DECISION ON THE TOWN OF COHASSET'S REQUEST FOR APPROVAL OF THE COHASSET MUNICIPAL HARBOR PLAN PURSUANT TO 301 CMR 23.00

November 25, 2020

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Kathleen A. Theoharides, Secretary
I. INTRODUCTION

Today, as Secretary of the Massachusetts Executive Office of Energy and Environmental Affairs (EEA), I am approving, subject to the modifications and conditions noted below, the Town of Cohasset’s (“Town”) Municipal Harbor Plan (“Plan”) dated July 2020. This Decision presents an overview of the Plan and findings on how it complies with the standards for approval set forth in the Municipal Harbor Planning regulations at 301 CMR 23.00. The geographic scope of the Plan encompasses approximately 94.82 total acres, including 43.36 acres within Chapter 91 jurisdiction and 51.46 acres outside of Chapter 91 jurisdiction, immediately along the shoreline between White Head Island to the area of Bailey Creek in Cohasset Harbor. The upland boundary is defined by the collective waterside parcel boundaries and the public roadways of Howard Gleason Road, Margin Street, Border Street, and Otis Street closest to the water’s edge. The plan contains three sub-areas including Cohasset Harbor, Cohasset Cove, and Bailey Creek (Figure 1). Although not in the formal harbor planning area (HPA), the Plan also considered the relationship between the HPA and Cohasset Village (Village) to ensure proper coordination with other planning initiatives linked to the Harbor and the recommendations of the plan. The Plan builds on prior planning initiatives for the area, including the Harbor Plan (1980), the Town of Cohasset Community Resiliency Building Workshop Summary of Findings (June 2018) developed through the Municipal Vulnerability Preparedness (MVP) Program and the ongoing work under the Cohasset Master Plan initiative. Described below, the Plan identifies ten overarching goals which will be advanced through improvements within the study area and proposes substitute provisions to Chapter 91 standards at specific sites within the HPA that are slated for redevelopment in the Harbor Village Business Overlay District (HVBOD) (Figure 2). My approval of the Plan, with the Substitutions contained herein, does not, and should not be construed to serve as authorization or approval of a specific project. As described below, redevelopment projects identified in the Plan are subject to regulatory and other reviews that have not yet begun.

Pursuant to the review procedures at 301 CMR 23.00, in September 2018 the Town submitted its Request for a Notice to Proceed, and following a public comment period, the Office of Coastal Zone Management (CZM) issued a Notice to Proceed (NTP) on December 17, 2018. From 2018 to 2020, the Town convened 11 public meetings of its Harbor Planning Committee to engage the public, municipal departments, and elected officials in the development of the Plan. During this time the Town also held public engagement meetings, stakeholder interviews, public engagements, and a public hearing with the Board of Selectmen. The Town also met with CZM and
the Department of Environmental Protection (DEP) to discuss potential Chapter 91 considerations. In March, July, and November of 2019, the Town released drafts of the Plan for public review and comment. Each version of the plan was developed in response to public comment regarding the previous version.

During the Municipal Harbor Plan (MHP) planning process, the Town initiated a zoning change process related to redevelopment of the Cohasset Harbor Inn, located within the HPA on a 3-acre site adjacent to Cohasset Cove. The resulting HVBOD was adopted at Town Meeting on April 29, 2019. The zoning change and associated changes to potential development within the affected area of the Harbor were considered in the development of the Plan.

The Plan was submitted by the Town to EEA on July 27, 2020. CZM published a notice of public hearing and 30-day opportunity to comment in the Environmental Monitor dated August 20, 2020. A public hearing held virtually using Zoom on September 3, 2020 provided an opportunity for oral comments. No oral testimony was received at this hearing. I received one written comment letter from the Conservation Law Foundation (CLF) within the public comment period which closed on September 9, 2020. CLF expressed support for the approval of the MHP and sought to ensure the proposed alteration to standards for the water-dependent use zone (WDUZ) is sufficiently clear. The consultation period ended on November 8, 2020. The Municipal Harbor Planning review and consultation process, led by EEA and CZM, included consultation among CZM, DEP, and the Town. Discussions resulted in clarifications to the delineation of the HPA, modifications to the proposed Chapter 91 substitute standards, and adjustments to the process for prioritizing and pursuing implementation action items.

