

Pleasant Bay Regional Watershed Permit Implementation Project

Municipal Denitrifying Septic System Program



PLEASANT BAY
ALLIANCE



Pleasant Bay Watershed Permit

- * Issued to Towns in 2018; 1st in Massachusetts
- * 20-year renewable permit; 5-yr increments
- * Benefits
 - * Procedure for nitrogen reduction credits
 - * MassDEP enforcement forbearance
 - * Priority for State Revolving Funds (SRF)
 - * Assurance for all watershed communities
- * Watershed Permit Guide

Establishes Nitrogen Removal Responsibility

- * Watershed-wide attenuated N load removal need to meet TMDLs = 17,700 kg/yr (100%)
- * Removal requirements by Town:
 - * Brewster— 2,300 kg/yr (13%)
 - * Chatham— 4,100 kg/yr (23%)
 - * Harwich— 4,400 kg/yr (25%)
 - * Orleans— 6,900 kg/yr (39%)

SNEP-Funded Implementation

- * Municipal Denitrifying Septic System Program
 - * Pleasant Bay Alliance
 - * Town of Brewster
 - * Horsley Witten Group
 - * Barnstable County Health & Environment Department
 - * Wright-Pierce

Objectives/Findings

1. Quantify N reduction needed from I/A systems
 - * 12 mg/L selected – 960 kg/yr reduction
2. Identify Technologies to Achieve 12 mg/l Reduction
 - * No systems with full approval available at the time (2020)
 - * 2 provisionally approved systems; other commercially available or experimental

Objectives/Findings

3. Understand MassDEP O&M Requirements
 - * Municipal use of I/A systems for TMDL compliance requires municipal oversight of O&M
 - * Rigorous monitoring and inspections
 - * More frequent inspections required for systems w/o general use approval

Objectives/Findings

4. Estimate Costs

- * “Base case” estimate for fully approved systems:
 - * Capital cost \$33,900
 - * O&M cost \$ 2,360 per year (avg over 20 years)
- * Program costs driven by (1) availability of technologies that meet required level of N reduction; (2) need for robust inspection & monitoring.
- * SRF funds may be available pending MassDEP guidance.

Objectives/Findings

5. Recommended Regulatory Structure:
 - * Bylaw by Town Meeting vote (provides town-wide approval of program)
 - * Implementing regulation by Board of Health vote (provides flexibility to adapt rules to reflect changing conditions)

For More Information

<https://pleasantbay.org/programs-and-projects/watershed-planning/pleasant-bay-watershed-permit>



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