



Town of Falmouth

Comprehensive Wastewater Management Planning Project

for the South Coast Watersheds — to Little Pond, Great Pond, Green Pond, Bournes Pond, Eel Pond & Waquoit Bay

WINTER 2008

Septic systems in Falmouth are discharging nitrogen into coastal ponds, severely impacting pond water quality. Wastewater and nitrogen management is the number 1 priority for maintaining the Town's quality of life and economic vitality. Because 97% of Falmouth residents and businesses depend on septic systems, everyone will be involved in the solutions to our wastewater challenges. The Town is undertaking the *Comprehensive Wastewater Management Project (CWMP) for the South Coast Watersheds* to identify solutions to protect our estuaries. The project planning area covers a substantial portion of town, including the watersheds to Little, Great, Green, Bournes and Eel Ponds and Waquoit Bay. When water quality limits have been established by the state for other parts of our community, additional phases of wastewater planning will be initiated to cover those areas. Collection system design for West Falmouth Harbor and the South Coast watersheds will be carried out in parallel.



Project Update

The development of the **Comprehensive Wastewater Management Plan (CWMP)** for the South Coast Watersheds is nearing completion. Two technical documents have outlined the needs and challenges for the watersheds and the options for collection, treatment and recharge. These reports are described on page 2 (and are posted on the website for review). Technical evaluations based on these reports and on-going coordination with neighboring towns and the Massachusetts Military Reservation (MMR) have resulted in a number of important findings. Here is a list of the key recommendations:

Treatment: The Town is evaluating three potential sites for locating a new treatment plant: Massachusetts Military Reservation (MMR), the Falmouth Country Club (FCC) or expanding the existing facility at Blacksmith Shop Road. There have been preliminary discussions with neighboring towns and MMR regarding the possibility of consolidating wastewater flows for treatment at MMR, potentially reducing costs for Falmouth and its neighbors. The MMR site is located adjacent to the existing Otis Wastewater Treatment Facility. Using an existing treatment location avoids many of the issues of siting a new facility.

Recharge: The Falmouth Country Club property has ample space and ability to recharge the treated water from Falmouth. (If other towns chose to convey their wastewater flow to the MMR site for treatment, they will need to find recharge sites for their own treated water.) The Town is studying the feasibility of injection wells (a subsurface discharge method) to recharge the treated water to minimize the land disturbance and cost associated with conventional infiltration beds. Well injection preserves more opportunities for economic





How the CWMP Works

The **Comprehensive Wastewater Management Planning Project for South Coast Watersheds** has four main phases:

- The **Needs Assessment Report**: outlines Falmouth's wastewater planning history; defines the wastewater needs for the South Coast watersheds; lists institutional and wastewater challenges; and lays out the next steps (*report complete*).
- The **Alternatives Screening Analysis Report**: identifies and evaluates centralized and decentralized treatment technologies and solutions for the South Coast watersheds. It describes these technologies and recommends preferred options that are grouped into alternative plans for detailed evaluation (*report complete*).
- The **Draft Comprehensive Wastewater Management Plan and Draft Environmental Impact Report** (DCWMP/DEIR): further evaluates the technologies and alternative plans for nitrogen remediation and wastewater management. It will present the recommended CWMP and Environmental Impact Analysis.
- The **Final Comprehensive Wastewater Management Plan and Final Environmental Impact Report** (FCWMP/FEIR): incorporates community and regulatory review and comments and lays out the final wastewater and nitrogen management plan that will be implemented in future years.
- Funding, Design and Implementation of the CWMP will be subject to additional regulatory review and approval by the residents of Falmouth.