MHPs vary depending on the municipality and the planning area. In the case of the proposed Plan, the Town sought to balance an overarching vision for the Harbor and waterfront area, address multiple uses from a diverse group of stakeholders, incorporate development-specific guidance for redevelopment within the HVBOD and develop an implementation plan composed of specific actions to achieve the vision and goals of the Plan. The Harbor Governance section of the Plan provides a detailed discussion of the local, state and federal jurisdictions that are relevant to the implementation of the recommendations and associated action items within the Plan. The overarching implementation of the Plan, which was developed through guidance from the NTP and a robust public engagement process, is an integral function of this Decision along with the Plan’s consistency with these other relevant authorities, their associated jurisdictions and regulations, and the purview afforded by their review and permitting functions.
Figure 1. Town of Cohasset Municipal Harbor Planning Area (HPA) with three sub-areas (Blue line is HPA; Red stipple is Chapter 91 jurisdiction)
Figure 2. Harbor Village Business Overlay District (HVBOD)
II. PLAN CONTENT

The Harbor Planning Area (HPA) encompassed by the Plan includes almost 1.3 miles of Cohasset’s waterfront extending from White Head Island to the area of Bailey Creek. (Figure 1) with a mosaic of upland, waterfront and watersheet areas totaling approximately 94.82 acres. Of this area, 43.36 acres is within Chapter 91 jurisdiction and 51.46 acres is outside Chapter 91 jurisdiction. The HPA does not include any land or water within a Designated Port Area; however, it includes multiple areas of commercial and recreational boat use at the Cohasset Yacht Club, Town Pier, Town Landing/Lawrence Wharf, Fisherman’s Wharf at Government Island, Cohasset Maritime Institute, Cohasset Harbor Marina and the Parker Avenue Boat Ramp. Uses within the HPA are a mix of hotel, restaurant, residential, office, parking, mixed-uses, lobster pound, educational, and publicly accessible space. Prominent features along the shoreline within the HPA include the Cohasset Harbor Inn, the Veterans Memorial, Olde Salt House restaurant, Atlantica restaurant, and the Lightkeeper’s House on Government Island. The Plan notes that although only 3.4% of the Town’s total shoreline is publicly owned, a larger portion of the shoreline in the Harbor is publicly owned with the remainder being in private and commercial ownership. Strategies for increased public access to the water, to fully realize the potential afforded by this public ownership of waterfront land in the Harbor, are one of the benefits of the Plan.

The Town began a pre-planning process in July 2017 when the Board of Selectmen appointed an 11-member Harbor Committee “Committee”. The Committee convened an initial planning meeting at which a goal statement and a corresponding “issue analysis” for the Harbor was developed. These were used to identify 10 overarching goals to guide the planning process: 1) support the Cohasset Commercial Fishing Fleet; 2) support public use of and access to the Harbor, including, but not limited to, recreational boating; 3) identify and plan for appropriate improvements to landside and waterside infrastructure; 4) support public use of the Harbor, including support for those town and civic organizations that enable such use; 5) improve the geographical relationship between the Village and the Harbor; 6) identify and improve commercial landside and waterside commercial activity; 7) integrate and improve Harbor management and uses; 8) identify and address improvements to ecosystem and environmental issues; 9) provide recommendations for a recurring dredging plan (areas, frequency, type of dredging project, potential funding sources); and 10) provide an action plan and steps to implement the Plan recommendations, identifying responsible entities, the timeline, and potential funding sources. These overarching goals acknowledge the diversity of stakeholders within the HPA and the need to provide for and balance needs through enhancement
of the land, the water, and the edge in-between to support enjoyment of the harbor for all ages, interests, and abilities. In evaluation of these considerations, the Plan is divided into four sections: Harbor Governance; Watersheet; Edges; and Land. Each section of the Plan identifies and describes relevant issues and provides associated overarching or macro-level recommendations. The Plan implements these recommendations by thinking holistically about opportunities to improve the public realm, watersheet, and activation of the waterfront, while balancing user needs through specific actions items. This framework was developed and refined though a robust and inclusive public participation process.

In addition, through the MVP process the Town took a high-level look at the potential impacts of climate change including an assessment of the anticipated increase in the number of days over 90 degrees Fahrenheit, increase in the frequency and severity of precipitation events, and changes to tidal and storm flooding frequency and intensity. Since the completion of the MVP planning process, the Town advanced local climate resilience knowledge through initiatives such as the Storm Tide Pathways initiative (in partnership with the Town of Scituate) and by conducting further analysis of the impacts of sea level rise and associated shifting patterns of flooding days for a variety of sea level rise scenarios and temporal planning horizons. Future climate conditions are critical planning considerations for the resiliency of the Harbor and are reflected in the Edges section of the Plan through overarching planning recommendations and associated actions. Examples include conducting an in-depth investigation of the breakwater and design improvements that take into consideration existing overtopping during storms and projections of sea level rise as well as undertaking a hazard mitigation plan to integrate the findings from the MVP planning process and this Plan into an implementation plan that addresses resilience for the entire Town.

