

Comprehensive ADDENDUM 2
REPORT ON IMPLEMENTATION
South Coastal Harbor Management Plan
Chatham, Massachusetts

Prepared by the South Coastal Harbor Plan Committee

XXXX 2025

This “Report on Implementation” provides a summary of efforts the Town has undertaken to further recommendations and action items contained within the original 2005 Plan. This report is based on the Implementation Matrix contained in Chapter 5 of the Plan and provides annotated notes and comments to identify progress to date on the original recommendations. The matrix includes additional recommendations and progress on new initiatives identified within Addendum 1 of the report submitted to renew the Plan in 2014 and subsequently approved in approved 2015. This implementation report was prepared by the South Coastal Harbor Plan Committee (SCHPC).

KEY IMPLEMENTATION ACCOMPLISHMENTS

Chatham has made considerable progress on numerous recommendations contained in the original 2005 Plan. Ongoing implementation of the town’s Comprehensive Wastewater / Nutrient Management Plan (CWMP) is progressing which will directly enhance water quality within all the town’s coastal embayments. Nutrient loading of marine waters and wastewater management is one of the most pressing issues throughout Cape Cod, and Chatham continues to be at the forefront of combating this issue. Implementation of the CWMP will continue well into the future, but the groundwork planning, construction of the key treatment facility and trunk lines have been completed while continued sewerage of identified priority zones is progressing. In addition, the town recently submitted a Notice of Intent (12/2023) for the new MassDEP Watershed Permit, demonstrating that Chatham is taking appropriate steps to address wastewater and that additional regulatory action is not necessary to ensure achievement of water quality standards. This allows the town to utilize an adaptive management approach rather than reliance solely on traditional technologies.

Maintaining and enhancing town waterfront facilities is an important goal of the Plan and the Town has put considerable effort and resources into this effort. Improvements to the town’s waterfront infrastructure were recognized to be a priority need and a Waterfront Bond was authorized by Town Meeting vote (2016) to enable seamless funding for planning, design, and construction of various projects. In addition, a Waterfront User Fund comprised of receipts from marine-related

user fees was established to supplement funding for maintenance and improvements to water access facilities.

IMPLEMENTATION MATRIX, 2014 THROUGH 2023

The following Implementation Matrix is the same format utilized during the previous, 2014, renewal process and provides a comprehensive overview of efforts undertaken since 2014 to address recommendations contained in the Plan. Some of the priorities have been modified to reflect a reassessment of the issue as well as to acknowledge completion of some of the action items. As indicated above, the current matrix includes new recommendations at the end of the matrix that were identified in Addendum 1 of the 2014 report.

STAGE HARBOR COMPLEX: TOWN LANDINGS AND ACCESS POINTS

Recommendation	Priority	Progress to Date
Continue a high level of municipal investment in the acquisition, improvement, maintenance, and management of town landings, access points and associated facilities.	1	<ul style="list-style-type: none"> ➤ Annual Town Landing Maintenance account receives consistent funding. ➤ Waterways User Fund (WUF) comprised of marine related fees established and dedicated for expenditure on waterfront capital improvements. ➤ Waterfront Bond (2016) approved at Town Meeting for \$11.355M to establish funding source for multiple capital waterfront projects. ➤ Additional \$4 mil (9/2024) approved at Special Town Meeting to complete facility improvements at 90 Bridge Street. ➤ New bulkheads, floats, utility upgrades and improved seawater distribution to existing shellfish upwelling facility completed in 2017 at the Old Mill Boat Yard (OMBY). ➤ Private Trap Dock parcel adjacent to OMBY purchased in 2016 to preserve commercial fish offloading capacity in Stage Harbor. New concrete pier constructed in 2020 and new shed with ice machine completed in 2023. ➤ Waterfront parcel at 90 Bridge Street on Mitchell River acquired for public use in May 2014. Existing pier on site was rebuilt in existing footprint to provide enhanced vessel

		<p>loading/unloading. New pier has also been used for direct sale of scallops and other seafood from fishermen to the public.</p> <ul style="list-style-type: none"> ➤ Design and permitting at 90 Bridge Street completed (2023) for construction of expanded waterfront infrastructure (floats, piers, bulkheads) for recreational, commercial and municipal water access, and historic preservation. Project includes major new facility for relocating and expanding shellfish nursery and upwelling operations. ➤ The 90 Bridge Street project proposes the return, renovation and placement of the historic US Coast Guard, Stage Harbor Boathouse (currently off-site and stored at a private marine facility) onto the pier for repurposing and outfitting the structure with piping, pumps, and other hardware/software as the new shellfish nursery/upwelling facility. ➤ \$1 million Seaport Economic Council grant awarded for Phase 1 construction of 90 Bridge Street (2023). ➤ Harbormaster initiated program (2022) to construct and replace multiple Town timber floats. ➤ Nourishment at various landings and Oyster Pond Beach performed as needed to address erosion and maintain access.
<p>Develop a public education program about the opportunities, facilities, and regulations associated with various landings and access points.</p>	<p>4</p>	<ul style="list-style-type: none"> ➤ Comprehensive Town Landing Master Plan completed Jan 2011. Waterways Advisory Committee initiating reviewing of plan (2023). Shellfish Advisory Committee reviewed plan with focus on identifying important shellfish access points. ➤ All Waterways and Town Landing regulations and bylaws on web site.
<p>Develop a parking plan that addresses the vehicular access issues unique to each landing.</p>	<p>1</p>	<ul style="list-style-type: none"> ➤ Town Landing Master Plan identifies existing parking availability and general needs for all landings.

