

TOWN OF CHATHAM

SOUTH COASTAL HARBOR PLAN

PRIVATE PIER AND DOCK ASSESSMENT



EXECUTIVE SUMMARY

PUBLIC COMMENT DRAFT AUGUST 2009

SOUTH COASTAL HARBOR PLAN COMMITTEE

Executive Summary

1. Introduction

Chatham’s South Coastal embayments—the Stage Harbor Complex, Nantucket Sound, the Southway—encompass critical environmental, economic and cultural resources of the Town. The intensity and diversity of activities in these areas, which include shellfishing, finfishing, boating, sailing, kayaking, nature viewing, and beach going, combined with the environmental sensitivities of the areas, place heavy demands on resources and facilities and set the stage for potential management conflicts. With growth in seasonal and year-round populations, more pressures have been placed on natural resources, the limited public access points, and the use and enjoyment of the waterways themselves.

The Town developed the Stage Harbor Complex Harbor Management Plan in 1992 and the South Coastal Harbor Management Plan (SCHP) in 2005 to protect the environmental resources and variety of historic uses of these areas. Goals of these plans are to:

- Maintain the navigability of the harbor waterways;
- Protect the viability of the commercial fishing and shellfishing industries;
- Maintain a mix of recreational uses in the harbor areas;
- Protect water quality, and the quality and quantity of shellfish, finfish and wildlife species and habitat;
- Maintain and enhance adequate public access to the harbor shoreline and waterways; and
- Preserve the character and scenic quality of the harbor areas.

A central management issue that was identified in the plans was impacts associated with private piers and docks. Private piers and docks are an important element of the marine infrastructure. However, piers and docks constitute a private use of a public resource, and have the potential to cause negative environmental impacts, alter habitat, and reduce public access for other coastal activities.

In light of potential management impacts from private piers and docks, the SCHP recommended development of permitting guidelines for the structures to be based on an assessment of impacts on natural resources, public access, water quality, and navigation. The assessment was undertaken by the South Coastal Harbor Plan Committee (SCHPC).

2. Purposes of the Assessment

The purposes of the assessment are to:

Respond to Recommendations in the SCHP. First and foremost, the assessment was designed to fully respond to the recommendation in the SCHP to “evaluate primary and secondary impacts on natural resources, public access,

water quality and navigation,” and to determine where along the shoreline private piers may be found in compliance with the SCHP and areas where piers are not in compliance with the plan due to negative impacts on the harbor planning values.

Achieve consistency between the SCHP and local and state regulations. As noted above, the existing local and state regulatory framework relies on an assessment of consistency with the SCHP. Determinations on applications undergoing zoning, conservation and reviews under 310 CMR 9.00: *The Massachusetts Waterways Regulations* (hereinafter “Chapter 91”) should reflect the community objectives for harbor planning area. The assessment was designed to provide a consistent basis for assessing applications based on the community’s harbor planning objectives.

Provide clear guidance for the SCHPC in its consistency review. Because of their weight in the local and state regulatory review process, consistency findings made by the SCHPC should be guided by a comprehensive and system-wide assessment of potential resource impacts. The assessment was designed to provide this framework for consistency findings.

Provide a clear and fair permitting environment for prospective applicants. The process of seeking permits through local boards and commissions and state agencies can be lengthy, involved and costly for both the applicant and the review body. It is in the interests of the private property owner and the public review bodies to have a way to form a reasonable assessment of the potential for meeting performance standards required for permitting success, prior to initiating permitting.

3. Methodology

This assessment is modeled after dock and pier assessments in other estuarine systems, including the Pleasant Bay Resource Management Plan, which encompasses Chatham’s eastern and northern embayments. The methodology consists of (1) selection of assessment criteria; (2) definition of shoreline segments; and (3) application of criteria to shoreline segments.

(1) Assessment Criteria

The SCHP private pier and dock assessment relied on a combination of eight environmental, physical and human use factors to characterize the potential impacts resulting from the installation or use of new piers or docks. Two of the eight factors had current and historic components for a total of ten evaluative criteria. Each factor was assigned a numeric rating scale.

Environmental criteria describe the resource conditions within the area that could be adversely impacted by piers and docks. These criteria include: existing and historic shellfish resources, existing and historic eelgrass, and fringe marsh.

Human use criteria characterize the activities around the waterways that could be adversely affected by piers and docks. These criteria include: access to moorings, navigation access and recreational activity.

Physical criteria describe physical features of the area that have a bearing on the impacts of a pier or dock. The physical criteria are water depth, and whether the water body is opened or closed, which relates to an area's sensitivity to alterations in water circulation from a pier or dock.