During the preparation of the Plan, a development team purchased a number of properties significant to the Harbor including the Cohasset Harbor Inn, the Atlantica, and Olde Salt House. Anticipating development on these sites and in order to ensure that municipal zoning was consistent with the evolving goals, vision and recommendations of the Plan, the Town proceeded with a parallel zoning change process for a sub-section of the HPA that encompassed the Cohasset Harbor Inn. The Plan details the zoning process through which the HVBOD was developed and approved by Town Meeting on April 29, 2019. Key elements of the HVBOD as they relate to the Plan include: a view corridor that extends from Elm Street to the Harbor, a 25-foot setback from the waterfront to allow for the water-dependent uses required by Chapter 91 (Figure 3), a pedestrian access network linking the waterfront to public rights-of-way, and a mix of publicly accessible
ground floor uses along the waterfront, Summer Street, and Border Street, and provisions for residential uses to support adjacent commercial activity and public access.

Figure 3. Harbor Village Business Overlay District with Chapter 91 Jurisdictional Tidelands

Within a larger context, the Plan illustrates that the Harbor area does not exist in isolation, that Elm Street provides a vital connection between the Harbor and the Village, but acknowledges that creating a connection between the Harbor and Village has historically been challenging. The Plan discusses previous planning initiatives that have evaluated these issues and reconsiders them within the context of the Plan. The Plan offers a number of potential actions that could be implemented to strengthen the connection between the Harbor and Village including wayfinding signage, informational signage, streetscape improvements to promote pedestrian traffic to and around the Harbor, and providing a viewshed corridor from Elm Street to the Harbor.
III. STANDARDS FOR APPROVAL

As noted previously, my approval today is bounded by the authority and standards as contained in 301 CMR 23.00 et seq. (Review and Approval of MHPs) and is applicable only to those elements of the Waterways regulations that are specifically noted in this Decision. This Decision does not supersede separate regulatory review requirements for any activity.

A. Consistency with CZM Program Policies and Management Principles

The federally-approved CZM Program Plan establishes 20 enforceable program policies and nine management principles which embody coastal policy for the Commonwealth of Massachusetts. The following is a summary of the Policies and Management Principles applicable to the Plan area:

- Coastal Hazards Policy #1 – Preserve, protect, restore, and enhance the beneficial functions of storm damage prevention and flood control provided by natural coastal landforms, such as dunes, beaches, barrier beaches, coastal banks, land subject to coastal storm flowage, salt marshes, and land under the ocean.

- Coastal Hazards Policy #2 – Ensure construction in water bodies and contiguous land area will minimize interference with water circulation and sediment transport. Approve permits for flood or erosion control projects only when it has been determined that there will be no significant adverse effects on the project site or adjacent or downcoast areas.

- Coastal Hazards Policy #3 – Ensure that state and federally funded public works projects proposed for location within the coastal zone will:
  - Not exacerbate existing hazards or damage natural buffers or other natural resources.
  - Be reasonably safe from flood and erosion-related damage.
  - Not promote growth and development in hazard-prone or buffer areas, especially in velocity zones and Areas of Critical Environmental Concern.
  - Not be used on Coastal Barrier Resource Units for new or substantial reconstruction of structures in a manner inconsistent with the Coastal Barrier Resource/Improvement Acts.

- Energy Management Principle #2 – Encourage energy conservation and the use of alternative sources such as solar and wind power in order to assist in meeting the energy needs of the Commonwealth.
• Growth Management Policy #1 – Encourage sustainable development that is consistent with state, regional, and local plans and supports the quality and character of the community.

• Growth Management Policy #2 – Ensure that state and federally funded infrastructure projects in the coastal zone primarily serve existing developed areas, assigning highest priority to projects that meet the needs of urban and community development centers.

• Growth Management Policy #3 – Encourage the revitalization and enhancement of existing development centers in the coastal zone through technical assistance and financial support for residential, commercial, and industrial development.

• Habitat Policy #1 – Protect coastal, estuarine, and marine habitats—including salt marshes, shellfish beds, submerged aquatic vegetation, dunes, beaches, barrier beaches, banks, salt ponds, eelgrass beds, tidal flats, rocky shores, bays, sounds, and other ocean habitats—and coastal freshwater streams, ponds, and wetlands to preserve critical wildlife habitat and other important functions and services including nutrient and sediment attenuation, wave and storm damage protection, and landform movement and processes.

• Habitat Policy #2 – Advance the restoration of degraded or former habitats in coastal and marine areas.

• Ocean Resources Policy #1 – Support the development of sustainable aquaculture, both for commercial and enhancement (public shellfish stocking) purposes. Ensure that the review process regulating aquaculture facility sites (and access routes to those areas) protects significant ecological resources (salt marshes, dunes, beaches, barrier beaches, and salt ponds) and minimizes adverse effects on the coastal and marine environment and other water-dependent uses.

• Ports and Harbors Policy #1 – Ensure that dredging and disposal of dredged material minimize adverse effects on water quality, physical processes, marine productivity, and public health and take full advantage of opportunities for beneficial re-use.

• Ports and Harbors Policy #2 – Obtain the widest possible public benefit from channel dredging and ensure that Designated Port Areas and developed harbors are given highest priority in the allocation of resources.