		<ul style="list-style-type: none"> ➤ Various seasonal parking restrictions enacted at multiple Town Landings to address congestion and lack of access for residents/taxpayers with consideration of overall public access. ➤ Reconstruction of parking area at Oyster Pond Furlong completed (2018). ➤ Designs for new road and parking layout with drainage improvements being analyzed for Battlefield Landing.
Secure permanent public use and access to Bridge Street landing, if possible.	2 Completed	<ul style="list-style-type: none"> ➤ Parcel purchased by Town in 2017. ➤ New dinghy tie-up rail installed along with beach nourishment and plantings (2022).
Develop and implement a plan to locate permanent or seasonal public restrooms at heavily used landings and access points, as needed.	3	<ul style="list-style-type: none"> ➤ New restroom proposed at 90 Bridge Street. ➤ Annual contract to maintain “porta-johns” at other landing facilities.
Identify all access points that may not be governed by the Town’s existing regulations for landings and water dependent properties and address the need to clarify regulatory oversight at these locations.	3 -now 2	<ul style="list-style-type: none"> ➤ Funding was provided (2022) to initiate a comprehensive survey of all town landings. Project not yet initiated.
Develop a dinghy storage plan appropriate to conditions at each town landing or access point.	1	<ul style="list-style-type: none"> ➤ Dinghy storage continues as high priority action item throughout town. Storage of personal kayaks has also increased substantially. ➤ All dinghies, kayaks and similar watercraft left at public facilities required to have contact identification. ➤ Town Landing regulations require dinghies and other watercraft stored at landings to be removed off-season if not in active use.
Identify and evaluate opportunities to create new public access points as they may become available.	2	<ul style="list-style-type: none"> ➤ Ongoing. Continual diligence toward identifying possible land purchases or other means for promoting access as opportunities arise.

STAGE HARBOR COMPLEX: COMMERCIAL FISHING INFRASTRUCTURE

Recommendation	Priority	Progress to Date
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Evaluate options for ensuring adequate offloading, packaging and storage facilities for the commercial fleet in perpetuity, through repair and maintenance of existing facilities and potential addition of new facilities.	3	<ul style="list-style-type: none"> ➤ Renovations completed at OMBY designed to enable larger commercial vessel berthing (2017). Maintenance dredging conducted adjacent to new float to enable larger vessel access. ➤ Trap Dock parcel purchased, and new pier constructed (2020) to maintain and enhance commercial fish offloading infrastructure. Improvement dredging conducted adjacent to new pier to enable larger vessel access.
Operators of commercial offloading facilities should provide adequate waste management procedures and equipment, commensurate with the operation and services provided by the facility, to prevent degradation of water quality or surrounding resources. Marine pump-out facility was maintained and incorporated into the design.	4 now 4	<ul style="list-style-type: none"> ➤ Previous private offloading facility (Trap Dock) now public with access to adjacent public restrooms. ➤ Project design at 90 Bridge Street includes new restroom facility with hook-up to Town’s wastewater sewer system.
Ensure availability of adequate haul out facilities for the commercial fleet, provided they meet the most stringent applicable environmental requirements.	2-now 4	<ul style="list-style-type: none"> ➤ Renovations to OMBY (2017) included a concrete washdown pad and catch basin for commercial vessel haul out and washdown.
Provide a reasonable number of moorings to be made available to transient boats, provided the boat operators adhere to all applicable bylaws and regulations.	2 now 4	<ul style="list-style-type: none"> ➤ Chatham maintains 23 public moorings for temporary use by local and transient commercial and recreational boaters. ➤ Local marina provides moorings for transient boaters.
Continue to acquire public moorings at a reasonable rate in balance with the demand for private moorings.	2-now 4	<ul style="list-style-type: none"> ➤ Continue to consider expansion of public moorings as need/opportunity arises. ➤ Current number of public moorings deemed sufficient unless more commercial fishing vessels relocate from Aunt Lydia’s Cove to Stage Harbor. ➤ Portion of “No mooring Zone” in Stage Harbor approved for potential use for deeper draft moorings for the commercial fishing fleet if need arises.
Protect provisions within the zoning code that allow for gear storage in residential areas; and continue to evaluate potential alternate storage locations. Develop and enforce	2-now 4	<ul style="list-style-type: none"> ➤ Fisherman’s gear storage area at Chatham Airport was required to be closed by FAA. New storage area constructed in available property

guidelines and access restrictions to prevent misuse of the gear storage area at Chatham Airport.		adjacent to the Chatham Wastewater Treatment property (2023).
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STAGE HARBOR COMPLEX: MARINA AND RECREATIONAL BOATING FACILITIES

Recommendation	Priority	Progress to Date
Marinas and boatyards should be brought into compliance with all existing federal, state and local water quality protection regulations and measures.	4 now 3	<ul style="list-style-type: none"> ➤ Best management practices and upgrades encouraged/required during facility changes/improvements which require local and state permits. ➤ Most private marinas have upgraded on-site or off-site washdown areas with containment facilities. ➤ Marinas will need to comply with new bylaw (2022) prohibiting use of unencapsulated bare foam as floatation. Existing floats to be brought into compliance if signs of deterioration.
Marinas and boatyards should be allowed to expand activities provided they meet stringent environmental requirements and have exhausted upland site options.	4	<ul style="list-style-type: none"> ➤ Most private marinas have an approved footprint “zone of reconfiguration” to allow minor pier and float changes/improvements.

STAGE HARBOR COMPLEX: MOORINGS

Recommendation	Priority	Progress to Date
The Harbormaster and the Waterways Advisory Committee should develop a comprehensive mooring program.	4 now 3	<ul style="list-style-type: none"> ➤ Efforts for revised mooring plans and layouts are ongoing. ➤ Harbormaster has a new automated database of mooring information and locations. ➤ New online mooring permit and waitlist renewal process has been implemented. ➤ Harbormaster continues to assess/remove derelict moorings as well as identifying mooring permits to be denied for lack of appropriate use (2-year rule) and be reassigned. ➤ Position of Mooring Officer/Assistant Harbormaster established within the Harbormaster Division. ➤ New FDA guidelines mandate mooring areas with 20 or more vessels undergo periodic review process for classification which can impact shellfishing access.

