South Coast Habitat Restoration Project: Measuring Restoration on a Large Scale

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Charlestown Breachway
August 19, 1952

Tidal Delta

Sediment Catch Basin

Charlestown Breachway
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South Shore Habitat Restoration

- Dredge areas of three coastal pond tidal deltas and restore eelgrass habitats which existed prior to establishment of manmade breachways.
- Restore anadromous fish passage ways to Cross Mills Pond which existed prior to manmade obstructions.
- Apply a systems approach to sediment management
40 acres restored eelgrass habitat

156,700 cubic yards of sand for beach replenishment
12 acres restored eelgrass habitat

75,100 cubic yards of sand for beach replenishment
5 acres restored

48,900 cubic yards of sand for beach replenishment
20 acres restored spawning habitat
Four Phases

- Reconnaissance Study
  - Completed June 1998

- Final Feasibility Study and Environmental Assessment
  - Completed June 2002
Four Phases (cont.)

• Construction
  – Ninigret Pond eelgrass restoration
    • Plans and Specifications completed 2004
    • Dredging - fall 2004/spring 2005
    • Eelgrass seeding and transplants – summer 2005
    • Monitoring until summer 2007
  – Cross Mills Pond anadromous fish passage
    • Plans and Specifications completed 2004
    • Construction fall 2004
Four Phases (cont.)

- Construction
  - Winnapaug Pond
    - Construction completed in summer 2006
    - Monitoring completed in summer 2008
  - Quonochontaug Pond
    - Construction completed in summer 2007
    - Monitoring completed in summer 2009
Beach Replenishment

- Total amount of sediment removed from the flood tidal delta:
  - Ninigret Pond – 156,700 cubic yards
  - Quonochontaug Pond – 48,900 cubic yards
  - Winnapaug Pond – 75,100 cubic yards
Four Phases (cont.)

- Operation and Maintenance
  - Sedimentation basins expected to need dredging every five years to maintain project
  - CRMC is pursuing purchase of a dredge with the ACOE and Congressional representatives through the Water Resources Development Act and OSPAR Funds.
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