• Ports and Harbors Policy #4 – For development on tidelands and other coastal waterways, preserve and enhance the immediate waterfront for vessel-related activities.
that require sufficient space and suitable facilities along the water’s edge for operational purposes.

- Ports and Harbors Policy #5 – Encourage, through technical and financial assistance, expansion of water-dependent uses in Designated Port Areas and developed harbors, re-development of urban waterfronts, and expansion of physical and visual access.

- Protected Areas Policy #3 – Ensure that proposed developments in or near designated or registered historic places respect the preservation intent of the designation and that potential adverse effects are minimized.

- Public Access Policy #1 – Ensure that development (both water-dependent or nonwater-dependent) of coastal sites subject to state waterways regulation will promote general public use and enjoyment of the water’s edge, to an extent commensurate with the Commonwealth’s interests in flowed and filled tidelands under the Public Trust Doctrine.

- Public Access Policy #2 – Improve public access to existing coastal recreation facilities and alleviate auto traffic and parking problems through improvements in public transportation and trail links (land- or water-based) to other nearby facilities. Increase capacity of existing recreation areas by facilitating multiple use and by improving management, maintenance, and public support facilities. Ensure that the adverse impacts of developments proposed near existing public access and recreation sites are minimized.

- Public Access Policy #3 – Expand existing recreation facilities and acquire and develop new public areas for coastal recreational activities, giving highest priority to regions of high need or limited site availability. Provide technical assistance to developers of both public and private recreation facilities and sites that increase public access to the shoreline to ensure that both transportation access and the recreation facilities are compatible with social and environmental characteristics of surrounding communities.

- Water Quality Policy #1 – Ensure that point-source discharges and withdrawals in or affecting the coastal zone do not compromise water quality standards and protect designated uses and other interests.

- Water Quality Policy #2 – Ensure the implementation of nonpoint source pollution controls to promote the attainment of water quality standards and protect designated uses and other interests.
• Water Quality Policy #3 – Ensure that subsurface waste discharges conform to applicable standards, including the siting, construction, and maintenance requirements for on-site wastewater disposal systems, water quality standards, established Total Maximum Daily Load limits, and prohibitions on facilities in high-hazard areas.

The Plan, through use of a matrix that ties the implementation plan recommendations to the corresponding CZM Program Policies, includes an assessment of how it is consistent with CZM Program Policies and Management Principles, and based on CZM’s review, I conclude that it meets the intent of each relevant policy and, as required by 301 CMR 23.05(1), I find the Plan consistent with CZM policies.

B. Consistency with Tidelands Policy Objectives

As required by 301 CMR 23.05(2), I must also find that the Plan is consistent with state tidelands policy objectives and associated regulatory principles set forth in the Waterways regulations of DEP (310 CMR 9.00). As promulgated, the Waterways regulations provide a uniform statewide framework for regulating tidelands projects. MHPs and associated amendments provide cities and towns with an opportunity to propose modifications to these uniform standards through either the amplification of the discretionary requirements of the Waterways regulations and/or the adoption of provisions that, if approved, are intended to amplify or substitute for the minimum use limitations or numerical standards of 310 CMR 9.00 by DEP. The substitute provisions of MHPs can reflect local planning goals in decisions involving the complex balancing of public rights in and private uses of tidelands, and serve as the basis for a DEP waiver of specific use limitations and numerical standards affecting nonwater-dependent use projects, provided that other requirements are in place to mitigate, compensate, or otherwise offset adverse effects on water-related public interests.

The Plan contains guidance that will have a direct bearing on DEP licensing decisions within the HPA. Included in this guidance are provisions that are intended to substitute for certain minimum use limitation and numerical standards in the regulations. It is anticipated that DEP will review any specific project proposals submitted for licensure in accordance with all applicable regulations and standards. The substitute provisions are each subject to the approval criteria under 301 CMR 23.05(2), as explained below.
C. Evaluation of Requested Substitute Provisions

The general framework for evaluating all proposed substitute provisions to the Waterways requirements is established in the MHP regulations at 301 CMR 23.05(2)(c) and 301 CMR 23.05(2)(d). The regulations, in effect, set forth a two-part standard that must be applied individually to each proposed substitution to ensure that the intent of the Waterways requirements with respect to public rights in tidelands is preserved.

For the first part, in accordance with 301 CMR 23.05(2)(c), there can be no change to a Waterways requirement unless the Secretary determines that the requested alternative requirements or limitations ensure that certain conditions—specifically applicable to each minimum use limitation or numerical standard—have been met. The second standard, as specified in 301 CMR 23.05(2)(d), requires that the municipality demonstrate that a proposed substitute provision will promote, with comparable or greater effectiveness, the appropriate state tidelands policy objective. A municipality may propose alternative use limitations or numerical standards that are less restrictive than the Waterways requirements as applied in individual cases, provided that the plan includes other requirements that, considering the balance of effects on an area-wide basis, will mitigate, compensate for, or otherwise offset adverse effects on tidelands-related public interests.

