



February 24, 2025

Secretary Rebecca Tepper
Executive Office of Energy and Environmental Affairs
100 Cambridge Street
10th Floor
Boston, MA 02114

Attn: Alexander Strysky, Massachusetts Environmental Policy Act Office

Re: Bourne Comprehensive Wastewater Management Plan EENF No. 16910

Dear Secretary Tepper,

The Buzzards Bay Coalition (“Coalition”) has reviewed the Expanded Environmental Notification Form, EEA #16910 for the Town of Bourne’s Comprehensive Wastewater Management Plan (the “Bourne CWMP”) and offers the following comments for your consideration.

The Buzzards Bay Coalition is a membership-supported nonprofit organization dedicated to the restoration, protection and sustainable use and enjoyment of Buzzards Bay and its watershed including the following watersheds in the town of Bourne: Buttermilk and Little Buttermilk Bays, Phinneys Harbor, Red Brook Harbor (identified as Pocasset Harbor in the Bourne CWMP), Pocasset River and Megansett/Squeteague Harbor. For more than thirty years we have collected nutrient related water quality monitoring data on these estuaries pursuant to a Massachusetts Department of Environmental Protection and US Environmental Protection Agency Quality Assurance Project Plan. The Coalition works to improve the health of the Bay ecosystem for the public through education, conservation, research and advocacy.

In summary, the Coalition urges the town to file for Watershed Permits, consider more core sewer areas served by neighborhood scale sewer systems or regional sewer systems and rely less on general use innovative alternative septic systems and consider a board of health regulation requiring nitrogen reducing septic systems for all new construction town-wide.

The Buzzards Bay Coalition offers the following more detailed comments:

1. The Town Must File for Watershed Permits for Phinneys Harbor and Megansett/Squeteague Harbor.

The Buzzards Bay Coalition urges the town of Bourne to file for Watershed Permits for the Phinneys and Megansett Squeteague watersheds. Phinneys Harbor and Megansett/Squeteague are designated as Nitrogen Sensitive Areas (NSA) pursuant to 310 CMR 15.000. As a Natural Resource NSA, state regulation provides the town with two alternatives.

Alternative 1: File for watershed permits and develop a plan to meet the Total Maximum Daily Loads (TMDLs) for Phinneys Harbor and Megansett/ Squeteague, and implement that plan over the next twenty years. This allows the town to take planned and thoughtful action to achieve the required water quality results. This alternative also allows the town to spread the implementation cost over several years and take advantage of low interest state revolving fund loans to pay for implementation.

Alternative 2: Require each parcel within the Phinneys and Megansett/Squeteague watersheds to upgrade every septic system to a best available nitrogen reducing technology within five years - by 2030. This alternative does not guarantee that water quality goals for these Harbors are met since GUIA may not provide sufficient nitrogen reductions to meet TMDLs. This alternative places a significant financial burden on every single homeowner within those watersheds.

Further, the Bourne CWMP recommends a sewer district in the Phinneys Harbor Watershed. The Bourne CWMP contemplates sewerage 436 parcels in order to meet the TMDL. Without filing for a watershed permit, MassDEP regulations will require the rest of the homes in the Phinneys watershed to also install nitrogen reducing septic systems even though the core sewer service area will remove enough nitrogen to meet the TMDL. This creates an unnecessary cost burden for those homeowners not part of the sewer service area.

2. Bourne CWMP is Overly Reliant on General Use Innovative Alternative Septic Systems

Wastewater treatment at a sewer treatment plant (large scale or neighborhood/satellite scale) is the most effective way to reduce pollution. Apart from recommended core sewer areas in the Phinneys Harbor and Buttermilk Bay watersheds, the rest of town relies exclusively on the use of General Use Innovative Alternative Septic Systems when sewer may be a better option. GUIA systems should be implemented in areas where sewer is cost prohibitive and nitrogen reductions

are required. However, the Bourne CWMP fails to properly consider the use of sewer in other areas of town.

