

Appendix 1-2

Town of Falmouth CWMP Plan of Study, March 2007



Raymond A. Jack
Director

March 15, 2007

Massachusetts Department of Environmental Protection
973 Iyannough Road, Route 132
Hyannis, MA 02601

Attn: Mr. Brian Dudley

Re: Town of Falmouth
CWMP Plan of Study - South Coast Estuarine Watersheds

Dear Mr. Dudley:

Enclosed for your review is the March 15 2007 Plan of Study for the Town of Falmouth Comprehensive Wastewater Management Planning Project for the watersheds of Falmouth's south-coast estuaries from Little Pond to Waquoit Bay. It was developed by our engineering consultant, Stearns & Wheler, LLC in accordance with Massachusetts Department of Environmental Protection guidelines dated January, 1996, and in consideration of the 2007 draft guidelines that are currently under public review.

The Plan of Study is divided into the following main components:

- Phase I - Needs Assessment
- Phase II - Identification and Screening of Alternative Solutions and Sites
- Phase II - Detailed Evaluation and Development of the Comprehensive Wastewater Management Plan
- Phase IV - Resolution of Remaining Issues and Project Completion
- Phase V - Environmental and Public Review Process

We plan to initiate the Massachusetts Environmental Policy Act and Cape Cod Commission Development of Regional Impact joint review process at the completion of Phase II. At that time, we will file an Environmental Notification Form describing the work and findings developed to date, and identifying the needed steps to complete draft and final Environmental Impact Reports (EIRs). The draft and final EIRs will be completed in Phases III and IV, respectively.

The Plan of Study is proposed to be general in nature in order to be flexible as we proceed. We expect to complete this project in approximately 2 years with a cost-effective and environmentally sound plan to manage our wastewater into the foreseeable future (20-year time frame with considerations for buildout conditions).

The Town Administrator has convened a Nutrient Management Working Group comprised of Town staff as well as community representatives that will meet regularly as the project proceeds. The group will provide comments on project documents, consider implementation issues and assist with public outreach.

Town of Falmouth

Department of Public Works

Cape Cod, Massachusetts



59 Town Hall Square
Falmouth, MA 02540
Telephone: (508) 548-7611

We look forward to your support in coordinating the regulatory review of this project for the Massachusetts Department of Environmental Protection. The attached document is provided for your review and comment. Should you have any questions, please feel free to call me or Nathan Weeks, P.E., from Stearns & Wheeler.

Sincerely,



Raymond A. Jack
Director, Public Works

Enclosures

cc: Robert L. Whritenour, Jr. - Town Administrator
George Calise - Town Engineer
Amy Lowell - Wastewater Superintendent
Brian Currie - Town Planner
Nathan C. Weeks, P.E., Stearns & Wheeler

**TOWN OF FALMOUTH
COMPREHENSIVE WASTEWATER MANAGEMENT PLANNING PROJECT**

PLAN OF STUDY

March 15, 2007

The purpose of the Plan of Study is to provide a listing of the steps needed for the Comprehensive Wastewater Management Planning (CWMP) Project in the Town of Falmouth (Town). Listing these tasks allows Town department staff, regional and state agencies, and the public to understand the CWMP process and efficiently provide input to the Project. The Plan of Study is expected to have the following main uses:

- Submittal for Department of Environmental Protection (DEP) review as required
- Budgeting and scheduling tool for Comprehensive Wastewater Management Planning.
- Development of environmental review documents for the Project through the joint Massachusetts Environmental Protection Act (MEPA) and Cape Cod Commission (CCC) Development of Regional Impact (DRI) review process.
- Development of public education and outreach materials throughout the Project.

PHASE I – NEEDS ASSESSMENT

This is the first phase of Comprehensive Wastewater Management Planning and it involves the assessment of the wastewater needs for the Town of Falmouth CWMP Planning Area as illustrated in Figure 1.

Evaluations in this phase will utilize nitrogen limits developed by the Massachusetts Estuaries Project (MEP) which are detailed in the MEP Technical Reports for several of Falmouth's coastal estuaries and are illustrated in Figure 1. (It is noted that the wastewater-nitrogen removals indicated on Figure 1 are one possible scenario to meet the nitrogen threshold concentrations as suggested by the MEP). The Eel Pond and Waquoit-West Watershed do not have MEP limits yet, and we will proceed on the basis that Nitrogen limits for this area will be similar to the Bourne Pond Watershed limits

Falmouth's wastewater needs will be defined by identifying the Town goals for wastewater management, evaluating the existing conditions and limits, developing projections of the future conditions, and then comparing these goals and conditions to the wastewater limitations in Falmouth.

The purpose of the CWMP Needs Assessment is to evaluate and define the wastewater needs of the Town.

The main tasks of this phase are listed below:

- A. Review and Summarize Town Issues and Project Background**
- B. Initiate Identification and Evaluation of Potential Treated-Water Recharge Sites**
- C. Review and Summarize Regulatory Issues Affecting Wastewater Management Planning**
- D. Evaluate, Summarize, and Describe Existing Conditions in Town including Nitrogen Limits**
- E. Identify the Goals and Objectives of the Town Related to Wastewater Management**
- F. Evaluate Summarize and Describe Future Conditions in Town**
- G. Identify Wastewater Areas of Concern and Prepare CWMP Needs Assessment Report**

PHASE II - IDENTIFICATION AND SCREENING OF ALTERNATIVE SOLUTIONS AND SITES

Phase II reviews, identifies, and develops solutions, which could be feasible to meet the Town's wastewater needs. These solutions are then summarized and screened to retain only the most feasible ones. Alternative wastewater treatment sites are also further identified and screened to identify the most feasible sites that will balance costs, environmental impact and public acceptance. Feasible solutions (technical as well as management) and sites are then grouped into alternative scenarios for detailed evaluation in the next phase.