For substitute provisions relative to the minimum use and numerical standards of 310 CMR 9.51(3)(a)–(e), any proposal must ensure that nonwater-dependent uses do not unreasonably diminish the capacity of tidelands to accommodate water-dependent uses. Similarly, any substitute provision to 310 CMR 9.52(1)(b)(1), must ensure that nonwater-dependent projects on any tidelands devote a reasonable portion of such lands to water-dependent use, including public access in the exercise of public rights in such lands.

Table 1 at the end of this section contains a summary of the substitute provisions and offsetting measures contained in the Plan, as subject to and modified by this Decision.

**Height Standards and Related Impacts on Public Use or Access (310 CMR 9.51(3)(e))**

As part of the Plan, the Town requested an amplification to the Height Standards and Related Impacts on Public Use or Access (310 CMR 9.51(3)(e)). As a result of the consultation process between the Town, CZM and DEP and in order to more fully apply the goals of the Plan and the Town, it was agreed that the proposed amplification for Height Standards and Related Impacts on Public Use or Access (310 CMR 9.51(3)(e)) would more appropriately be proposed and
reviewed as a substitute provision to the relevant Waterways standard. As such, this element of the Plan will be evaluated as a proposed substitution to the height standards at 310 CMR 9.51(3)(e).

To approve any substitution provision to 310 CMR 9.51(3)(e), I must first determine that the Plan specifies alternative height limits and other requirements which ensure that, in general, such buildings for non-water-dependent use will be relatively modest in size, in order that wind, shadow, and other conditions of the ground level environment will be conducive to water-dependent activity and public access associated therewith, as appropriate for the Harbor (301 CMR 23.05(2)(c)5.). Second, within the context of its Plan, the Town must demonstrate that the substitution provision will meet this objective with comparable or greater effectiveness (301 CMR 23.05(2)(d)). My determination relative to whether this provision promotes the tidelands policy with comparable or greater effectiveness conducted in accordance with the MHP regulatory guidance at 301 CMR 23.00 is discussed below.

In order to implement the vision expressed during the MHP and HVBOD planning processes, the Plan proposed a substitute provision for height which would require a maximum height of 35 feet above Base Flood Elevation for new or expanded buildings within the HVBOD. Applying baseline Waterways standards within the applicable portion of the HPA would result in allowable heights up to 55 feet for new or expanded buildings within 100 feet landward of the high-water mark. As such, the proposed substitution reduces allowable height by 20 feet from that permittable under baseline Waterways requirements. The proposed reduction in allowable height reflects municipal priorities which evolved during the development of the Plan, and recognizes the importance of viewsheds, sight-lines, visual access to the Harbor, and creating a more tangible link between the Harbor and the Village, as a way of conveying the public to and around the waterfront. This was an important consideration in the overall planning process and built on previous efforts to link two distinct planning areas of Cohasset.

The proposed reduction in maximum building height will significantly improve viewsheds and sight-lines to the water, improve the space for the ground-level environment and associated public access activities and is consistent with development characteristics of buildings in the surrounding area. The proposed height substitution ensures that buildings for non-water dependent use will be relatively modest in size and that the ground level environment will be more conducive to water-dependent activity and public access associated therewith, as appropriate for Cohasset Harbor. Impacts resulting from changes to height standards are typically assessed at the pedestrian level through minimizing and mitigating impacts from increased shade and wind. In this case, because the
proposed substitution will reduce allowable height in this area of the HPA, impacts to the pedestrian level environment as measured by shadow and wind will be less than development adhering to baseline Chapter 91 requirements.

Approval of the substitute provision for building height proposed in the Plan requires that I find that the details of the alternative provision will promote, with comparable or greater effectiveness, the applicable state tidelands policy objectives. As a result of my review, I find that the requested substitute provision meets this objective with comparable or greater effectiveness by improving the pedestrian environment and will enhanced water-dependent activity including public access to the waterfront, and will appropriately meet the objectives of 310 CMR 9.51(3)(e). I therefore approve this substitute provision with no further requirement for offset.

**Pedestrian Access Network (310 CMR 9.52(1)(b)1.)**

With the Plan, the Town also requested an amplification to the WDUZ Setback (310 CMR 9.51(3)(c)). The WDUZ amplification is requested to ensure consistency with the HVBOD and evolving priorities during the development of the Plan. The intention of this request is to maintain the first 25 feet landward of the Mean High Water mark free of any structures, including water-dependent structures, to foster open views to and along the water for the public, to maintain an open and uninterrupted pedestrian access way accessible to the public and that will connect to a public right-of-way and to a harbor-wide walkway. As a result of the consultation process between the Town, CZM and DEP and in order to more fully support the goals of the Plan and the Town, it was agreed that the proposed amplification for Pedestrian Access Network would more appropriately be proposed and reviewed as a substitution to the relevant waterways standard. As such, in order to more effectively meet the goals and objectives of the proposed amplification for Water-Dependent Use Zone Setbacks (310 CMR 9.51(3)(c)), this element of the Plan will be evaluated as a proposed substitution to Pedestrian Access Network (310 CMR 9.52(1)(b)1).

