

Spragues Cove

Speaking Points

1) My name is Joe Costa, I'm Executive Director of the Buzzards Bay Project which is an environmental planning agency. Before I begin, I just wanted to note that the primary mission of the BBP is to provide technical assistance and where feasible financial assistance to Buzzards Bay municipalities to help them protect and restore Buzzards Bay. The Buzzards Bay Project has been involved helping the town of Marion cleanup up this Front St. stormwater discharge since the town requested our assistance in 1990, because of concerns of shellfish bed closures and potential threat to the swimming beaches. During the past three years we have dedicated considerable effort in preparing designs and helping the town obtain the necessary permits.

2) This map I am showing you shows shellfish bed closure in Spragues cove near Silver Shell beach and others around town. Marion is undertaking a number of exciting initiatives including upgrades of the sewage treatment plant, implementation of a boat pump-out program, developing strategies for other stormwater discharges, all designed to help improve water quality, and turn these problems around.

3) A model of the proposed work is at the front of the meeting room. A constructed wetlands was required for the site because the Front St. stormwater discharge is below ground water. The wetlands will treat contaminants in the stormwater system like fecal coliform bacteria, oil, and metals from street runoff through natural processes such as uptake by plants and breakdown by soil microorganisms. This is achieved because it will take about 10 days for stormwater to cycle through the system.

4) Water from the front St. Pipe and surface flow on Front St. will first discharges to the settling pond. Sand and other debris settle out near the discharge pipe, and the area in front of the pipe (not the whole pond) will need to be excavated every 5 years by the DPW. The water then flows to the marsh (I should point out these berms are no longer straight as in our earlier designs, and are now curved to make the system more natural looking. This change was worked out after meeting with Claude Miquelle and other abutters to the project). A deep pond is included so that fish which we will stock in the ponds will eat and control mosquito larvae. Water then continues to flow through wetlands, and out to Spragues Cove. When the town learned that it was not able to dispose of the excavated material as easy as they expected, we eliminated the stone rip rap from the design to save approximately \$4,500 among other cost saving measures. Elimination of the stone will also make the constructed wetlands look more natural.

5) The constructed wetlands will not emanate any unusual odor, and it will smell no different than a saltmarsh or the pond in Washburn Park. This is proven technology, and is widely used. If you want to see an example of a constructed wetland to treat stormwater, drive to the BJs parking lot in Dartmouth. The BBP, DMF, have continued to monitor the Front St. stormdrain pipe and drainage ditch. Fecal Coliform levels from the existing pipe now typically range from several hundred to several thousand bacteria per 100 ml, with a high of 20,000 bacteria documented last summer. (Keep in mind, shellfish beds are closed at 14 fecal coliform, bathing beaches at 200). We expect fecal coliform removal efficiency of the system between 75 and 99% depend on input flows and concentrations.

extra points:-

a) Various town departments recognized that we had a valuable commodity and some of the excavated sand will be used for beach nourishment on Silver Shell Beach and Planting Island Cause,

and at Washburn Park. So it should be recognized that part of the money you are seeking is really to help fund these projects.

b) If the town of Marion fulfills its commitments on this project, it will open the door for additional state and federal funding for other initiatives you may have. This work has also attracted a lot of attention because the town is creating wetlands at site where wetlands were filled.