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Presentation

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Reducing and Preventing Beach Closures in New England Communities:
Strategies for Detection, Correction, and Financing



Workshop for Northern Communities – Urban Forestry Center, Portsmouth, NH
March 18, 2005

Wollaston Beach Water Quality Improvement Program



Presented by:

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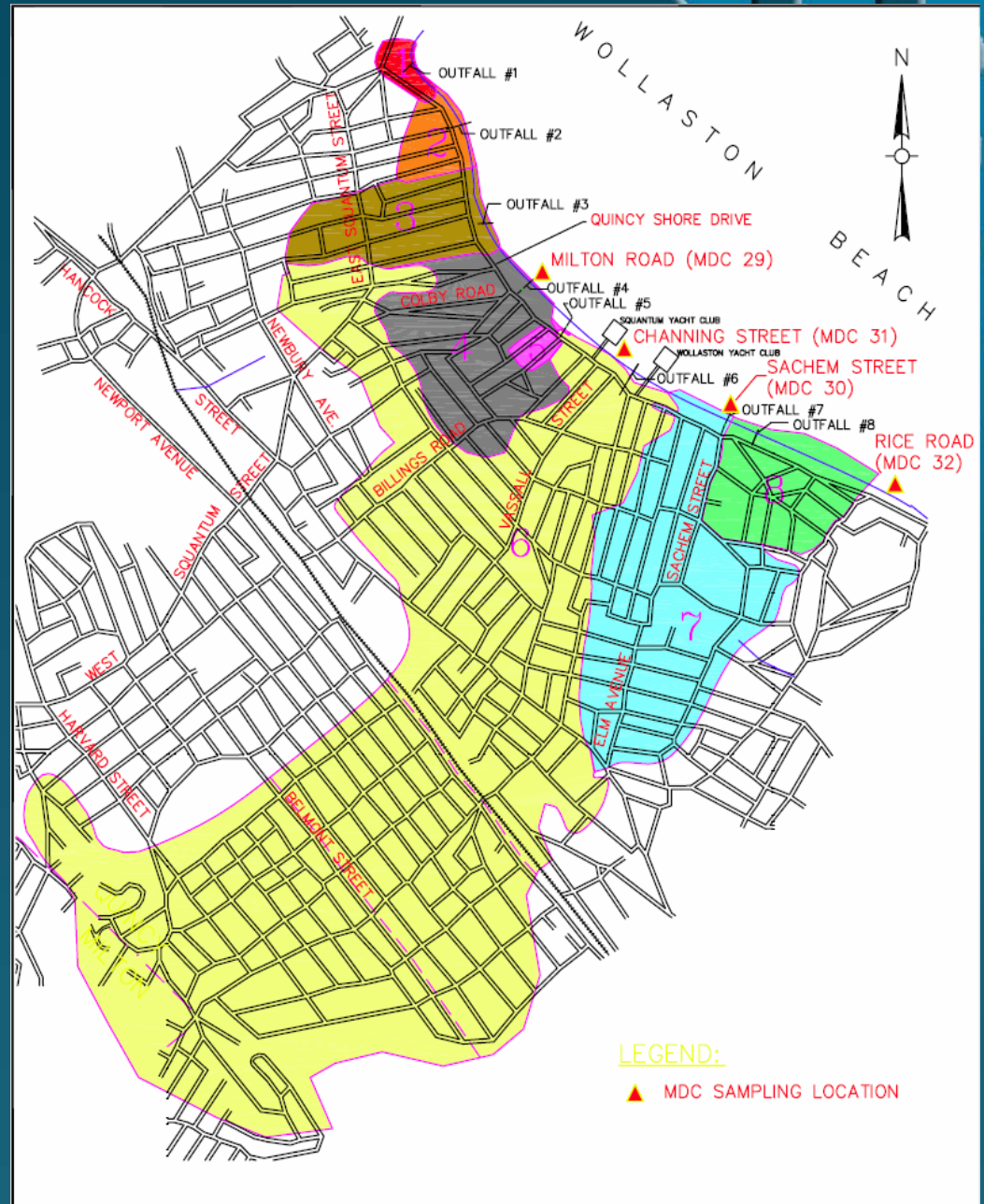
Wollaston Beach – Quincy, MA

- Located in Quincy, MA
- Wollaston Beach is approximately 3 miles long
- 2 Yacht Clubs located along beach
- 3 shellfish beds located along beach
- Fishing
- Swimming and recreation



Wollaston Beach Drainage Area

- Just under 1,000 acres
- 8 sub-areas
- 8 drainage outfalls
- 41 miles of sanitary sewer
- 28 miles of storm drain



Wollaston Beach Problems

- Aging Infrastructure
 - Sanitary sewer system is 80 to 100 years old
 - In need of replacement or rehabilitation
- Large drainage area – large amount of runoff
- 8 outfalls discharge directly onto beach
- Extremely poor tidal flushing in Quincy Bay
- 2 yacht clubs located on the beach – boat waste
- Animal Waste – dogs and water fowl

Aging Infrastructure



Aging Infrastructure



Aging Infrastructure



Sewer System Replacement and Rehabilitation

- Since 1992 , Quincy has spent over \$25 million on infrastructure improvements in the Wollaston Beach Drainage Area
- Replaced over 32,000 feet of sanitary sewer
- Replaced 470 building sewer services
- Built a new pump station
- Trenchless rehabilitation of over 42,000 feet of sewer
 - 8,000 feet of CIPP liner (8" to 20" sewer)
 - 3,000 feet of CIPP liner (24" by 36" brick sewer)
- Trenchless rehabilitation of 290 building sewer services
- Trenchless rehabilitation of 110 sewer manholes

Quincy Shore Drive Sewer Improvements Project

- In 1999, the television inspection of sewers along Quincy Shore Drive was completed.
- The City appropriated approx. \$12 million to replace/rehabilitate the sewers along QSD and the surrounding streets.
- Construction of Phase I was completed in the Fall 2004.
- Construction of Phase II to start Summer 2005.

Quincy Shore Drive Sewer Improvements Project



Quincy Shore Drive Sewer Improvements Project



Quincy Best Management Practices (BMP)

- Quincy has been implementing BMP long before NPDES Phase II
 - Catch basin cleaning, street sweeping, outfall testing, dog waste ordinance, mutt mitt stations, used motor oil recycling, catch basin stenciling, beach cleanup days, boater pump out programs, and DPW Day and other public education programs
- City purchased Vactor Trucks, Street Sweepers, Television Inspection Truck
- Pilot Stormwater Runoff Treatment System
- Outfall Cleaning Project along Wollaston Beach
- Designated Quincy Bay a “no discharge zone” for boat waste
- Created Wollaston Beach Task Force

Projects by other Agencies

- Massachusetts Water Resources Authority (MWRA) upgraded Deer Island WWTP.
 - Eliminated overflows from the Nut Island WWTP into Quincy Bay
- Department of Conservation and Recreation (DCR) - Wollaston Beach Restoration Project
 - Includes structural BMP to drainage system along roadway
- DCR mechanically rakes the wrack (seaweed) line along beach.
- MWRA rehabilitated corroded 30-inch force main along entire length of Wollaston Beach.
- MWRA replaced 3 pump stations in Quincy within the Quincy Bay drainage area.
 - Merrymount Park PS – 26 mgd station could not handle wet weather flows. Sever surcharging of the Quincy sewer system would occur during rain events.

Final Comments and Questions