For substitutions governing the provision of a pedestrian access network, a minimum walkway width other than ten feet may be specified provided that the alternative width is appropriate given, among other things, the size and configuration of the WDUZ and the nature and extent of water-dependent activity and public uses that may be accommodated therein (310 CMR 23.05(2)(c)6.). In addition, the Plan must demonstrate that the proposed provision will meet this objective with comparable or greater effectiveness than the original provision (301 CMR 23.05(2)(d).). My determination relative to whether this provision promotes this tideland policy with
comparable or greater effectiveness conducted in accordance with the MHP regulatory guidance is discussed below.

Maintaining a reasonable portion of any tidelands associated with nonwater-dependent projects for water-dependent use is necessary to ensure the exercise of public rights on these lands, including public access. The Plan recognizes the importance of providing enhanced public waterfront access opportunities within the Cohasset Harbor area. Extensive public feedback during the HVBOD and Plan development processes identified the HVBOD area as a natural community focal point within the Harbor as it is functionally the gateway to the Harbor and hub linking the Harbor and the Village. The MHP planning process emphasized the need for enhanced public access and amenities to promote pedestrian use, open space, economic and recreational opportunities, and year-round attraction. In addition to enhancing waterfront access in this region of the HPA, this provision complements a priority within the Plan which is a harbor-wide pedestrian walkway. The Plan, in order to implement the vision expressed during the Plan and HVBOD planning processes, requests a provision that no building within the HVBOD may be constructed within 25 feet landward of the project shoreline. With this requested substitution a 25-foot wide area specifically intended for an unimpeded pedestrian walkway along the Harbor to promote increased connectivity, access, and enjoyment of this area will be implemented.

As a result of my review, I find that the Town has demonstrated that the proposed provision ensures that the alternative width is appropriate given, among other things, the size and configuration of the WDUZ and the nature and extent of water-dependent activity and public uses that may be accommodated therein, and that this modification ensures with greater effectiveness compared to the Waterways provision (310 CMR 9.51(3)(c)) that nonwater-dependent projects on tidelands will devote a reasonable portion of such lands to water-dependent use, including public access in the exercise of public rights in such lands. This substitute provision directly benefits the public through enhanced public access and water-dependent uses that may be accommodated along the waterfront, therefore, I approve this substitute provision with no further requirement for offset.
<table>
<thead>
<tr>
<th>Regulatory Provision</th>
<th>Chapter 91 Standard</th>
<th>Proposed Amplification</th>
<th>Approved Substitution</th>
<th>Approved Offsetting Measures</th>
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<tr>
<td>310 CMR 9.51(3)(e): Height Standards and Related Impacts on Public Use or Access</td>
<td>New or expanded buildings for nonwater-dependent use shall not exceed 55 feet in height if located over the water or within 100 feet landward of the high water mark; at greater landward distances, the height of such buildings shall not exceed 55 feet plus ( \frac{1}{2} ) foot for every additional foot of separation from the high water mark.</td>
<td>New or expanded buildings may not exceed 35 feet in height above Base Flood Elevation within the HVB Overlay District.</td>
<td>New or expanded buildings shall not exceed 35 feet in height above Base Flood Elevation within the HVB Overlay District.</td>
<td>No offset is required because, no new or expanded non-water dependent buildings will be greater than the Waterways maximum numerical standard of 55 feet in height.</td>
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<tr>
<td>310 CMR 9.52(1)(b)1.: Pedestrian Access Network</td>
<td>A pedestrian access network of a kind and to a degree that is appropriate for the project site and the facility(ies) provided in 310 CMR 9.52(1)(a); at a minimum, such network shall consist of: 1. walkways and related facilities along the entire length of the water-dependent use zone; wherever feasible, such walkways shall be adjacent to the project shoreline and, except as otherwise provided in a municipal harbor plan, shall be no less than ten feet in width.</td>
<td>No building within the HVBOD may be constructed within 25 feet landward of the Project Shoreline.</td>
<td>Walkways within the HVBOD shall be along the entire length of the water-dependent use zone adjacent to the project shoreline and shall be no less than 25 feet in width.</td>
<td>No offset is required because, in all cases the waterfront walkway will be no less than the Waterways minimum numerical standard of 10 feet wide.</td>
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D. Implementation Strategies

The provisions of this Plan as discussed above will be implemented through regulatory and environmental review, through municipal and grant funding mechanisms, and through additional stakeholder processes.

