Greenwich Bay
Special Area Management Plan
Implementation Status Report

Coastal Resources Management Council
Semi-Monthly Meeting
December 11, 2007
Primary concerns during development of the Greenwich Bay SAMP

• Degraded water quality (low dissolved oxygen)
• Shellfish resources and beach closures (fecal bacteria)
• High number of septic systems (many cesspools!)
• Marina expansion
• Public Access
Apponaug Cove
water type changes
(approved October 2004)

Original Classification
1987
Warwick Cove
water type changes
(approved October 2004)

Original Classification
1987
Greenwich Bay Public Access Guide

Guide to Coastal Resources Management Council-Designated Rights-of-Way to Greenwich Bay

Coastal Resources Management Council

This guide is designed to give the most complete information available regarding CRMC-designated rights-of-way to the shore of Greenwich Bay. Descriptive information and maps, where available, are provided for the sites listed in this guide.

For more information on public rights-of-way to the shore, visit the CRMC website at http://www.crmc.ri.gov.
Essential Actions for Water Quality

Phase Out Cesspool Use

**Status:** Passage of the Rhode Island Cesspool Act of 2007 (R.I.G.L. § 23-19.15)

53% pre-1970

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Figure 12. Approximate age of ISDS in three Warwick neighborhoods without sanitary sewers.

53% pre-1970

Source: Simmon, 2004
Warwick has spent > $130 million to date
Source: Lucht, 2003
Essential Actions for Water Quality

Complete Sewer Connections

**Status:** Implemented as of January 2006. Need to address connect capable fee as an enforcement tool.

323 homes currently out of compliance!
Warwick city-wide sewer connections

<table>
<thead>
<tr>
<th>Year</th>
<th>2003</th>
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5216 septic systems have been abandoned and replaced with sewer line connections!

Source: Warwick Sewer Authority
September 2007 quarterly report
Overall Connection Rate = \( \frac{5962}{8051} = 74\% \)
Essential Actions for Water Quality

Reduce nitrogen loading from the East Greenwich wastewater treatment facility in EG Cove

Status: Completed March 2006 – 5 mg/L average effluent concentration for nitrogen
Cost = $8.1 million
Essential Actions for Water Quality

Complete Stormwater Management Plans

Status: In Progress – Phase II and Suburban Buffer & Low Impact Development (LID) Program

Stormwater is the primary source of fecal bacteria loading to Greenwich Bay!

Recent research indicates that urban stormwater infrastructure is under capacity by 35% due to climate change impact on rainfall depths and storm return frequency.
Typical Low Impact Development (LID) Techniques

- Bioretention area in turnaround
- Pervious driveways
- Grass swale
- Rain gardens

Photos: Low Impact Development Center - http://www.lowimpactdevelopment.org
Structurally reinforced shoreline

High percentage structural lot coverage

Small lots

No natural shoreline vegetation

Potowomut shoreline

Require a buffer here?
Warwick Cove Coastal Wetland Restoration

Salt Marsh Restoration Site

Warwick Neck Ave.
Samuel Gorton Ave.

2003 Aerial

Coastal Resources Management Council
University of Rhode Island Cooperative Extension Education Center
Natural Resources Conservation Service
Warwick Cove Coastal Wetland Restoration
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December 2007
Essential Actions for Water Quality

Enhance Water Quality Monitoring

Status: Ongoing – more funding needed; convene Greenwich Bay researcher meeting
Essential Actions for Water Quality

Strengthen Clean Marina and Boating Program

**Status:** February 2007 adoption of Rhode Island Clean Marina Program

Harbor Management Plan Status:
East Greenwich – pending final approval
Warwick – pending final approval
Grandfather existing Greenwich Bay Quahog Docks

Greenwich Bay SAMP
680.1A Policy

1. The CRMC will identify and grandfather existing quahog facilities on Greenwich Cove that have been in existence since 2000.
Greenwich Bay Public Forum
October 25, 2007
Warwick City Hall

• Report & discussion of bay conditions and emerging issues
• Highlight essential action progress that support Greenwich Bay SAMP goals

Citizens Advisory Committee
November 29, 2007
Buttonwoods Community Center

• Suburban Buffer/LID presentation
• Discussion of draft SAMP amendments for lots adjacent to critical areas
### Priority Action Status

**Greenwich Bay**  
SAMP Chapter 1 – Goals and Objectives

(118 priority actions)

<table>
<thead>
<tr>
<th>Primary Goals</th>
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