state-listed rare species, as indicated in the Massachusetts Natural Heritage Atlas (14th Edition). Therefore, the Division anticipates that any proposed upgrades to the Town's existing wastewater treatment facility would not require review for compliance with the MESA.

Sewer Expansion to Residential Needs Areas within Bridgewater
The Division notes that wastewater collection systems proposed within Priority Habitat may be exempt from MESA review pursuant to 321 CMR 10.14 (6) and or (10), which state that "[t]he following Projects and Activities shall be exempt from the requirements of 321 CMR 10.18 through 10.23…"

> *[6] construction, repair, replacement or maintenance of septic systems, private sewage treatment facilities, utility lines, sewer lines, or residential water supply wells within existing paved areas and lawfully developed and maintained lawns or landscaped areas, provided there is no expansion of such existing paved, lawn and landscaped areas;*
>
> *[10] 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…;*

The complete list of MESA filing exemptions may be found on the Division's website. We would encourage the Town to examine design alternatives which avoid and minimize impacts to Priority Habitat, including re-use of existing paved, developed, and or landscaped areas wherever possible. For any proposed work within Priority Habitat, the Town should consult with the Division to determine whether proposed work is exempt from MESA review or will require review through a direct filing with the Division.
We appreciate the opportunity to comment on this project. If you have any questions about components of this letter related to the MESA, please contact Rebekah Zimmerer, Endangered Species Review Biologist, at rebekah.zimmerer@mass.gov or 508-389-6354. We look forward to working with the Town to address the comments provided herein and further its efforts to improve the water quality of Bridgewater.

Sincerely,

Everose Schlüter, Ph.D.
Assistant Director

cc: Jonas Kazlauskas, Superintendent Water and Sewer Dept., Bridgewater
Kent Nichols, Jr., PE, Weston & Sampson
Town of Bridgewater Board of Selectmen
Town of Bridgewater Planning Board
Town of Bridgewater Conservation Commission

April 2, 2020

Secretary Kathleen Theoharides
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Anne Canaday, EEA No. 16162
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Theoharides:

The Division of Marine Fisheries (MA DMF) has reviewed the Environmental Notification Form (ENF) for the Town of Bridgewater's Comprehensive Wastewater Management Plan.

The project was reviewed with respect to potential impacts to marine fisheries resources and habitat.

Based on the information provided, MA DMF has no recommendation for sequencing, timing, or methods that would avoid or minimize impact at this time.

Questions regarding this review may be directed to John Logan in our New Bedford office at john.logan@mass.gov.