

Appendix 3.7: Statement of Interest – Stormwater BMP Project

**STATEMENT OF INTEREST:
Stormwater BMP Project Opportunity for South Coastal Cape Cod Communities**

The Town of Falmouth, MA is interested in participating in EPA's Stormwater BMP Project, and is willing to facilitate project planning and coordination (as appropriate). The in-kind services that Falmouth will be providing include efforts from the Wastewater, and Engineering Divisions of the Department of Public Works, the Conservation Administrator, the Conservation Commission and the Water Quality Management Committee as well as the Water Quality Technical Consultant. Falmouth agrees to undertake the specified operation and maintenance program necessary to ensure the proper operation of the stormwater treatment system, will maintain the educational kiosk and publicize the project for Town residents and visitors, and will facilitate site visits by personnel from other interested communities.

Municipal point of contact:

Gerald C. Potamis, Wastewater Superintendent
419 Gifford Street, Falmouth, MA 02540; phone: 508.457.2543 x3091; jpotamis@falmouthmass.us

If the project is selected, Mr. Potamis will be the lead on this project and will be willing and able to work with EPA, and will coordinate all necessary Town personnel, EPA and EPA contractors.

There are three candidate sites that the Town of Falmouth is proposing.

Proposed sites include:

- Stormdrain #10 - end of Captain's Lane that discharges directly into Green Pond (Davisville peninsula, East Falmouth)
- Stormdrain #50 – 180 Scranton Ave at the Harbormaster's Office that discharges directly into Falmouth Harbor (Falmouth Center)
- White's Landing – off White's Landing Road that discharges directly into Eel River via Childs River (Waquoit)

All are Town-owned, and publicly-accessible. Construction can begin immediately after permitting on each of these sites. Each of these lots abuts and drains into an estuary that faces the south coast of Cape Cod, and is impaired for nitrogen according to Massachusetts Department of Environmental Protection, or the Massachusetts Estuaries Project Report completed for the coastal pond.

Attachments for each proposed lot are included. These attachments contain Town GIS Maps and site plans with topography, as well as photographs of the site. Please note that in addition to the lots listed, work may also be done up-gradient in the Town-owned road layout. The following is a brief site description for each location:

Stormdrain #10 - Captain's Lane

- Town-accepted right-of-way (1977) located within Assessors Map 33, Parcel 15, Lot 8 (off Davisville Road in East Falmouth)
- Approximately 0.25 acres
- Catchment area: approximately 20 acres
- Outfall is an 18" reinforced concrete pipe according to records.
- The outfall structure has a rim elevation of 20.1 and an outfall invert of 12.8 and there is no sump according to records.
- The outfall invert is 2 at Green Pond according to records.
- Drains into Green Pond, which is classified as Class 4a of the MA Integrated List of Waters (2012) for:
 - Estuarine Bioassessments – EPA TMDL # 32534, Fecal Coliform – EPA TMDL # 36772, Nitrogen (Total) EPA TMDL # 32534

Reasons for selecting this site:

Because this stormdrain captures a large catchment area, this site provides a good opportunity to remove nutrients that are currently impacting Green Pond, an impaired waterbody for nitrogen. According to the MEP Report, impervious surfaces contribute 8% of the controllable load to this coastal pond. Moreover, the configuration of the stormwater system for this site is common throughout Falmouth, and represents a real-world engineering problem. Along Falmouth's entire south coast, stormwater is channeled from a main road onto feeder roads that dead end at the banks of an estuary. These feeder roads are perpendicular to the main road that runs the length of the estuary. There is typically 5000 square feet or less of land available at these dead-ends. Many of Falmouth's MS4 stormdrains discharge into Falmouth's eight south facing estuaries in this manner.

Designing and implementing a stormwater management system to handle this type of situation would have broad applicability in Falmouth, and likely in other towns with similar south facing estuaries.