Evaluate the utilization of environmentally compatible mooring technologies and techniques.	4 now 3	<ul style="list-style-type: none"> ➤ Harbormaster has approved and installed several elastic “conservation” moorings in Stage Harbor. ➤ Consideration of specific areas for conversion to conservation moorings/tackle continues to be reviewed.
Designate environmentally sensitive areas and enforce the removal of concrete block moorings from those areas within five years of the designation.	3-now 4	<ul style="list-style-type: none"> ➤ Effort now focused on use of better tackle in sensitive areas as opposed to full prohibition of concrete blocks.
Evaluate and address insurance liability and compliance issues for temporary use of moorings by a vessel other than the permit holder.	3- now 4	<ul style="list-style-type: none"> ➤ No further action.

STAGE HARBOR COMPLEX: REGULATION OF PRIVATE PIERS AND OTHER SHORELINE STRUCTURES

Recommendation	Priority	Progress to Date
Undertake an assessment of the entire Stage Harbor Complex shoreline, focusing on the public access, navigation, and natural resource values addressed by the management plan.	Completed	<ul style="list-style-type: none"> ➤ Extensive evaluation completed during prior update period of the potential impacts of private piers was undertaken for all the waterways within the jurisdiction of the Plan.
Use the assessment to designate areas where the location of private piers may or may not be consistent with the management plan; and to develop performance and design standards for private docks in areas where they may be consistent.	Completed	<ul style="list-style-type: none"> ➤ The assessment, completed in 2010, served as the basis for adopting a zoning bylaw, approved at Town Meeting in May 2010, which prohibits the construction of new private residential piers within the Stage Harbor Complex.
Use the assessment to evaluate the appropriateness of catwalks and erosion control structures and, if necessary, develop permitting guidelines for areas where those structures may be permitted.	Completed now 1	<ul style="list-style-type: none"> ➤ Continued installation and expansion of catwalks has caused SCHPC to reassess the appropriateness of existing catwalk regulations. Committee working on proposals that would further limit or potentially recommend prohibition of catwalks within areas of jurisdiction. ➤ Conservation Commission working on revised regulations that would place higher environmental design standards and restrictions on catwalks. ➤ Assessment of potential impacts of new catwalks is recommended. ➤ SCHPC recommends utilization of Sea Grant’s “<i>Spectrum of Erosion</i>”

		<i>Control Methods</i> ” to identify the least impactful method when evaluating erosion control alternatives and other similar references such as the Pleasant Bay Alliance Guidelines for Erosion Management.
Take action to ensure that the Davis dock is removed expeditiously.	Completed	➤ Pier removed in 2007.
Work with the Department of Environmental Protection to monitor all structures within tidelands, including docks, piers, bulkheads and stairways, and ensure they have a valid Chapter 91 license and that the provisions of the license are being enforced.	1	➤ Ongoing. SCHPC reviews and comments as needed on applications for new structures requiring Chapter 91 license.

STAGE HARBOR COMPLEX: DREDGING

Recommendation	Priority	Progress to Date
Continue maintenance dredging to continue safe access into the Stage Harbor Complex, and for the use of facilities there.	2 now 1	<ul style="list-style-type: none"> ➤ Recent changes of eastern barrier beaches and inlets have significantly increased shoaling within the Stage Harbor entrance channel. Annual maintenance dredging by the Town is ongoing and in conjunction with the Army Corps of Engineers when federal funding available. ➤ Town has received several MA dredging grants to support maintenance dredging of Stage Harbor entrance. ➤ Town initiated renewal of comprehensive 10-year townwide dredge permits. ➤ Maintenance dredging at the OMBY (2018) and improvement dredging at the new Trap Dock facility (2021) completed to enhance vessel access.
Allow improvement (new) dredging in areas where shoaling is limiting access through traditionally important publicly navigable waterways.	3	<ul style="list-style-type: none"> ➤ FY 24 dredging grant includes improvement and maintenance dredging at 90 Bridge Street on Mitchell River associated with the planned redevelopment of the site. ➤ Improvement dredging for other locations will be evaluated as needs arise.

Undertake regular bathymetric surveys of all navigable channels throughout the Complex.	3	<ul style="list-style-type: none"> ➤ Surveys undertaken as needs arise. ➤ Survey obtained in vicinity of channel junction between Oyster River and outer Stage Harbor to monitor recent shoaling and potential for navigation impacts.
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STAGE HARBOR COMPLEX: BOATING SAFETY AND NAVIGATION

Recommendation	Priority	Progress to Date
Continue to use all means available to manage the number and size of boats that access the Stage Harbor Complex through town landings and access points.	3	<ul style="list-style-type: none"> ➤ Existing Town Landing regulations specify the maximum boat length that can tie to a town float. ➤ In areas with high mooring density, mooring waiting lists are maintained to limit the number of moorings that can be installed. ➤ All vessels utilizing Town waterfront facilities to access waterways require a Waterways User Permit (2017). ➤ Formation of “Fool’s Cut” inlet now enables direct navigation between Chatham Harbor/Atlantic Ocean and Nantucket Sound via the Morris Island Cut. Portions of the channel are very shoal which is delineated by mid-channel buoys maintained by the Harbormaster. ➤ Shoaling caused by increased tidal flow from the Atlantic Ocean through the Fools Cut has impacted navigation in the entrance channel to Stage Harbor requiring annual dredging since 2020
Continue active, highly visible patrol presence during the prime boating season (Memorial Day through Labor Day), especially on weekends.	1	<ul style="list-style-type: none"> ➤ Ongoing, normal operation.
Allow relocation of lobster pots by appropriate town officials as necessary if pots are located in areas where they pose a hazard to navigation.	3	<ul style="list-style-type: none"> ➤ Performed as necessary.
Develop a public education program and/or changes in waterways regulation to promote safe and appropriate use of recreational equipment and activities, including but not limited to kayaks and canoes, parasails, kiteboards, towed tubes and water skis, and swimming.	2 -now 3	<ul style="list-style-type: none"> ➤ Performed as necessary. ➤ Revised Waterways bylaws (2023) and regulations (2018) include revised guidance on use of various watercraft. ➤ Limitations on mooring placement throughout Oyster Pond developed to

		ensure sufficient open water for continued recreational activities (e.g. water skiing, towed tubes).
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STAGE HARBOR COMPLEX: COMMERCIAL AND RECREATIONAL SHELLFISHING