(2) Shoreline Segments

Given the large expanse of shoreline and intermittent differences in characteristics, it was necessary to break the shoreline into twenty-six segments in order to evenly apply the criteria. The demarcation of segments was based largely on physical characteristics such as a defined point or entrance to a subembayment, as well as a common understanding of dominant use or feature. Segments are shown on Figure 1.

(3) Application of Criteria to Segments

The assessment team of the SCHPC and Town staff met monthly over more than two years to develop the criteria, rating system and shoreline segments described above. The assessment team relied heavily on local current and historical knowledge of the study area. The team also carefully reviewed available resources including aerial photography, and resource maps from the Town to assess the criteria for each shoreline segment.

4. Results

The assessment results are summarized in Tables 1 and 2 (pages 21 and 22). The score of 18 points provided a natural breaking point in the distribution of segments. Roughly half of the segments achieved a total score of 18 points or above, indicating a relatively higher level of negative impact. The other half of segments achieved a total score below 18 points indicating a relatively lower level of negative impact.

The assessment team considered not only the total score but also the number of sensitivity criteria that measured at the highest level for each segment. On average the twelve segments scoring 18 or higher had the highest rating for on average more than half of the ten sensitivity criteria. This analysis confirmed the assessment team's initial conclusion that a score of 18 reflected a relatively high degree of sensitivity to the effects of new piers.

Further consideration was given to the geographic distribution of ratings. Nearly all of the segments within the Stage Harbor Complex scored 18 or above, indicating a high level of sensitivity to new piers and docks within this particular embayment. The four segments in the Stage Harbor Complex with a score below 18 exhibit characteristics that may render them unable to meet the performance standards for piers and docks built into the existing Chatham regulations, and specifically the required depth of water.

5. Findings and Recommendation

The application of assessment criteria provided a comprehensive evaluation of the environmental, physical and human use impacts associated with piers in each shoreline segment. The geographic distribution of ratings revealed that nearly all of the shoreline segments located inside the Stage Harbor Complex rated as highly sensitive to the impacts associated with addition of new private piers. Based on these findings, the addition of new private piers and docks in the Stage Harbor Complex would be inconsistent with the SCHP objectives and should not be permitted.

The assessment revealed that other shoreline segments, located primarily in the Nantucket Sound and Southway, were relatively less sensitive to the evaluative criteria. The suitability of these areas for new private piers and docks would need to be determined based on an application of existing performance standards in Chatham regulations.

In light of these findings, the following actions are recommended:

Prohibition on New Private Piers and Docks in Stage Harbor Complex

Based on the findings described above, the SCHPC voted unanimously to recommend to the Board of Selectmen and the Planning Board to amend the current Chatham Protective By-Law to extend the prohibition on new or additional private piers and docks currently in effect in Chatham's northern and eastern waters to shoreline areas within the Stage Harbor Complex. This prohibition would not apply to existing licensed structures in these areas.

Catwalks

This proposed amendment would not apply to the permitting of catwalks as defined in the zoning bylaw.

Case-by-Case Review of Public Piers and Docks

It is also important to note that this prohibition would exclude piers and docks for public use. Although similar in nature to structures for private use, public piers and docks are consistent with the objective of the SCHP to enhance public access to the waterways in balance with the protection of natural resources. Such proposals should be subject to stringent review at the local and state level to determine whether the access benefits outweigh impacts to natural resources, and should not be subject to a blanket prohibition.

