

PRESENTATION TO:

EPA WORKSHOP, "Reducing and Preventing Beach Closures in Southern New England Communities: *Strategies for detection, Correction and Financing*"

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FIXING THE PROBLEM

History of the problem in the Town of Middletown – Third Beach

- This beautiful and secluded beach suffers from consistent closings (over a limited area) due to elevated and unsafe levels of bacteria, believed to come from the Maidford River discharge to Third Beach.
- This problem has been known by the town, the DEM and the Department of Health for at least 7 years.
- The Department of Health quickly recognizes that this is a persistent problem and a 400 foot long section of beach is closed permanently.
- August, 2003, the Middletown Town Council orders the formation of a multi-jurisdictional task force to address the problem.
- The first meeting includes the following groups:
 - Town Council Representative
 - Local Legislators
 - Norman Bird Sanctuary (an abutter)
 - DEM
 - DOH
 - Middletown Beach Commission Representative
 - Director of Public Works
 - Beach Manager
 - Aquidneck Island Planning Commission
 - Natural Resources Conservation Service
 - Congressional Delegation Representatives
 - CRMC
- The RI Department of Health conducts DNA testing of the Maidford River in the Fall of 2003 and the results are released in June 2004. Findings are that at least 87% of bacteria sources are non-human

December 2004 the town receives an engineering proposal to sample water in the Maidford River and other flows into the river. The report will

also include an evaluation of alternatives for controlling pollution in the Maidford River and a recommendation of the most cost effective alternative.

History of the Problem in the Town of Middletown – Easton’s Beach (also known as First Beach)

- Middletown Pump Station at Wave Avenue comes on-line in 1969 and is built with an emergency sewer overflow.
- In the years that follow, bacterial contamination in Easton’s Bay is common knowledge although no serious efforts are made to discover/confirm the source. It is generally believed to come from the pump station.
- Periodic discharges are known to occur although few, if any, are officially reported.
- Town’s solution is to approve a bond in the amount of \$2.5 million and design an upgrade to increase the pump station’s capacity and to conduct a Sanitary Sewer Evaluation Study to identify sources of inflow and infiltration (I +I).
- At the same time (June, 2004) harvesting shellfish in the bay is closed.
- DOH begins testing of bacteria levels in the stream flowing past the pump station (upstream and downstream) along with points in the bay and storm water outfalls into the bay.
- Bacteria testing shows extremely high levels at various points in and around the bay.
- The conclusion is that pump station overflows (approximately 4 per year) are not the primary contributor. Storm water is the largest.

HOW TO FIX THE PROBLEM (IN GENERAL)

- Don’t ever assume that generally held beliefs about the problem are correct.
- Develop a large coalition of stakeholders to work on identifying and fixing the problem.
- Test, test and test. When you’re done, do some more testing. You can’t solve major problems without investing the time and money to get all the necessary facts.
- Consult the Experts and Ask (a lot of) Questions

HOW TO FIX THE PROBLEM (SPECIFICALLY)

- When you can't eliminate the source look to mitigate the problem by using specific methods
 - Plant species of vegetation known to filter contamination
 - Dredge/excavate/enlarge outfalls to the ocean in order to dilute the flow of contaminated water
 - Try ways to treat the flow before it gets to the ocean, by using methods such as “the sponge” and chlorination

- Look to eliminate the source of the bacteria
 - Search for and relocate animals that may be nesting in storm drains
 - Adopt a local pooper scooper ordinance and/or promote the use of mutt mits
 - Smoke test sanitary sewer lines to find potential cross connections or breaks.
 - Conduct house to house inspections to look for illegal connections. When found, possible responses include payments to homeowners to correct the problem, increase sewer fees for those that don't correct the problem or a municipal summons.
 - Removal of accumulated seaweed that tends to collect and hold bacteria
 - Pump stations can be upgraded using a SCADA system that will more efficiently manage the operation to reduce problems.

- How to pay for it!
 - Local funds using general fund money or debt issuance
 - Volunteer labor to offset the cost of paid labor using community groups, public schools, college students and other stakeholders
 - Grants from sources such as DEM, EPA and private foundations

- Use staff from other interested jurisdictions such as neighboring communities, Land Grant and Sea Grant Universities, NRCS, CRMC, DOH, Save the Bay, EPA, DEM
- Low interest loans from SRF