DEP’s Chapter 91 licensing process under the Waterways regulations will implement the portions of this plan associated with redevelopment within the HVBOD and other development projects within Chapter 91 jurisdiction. Through the MEPA review process, project proponents will be required to evaluate alternatives, assess environmental impacts associated with proposed projects, and demonstrate how potential impacts are to be avoided, minimized, and mitigated. Public and agency comments received through the MEPA environmental review process will inform the evolution of the proposed developments at the Cohasset Harbor Inn and other potential projects in the HPA. As previously stated, the substitute standards in this Plan represent changes to building height and setback dimensional requirements, but do not indicate approval of a specific project or design.

The development of the Plan benefited greatly from a robust public engagement process that took a compressive approach to the planning process. The implementation section of the Plan employs this inclusive and cross-cutting approach towards realizing the enforceable components of the Plan. As envisioned in the Harbor Governance section of the Plan, Town officials and departments will have the primary responsibility for the implementation of the Plan with a detailed description of the Municipal Departments, Commissions, and Boards, along with their corresponding jurisdictions relevant to the Harbor. The Plan also recommends redefining the Harbor Committee’s charge and including the many Harbor organizations as partners in implementation. More specific actions in the Plan which link back to the overarching planning goals were developed through detailed research by the consultant team, input from public workshops, interviews with stakeholders, Harbor Committee meeting discussions, and two public comments periods on draft Plans. Finally, the implementation section of the Plan divides the recommended action items into studies, policy changes, zoning changes, construction projects, public education and outreach and identifies potential funding sources for each of the individual actions. I commend the Town in the holistic, inter-disciplinary, and inclusive approach for the development of this Plan and strongly encourage the Town to continue this approach throughout implementation.
IV. EFFECTIVE DATE AND TERM OF APPROVAL

This Decision shall take effect immediately upon issuance on November 25, 2020. As requested by the Town of Cohasset, the Municipal Harbor Plan Decision shall expire ten years from this effective date unless a renewal request is filed prior to that date in accordance with the procedural provisions of 301 CMR 23.06. No later than six months prior to such expiration date, in addition to the notice from the Secretary to the Town required under 301 CMR 23.06(2)(b), the Town shall notify the Secretary in writing of its intent to request a renewal and shall submit therewith a review of implementation experience relative to the promotion of state tidelands policy objectives.

V. STATEMENT OF APPROVAL

Based on the planning information and public comment submitted to me pursuant to 301 CMR 23.04 and evaluated herein pursuant to the standards set forth in 301 CMR 23.05, I hereby approve the Town of Cohasset Municipal Harbor Plan and supplemental information filing according to the terms and obligations contained herein and subject to the following conditions:

1. DEP shall require that new or expanded buildings shall not exceed 35 feet in height above Base Flood Elevation within the HVBOD.

2. Walkways within the HVBOD shall be along the entire length of the water-dependent use zone adjacent to the project shoreline, shall not include any structures and shall be no less than 25 feet in width.

3. The Town shall prepare a final, approved Town of Cohasset Municipal Harbor Plan (“Approved Plan”) to include:
   - The Plan dated July, 2020;
   - Supplemental materials regarding the delineation of the HPA and associated jurisdictional resource areas submitted during the consultation session; and
   - This Approval Decision.

Copies of the final Approved Plan shall be provided to CZM and DEP’s Waterways Program, kept on file at the Town of Cohasset, and made available to the public through the Town’s website and copies at the public library. For Chapter 91 Waterways licensing purposes pursuant to 310 CMR 9.34(2), the Approved Plan shall not be construed to include any of the following:
1. Any subsequent addition, deletion, or other revision to the final Approved Plan, except as may be authorized in writing by the Secretary as a modification unrelated to the approval standards of 301 CMR 23.05 or as a plan amendment in accordance with 301 CMR 23.06(1);

2. Any provision which, as applied to the project-specific circumstances of an individual license application, is determined by DEP to be inconsistent with the Waterways regulations at 310 CMR 9.00 or with any qualification, limitation, or condition stated in this Approval Decision.

This Decision and the Approved Plan do not supersede separate regulatory review requirements for any activity.

In a letter dated November 25, 2020 the DEP Waterways Program Chief has expressed support for approval of the Plan and stated that in accordance with the provisions of 310 CMR 9.34(2), DEP will require conformance with any applicable provisions of the approved Plan in the case of all Waterways license applications submitted subsequent to the Plan’s effective date. It will apply as well to all pending applications for which no public hearing has occurred or where the required public comment period has not expired by the effective date of the approved Plan.
K. Theoharides
Secretary of Energy and Environmental Affairs

November 25, 2020

Date
November 25, 2020

Kathleen A. Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street
Boston, MA 02114

RE: DEP Recommendation Approval
Town of Cohasset Municipal Harbor Plan - July 2020

Dear Secretary Theoharides:

The Department of Environmental Protection, Waterways Regulation Program (“the Department”) has reviewed the Town of Cohasset’s Municipal Harbor Plan (“the Plan”) dated July 2020. The Department’s staff have worked closely with the Massachusetts Office of Coastal Zone Management (CZM) and representatives of the Town of Cohasset throughout the planning process and consultation period. The Department has reviewed the proposed Substitute Provisions and Amplification Provisions as included in the Decision and recommends that you approve these regulatory provisions and make a finding that they are consistent with state tidelands policy objectives, as required by 301 CMR 23.05(3).

