May 5, 2016

Secretary Matthew Beaton
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Attention: Anne Canaday

RE: Harwich Final Comprehensive Wastewater Management Plan/Single Environmental Impact Report (EEA # 15022)

Dear Secretary Beaton:

The Association to Preserve Cape Cod (APCC) is the Cape's leading nonprofit environmental education and advocacy organization. Founded in 1968 and today representing over 5,000 members across the region, APCC's mission is to preserve, protect and enhance the natural resources of Cape Cod. APCC has reviewed the Harwich Final Comprehensive Wastewater Management Plan (CWMP)/Single Environmental Impact Report (SEIR) and submits the following comments.

The Harwich CWMP recommends a wastewater management plan that primarily relies on sewering to treat wastewater impacting the town's nitrogen-impaired estuaries as well as some of the town's phosphorus-impaired ponds. It proposes to utilize a treatment facility to be built at the Harwich landfill site and to also coordinate with the town of Chatham to use that town's existing Chatham Water Pollution Control Facility. The facility at the Harwich landfill, identified as HR-12 in the plan, will treat wastewater flow from all areas of the town that are to be sewered except for flow from the Pleasant Bay watershed, which will be sent to the Chatham facility for treatment. HR-12 will recharge the treated effluent onsite. Pleasant Bay watershed flow will initially be recharged at the Chatham facility, but a recharge site within Harwich's portion of the Pleasant Bay watershed may be used if future use of the Chatham recharge site is no longer possible.

In addition to sewering, the CWMP includes plans to increase natural attenuation at two locations in order to reduce nutrient loading: the Cold Brook area in the Saquatucket Harbor watershed and the nearly-completed inlet widening project at Muddy Creek in the Pleasant Bay watershed. The plan also recommends non-infrastructure nutrient management that includes an educational program to manage fertilizer use, a stormwater management program that incorporates best management practices, open space acquisition, and the potential for non-specified land use changes to reduce nutrient impacts. In addition, the CWMP describes the possible exploration of alternative treatment options, such as a permeable reactive barrier pilot program.

Adaptive Management

The Harwich CWMP relies on an adaptive management component to guide future implementation of the plan. Any necessary modifications to the CWMP will be based on determinations by a technical review committee, water quality monitoring, habitat monitoring, wastewater treatment plant/groundwater discharge reporting, CWMP implementation and funding status, community growth status reports, and CWMP-recommended program modifications. APCC supports a comprehensive approach to adaptive management that consistently monitors the success of the program and that can identify where modifications to the program need to occur. A comprehensive monitoring program is particularly critical in ensuring that the plans objectives are being met.

The CWMP proposes to implement the town wastewater plan in eight phases, concentrating on the areas of greatest impact first. APCC supports a phased implementation, which helps spread out the costs but also allows for monitoring to verify whether desired results are being achieved and to formulate changes to the plan through adaptive management as necessary.

Consistency with the 208 Plan

The CWMP is largely consistent with the Cape Cod Section 208 Areawide Water Quality Management Plan Update. In particular, the CWMP conforms to the 208 Plan's emphasis on regional collaboration to achieve watershed solutions. APCC commends the town of Harwich for recognizing the economic and environmental benefits of pursuing cooperative wastewater management initiatives with neighboring towns that share a common watershed. In addition to the agreement being worked out to utilize the Chatham wastewater treatment facility, Harwich and Chatham are completing the previously-mentioned joint project to widen the Muddy Creek inlet, which will improve nitrogen flushing within that subwatershed of Pleasant Bay. Harwich has also initiated dialogue with Dennis and Brewster on opportunities to work together to meet MEP and TMDL nitrogen reduction thresholds in the Herring River and Swan Pond watersheds. APCC strongly supports the adoption of regional solutions to address the Cape's wastewater problem and encourages the town to continue pursuing these and other cooperative efforts.

Buildout Assumptions

In comments submitted to EEA for the Harwich Draft CWMP, APCC expressed concern about buildout assumptions for East Harwich of 250 residential units and 500,000 sf of commercial space above the MEP buildout estimates. We believed the town's buildout assumptions were under-represented by projected wastewater flow and did not necessarily reflect public sentiment for growth in that area. The Final CWMP/SEIR shows a reduced buildout estimate of 200 residential units and 250,000 sf of commercial above MEP buildout estimates, but at the same flow projected in the Draft CWMP for the larger buildout. These buildout estimates, which represent a 30 percent increase in wastewater flow for the area, would necessitate significant changes to existing zoning.