Recommendation	Priority	Progress to Date
Continue the Town’s commitment to propagation of the wild shellfishery; explore the benefits of expanding the propagation program and evaluate the adequacy of the existing upwelling facility.	1	<ul style="list-style-type: none"> ➤ Town continues strong commitment to propagation program. ➤ Improvements to existing sea water supply system included in renovations to the OMBY (2017). ➤ Designs for redevelopment of waterfront parcel at 90 Bridge Street includes major new shellfish nursey and upwelling facility in order relocate and expand current propagation program.
Increase the amount of resources for enforcement to match the increase in the number of permit holders.	1 now 3	<ul style="list-style-type: none"> ➤ Existing resource commitment considered appropriate for level of activity. Will be adjusted as necessary.
The on-going management of town landings should ensure that offloading activity is undertaken in compliance with all applicable bylaws and regulations.	2	<ul style="list-style-type: none"> ➤ Ongoing. Town Landing Officer checks all commercial buyers of fin and shellfish to ensure they possess appropriate buyers permit
Evaluate creative methods for addressing demand for increased access to moorings for commercial shellfishermen.	3	<ul style="list-style-type: none"> ➤ Open to options but difficult to implement within existing state statutes and town regulations governing the permitting of private moorings.
Require applicants for projects within coastal resource areas to provide documented assessment of impacts on shellfish or shellfish habitat and access to shellfish beds.	2	<ul style="list-style-type: none"> ➤ Ongoing and required as per local and state regulations. ➤ Conservation Commission places high priority to protection of shellfish habitat and resources. ➤ Shellfish Warden is required by Bylaw to comment on any proposed dock installation and routinely comments on other projects with potential for impacts to shellfish habitat.

STAGE HARBOR COMPLEX: WETLANDS AND EELGRASS

Recommendation	Priority	Progress to Date
Make salt marsh protection a priority consideration in the review of projects for private docks, marina or boatyard expansion,	1	<ul style="list-style-type: none"> ➤ Required as per local and state regulations.

erosion control structures, walkways and dredging.		
Identify opportunities for the restoration of damaged salt marsh, and for acquisition of land for inland migration.	2	<ul style="list-style-type: none"> ➤ Derelict bulkhead removed in Oyster Pond to enable marsh migration. ➤ Energy and Climate Action Committee (ECAC) has set salt marsh protection, migration and resiliency in light of climate change a high priority. ➤ ECAC funded through CPA to initiate a study to evaluate options for protection of four salt marsh systems along Chatham’s Nantucket Sound coast (2023).
Monitor changes in eelgrass throughout the complex and develop an understanding of the causes of eelgrass variability.	2	<ul style="list-style-type: none"> ➤ Town is considering further use of elastic mooring systems to minimize mooring tackle impacts to eelgrass. ➤ Consider restoration when conditions allow for successful implementation.

STAGE HARBOR COMPLEX: WATER QUALITY

Recommendation	Priority	Progress to Date
Continue water quality monitoring throughout the system; and implement recommendations of the nutrient management plan.	1	<ul style="list-style-type: none"> ➤ The Coastal Water Quality Nutrient Monitoring Program began in the Stage Harbor Complex in 1998 and is ongoing. ➤ Town continuing to implement its townwide wastewater / nutrient management program with primary focus on sewerage. ➤ Town filed a MassDEP Watershed Permit (12/2023) to enable use of adaptive management strategies to supplement sewerage options. ➤ Improvements and treatment of stormwater outfall discharge completed at Oyster Pond Furlong through a Cape Cod Water Resources Remediation Project. ➤ Town has banned use of Glyphosate herbicides on town-owned properties. ➤ Board of Health (BOH) regulations adopted (2015) that limit the use, timing and type of lawn care fertilizers.

		<ul style="list-style-type: none"> ➤ BOH adopted regulation (2023) limiting addition of new bedrooms on private parcels that do not currently meet existing nitrogen loading regulations.
Evaluate methods to identify bacteria sources in areas where sustained high bacteria counts have been recorded on a frequent basis.	2	<ul style="list-style-type: none"> ➤ The Town has worked with MA DEP on the application of Bacterial Source Tracking techniques in locations in Chatham with historically high bacteria counts. These techniques can be applied in the Stage Harbor Complex as applicable.
Develop a locally tailored emergency response plan to address spills that, while harmful to the area, may not trigger intervention by the Coast Guard.	4→now 2	<ul style="list-style-type: none"> ➤ The Town has response capability in place, coordinated by the Harbormaster and Fire Department, to respond to spills. ➤ Potential use of dye pills for marine sanitation to be considered for vessels entering the harbor. ➤ Work with the Harbormaster to ensure appropriate bilge inspections are performed as necessary.
Monitor research and develop policy regarding Harmful Algal Blooms (HABs).	4→now 3	<ul style="list-style-type: none"> ➤ Town staff continues to monitor research dealing with HABs and other environmental topics and develop policy as needed. ➤ Town implementing state mandated Vibrio Control Plan for oyster harvests. ➤ Coordination with State agencies regarding their increase monitoring efforts identifying potential HABS, ocean acidification and other impacts due to warming waters.