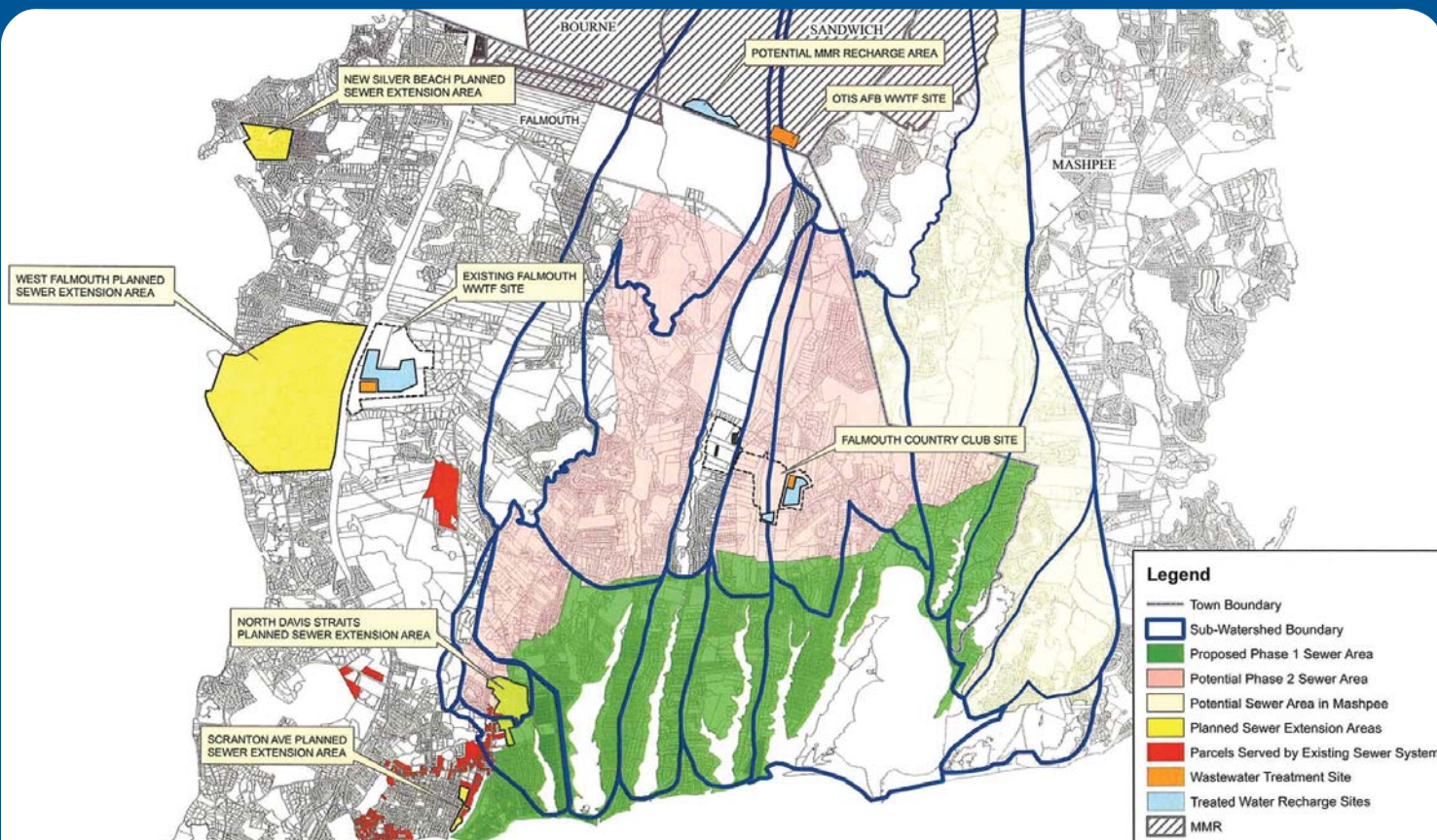
You can read the completed reports and learn more about nitrogen management at www.FalmouthWastewaterProjects.org

development and open space preservation. Injection wells also allow Falmouth greater flexibility in management of the overall water resources. Several reinjection well locations are also being considered.

Other Management Strategies for Nitrogen: The Town has completed an evaluation of how to manage non-wastewater nitrogen. The recommendations relate to fertilizers, stormwater and modifications to coastal pond inlets and watersheds:

- Fertilizers should be managed with a strong education and advocacy program (similar to the Falmouth Friendly Lawns campaign) managed by the Barnstable County Health or Cooperative-Extension Departments. This approach will utilize an existing county system and the program can be applied uniformly to all towns on the Cape.
- The town's ongoing stormwater mitigation program needs increased annual funding to stop stormwater runoff to coastal estuaries and reduce the nitrogen and other pollutant loadings to these water bodies.
- The inlets to Little Pond and Bourne Ponds can be widened to reduce the need for sewerage in those watersheds (and save money). Environmental impact evaluations will be required to determine that the estuaries, shorelines and property owners along those ponds won't be adversely impacted.
- Modifying watersheds (particularly cranberry bogs) can naturally attenuate (remove) nitrogen and reduce the need for sewerage in these areas. The Coonamesset Bog Restoration Committee is incorporating these attenuation concepts into its restoration planning.

