

MEMORANDUM OF AGREEMENT

BETWEEN

THE TOWN OF FLAMOUTH AND BARNSTABLE COUNTY

GOVERNING

A PROJECT TO DETERMINE THE EFFICACY OF ECO-TOILETS AS A NITROGEN-MANAGEMENT STRATEGY IN AREAS IMPACTED BY DOMESTIC WASTEWATER

I. INTRODUCTION

This Memorandum of Agreement (MOA) is made by the Town of Falmouth and the Barnstable County. The Town of Falmouth and Barnstable County are collectively referred to as the Parties or individually as a Party. This MOA is made to govern the activities of the Barnstable County Department of Health and Environment, a department of Barnstable County, relative to activities to investigate the effectiveness of eco-toilets to address nutrient management needs of the Town of Falmouth Comprehensive Wastewater Management Plan.

II BACKGROUND AND PURPOSE

The Town of Falmouth is actively investigating various measures to protect their coastal and freshwater resources. Recent reports issued under the Massachusetts Estuaries Project have identified nutrients originating from septic systems as a major source of nutrients that seriously impact many of the marine embayments of the Town. As one part of a comprehensive effort, the Water Quality Management Committee (WQMC), a committee appointed by the Town of Falmouth Selectmen to serve as an advisory committee for wastewater-related issues, is endeavoring to determine whether the use of eco-toilets (composting toilets, urine diversion toilets, and others) offers a viable alternative for addressing the nutrient issue. Accordingly, this committee has developed a strategy including public outreach and education, research and data collection to answer the various aspects of the topic.

This memorandum governs the specific activities of the Barnstable County Department of Health and Environment for assisting the Town of Falmouth in the collection of relevant data on eco-toilets and the preparation and reporting of said data in a form that will allow the Commonwealth of Massachusetts Department of Environmental Protection (DEP) to assign the appropriate environmental and cost effect values to their use.

III. TASKS TO BE PERFORMED BY THE BARNSTABLE COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT RELATIVE TO ECO-TOILET EVALUATION.

Under this memorandum, Barnstable County, through its Department of Health and Environment (BCDHE) will perform the following tasks relative to the evaluation of eco-toilets:

1. BCDHE will meet and consult with DEP representatives regarding the approval clarifications for all types of eco-toilets. In addition, the study design aimed at determining the credit assigned eco-toilets will be finalized. Details regarding the number of systems of different types, data points required at each system, critical parameters to be measured, ancillary data to be collected and reporting method will be finalized. The final product for this phase is a study design that meets both regulatory requirements and data needs to perform the final evaluation of the technology.
2. BCDHE shall collect and maintain records of all data necessary for determining the economic feasibility (costs of installation, maintenance, residuals management etc.) of using eco-toilets.
3. BCDHE shall complete and adhere to criteria for participation in the Eco-Toilet Demonstration Project that meet data needs specified above. Certain qualifications for participation that relate to scientific validity of findings have been determined, however those other criteria for participation, such as the location in town relative to the project area, will be determined in conjunction with the Water Quality Management Committee.
4. BCDHE shall sample all eco-toilet systems in conformance with accepted protocols. The major issue here is the nitrogen loads from the remaining graywater (or blackwater in the case of urine-separating toilets). In this section we will prepare all data reports in the manner agreed upon in the above task.
5. BCDHE shall compile a list of all options for the disposal or possible beneficial reuse of residuals. They shall estimate the volume per residence.
6. BCDHE will prepare a white paper regarding the current state of understanding regarding options and possibilities for the beneficial and/or reuse of residuals.
7. BCDHE shall prepare a document outlining the critical knowledge gaps regarding pharmaceuticals, personal care products and other relevant contaminants of emerging concern, and in conjunction with others attempt to fill those gaps with appropriate measurements where possible. There are two issues here. The Contaminants of Emerging Concern (CEC) in the remaining graywater as well as their content in the residuals.
8. BCDHE shall prepare a final report regarding the efficacy and cost effectiveness of eco-toilets in addressing issues of nutrients. This report will also cover other benefits of using eco-toilets (water conservations, energy use, etc.); however the main emphasis will be to answer questions regarding the ability to use eco-toilets as a sustainable means of addressing the issue of nutrient-related eutrophication of the marine embayments. BCDHE will prepare interim reports as requested.