STAGE HARBOR COMPLEX: SHELLFISH RESOURCES

Recommendation	Priority	Progress to Date
Continue support for the shellfish propagation program. Evaluate whether the existing upwelling facility is adequate to meet the Town's long-term propagation needs. Secure additional resources to meet desired increases in propagation activity.	1	<ul style="list-style-type: none"> ➤ Town continues strong commitment to shellfish propagation program. ➤ Improvements to existing sea water supply system included in renovations to the OMBY (2017). ➤ Existing upweller tanks require routine maintenance to maintain sufficient seawater flow.

		<ul style="list-style-type: none"> ➤ Completed designs for redevelopment of waterfront parcel at 90 Bridge Street includes major new shellfish nursery and upwelling facility in order to relocate and expand current propagation program. Construction of initial waterfront infrastructure features (Phase 1) anticipated to be initiated in 2023-2024. ➤ Town received Community Preservation Grant beginning in 2014 to enhance the Town's efforts for oyster propagation. ➤ Town actively coordinating with DMF regarding new nationwide initiative by FDA to review whether shellfishing can continue in harbors with mooring areas.
Expedite implementation of nutrient management plan to protect habitat. Consider measures to reclaim degraded habitat.	3	<ul style="list-style-type: none"> ➤ The Town is implementing the priority phases of the townwide wastewater management plan.

STAGE HARBOR COMPLEX: LAND USE AND VISUAL CHARACTER

Recommendation	Priority	Progress to Date
Support efforts to maintain and reopen coastal views on town properties or private properties.	5	<ul style="list-style-type: none"> ➤ Vista pruning and invasive species control governed by local and state wetland protection regulations and by-laws. Projects approved with conditions as appropriate. ➤ Multiple private invasive removal and vegetation restoration projects have been approved and implemented.
Explore mechanisms for preserving and restoring water views from public roads in residential areas.	5	<ul style="list-style-type: none"> ➤ No action to date.
Develop management guidelines related to encroachment at town landings and access points.	2	<ul style="list-style-type: none"> ➤ Town Landing Master Plan assists in defining location and extent of all town landings and access points. ➤ Monitoring of private encroachment is ongoing. ➤ Installation of private guardrail within easement along road shoulder near Sears Pond Landing has heightened concern for maintaining public parking/access at landings.

		➤ Funding provided (2023) to initiate a townwide survey of all town landings to document layout.
Evaluate definition of water dependent uses to ensure that it encompasses all desirable water dependent uses.	5	➤ No action to date.

SOUTHWAY: CONTINUED ACCESS

Recommendation	Priority	Progress to Date
Coordinate with the National Park Service and the U.S. Fish & Wildlife service to evaluate issues related to access for commercial shellfishing, geomorphology and erosion control, navigation management, use policies and enforcement.	1	<ul style="list-style-type: none"> ➤ Town and USFWS signed a Memorandum of Understanding (MOU) continuing the Town’s historic management of the shellfish fisheries in the waters of Nantucket Sound claimed as part of the Monomoy National Wildlife Refuge (2021). ➤ Town staff and officials of Monomoy Refuge maintain close coordination and meet annually, or as needed, to review mutually relevant activities and policy issues. ➤ Change-over in Refuge staff will require more emphasis on coordination and communication to ensure previous agreements and understandings are discussed and maintained.
Preserve and protect limited town access points on the Southway, particularly town access along a pathway accessible from Morris Island Road.	3	<ul style="list-style-type: none"> ➤ No action to date relative to the pathway referenced. ➤ Severe erosion along east side of Morris Island has eliminated any north to south shore pedestrian access along the USFWS property and private revetment on Morris Island.

SOUTHWAY: PUBLIC SAFETY

Recommendation	Priority	Progress to Date
Continue to monitor vessel traffic throughout the area and evaluate the need for further speed controls, or other actions to reduce vessel conflicts or disturbance to nearby wildlife.	2	➤ South Beach separated from the mainland with the formation of “Fool’s Inlet” at Lighthouse Beach in 2017. This provided opportunities for vessel access between Nantucket Sound and Chatham Harbor and Atlantic Ocean via the Morris Island Cut.

		<ul style="list-style-type: none"> ➤ Harbormaster continues to place mid-channel buoys to assist navigation through Morris Island Cut. ➤ Beaches and shoals along the entrance to Stage Harbor have become popular recreational areas for anchored boats and may require additional harbor patrol enforcement and/or speed controls for public safety. ➤ Park and Recreation Commission approved new regulation for limiting kiteboard operation in vicinity of threatened and endangered nesting shorebirds.
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SOUTHWAY: NATURAL HABITAT AND RESOURCE PROTECTION

Recommendation	Priority	Progress to Date
Seek No Discharge Area (NDA) designation for the Southway; evaluate and publicize existing pump out capacity.	5 now Completed	<ul style="list-style-type: none"> ➤ Southway included in the Outer Cape Cod NDA which was approved in 2011. ➤ Existing Town pump-out facility in Stage Harbor deemed to be adequate for local needs. Pump relocated onto the new leir completed in 2017. Continue to monitor whether additional pump out facilities are necessary.
Continue to work with the Cape Cod Stranding Network, and seal tour providers to take measures to prevent harassment or injury to seals, and to report and respond to events as they occur.	3	<ul style="list-style-type: none"> ➤ Strandings of marine mammals handled by the International Fund for Animal Welfare (IFAW). Coordination and reporting of stranded or dead sea mammals continues as necessary. ➤ Seal tour operations are less active along west side of Monomoy due to changes in seal activity and haul-out areas.
Consider use of DNA testing, or other feasible method of determining bacteria sources, in areas where sustained high bacteria counts have been recorded on a frequent basis. Cause remediation by town or responsible parties.	2	<ul style="list-style-type: none"> ➤ The Town has worked with MA DEP on the application of Bacterial Source Tracking techniques in locations in Chatham with historically high bacteria counts. These techniques can be applied in the Southway as applicable.