APCC continues to be concerned that buildout assumptions factored into the CWMP are based on growth levels that the community as a whole does not support. If sewering capacity is built based on these assumptions, it could accommodate and therefore perpetuate unwanted growth in East Harwich. This potential secondary growth translates into impacts on natural resources and increased wastewater infrastructure costs. A similarly large buildout estimate above MEP estimates has been factored into plans for village centers in the Herring River watershed, with a projected flow increase of 32 percent. Overall, the CWMP projects an approximately 26 percent increase in the town's wastewater flow over the current flow, based on these buildout assumptions.

The above-mentioned buildout estimates have been included in the wastewater infrastructure plan without any specific recommendations for strategic land use planning that would help offset growth impacts by reducing growth pressures outside of growth centers and thereby reducing the costs of wastewater infrastructure and treatment. APCC strongly recommends that the town identify and pursue land use options that would reduce wastewater impacts and help lower the costs of the proposed wastewater management plan. The CWMP states that a 25 percent reduction in wastewater infrastructure could result in a program cost of $180 million, as opposed to the over $220 million projection based on maximum buildout. This significant cost savings should be a very compelling incentive for the town to pursue land use planning strategies that will reduce growth impacts.

Stormwater Management and Fertilizer Use

According to the CWMP, stormwater contributes approximately five to nine percent of the controllable nitrogen entering Harwich's coastal waters. It is also a source for phosphorus in freshwater ponds. In addition to developing stormwater BMPs as described in the CWMP, APCC recommends that the town review its bylaws and regulations to determine where improvements can be made to increase the effectiveness of stormwater management to further reduce nutrients and other pollutants from entering water bodies.

Town-wide, fertilizers contribute between seven and 16 percent of the controllable nitrogen load to coastal estuaries, according to the CWMP. In the Muddy Creek subwatershed, fertilizers are responsible for 25 percent of the nitrogen load. The town elected not to adopt a fertilizer bylaw, but has instead decided to promote education as a fertilizer management tool. APCC strongly encourages a vigorous education and outreach program to reduce fertilizer use throughout the town. This program should emphasize low impact native landscaping and other alternative options to reduce lawn size and fertilizer use.

Drinking Water Quality

The CWMP reports that the quality of Harwich's drinking water supply is good, and therefore drinking water protection is not a factor in the town's sewering plans. However, public water wells located in the Pleasant Bay watershed do show an increase in nitrate concentrations, although still below the threshold for safe levels.

This recent elevation in nitrate levels does indicate that development and wastewater is, to some degree, impacting the town's water supply. It also increases concerns over other wastewater-borne contaminants, including contaminants of emerging concern. Plans to schedule sewering of this area of the Pleasant Bay watershed in the early phases of the sewering program should also be a benefit to the water supply, according to the CWMP. APCC encourages the town to also pursue additional open space acquisition and land use protection strategies to help ensure the town's drinking water quality will continue to be protected and improved.

Climate Change Resiliency

The CWMP has identified certain areas of town with shallow depth-to-groundwater south of Rt. 28 along the southern coast. Due to Title 5 and board of health compliance issues based on high groundwater and small lot sizes, the town has included these low-lying areas in the sewering plan. The CWMP states that sewer lines and pumping stations built within existing flood zones will be designed to withstand flood conditions. The CWMP does not explain how or if infrastructure design for these locations will account for predicted sea level rise and the impact it will have on the extent of future surface flooding. Design plans that address future flood risk, not just current flood risk, should be specified.

The sewering design should also consider anticipated changes to the water table as a result of sea level rise. A groundwater modeling study of the mid-Cape Cod region conducted over the past two years by the U.S. Geological Survey and commissioned by APCC predicted significant impacts to in-ground infrastructure and the function of natural systems due to changes in the interface between salt water and the water table, based on expected sea level rise. It can be expected that in low-lying coastal areas of Harwich, predicted sea level rise will increase the number of properties experiencing Title 5 compliance issues due to a high water table compared to the number of properties currently experiencing such problems.

Habitat Protection

The CWMP states that further coordination with the state's Natural Heritage and Endangered Species Program needs to take place to ensure that state listed species are not adversely impacted by the wastewater treatment facility, pumping stations or other aspects of the project. In addition to avoiding impacts on state listed species, the town should commit to avoiding any impacts on areas designated as Biomap2 Core Habitat or Critical Natural Landscapes.

APCC thanks the Secretary for the opportunity to provide comments.

Sincerely,

Ed DeWitt
Executive Director

Don Keeran
Assistant Director

cc: Cape Cod Commission