Cost and Financing: This will be the largest capital project Falmouth has ever undertaken. The Town and its consultants are completing the cost estimate for CWMP implementation. A 5-year Capital Improvement Plan (CIP) has been developed for the initial portion of this long-term and multi-phased effort and has been presented to the Board of Selectmen and Finance Committee. The plan includes several options:



The map shows possible future sewer areas that are being evaluated

- The recently passed Environmental Bond Bill offers zero percent financing to communities. **This funding could reduce the costs for financing for Falmouth's water quality project by nearly 50%.** To be eligible, a community cannot be subject to a state enforcement action for nutrients; must have an approved CWMP; and must adopt land use controls that will not increase wastewater flows beyond what the Town has authorized under its zoning and wastewater regulations. Additional guidance will be provided by the State since the Act has a variety of other requirements that need clarification.
- There are no grants available to cover this project (like those utilized when the Town's original wastewater system was constructed in the 1980s). The Town will need to decide how to apportion costs between property taxes and betterment charges. Two sample financing scenarios were presented in the Town's 5-year CIP, based upon preliminary cost estimates for work that the Town could accomplish in a five-year construction horizon:

Financing Scenario 1: The Town's General Fund (property taxes) pays 100% of design, treatment and recharge costs, as well as 30% of collection system cost. Property owners served by the sewers pay the

remaining 70% of the collection system cost through betterments.

Over a 25-year payback period, this financing scenario results in approximately 40 cents added to the tax rate, or an additional \$160 per year for a \$400,000 home. Under this financing, the betterment for each property served would be approximately \$31,000, which would be approximately \$3,000 per year (assuming 5% interest over a 20-year period). Other financing mechanisms may be available to property owners.

Financing Scenario 2: The Town's General Fund (property taxes) pays 100% of the project cost. This financing option would spread the total cost over the entire tax base.

Over a 25-year payback period, this financing results in approximately 83 cents added to the tax rate, or an additional \$330 per year for a \$400,000 home.

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Learn more about the project at www.FalmouthWastewaterProjects.org

Under either option, the first payments could be expected to appear on tax bills in the 2015 budget horizon. The examples above are offered for illustrative purposes. The final cost apportionment will be subject to public comment and review. In addition, homeowners will need to pay for their individual connection to the sewer. This cost is highly dependent on site specific factors (landscaping, location of existing cesspool or septic tank, etc). Homeowners may be eligible for 5% interest rate betterment loans payable over 20 years available from the Barnstable County Community Septic Management Program for certain eligible connection costs, which may include Title V abandonment costs.

Flow Management: A Flow Neutral Bylaw is being prepared for consideration at a future Town Meeting, perhaps as early as spring 2009. Passage of this bylaw would permit Falmouth to meet one eligibility requirement of the Environmental Bond Bill that requires towns to manage wastewater flows in order not to exceed a predetermined level of growth. This way Falmouth will be eligible for zero interest loans from the Commonwealth.

Summary

With the Draft CWMP currently scheduled for completion in early 2009, Town planners and consultants are completing their evaluation of treatment and discharge issues. Open Houses are planned over the next few months to provide more details on the plans. Public meetings will be held to present the full recommendations of the CWMP in 2009.



Learning More about the Project

Over the next few months, Town officials will be co-hosting a series of Open Houses with FACES (Falmouth Associations Concerned with Estuaries and Saltponds) to present more details on the Comprehensive Wastewater Management Plan (CWMP). These informal sessions will offer residents and business owners the opportunity to learn more about wastewater treatment and discharge, the CWMP analysis, funding and other topics. For more information, contact Jerry Potamis, Wastewater Superintendent, at 508-457-2543.



Project Contacts

The Nutrient Management Planning Committee provides Town-wide citizen representation and input to this planning effort. The committee meets on a monthly basis. The members include:

Gerald Potamis, *Wastewater Superintendent*

Amy Lowell, *Assistant Wastewater Manager*

Robert L. Whritenour, *Town Manager*

Heather Harper, *Assistant Town Manager*

Raymond Jack, *Director of Public Works*

George Calise, *Town Engineer*

Brian Currie, *Town Planner*

Ken Foreman, *ZBA*

David Carignan, *Health Agent*

John Waterbury, *Non-affiliated*

George Heufelder, *Barnstable County Health Department and Falmouth BOH*

Jennifer McKay, *Conservation Administrator*

Steve Fassett, *Finance Committee*

Chris Neill, *FACES*

Jack Barnes, *Non-affiliated*

George Hampson, *Falmouth Coastal Ponds Management Committee*

Jim Vierra, *Board of Health*

Please contact Gerald Potamis at 508-457-2543 (x3091) for information on the committee meetings and the CWMP Project.