Develop a locally tailored emergency response plan to address fuel spills that may not trigger intervention by the Coast Guard.	4	➤ The Town has response capability in place, coordinated by the Harbormaster and Fire Department, to respond to spills.
Monitor research and policy regarding Harmful Algal Blooms (HABs). Develop a plan to address the prevention, mitigation, and control of HABs.	4	➤ Town staff continues to monitor research dealing with HABs and other environmental topics and develop policy as needed. Staff closely coordinates HAB outbreaks and research with state agencies

NANTUCKET SOUND: SHORELINE PROTECTION

Recommendation	Priority	Progress to Date
Continue nourishment of public beaches to mitigate erosion; evaluate/prioritize shoreline areas for re-nourishment. Identify potential sediment sources for re-nourishment.	1	<ul style="list-style-type: none"> ➤ Nourishment of town beaches is undertaken as funding and opportunities arise. Beach nourishment has occurred as by-product of maintenance of navigational projects as well as stand-alone beach nourishment projects. ➤ Town purchased 3,000 lf of dredge pipe to facilitate the Barnstable County Dredge Program to reach Harding’s Beach and Cockle Cove for nourishment. ➤ Chatham Select Board established a policy to support beach nourishment of public beaches along Nantucket Sound as a stand-alone purpose independent of an ongoing navigation project (2017). ➤ Nourishment of town beaches has increased due to heightened shoaling and annual maintenance dredging at Stage Harbor entrance channel beginning in 2020. ➤ New dredge permits under evaluation include use of Corps of Engineers nearshore disposal site offshore of Harding’s Beach as a potential sand source for beach nourishment. ➤ Routine dredging at entrance to Mill Creek affords source of sand for both Cockle Cove (inlet sand by-passing) as well as Pleasant Street and Forest

		Beach (sand back-passing) as conditions allow.
Undertake an assessment of the Nantucket Sound Complex shoreline to determine where along the shoreline of the Complex new private shoreline structures may be found in compliance with the plan (docks, catwalks, erosion control).	Completed now 1	<ul style="list-style-type: none"> ➤ Task undertaken during the prior update period, however, continued catwalk construction in the Stage Harbor Complex since the previous assessment has generated concern over appropriateness of new catwalks.
Use the assessment to designate areas where the location of new private structures may or may not be consistent with the management plan. Develop performance and design standards for private structures in areas where they may be consistent (docks, catwalks, erosion control).	Completed now 1	<ul style="list-style-type: none"> ➤ Previous assessment determined that existing wetland regulations and zoning by-laws were sufficient to guide where new private structures could be constructed within the Nantucket Sound area. ➤ Increased concern for catwalk impacts may generate further design standards for these structures or whether new structures should be prohibited. ➤ Assessment of potential impacts of new private catwalks is recommended.
Evaluate current configuration of groins and jetties, particularly between Red River and Mill Creek, to determine effectiveness in shoreline stabilization. Evaluate re-design potential.	4	<ul style="list-style-type: none"> ➤ This assessment was initially included in the Nantucket Sound Erosion Study (2011) and no changes in existing groin and jetty design were deemed necessary at that time. ➤ A review of groin/jetty function along shoreline was included in a follow-up analysis of shoreline erosion alternatives completed in 2022. Poor condition of the Mill Creek jetties was noted. ➤ Funding for design assessment for potential repairs to the Mill Creek Jetty (\$50K) included in the capital budget (2023).
Continue support of shoreline monitoring.	1	<ul style="list-style-type: none"> ➤ Annual geo-referenced aerial photography (orthophotos) of shoreline and harbors to monitor/document conditions continues.

NANTUCKET SOUND: MAINTENANCE AND MANAGEMENT OF PUBLIC BEACHES

Recommendation	Priority	Progress to Date
Develop demand management policies for public beaches.	2 now 4	<ul style="list-style-type: none"> ➤ No action specific to demand to date.

		<ul style="list-style-type: none"> ➤ Board of Health adopted regulation banning smoking on all public beaches (2014).
Address safety concerns where boating activity takes place in proximity to swimmers and moored vessels.	2	<ul style="list-style-type: none"> ➤ Ongoing. ➤ Harbormaster has installed buoys demarking swim areas at several beach locations. ➤ Beach Management Plan (BMP) was developed (2023) as required by MA Natural Heritage and Endangered Species Program (NHESP) in concert with renewal of Townwide dredge permit. BMP includes new guidance on launching and use of kiteboards in proximity to swim areas and shorebird nesting habitat. ➤ While not related to navigation, duck hunting policies have been developed for improved safety and to reduce conflicts between traditional duck hunting activities and beach walkers. Hunters must remove spent shell casings and maintain specified distances from other non-hunting individuals.
Continue/develop protocols for seaweed raking at selected beaches for dune stabilization.	3	<ul style="list-style-type: none"> ➤ Placement of collected seaweed and “wrack” will need further review since several previously utilized locations are at capacity.
Monitor commercial activity at beaches.	2	<ul style="list-style-type: none"> ➤ Ongoing.
Address pet access/pet waste issues at beaches.	1	<ul style="list-style-type: none"> ➤ Owners of dogs routinely disregard signage and regulations restricting dogs on beaches. Better enforcement and education needed to improve compliance. ➤ Dogs arriving by boat to East end of Harbing’s Beach and Crescent Beach are frequently left unleashed. Better education/signage and enforcement required. ➤ Pet waste clean-up “Mutt-Mitts” dispensers have been located at all public beach locations. ➤ Additional dispensers installed at most town landings.