Continued Investment in Public Access Points

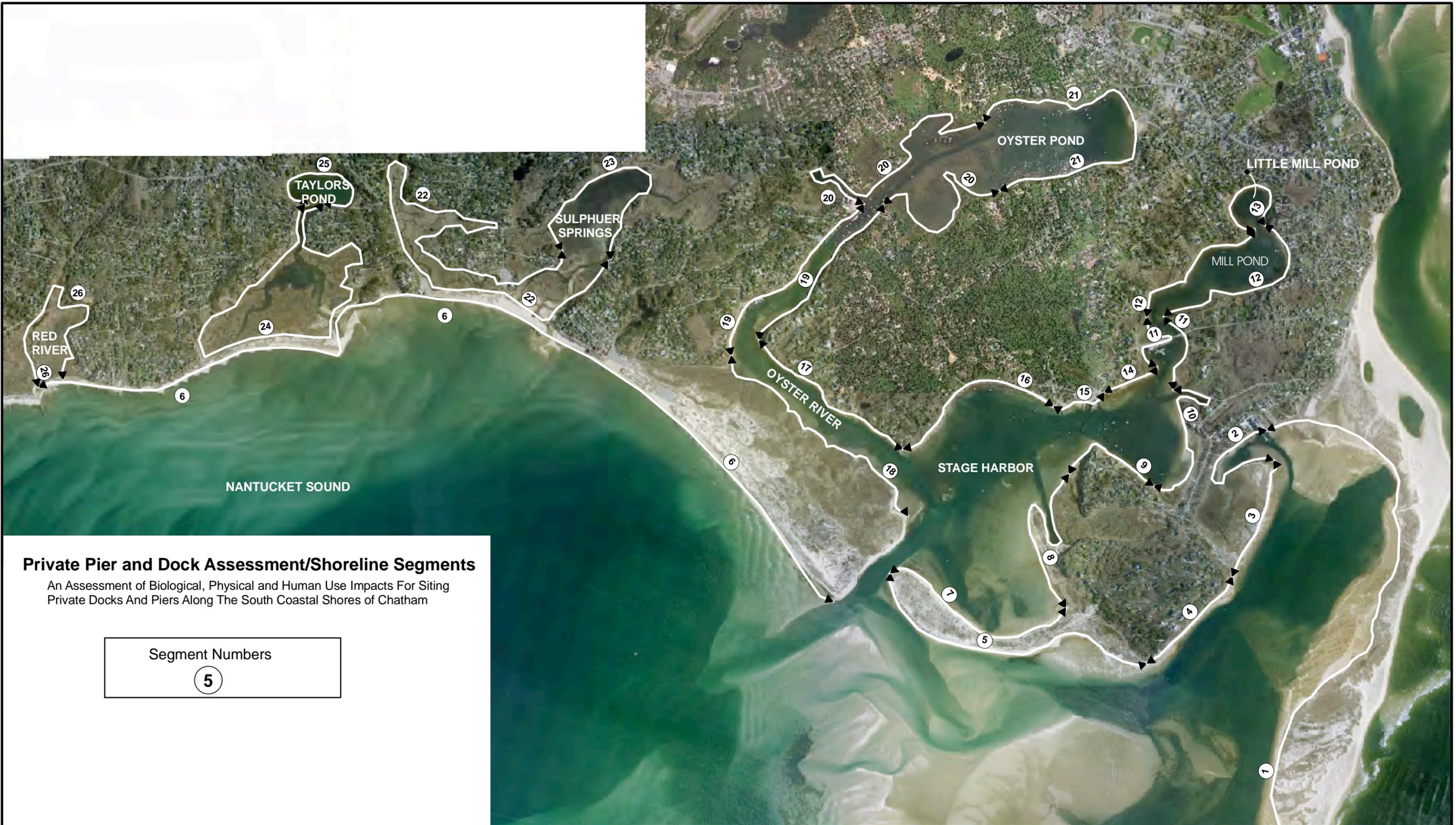
The Town should maintain its dedication and funding commitment for the upkeep of existing public access facilities in the Stage Harbor Complex and throughout the SCHP area, and to the exploration of opportunities for expanding or creating new public access opportunities in balance with natural resource protection.

TABLE 1. ASSESSMENT OF BIOLOGICAL, PHYSICAL AND HUMAN USE IMPACTS OF PRIVATE DOCKS OR PIERS ALONG SOUTH COASTAL SHORE - LISTED GEOGRAPHICALLY EAST TO WEST

Seg	Area	Environmental Criteria						Access/Public Use				TOTAL
		Enclosed/ Restricted	Shellfish		Fringe Marsh	Eelgrass		Water Depth	Presense of Moorings	Navigation Access	Recreation Activity	
1	SOUTH BEACH/SOUTHWAY	0	4	1	2	1	1	2	0	1	3	15
2	OUTERMOST HARBOR	2	3	1	3	0	0	3	2	1	1	16
3	QUITNESSETT	0	2	1	0	1	1	0	1	2	1	9
4	MORRIS ISLAND-EAST	0	2	1	0	1	1	0	1	1	1	8
5	MORRIS ISLAND CUT	0	3	1	0	0	1	3	0	1	3	12
6	NANTUCKET SOUND BEACHES	0	3	1	0	0	1	3	1	0	3	12
7	CRESCENT BEACH	1	3	1	1	2	1	3	0	1	3	16
8	ISLAND FLAT	1	4	1	3	3	1	3	0	1	3	20
9	STAGE ISLAND	1	3	1	2	1	1	2	3	1	3	18
10	MORRIS ISLAND DIKE	1	4	1	3	2	1	3	2	1	3	21
11	MITCHELL RIVER	2	4	1	2	0	1	3	3	3	3	22
12	MILL POND	3	4	1	2	0	1	2	2	2	3	20
13	LITTLE MILL POND	3	4	1	2	0	1	2	2	1	3	19
14	CHAMPLAIN FLAT	1	4	1	2	1	1	3	0	0	3	16
15	OLD MILL BOAT YARD TO PRT FORTUN	2	2	1	0	1	1	3	1	2	3	16
16	PORT FORTUNE TO SEARS POINT	1	3	1	1	2	1	3	3	1	2	18
17	OUTER OYSTER RIVER, NO. SIDE	2	2	1	1	1	1	2	3	2	3	18
18	OUTER OYSTER RIVER, SO. SIDE	2	2	1	3	1	1	3	1	2	3	19
19	INNER OYSTER RIVER	2	2	1	1	0	1	2	3	3	3	18
20	OUTER OYSTER PD & STETSON COVE	2	2	1	3	0	1	3	1	0	1	14
21	INNER OYSTER POND	3	4	1	3	0	1	2	3	1	3	21
22	BUCK'S CREEK & COCKLE COVE CRK	3	2	1	3	0	0	3	0	0	2	14
23	SULPHUR SPRINGS	3	3	1	3	0	0	3	0	0	1	14
24	MILL CREEK	3	3	1	3	0	1	3	0	3	2	19
25	TAYLOR'S POND	3	2	1	3	0	1	2	2	1	2	17
26	RED RIVER	3	1	1	3	0	0	3	0	0	0	11