IV. COMPENSATION FOR SERVICES AND ACCOUNTABILITY

Barnstable County shall establish an account to which funds deposited from the Town of Falmouth shall be used to complete the above-referenced tasks. Based on initial discussions with DEP, 62 sites must be sampled on 12 occasions to provide adequate data for this evaluation.

Under the optimal scenario of timely and coordinated eco-toilet installations, this results in costs totaling approximately \$50,000 for 62 systems tested. Should the Town of Falmouth, through its Water Quality Management Committee determine that sampling from locations outside of Falmouth is to be conducted, BCDHE will perform these samples, using for its transportation and staff costs those outlined in the estimate of costs previously submitted (\$18/hour labor costs, \$0.41/mile). All analytical costs shall be similar as to those charged for samples taken within the town. Accordingly, the Town of Falmouth shall deposit two installments of \$25,000 each into the Barnstable County account for the purpose of completing this project. Funds from this account may only be used for the completion of the above-referenced tasks and include costs associated with sample collection, processing and reporting.

The County shall provide a monthly summary of all expenditures and a summary of all activities relative to the completion of the Eco-Toilet Demonstration Project. Due to variables in the sample collection sequence that may affect average (and hence final) collection costs, Barnstable County will submit a monthly report reflecting any projected changes in costs of sample collection for the project duration.

V. REPORTING

The County shall submit all reports to the Office of the Selectman and the Chairperson of the Water Quality Management Committee.

IV. CORRESPONDENCE AND NOTIFICATIONS

All correspondence related to this MOA shall be directed to the following persons on behalf of the Parties by either first class or electronic mail:

For the Town of Falmouth:

Julian M. Suso
Town Hall
59 Town Hall Square
Falmouth, MA 02540
508-495-7320
508-495-7321

For the Barnstable County:

George R. Heufelder, M.S., R.S.
Barnstable County Department of Health and
Environment
3195 Main Street / P.O. Box 427
Barnstable, MA 02630
508-375-6616

or, to such other place or to the attention of such other individual as a Party may from time to time designate by written notice to the other Party.

V. MODIFICATION AND DURATION OF THIS MOA

Any modifications to this MOA and any attachments to it must be in writing and executed by all of the Parties. This MOA is intended to continue in full force and effect until the funding for the Eco-Toilet Demonstration Project has been exhausted.

VI. GENERAL PROVISIONS

A. Parties Bound

The parties bound by this MOA are the Town of Falmouth and the Barnstable County Department.

B. Assumption of Liability

Neither the Town of Falmouth nor the Barnstable County Department assumes any liability by entering into this MOA.

C. Termination

Either party may terminate participation in this memorandum by notifying the other party within two weeks of the desired termination date. At the termination of the memorandum all unexpended funds shall be returned to the Town of Falmouth and a final report of expenditures shall be submitted to the Town of Falmouth within two weeks of the termination.

D. Effective Date

This MOA shall become effective on the date it is signed by the Town Of Falmouth and Barnstable County.

E. Signatories

By signing below, the Party accepts the terms and conditions of this MOA. The undersigned representative of each Party certifies that he or she is fully authorized by the Party whom he or she represents to enter into this MOA and to bind that Party to it.

TOWN OF FALMOUTH MASSACHUSETTS

BARNSTABLE COUNTY DEPARTMENT
OF HEALTH AND ENVIRONMENT

By its Selectmen,

By its Commissioners

Mary Pat Flynn, Chairman

Mary Pat Flynn, Chair

Melissa C. Freitag, Vice Chairman

Sheila R. Lyons, Vice-Chair

Brent Putnam

William Doherty

David Braga

Kevin Murphy

Dated: April ___, 2012

Barnstable County Department of
Health and Environment
3195 Main Street / P.O. Box 427
Barnstable, MA 02630

Dated: April ___, 2012