The purpose of the identification and screening of alternative solutions and sites is to identify wastewater solutions, and then reduce the number of solutions to the most feasible ones for detailed evaluation.

The tasks of this phase are listed below.

- A. Identify, Review and Summarize Alternative Solutions to Meet the Town's Wastewater Management Needs**
- B. Screen the Alternative Solutions to Identify the Most Feasible ones for Detailed Evaluation.**

- C. **Further Identify and Screen Potential Sites For Wastewater Management Facilities**
- D. **Group Feasible Solutions and Sites into Alternative Wastewater Management Scenarios**
- E. **Prepare the Wastewater Alternatives Screening Analysis Report by Summarizing the Tasks of this Phase**
- G. **Prepare the Environmental Notification Form (ENF) Document to Initiate the Massachusetts Environmental Policy Act (MEPA) and Cape Cod Commission Development of Regional Impact (DRI) Joint Environmental Review Process**

PHASE III – DETAILED EVALUATION AND DEVELOPMENT OF THE COMPREHENSIVE WASTEWATER MANAGEMENT PLAN

Phase III provides a detailed analysis of costs and non-monetary factors for the alternative wastewater management scenarios. It also performs the environmental impact analysis for these alternative scenarios in accordance with State and Cape Cod Commission requirements. It presents the recommended wastewater management plan to mitigate the wastewater related problems. This plan will include the scheduled implementation steps for new facilities, management structures, local regulations, and funding requirements. The main tasks for this phase are listed below.

The purpose of this phase is to select the most appropriate wastewater management plan for Falmouth based on a cost effectiveness analysis, analysis of non-monetary factors, and an environmental impact analysis.

The main tasks for this phase are listed below:

- A. **Continue with Subsurface and/or Environmental Investigations for Potential Wastewater Management Sites. (Portions of this Task will be initiated earlier)**
- B. **Prepare a Methodology of the Planned Detailed Evaluations for Project and Regulatory Review.**
- C. **Perform Present-Worth Evaluations of the Alternative Scenarios.**
- D. **Perform Non-Monetary Evaluations of the Alternative Scenarios.**
- E. **Perform an Environmental Impact Analysis of the Alternative Scenarios.**

- F. Evaluate The Present-Worth, Non-Monetary Factors, and the Potential Environmental Impacts (and Benefits) of the Alternative Management Scenarios to Select the Most Appropriate One.
- G. Develop and Present the Recommended Wastewater Management Plan, and Prepare the Draft Comprehensive Wastewater Management Plan and Draft Environmental Impact Report (DCWMP/DEIR).
- H. Submit The DCWMP/DEIR For Regulatory and Public Reviews.

PHASE IV – RESOLUTION OF REMAINING ISSUES AND PROJECT COMPLETION

This phase is needed to complete the Environmental Impact Review Process and finalize the CWMP.

This phase includes the following tasks:

- A. Resolve Remaining Issues
- B. Modify the DCWMP/DEIR to Prepare the Final Comprehensive Wastewater Management Plan and Final Environmental Impact Report (FCWMP/FEIR), and Submit it for Public and Regulatory Review
- C. Complete the Cape Cod Commission Development of Region Impact (DRI) Review Process

PHASE V – ENVIRONMENTAL AND PUBLIC REVIEW PROCESS.

This phase is the coordination of the environmental and public review process that proceeds throughout the whole project.

The environmental review process needs to follow the Cape Cod Commission/Massachusetts Environmental Policy Act (CCC/MEPA) Joint Review Process (CCC/MEPA, 1991).

The public review process is closely related to the environmental review process. It will contain additional items needed to properly disseminate information to the Town's community groups and to the Town Public. Proper public education is needed to ensure that the recommended plan will be approved by Town Meeting and by the voters in any proposition 2½ override referendums.

The purpose of this phase is to create and coordinate an environmental and public review process which will inform project participants and the Town Public, and facilitate the recommended plan's approved by Town Meeting and Town Voters.

The approach for the environmental review process is to file an Environmental Notification Form (ENF) document at the end of Phase II to initiate the Massachusetts Environmental Policy Act (MEPA) and Cape Cod Commission Development of Regional Impact (DRI) Joint Environmental Review Process. This ENF will summarize the findings of Phase I and II, and focus the review on the Alternative Management Scenarios that were developed at the end of Phase II and their associated environmental impacts and benefits. The ENF will detail how these Alternative Management Scenarios will be evaluated. The subsequent environmental evaluations will be summarized in the Draft Comprehensive Wastewater Management Plan and Draft Environmental Impact Report (DCWMP/DEIR) and in the Final Comprehensive Wastewater Management Plan and Final Environmental Impact Report (FCWMP/FEIR)

The main tasks of this phase are listed below:

A. Utilize the Falmouth Nutrient Management Working Group for Project Reviews and Public Outreach

This Working Group was established in 2003 and will meet throughout the project to review project documents and provide project input. This group will also assist with the public participation program.

A sub-group of this group is comprised of Town professional staff and will provide technical guidance for the Project and to the Nutrient Management Working Group.

- B. Prepare and Conduct a Public Participation Program**
- C. Submit and Coordinate the Public Review of the Environmental Notification Form.**
- D. Submit and Coordinate the Public Review of the Draft Comprehensive Wastewater Management Plan and Draft Environmental Impact Report (DCWMP /DEIR)**
- E. Submit and Coordinate the Public Review of the Final Comprehensive Wastewater Management Plan and Final Environmental Impact Report (FCWMP /FEIR).**
- F. Coordinate the Needed Public Meetings and Hearings to Comply with State and Regional Regulations as well as Meet the Informational Needs of the Community.**