TABLE 2 ASSESSMENT OF BIOLOGICAL, PHYSICAL AND HUMAN USE IMPACTS OF PRIVATE DOCKS OR PIERS ALONG SOUTH COASTAL SHORE - LISTED BY TOTAL SCORE, HIGHEST TO LOWEST

SEGMENT	Area	Environmental Criteria						Access/Public Use				TOTAL
		Enclosed/	Shellfish		Fringe	Eelgrass		Water	Presence	Navigation	Recreation	
		Restricted	Current	Historical	Marsh	Current	Historical	Depth	of Mooring	Access	Activity	
11	MITCHELL RIVER	2	4	1	2	0	1	3	3	3	3	22
10	MORRIS ISLAND DIKE	1	4	1	3	2	1	3	2	1	3	21
21	INNER OYSTER POND	3	4	1	3	0	1	2	3	1	3	21
8	ISLAND FLAT	1	4	1	3	3	1	3	0	1	3	20
12	MILL POND	3	4	1	2	0	1	2	2	2	3	20
13	LITTLE MILL POND	3	4	1	2	0	1	2	2	1	3	19
18	OUTER OYSTER RIVER, SO. SIDE	2	2	1	3	1	1	3	1	2	3	19
24	MILL CREEK	3	3	1	3	0	1	3	0	3	2	19
9	STAGE ISLAND	1	3	1	2	1	1	2	3	1	3	18
16	PORT FORTUNE TO SEARS POINT	1	3	1	1	2	1	3	3	1	2	18
17	OUTER OYSTER RIVER, NO. SIDE	2	2	1	1	1	1	2	3	2	3	18
19	INNER OYSTER RIVER	2	2	1	1	0	1	2	3	3	3	18
25	TAYLOR'S POND	3	2	1	3	0	1	2	2	1	2	17
2	OUTERMOST HARBOR	2	3	1	3	0	0	3	2	1	1	16
7	CRESCENT BEACH	1	3	1	1	2	1	3	0	1	3	16
14	CHAMPLAIN FLAT	1	4	1	2	1	1	3	0	0	3	16
15	OLD MILL BOAT YD TO PRT FORTUNE	2	2	1	0	1	1	3	1	2	3	16
1	SOUTH BEACH/SOUTHWAY	0	4	1	2	1	1	2	0	1	3	15
20	OUTER OYSTER PD & STETSON COVE	2	2	1	3	0	1	3	1	0	1	14
22	BUCK'S CREEK & COCKLE COVE CRK	3	2	1	3	0	0	3	0	0	2	14
23	SULPHUR SPRINGS	3	3	1	3	0	0	3	0	0	1	14
5	MORRIS ISLAND CUT	0	3	1	0	0	1	3	0	1	3	12
6	NANTUCKET SOUND SHORELINE	0	3	1	0	0	1	3	1	0	3	12
26	RED RIVER	3	1	1	3	0	0	3	0	0	0	11
3	QUITNESSETT	0	2	1	0	1	1	0	1	2	1	9
4	MORRIS ISLAND-EAST	0	2	1	0	1	1	0	1	1	1	8



South Coastal Harbor Management Plan - Figure 1



Aerial Photo: May 2009



South Coastal Harbor Management Plan - Figure 2



Aerial Photo: May 2009