NANTUCKET SOUND: PROTECTION OF HABITAT

Recommendation	Priority	Progress to Date
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Seek designation of Nantucket Sound as a No Discharge Area; ensure adequate pump out capacity.	3 Completed	<ul style="list-style-type: none"> ➤ Designation of Nantucket Sound as a NDA completed 2012. ➤ Existing Town pump-out facility in Stage Harbor deemed to be adequate for local needs. Reassess as needed.
Continue water quality monitoring; activities within the jurisdiction of health and wetland protection regulations should be held to the strictest standards applicable.	1	<ul style="list-style-type: none"> ➤ The Coastal Water Quality Nutrient Monitoring Program was expanded in 1998 with more than 100 trained volunteers and is ongoing. Health & wetland regulations are constantly being reviewed and updated as necessary. ➤ Water quality licensing of public and semi-public swimming areas with seasonal weekly testing of bacterial levels to indicate fecal contamination continues through collaboration with Barnstable County Health. ➤ New signage being implemented at public beaches identifying current water quality conditions during swimming season.
Consider use of DNA testing, or other feasible method of determining bacteria sources, in areas where sustained high bacteria counts have been recorded on a frequent basis. Cause remediation by town or responsible parties.	2	<ul style="list-style-type: none"> ➤ The Town has worked with MA DEP on the application of Bacterial Source Tracking techniques in locations in Chatham with historically high bacteria counts. These techniques can be applied in Nantucket Sound as applicable.
Develop a locally tailored emergency response plan to address fuel spills that may not trigger intervention by the Coast Guard.	4	<ul style="list-style-type: none"> ➤ The Town has response capability in place, coordinated by the Harbormaster and Fire Department, to respond to spills.
Monitor research and policy regarding Harmful Algal Blooms (HABs). Develop a plan to address the prevention, mitigation, and control of HABs.	4	<ul style="list-style-type: none"> ➤ Town staff continues to monitor research dealing with HABs and other environmental topics and develop policy as needed.
Continue a high level of commitment to public aquaculture projects.	2	<ul style="list-style-type: none"> ➤ Town shellfish propagation program continues to have wide public support within the town. ➤ Redevelopment at 90 Bridge Street incorporates a new shellfish nursery/upwelling facility. ➤ Town supported initiation of a seasonal private kelp aquaculture

		<p>installation in the nearshore waters off of Harding’s Beach.</p> <ul style="list-style-type: none"> ➤ Harbormaster approved temporary storage of horseshoe crabs harvested for medicinal bleeding in moored floating holding pens.
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NANTUCKET SOUND: BOATING AND NAVIGATION

Recommendation	Priority	Progress to Date
Affirm the importance of the permitted weir sites to the local fishing industry, as well as the potential for any of the alternate permitted sites to be used at any one time.	3 now 5	<ul style="list-style-type: none"> ➤ Weir permits are routinely renewed as necessary. No issues have been raised about continuation of weir activities into the foreseeable future. ➤ Various concepts of converting weir sites for other aquaculture uses have been considered but none implemented to date.
Limit the issuance of new mooring permits and maintain waiting lists at Nantucket Sound locations.	4 now 4	<ul style="list-style-type: none"> ➤ The Harbormaster maintains waiting lists at many locations throughout the town. Demand for mooring in Nantucket Sound is low due to open exposure and sea conditions. Nantucket Sound currently does not have established waiting lists but will continue to be monitored to determine if mooring density warrants the establishment of new waiting lists.
Evaluate demand for and impacts from dry sailing and dinghy storage at public beaches and landings and develop management recommendations.	2	<ul style="list-style-type: none"> ➤ Dry storage of sailboats and other watercraft at town beaches requires notification to the Recreation and Beaches Division. ➤ Additional review and/or establishment of further policies for storage of watercraft at town beaches to continue. ➤ Dinghies and watercraft required to be removed from beaches and landings if not in use during off-season.
Limit dredging in the estuarine waters of the Nantucket Sound Complex. Allow dredging in the outer waters of Nantucket Sound for navigation or mining of sediment for beach nourishment. Ensure that all dredging meets federal, state, county and local environmental	2	<ul style="list-style-type: none"> ➤ Maintenance dredging at Stage Harbor entrance channel and Mill Creek has become routine with dredged material used as beach nourishment when conducted by hydraulic dredging methods.

standards and requirements for dredging and material disposal.		<ul style="list-style-type: none"> ➤ New Comprehensive Townwide dredging permits currently being renewed (2023) includes use of Corps of Engineers nearshore disposal area offshore of Harding’s Beach as potential source of sand for beach nourishment.
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New Goals established during 2014 Plan Update/Implementation Process (Approved 2015)

STAGE HARBOR COMPLEX: PRIVATE RESIDENTIAL PIERS

Recommendation	Priority	Progress to Date
Assess the appropriateness and manner in which to potentially expand the current prohibition for the construction of new private single family residential piers to also include a prohibition of new docks and piers for private homeowners’ associations that are not open to use by the public.	2 Completed	<ul style="list-style-type: none"> ➤ The current Chatham Protective Bylaw (zoning bylaws) prohibits the construction of all private residential piers (regardless of single family or shared use) within the Stage Harbor Complex rendering this recommendation moot.