Stormdrain #50 – 180 Scranton Avenue

- The final outfall structure is located within Assessor's Map 47B, Section 09, Parcel 001, Lot 040 (Town of Falmouth Harbormaster's Office, 180 Scranton Ave)
- 4.52 acre lot
- Catchment area: approximately 14.8 acres
- Drains into Falmouth Harbor. Massachusetts Estuaries Project Report completed and Falmouth Harbor was found impaired for nitrogen and estuarine bioassessments, TMDL for nitrogen in progress

According to the MEP Report for Falmouth Inner Harbor (Executive Summary page 6): "The tidally averaged total nitrogen levels within the upper reach of the Harbor are presently 0.58 mg TN L-1 (FIH-1) and 0.52 mg TN L-1 (FIH-2). **These TN levels are comparable to other estuarine basins throughout the region that show similar levels of oxygen depletion, organic enrichment and moderately impaired benthic animal habitat.** Given that in numerous estuaries it has been previously determined that 0.500 mg TN L-1 is the upper limit to sustain unimpaired benthic animal habitat (e.g., Eel Pond, Parkers River, upper Bass River, upper Great Pond, upper Three Bays, as well as the 7 inner basins of Pleasant Bay), this level is deemed most appropriate for restoration of the basins comprising Falmouth Inner Harbor. It should be noted that **estuaries with TN levels >0.50 mg L-1 (like Rands Harbor and Fiddlers Cove in Falmouth) show benthic animal impairments similar to the present condition of Falmouth Inner Harbor.**"

Reasons for selecting this site:

This site provides the opportunity to control stormwater-derived nitrogen from a large catchment area, and could potentially demonstrate the nutrient-removal benefit of capturing the first 0.2" -0.3" of the stormwater entering an impaired waterbody. In addition, this is a highly-visible location with a constant flow of visitors.

White's Landing at White's Landing Road:

- Town-accepted right-of-way (1921) located within Town-owned lot, Assessor's Map 32, Section 11, Parcel 001D, Lot 000
- 0.43 acres
- Catchment area: 24,721 square feet; approximately 87% is impervious
- Road layout of Edgewater Drive East also Town-owned.
- Drains into the Waquoit Bay/Eel River estuary system, which is listed in the Proposed Massachusetts Year 2014 Integrated List of Waters.

- Massachusetts Estuaries Project Report completed, TMDL for nitrogen in progress

It has been suggested by Engineering that the forebay might be able to be converted into a bioretention area or gravel wetland. This is the area labeled "Forebay" in the "Plan View: Boat Ramp" on the enclosed site plan sheet. Portions of this fall within the parcel that the road is on, the other part is within state owned land.

Reasons for selecting this site:

The Waquoit Bay estuary is a complex system showing significant impairment, according to the MEP Reports completed for this system. The Child's River contributes to the Eel River. This site on the Child's River will remediate stormwater from a parking lot and from the state highway (route 28). This is a visible, popular public boat landing in Waquoit, and is associated with a Marina. This project is currently in the permitting process with construction of the boat ramp to begin spring 2015, and road work in fall 2015.

Permitting:

If work is performed below the high tide line, an Army Corp of Engineers (ACOE) permit is required. ACOE has many types of general permits. The Town Engineering Division of the DPW will call the ACOE district office to determine which permits (if any) are required after the project location is more specifically defined.

A Notice of Intent (under the Wetlands Protection Act and the Falmouth Wetlands Bylaw) will be required for all work within 100' of Resource Areas, and filed through the Conservation Commission and MassDEP. The entirety of Falmouth's storm sewer system is under a MS4/NPDES Phase 2 permit. The proposed sites do not seem to be located on or near soils contaminated or potentially contaminated with oil or hazardous waste(s). The timeframe for permitting should not take more than a few months.

By way of assistance to the permitting process, the Town will organize a planning meeting with the Conservation Department and the Engineering Department (DPW) to coordinate permitting, and assist EPA in presenting plans to the Conservation Commission, as well as determining the exact filings that are required with ACOE.

Falmouth is willing to show other municipalities the site during and after construction, and for the duration of the project.