

TOWN OF EASTHAM

Wastewater Management Planning Project

Findings and Recommended Next Steps

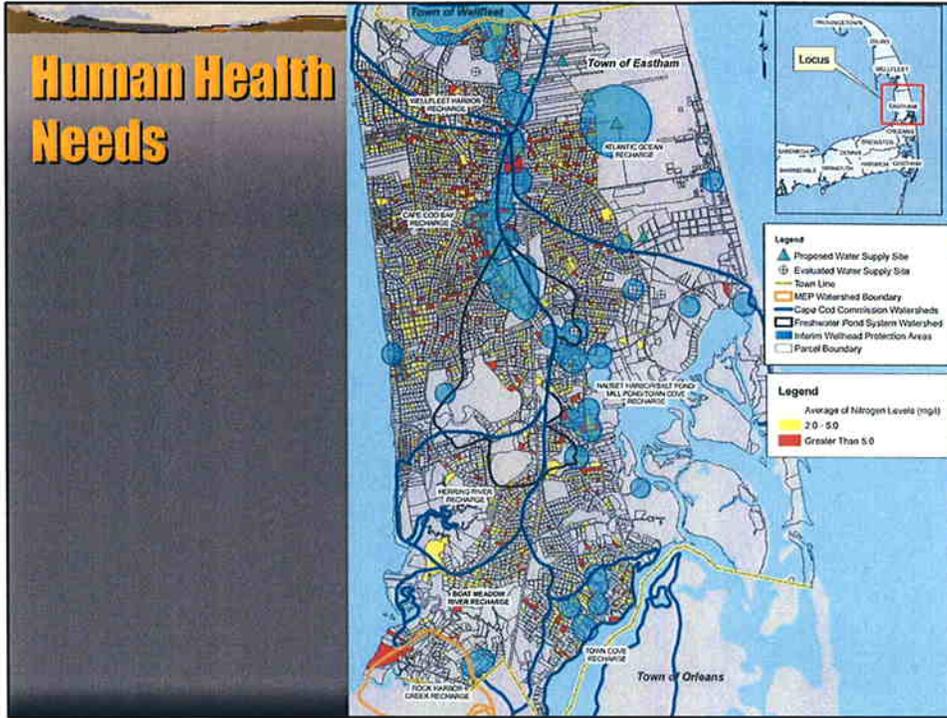
Presentation to Board of Selectmen
September 21, 2009

Nathan C. Weeks, PE
Stearns & Wheeler LLC
Environmental Engineers & Scientists

Presentation Outline

- Project Reports
- Draft Newsletter
- Summary of Needs
- Alternatives Evaluated
- Findings and Recommended Next Steps

Human Health Needs



Environmental Health Needs



Alternatives Evaluated

Water and WW Alternatives

- Drinking water systems
- Individual on-site septic systems
- Non-discharge systems
- Cluster systems
- Community systems
- Treated water recharge/reuse
- Site evaluations
- Flow and load reductions alternatives

Additional Non-Wastewater Alternatives:

- Fertilizer management
- Pet waste management
- Watershed modifications for natural attenuation
- Improved stormwater management
- Improved tidal flushing
- Modified zoning
- Nitrate barrier wall

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Evaluation Findings

1. Town-wide municipal drinking water system from a protected source is needed
2. Town-wide sewer system is not needed, but advanced wastewater treatment is needed for selected areas of Town
3. Pond water quality problems are best solved by in-pond treatment with alum

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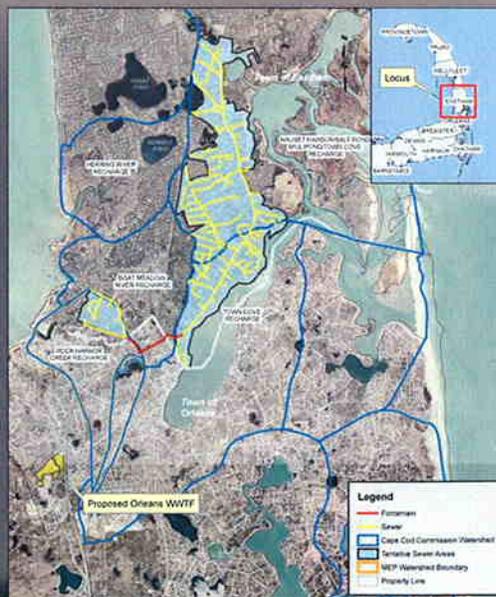
Evaluation Findings (Continued)

- The Preliminary nitrogen limits for Rock Harbor and Nauset Estuary are very stringent.
- If these limits become TMDLs, portions of these watersheds will need sewers and advanced treatment
- Tentative Sewer Service Areas are Identified at right



Evaluation Findings (Continued)

- If sewers are needed:
- Connection to the Proposed Orleans WWTF is the best and lowest-cost alternative
 - Capital cost estimated at ~\$60,000 per property



Next Steps

- Proceed with the development of the municipal drinking water system
- Continue with public education efforts
- Review the wastewater related findings of the Project at a future Town Meeting and gain public support
- Continue to coordinate with Orleans as they complete their CWMP and Regionalization Study

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Next Steps (Continued)

- Coordinate with MassDEP as they set the nitrogen limits and TMDLs, and determine MassDEP's willingness to consider less stringent limits
- Once the limits are set; finalize projected flows and costs, and coordinate further with the Town of Orleans
- Continue with pond water quality evaluations to determine pond treatment timing and approvals

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