ALL ZONES WITHIN THE SOUTH COASTAL HARBOR PLAN AREA: SEA LEVEL RISE

Recommendation	Priority	Progress to Date
Consider the effects and incorporate where appropriate the potential for future sea level rise when, and not limited to, planning for resource protection, land acquisition, waterfront development and changes to building codes and zoning. Encourage the incorporation of “Coastal Resiliency” strategies for existing and future activities along the coastline.	2-now 1	<ul style="list-style-type: none"> ➤ Sea level rise and coastal resiliency is reviewed and incorporated as feasible into all planning/design and construction of public shorefront projects. ➤ Protective bylaw modified (2016) to require all development in floodplain to be in compliance with Flood Resistant Design and Construction requirements of MA State Building Code. Other sections of bylaw modified (2016) to allow structures to be raised (with limitations) and other activities to reduce flood impacts. ➤ The Town of Chatham Protective Bylaw was updated to include FEMA Requirements not captured in the previous bylaw

		<p>or 780 CMR (State Building Code).</p> <ul style="list-style-type: none"> ➤ The Building Commissioner was designated as the Town’s Floodplain Administrator at Town Meeting (2022). ➤ Establishment of the advisory committee, Energy and Climate Action Committee with the following charge: <i>to reduce the community’s contribution to climate change, with a focus on ensuring our energy infrastructure is cleaner, leaner, and more resilient, and to prepare, coordinate and execute mitigation actions and adaptation strategies that anticipate and respond to the effects of climate change.</i> ➤ Town has assisted in funding installation of tide gauges in Outermost Harbor and Stage harbor for ongoing tidal analyses conducted by the Center for Coastal Studies. ➤ The Town’s FEMA certified Multi-Hazard Mitigation Plan has incorporated sea level rise scenarios since 2010 as part of the risk and vulnerability assessment. The plan is updated every 5 years with the 2018 plan currently undergoing an update. ➤ The Town became a certified Municipal Vulnerability Preparedness (MVP) community in 2019 and maintains eligibility for MVP Action Grant funding to implement priority climate resilience actions as identified through the program’s final report deliverable. ➤ Chatham is currently rated as a Class 7 community in the FEMA NFIP CRS Program.
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STAGE HARBOR COMPLEX AND SOUTHWAY: IMPACTS OF NEW INLET FORMATION AND BARRIER BEACH CHANGES

Recommendation	Priority	Progress to Date
<p>Monitor inlet development and changes to the Atlantic barrier beach system and assess potential impacts these changes may have on vessel navigation and waterfront infrastructure within Chatham Harbor. Anticipate and proactively plan for the potential of relocating portions of the commercial fishing fleet and other maritime infrastructure to Stage Harbor if deemed necessary. This may require review of policies and strategies for providing appropriate mooring opportunities and enhancements in the commercial fish offloading infrastructure among other topics.</p>	<p>1</p>	<ul style="list-style-type: none"> ➤ Conditions along Chatham Harbor and Nauset barrier beach are monitored continually to assess current and future impacts. ➤ Study entitled “<i>Chatham East-Facing Shoreline: Coastal Resiliency and Management Assessment</i>” completed in 2019 funded by a CZM Coastal Resiliency grant to review ongoing and predicted coastal changes, impacts and potential alternative resiliency measures. ➤ Follow-up study entitled “<i>Feasibility Assessment for Shore Protection of the East-Facing Chatham Mainland Using Nourishment to Enhance Existing Island and Shoal Resources</i>” completed in 2020 funded by a CZM Coastal Resiliency grant. ➤ A portion along the main navigation channel within Stage Harbor was removed as a “No Mooring Area” to allow potential placement of a limited number of commercial fishing moorings if vessels are displaced in Chatham Harbor. ➤ Trap Dock Pier purchased and renovated to ensure continuation of viable fish offloading opportunities for fishing vessels. ➤ Ongoing changes to eastern barrier beaches and inlets have exacerbated erosion along Morris Island, Crescent Beach and shoaling within the Stage Harbor entrance channel. ➤ Town has received three consecutive CZM Coastal Resiliency grants to assess means to mitigate the erosion and shoaling issues. A unique method of reducing these impacts utilizing “flow training devices” and beach nourishment has been developed and Town is pursuing permits for possible implementation.

SOUTHWAY AND NANTUCKET SOUND: MONOMOY NATIONAL WILDLIFE REFUGE

Recommendation	Priority	Progress to Date
<p>Work closely with the USFWS as well as local, state and federal agencies and elected officials to ensure traditional fishing and shellfishing activities are allowed to continue within all waters and lands below mean high water of the Monomoy National Wildlife Refuge. Ensure that the management of these fishing and shellfishing activities remain under the control of the Town and State.</p>	<p>1</p>	<ul style="list-style-type: none"> ➤ Town and USFWS signed a Memorandum of Understanding (MOU) continuing the Town’s historic management of the shellfish fisheries in the waters of Nantucket Sound claimed as part of the Monomoy National Wildlife Refuge (2021). ➤ Coordination of potential policy and/or operational issues with USFWS will continue indefinitely to ensure Town control over historical fishing and access rights are acknowledged and preserved. ➤ Change-over in Refuge staff will require more emphasis on coordination and communication to ensure previous agreements and understandings are discussed and maintained.

STAGE HARBOR COMPLEX: EELGRASS

Recommendation	Priority	Progress to Date
<p>Restoration of eelgrass should be considered within selected areas of the harbor system. Such restoration should only be pursued after an assessment has been made that indicates that the environmental conditions have improved to the extent that the restoration efforts should be successful.</p>	<p>3</p>	<ul style="list-style-type: none"> ➤ No action to date. Restoration is expensive and success highly dependent on water quality and several related environmental conditions. Initiation of any restoration will require additional research and coordination with experts in the fields to ensure success.

CONTINUATION OF ACTIVITIES

The Plan (as amended upon approval) will continue to serve as a guide as to how Chatham’s South Coastal harbors and waterways should be managed and protected. Action items within the current and amended plan that require further implementation will be monitored and used to guide town efforts and funding priorities. Furthermore, the SCHPC will continue to remain active and will review, and provide formal comments as necessary, to ensure specific projects and initiatives are consistent with the Plan. Further updates to the Plan will be undertaken at appropriate intervals.