

# **Workshop!**

Using Eco-Toilets to Manage our Wastewater:  
The Falmouth Initiative

## Falmouth's Vision for Eco-toilets

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# Setting the Stage

- We all know why we are here:
  - N pollution, TMDLs, CWMP mandate, \$\$s.
- This is a ***Workshop*** - not a Sermon:
  - Please share your ideas and concerns!
- We are making a ***progress report*** only:
  - We are not claiming any results yet.
- Falmouth is asking for your ***help***:
  - Join us to make the project a success.

# Three topics

- The Falmouth Eco-toilet Demo Project
  - About 60-70 volunteer participants
  - An incentive of about \$5,300
  - Sampling of septic effluent for a year
  - Central disposal of residuals required
- How we differ from other Demos
- A Request for Help

# Three *Complementary* Groups

How have we managed to work together?

- Environmentalists: Eco-toilets are **sustainable** and incidentally **cost less**.
- Falmouth voters: Maybe, together with other technologies, eco-toilets would beat sewerage on **\$\$\$ cost**.
- Demo project staff: ETs are **cost effective** and **sustainable** - but we must **DO IT RIGHT!**

# Goal of Eco-Toilet Demonstration Project:

**To establish the feasibility  
of eco-toilets as a  
technology suitable for  
use in Falmouth to meet  
TMDLs**

**Time Frame: 2 - 3 years**

# Criticisms to Overcome

**We hear these all the time**

- Eco-Toilets cannot remove enough N.
- Eco-Toilets will be too expensive.
- Eco-Toilets are too new and risky.
- Local and State regulators will not approve eco-toilets.
- People will never accept them. This is the **ELEPHANT** in the room.

# ET Demo Project Objectives

To overcome criticisms and obstacles

- Obtain DEP certification of N removal.
- Establish life-cycle costs of eco-toilets for comparison with other technologies.
- Test eco-toilets under field conditions to identify and resolve problems.
- Work with regulators to resolve issues.
- Transparency, publicity and dialogue to persuade the **ELEPHANT to dance**.

# How our ET Demo differs from others

## Motivations and Goals

- Primary motivation:
  - Others: Long-term sustainability plus third world health.
  - **Falmouth:** Frankly economic and local: meet TMDLs at least \$\$ cost - plus more jobs and less disruption.
- Specific Goal:
  - Others: Technology feasibility testing.
  - **Falmouth:** Nitrogen removal using existing ET technologies.
- Ultimate Goal:
  - Others: Encourage eventual worldwide adoption.
  - **Falmouth:** Prove viability of Eco-toilets here and now [3-10 years] instead of municipal sewers.



# How our ET Demo differs from others

## Scope and Participants

- Scope:
  - Others: urban building, housing cluster.
  - **Falmouth**: individual homes and businesses throughout Falmouth.
- Eco-toilets tested:
  - Others: Single type of eco-toilet, often in new construction.
  - **Falmouth**: Test many types of ETs, mainly retrofits in many types of existing buildings.
- Participants in Demo:
  - Others: Project building[s] determine who participates. Cost is paid by project sponsor.
  - **Falmouth**: Volunteer participants share cost with Falmouth.

# Plan for the Day

- Getting to know Eco-toilets: **The available models and ways of handling residuals.**
- Lunch Discussions: **What do you think now?** and Tours of Eco-Toilet Displays.
- The ET Demo Project: **Getting it Right!**
- Suppose ETs prove out. **How would they fit in CWMPs, especially across town lines.**
- General discussion: This is a **WORKSHOP**. We want feedback and dialogue!

# A Request for Help

- Would your town be willing to help Falmouth complete our Demonstration Project?
  - Finance participants [\$6,000 or so each].
  - Encourage residents to install ETs with State zero percent loans and tax breaks.
- We can provide technical support.
- Let's also think about Capewide cooperation in dealing with bio-waste

Thank you very much!

Any Questions?