a. Regional Wastewater Treatment Must Be Considered

Currently the town of Bourne discharges up to 200,000 gallons per day of raw sewage to the town of Wareham for treatment and disposal within the town of Wareham. While the Wareham Water Pollution Control Facility (WPCF) has the capacity to treat additional wastewater from the town of Bourne, Wareham is limited by how much treated wastewater it can discharge into the sensitive Agawam River. If an alternative discharge location was identified, it would be possible for the town of Bourne to increase the amount of wastewater treated at the Wareham WPCF. While not considered in the Bourne CWMP, one such location was identified and verified as a suitable discharge location, the site of the current discharge of the Massachusetts Maritime Academy's wastewater at the Cape Cod Canal. The Coalition urges the town to consider this option.

The Bourne CWMP also fails to properly consider the possibility of using the Joint Base Cape Cod (JBCC) wastewater treatment facility as a treatment and disposal location. The Bourne CWMP dismisses this alternative as being more than 1 mile away and therefore not feasible. This is an odd conclusion as the CWMP anticipates more than 12 miles of sewer collection system for the Phinneys Harbor core sewer service area. The JBCC wastewater treatment facility may be a reasonable alternative for the Megansett/Squeteague, and Red Brook/Pocasset Harbor watersheds. The Coalition encourages the town of Bourne to carefully consider regional alternatives as a way to provide the best wastewater treatment at a reduced cost to Bourne's residents.

b. Alternative Core Sewer Area for Megansett/Squeteague

The Bourne CWMP considers a core sewer area for Megansett/Squeteague but later rejects it in favor of 285 GUIA systems. The Megansett/Squeteague watershed is shared with the town of Falmouth. The town of Falmouth has filed for a watershed permit for Megansett/Squeteague and is currently considering alternatives for reducing nitrogen to meet the TMDL. The town of Bourne and Falmouth should work together to consider whether it is both environmentally and economically beneficial to collaborate on a shared solution to meet water quality standards. Both towns should consider whether a shared satellite treatment plant, or connection to the wastewater treatment facility at Joint Base Cape Cod (JBCC) will lower the cost of meeting the TMDL and avoid the cost of individual septic systems.

c. Alternatives for Buttermilk Bay Core Sewer Service Area

The Bourne CWMP recognizes the need for a core sewer service area for Buttermilk Bay. A core sewer service area is considered but ultimately rejected as a preferred alternative because in order to do so would require the town to consider expanding the existing Buzzards Bay wastewater treatment facility. However, there are no costs furnished for the cost to upgrade the Buzzards Bay wastewater treatment facility. There was also no consideration nor costs offered for a regional solution. Instead, the Bourne CWMP recommends upgrading 408 homes at a cost of \$33,410,000 with no guarantee that water quality will be attained in Buttermilk Bay.

d. A GUIA Solution for Red Brook Harbor is Inadequate

The Bourne CWMP suggests that 1,455 parcels within the Red Brook Harbor watershed upgrade to GUIA at a total capital cost of \$62M. It does not appear that the Bourne CWMP evaluated the use of the Cataumet wastewater treatment facility, a facility which was oversized in its construction to accommodate additional sewer, other neighborhood sewer treatment facilities, or the alternative to use JBCC as a treatment facility. Further sewer alternatives must be considered for this watershed.

A TMDL for Red Brook Harbor is imminent and should be considered in the final CWMP. For the last five year, the Buzzards Bay Coalition has partnered with the Buzzards Bay National Estuary Program, Marine Biological Lab in Falmouth, Massachusetts Maritime Academy and Woods Hole Oceanographic in Falmouth to complete the science required to establish a nitrogen threshold report for Red Brook Harbor and Pocasset Harbor. That science will be submitted to the Massachusetts Department of Environmental Protection in the spring of 2025 to establish a total nitrogen TMDL for Red Brook Harbor as soon as possible.

e. A GUIA Solution for Pocasset River is Inadequate.

Similarly, the Bourne CWMP suggests that 645 GUIA is the best alternative for this watershed without fully evaluating sewer alternatives.

