

A Golden Opportunity for Designers and Manufacturers of Innovative Residential Wastewater Disposal Systems:

Buzzards Bay Project

The Massachusetts Alternative Septic System Test Center

Presentation at the EnviroExpo 2000 by Dr. Joe Costa Executive Director Buzzards Bay Project National Estuary Program

these transparencies and other information can be found at the BBP website www.BuzzardsBay.org



The Massachusetts Alternative Septic System Test Center

at the OTIS Air National Guard Base on Cape Cod

Credits:

In 1998, with a grant from the US EPA, under their Environmental Technology Initiative, as well as with support from the Massachusetts Environmental Trust, and Commonwealth of Massachusetts DEP-319, the Buzzards Bay Project has built an Alternative Septic System Test Center at the OTIS Air National Guard Base on Cape Cod.



Partners:

- Buzzards Bay Project NEP/Massachusetts Coastal Zone Management
- Barnstable County Department of Health and the Environment
- UMass Dartmouth Center for Marine Science and Technology
- Massachusetts Department of Environmental Protection

Problem:

Failing septic systems, and the cumulative impacts of properly



functioning conventional septic systems (onsite wastewater disposal systems) causing shellfish bed closures, loss of aquatic habitat and other environmental impacts.

The Vendors of wastewater technologies have offered solutions with new and innovative system designs, but it has sometimes been difficult to get these technologies approved or widely used. A primary obstacle in Massachusetts and other states has been validating the performance of the technologies, which in turn has held up regulatory approval, raised development costs, and ultimately costs of these systems to the consumer.

Goal of Test Center:

To speed the introduction and approval of innovative advanced onsite wastewater disposal technologies in Massachusetts.



How:

- Provide testing at reduced costs
- Validate performance in a controlled environment
- Provide a R&D site for vendors
- Create a data clearing house on system
 performance
- Educate Boards of Health and Health Agents both the benefits and installation requirements of these technologies
- Promote public awareness
- Facilitate permitting of technologies (e.g. participation in program results in elimination of Piloting requirements

To provide less expensive and effective advanced onsite wastewater treatment and alternative design septic systems Massachusetts and beyond.

Benefits:



Save Consumer Money Better Protection of the Environment





Need:

• 40% of all residences in Massachusetts have septic systems, will increase with suburban expansion



- Septic systems, once considered interim solution in lieu of sewer expansion, now permanent, and often the most economical sewage treatment option
- New and upgraded sewage treatment plants now provide better treatment than conventional septic systems (e.g. for Nitrogen discharges: <10 ppm vs. >32 ppm)
- Regulatory limitation of new systems in certain sensitive areas (public well recharge zones, sensitive coastal embayments), local health regulations will stimulate new
- Upgrades now required at time of property transfer, best available technologies often required at difficult sites



Designs: Systems Tested in Triplicate for 2 Years. Fulfills "Piloting" requirement (18 trials).

SAMPLE POINT LOCATION PLAN - Alternative Septic System Test Center

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