

# **OYSTER POND COMPREHENSIVE WASTEWATER MANAGEMENT PLAN**

*Questions raised at the July 30 neighborhood meeting with the Water Quality Management Committee (WQMC) and Wright-Piece, the town's consultant.*

## WHY ISN'T OPENING AN INLET TO VINEYARD SOUND AN OPTION?

Oyster Pond is under an Order of Conditions and approved management plan for it to remain a brackish pond suitable for species like herring, making permitting for creating an inlet opening unlikely.

## WHAT ABOUT AQUACULTURE?

Ever since 1776, when the town voted to investigate the disappearance of oysters in Oyster Pond, it has been clear that the low salinity in the pond makes marine aquaculture infeasible. Freshwater aquaculture has not yet been explored.

## WHAT ABOUT ECO-TOILETS (COMPOSTING AND URINE DIVERTING)?

The town is currently running a demonstration project to determine 1) how much nitrogen ecotoilets actually remove from going into the groundwater, 2) how much they cost to install, and 3) what level of homeowner acceptability exists for this option. If these questions are answered positively, and if DEP approves, ecotoilets may be considered as another innovative/alternative septic system.

## WHAT ABOUT PERMEABLE REACTIVE BARRIERS?

Due to low density of development and lack of suitable sites, Oyster Pond does not seem suitable for PRBs, but they will continue to be looked at.

## DID YOU CONSIDER THE DIFFERENCES BETWEEN SEASONAL AND YEAR ROUND HOMES?

Yes. The MA Estuaries Project conducted by SMAST at UMass Dartmouth to establish how much nitrogen is going into the pond used actual water use from the residences around the pond, both seasonal and year round, to determine the total nitrogen load. A 10% future conversion from seasonal to year round homes was also included in the buildout analysis.

## HOW RELIABLE IS THE TOTAL MAXIMUM DAILY NITROGEN LOAD (TMDL) FIGURE?

The TMDL was established by SMAST after extensive field investigation and water sampling in Oyster Pond, and was approved by MA Department of Environmental Protection (DEP) and the US Environmental Protection Agency (EPA).

## HOW MUCH NITROGEN NEEDS TO BE REMOVED FROM OYSTER POND TO MEET THE TMDL?

Current calculations are that 1050 kg/year (2315 pounds/year) of nitrogen need to be removed in order to reach the current TMDL.

- If we plan to achieve this by focusing only on wastewater loads, we need to remove 77% of existing wastewater load.
- If we do this in combination with common-sense Non-Point Source (NPS) measures, we need to remove 65% of the existing wastewater load.

## DID THE CALCULATIONS TAKE INTO ACCOUNT THE POSSIBLE OPET LAND PURCHASE?

Not yet. If this site is purchased and protected with a conservation easement, the development allowance included for this parcel will be subtracted from the buildout analysis.

## IF SOME SEWERING IS REQUIRED, WHERE WOULD THE EFFLUENT BE TREATED?

Three possibilities were considered – treatment at the town’s main wastewater treatment plant; treatment at the WHOI plant at the Quissett campus; and treatment at a small facility to be located within the Oyster Pond watershed. A discharge permit currently regulates flow to the main plant, and the town will not know if any capacity exists there until 2015. Initial contact with WHOI indicates that it is unable to accept additional non-WHOI flows at its facility. And no site for treatment or disposal of treated wastewater within the watershed has been identified.

## WHAT ARE THE NON-SEWERING OPTION?

As noted, inlet opening and marine shellfish propagation are out. PRBs are unlikely but still being evaluated. That leaves Innovative/Alternative (I/A) systems. These are add-ons to a property owner’s existing in ground septic system that would remove additional nitrogen from the groundwater discharge. How effective they are, how much they cost, what assistance is available to the homeowner to pay for them, and how they could be installed within a timeframe that DEP approves are all issues under review.

## WHAT WILL THIS COST ME, AND WHEN?

The two town sewerage projects in the last 10 years created betterment costs of \$27,585 (New Silver Beach) and \$18,000 (estimate for Heights/Maravista area), as well as hook-up costs. The betterment can be paid by the homeowner in installments over 20 or 30 years. Each project is different, depending on treatment method chosen, funding source, and betterment percentage. Another factor is the town’s availability of capital funds, based on retiring old debt before taking on new debt. All large capital projects must be approved by a 2/3 vote of Falmouth Town Meeting as well as by the voters at the May town elections. Oyster Pond’s plan is at least two years away from being finalized or approved by DEP, and more years before being ready for town funding.