3. Alternative Cost Saving Solution for Phinneys Harbor Watershed

The Bourne CWMP recommends meeting the TMDL in Phinneys Harbor through the creation of a core sewer district. With an upgrade to the Bourne Schools WWTF, construction of 12.6 miles of sewer collection system and the connection of 436 parcels, the CWMP estimates a reduction of 1,744kg of nitrogen/year, more than the 1,706 kg of nitrogen/ year required to meet the TMDL. The CWMP estimates a cost of \$37,497,000 in capital costs or \$86,000 per home.

While the Coalition supports the creation of a core sewer district and utilization of the Bourne Schools WWTF to treat and dispose of wastewater outside the Phinneys Harbor watershed, the Bourne CWMP overlooks a critical alternative that may drastically reduce or eliminate costs for homeowners in the Phinneys Harbor watershed.

The Bay View Campground (BVC) is located within the Phinneys Harbor watershed. The BVC operates from at least May through October every year with an estimated 462 campsites, three pools, a tennis/pickleball court, basketball court, ice cream shop, video arcade, a baseball field, and laundry facilities. BVC uses a series of tanks, leach pits, and cesspools to dispose of the wastewater generated at, and brought to, the campground. Pursuant to Title 5 design flows at 310 CMR 15.203 a campground with 462 sites generates an estimated 41,580 gallons/day. The annual nitrogen load discharged from BVC is estimated at 8,098lbs/year or 3,673.2kg/year.

BVC relies on cesspools and other non conforming septic systems to dispose of untreated wastewater. Cesspools are considered failed systems pursuant to the town of Bourne's Board of Health regulation. Based on publicly available information, BVC is also in violation of state groundwater discharge regulations.

The CWMP estimates a required nitrogen reduction of 1,706kg of nitrogen per year within the watershed to meet the TMDL. If the BVC upgraded their wastewater infrastructure in compliance with the state and local law, and constructed a facility that treated their wastewater and reduced total nitrogen to 10mg/L, this upgrade alone could yield a 3,099kg/year reduction of nitrogen/year – nearly two times the amount that is required to meet the TMDL. **In other words, one parcel, complying with the law may avoid the cost to 436 single family home owners of an estimated \$37,497,000.** The BVC is a commercial entity that has contributed a significant amount of nitrogen to Phinneys Harbor over the years. BVC is in a better position to take on the cost of nitrogen reductions than many of the individual homeowners in the watershed.

The Buzzards Bay Coalition urges the Massachusetts Department of Environmental Protection and the town of Bourne to ensure that BVC takes immediate action to comply with state law, apply for a groundwater discharge permit, and reduce the amount of pollution it currently discharges to Phinneys Harbor.

4. Bourne CWMP Should Recommend All New Construction Install Nitrogen Reducing Septic Systems.

While the town wrestles with the best and most affordable approach to reduce nitrogen pollution to its nitrogen polluted waters, the permitting of new construction (residential and/or commercial) on standard title 5 septic systems that are not designed to reduce nitrogen, makes

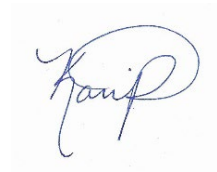
little sense. New standard title 5 systems just add new nitrogen, making an already large problem more challenging and undoing the investments the town will make in reducing existing sources of nitrogen.

The Buzzards Bay Coalition encourages the town Board of Health to pass a regulation that requires all new construction, town-wide, to install a nitrogen reducing septic system that meets 12mg/L total nitrogen. Communities across the Bay-region are passing and implementing regulations of this nature, including the towns of Westport, Marion, Wareham, Mashpee and Tisbury. Falmouth is also currently considering this regulation.

The cost of installing a nitrogen reducing septic systems is more easily absorbed into the cost of new construction and protects the town's investments in reducing nitrogen pollution from existing sources.

The Coalition welcomes the opportunity to assist the Bourne Board of Health with this regulation.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Korrin' followed by a stylized 'P'.

Korrin Nygren Petersen, Esq.
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petersen@savebuzzardsbay.org

Cc: Massachusetts Department of Environmental Protection
Town of Bourne
Select Board/Sewer Commissioners
Board of Health

Town of Falmouth Wastewater Management Committee