

## **Appendix 1-2**

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Town of Falmouth Wastewater and Nutrient Management  
Vision and Strategies

## **TOWN OF FALMOUTH WASTEWATER AND NUTRIENT MANAGEMENT VISION AND STRATEGIES**

### **Vision**

By comprehensively and effectively managing its wastewater and other nutrient sources, Falmouth will improve water quality, protect public health and enhance the town's economic vitality. Falmouth will offer its residents, visitors and future generations healthy waters in order to sustain the town's property values and vibrant economy.

### **Overview**

The Town of Falmouth treasures its water resources including its coastal ponds for their ecological, aesthetic, recreational and economic value. As the town's population has grown over time, the health of our coastal ponds has deteriorated due to excessive nutrient loading, primarily from septic systems. The leaders of our community recognize that reversing this trend and improving the health of our ponds will benefit every citizen of and visitor to our community, as these water bodies are the cornerstone of our service-based, tourism, marine science and maritime economy and an important part of our cultural identity.

It is clear from the assessments conducted to-date, including the year 2000 Ashumet Plume Nitrogen Offset Program reports, the 2001 Wastewater Facilities Plan, and most recently, the Massachusetts Estuaries Project reports and the Total Maximum Daily Load reports issued for a number of Falmouth's ponds that the town needs to dramatically reduce the nutrient load to its ponds in order to improve pond water quality. Achieving the required level of reduction will involve large-scale municipal sewerage as well as other nutrient reduction measures.

It is also apparent that though every developed property in town contributes to the nutrient loading problem, nutrient reduction actions will be more efficient and productive in some areas than in others. In addition, though every pond is impacted to some degree, some ponds are currently more critically impaired than others. For these reasons, the town will prioritize and phase its actions in order to maximize efficiency and address the most critical areas first. Strategic sewerage of densely developed areas in the lower watersheds to our most impacted coastal embayments will be the initial focus, supplemented with additional nutrient reduction actions throughout the watersheds to each pond.

The tremendous financial and policy commitment needed to make real progress in improving the water quality in our coastal embayments will require the active support of our entire community. To meaningfully engage the entire town in developing solutions we must be committed to an overall strategy to address the needs and priorities of every watershed while we make quantifiable progress in our most impaired embayments.

### **Strategies**

It is critical that we start making real progress in specific watersheds where our progress can be measured and evaluated to strengthen our efforts throughout the town. Infrastructure design for specific embayments will work hand in hand with our efforts to better highlight water quality issues in all embayments. In this sense, the study, design and implementation phases will overlap as we carry out our town-wide vision, with specific actions to be taken in each watershed reflecting the unique land uses and needs of that watershed.

The town's immediate next steps represent this planning methodology. Water quality testing done to-date throughout the Town of Falmouth found water quality in the south facing coastal ponds to be the most impaired. Water quality thresholds have been established by the Massachusetts Estuaries Project (MEP) for Great, Green and Bourne Ponds. Water quality thresholds are currently being developed for Oyster Pond, West Falmouth Harbor and Little Pond, and will be developed next for Waquoit Bay and adjacent Eel Pond. The MEP methodology will ultimately develop standards for every embayment in Falmouth.

As the town implements infrastructure and nutrient reduction plans in each watershed, we will have a measurable basis for making improvements in each following watershed.

The town is now pursuing a Comprehensive Wastewater and Nutrient Management Planning Study for the watersheds to Little Pond, Great Pond, Green Pond, Bournes Pond, Eel Pond and Waquoit Bay and a hydrogeologic evaluation of potential sites town-wide for discharge of treated wastewater. As additional data is available for all of the town's embayments a more detailed nutrient removal plan will emerge for every watershed town-wide. The Department of Environmental Protection's Massachusetts Estuaries Project is working throughout the town to develop data and methodology that will continue to contribute to the town's plan.

To guide this critical town-wide initiative, the Board of Selectmen has endorsed the following strategies:

#### Financing

- The town will prepare an equitable town-wide funding plan for the required wastewater and nutrient management efforts.
- The Town Administrator has created a Financial Task Force comprised of financial staff and representatives of the Finance Committee and Board of Selectmen to develop financial strategies.

#### Planning Policy

- Wastewater and nutrient management issues in all areas in town will require multiple and overlapping phases of planning, design and construction.
- The town will prioritize its efforts by focusing detailed studies first on the most impacted ponds, and on the areas in which mitigation actions will be most efficient.
- In the densely developed lower portions of the watersheds to impacted ponds, large-scale municipal sewerage will be required to improve pond water quality. In less densely developed areas and/or in the upper portions of the watersheds, improved individual onsite wastewater treatment systems may be more appropriate.
- Other actions will also be required to address water quality problems. These actions include fertilizer reduction and stormwater management, and could also include pond flushing improvements and other alternative strategies.

#### Land Use and Regulatory Measures

- The town will continue to develop and implement land use, zoning and regulatory tools to reduce the impact of population growth on water bodies, and to reduce the potential growth impacts of sewerage. The town will integrate the goals of smart growth and affordable housing with its wastewater management goals.
- The town will continue to acquire and analyze property throughout the town to support nutrient management. Sites for discharge of treated wastewater may be particularly limited, so the town will focus first on locating appropriate discharge sites.
- The town's wastewater infrastructure, including its existing pump stations and treatment plant, will need to be "good neighbors" in order to facilitate acceptance of the siting of additional facilities.

#### Process

- The town's Nutrient Management Group shall serve as the town's technical advisor for wastewater and nutrient management planning and shall regularly update the Board of Selectmen on its progress and hold public meetings as necessary to share planning progress and seek input from the community.
- This vision statement and these strategies will continue to be regularly updated and reviewed by the Board of Selectmen, who will promote citizen participation in the process.