The Department will adopt as binding guidance in all License application review any Substitution Provisions contained in the Secretary’s final Decision on the Plan. The Plan lays out Substitutions that will adequately meet or exceed the protected interests pursuant to 310 CMR 9.00. The Substitutions contained in the Plan will modify the standards pursuant to: 310 CMR 9.52(1)(b)(1), which governs pedestrian access networks and 310 CMR 9.51(3)(e), which governs the allowable heights of nonwater-dependent buildings based on their distance from the high-water mark.

In accordance with the provisions of 310 CMR 9.34(2), the Department will require conformance with any applicable provision of the approved Plan for all waterways license applications submitted subsequent to the Plan’s effective date and within the geographic scope of the Plan. It will apply as well to all pending applications for which no public
DEP Recommendation Approval
Town of Cohasset Municipal Harbor Plan - July 2020
November 25, 2020

hearing has occurred or where the required public comment period has not expired by the effective date of the Decision.

The Department looks forward to continuing its work with CZM and the representatives of the Town of Cohasset in the implementation of this important planning effort. Should you have any questions regarding the foregoing, please contact me at Daniel.Padien@mass.gov or (617) 292-5615. Thank you for your consideration.

Sincerely,

Daniel J. Padien
Program Chief
Waterways Regulation Program

cc: Christopher G. Senior, Cohasset Town Manager
Lauren Lind, Cohasset Planning Director
Lisa Berry Engler, CZM
ACKNOWLEDGMENTS

BOARD OF SELECTMEN
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Keri Thompson (Elected May 2019)
Steve Gaumer (through May 2019)
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TOWN STAFF
Christopher G. Senior, Town Manager
Lauren Lind, Planning Director (from June 2019)
Peter Matchak, Planning Director (through May 2019)
Lorren Gibbons, Harbormaster
Chief William Quigley, Cohasset Police Department
Chief Robert Silvia, Cohasset Fire Department
Brian Joyce, P.E., Director of Public Works
Pamela Fahey, MPH, Health Agent

A special thank you to individuals and the members of those groups who contribute so much to the vibrancy of Cohasset Harbor and who contributed their time to the planning effort:
Members of the Cohasset Commercial Fishing Fleet
Cohasset Yacht Club (CYC)
Cohasset Maritime Institute (CMI)
Cohasset Sailing Club (CSC)
Cohasset Center for Student Coastal Research (CSCR)
Jack Keniley and Peter Matchak

MASSACHUSETTS OFFICE OF COASTAL ZONE MANAGEMENT
Lisa Berry Engler, CZM Director
Jason Burtner, South Shore Regional Coordinator

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
Ben Lynch, Program Chief, Waterways/Chapter 91
Christine Hopps

PREPARED BY:
Harriman
FXM Associates
GEI Consultants
CONTENTS

OVERVIEW....................................................................................................................................................6

GENERAL PLANNING AREA.......................................................................................................................10

VISION..........................................................................................................................................................20

PLAN COMPONENTS....................................................................................................................................22

COHASSET HARBOR ......................................................................................................................................24

RECOMMENDATIONS RELATED TO HARBOR GOVERNANCE.................................................................31

HISTORIC ASSETS: THE CAPTAIN’S WALK...............................................................................................32

TOWN, CIVIC ORGANIZATIONS, AND BUSINESSES IN THE HARBOR....................................................34

COMMERCIAL FISHING AND RECREATIONAL BOATING.........................................................................36

PUBLIC ACCESS TO THE HARBOR................................................................................................................38

SOFT EDGES AND HARD INFRASTRUCTURE...............................................................................................40

WATERSHEET ................................................................................................................................................42

RECOMMENDATIONS FOR THE WATERSHEET............................................................................................51

EDGES............................................................................................................................................................52

RECOMMENDATIONS FOR THE EDGES........................................................................................................62

LAND.............................................................................................................................................................64

LAND: THE HARBOR AND THE VILLAGE .......................................................................................................74

CONNECTIONS..............................................................................................................................................76

GATEWAYS AND WAYFINDING.......................................................................................................................78

VIEWSHEDS....................................................................................................................................................80

RECOMMENDATIONS FOR THE LAND ...........................................................................................................85
LIST OF APPENDICES

APPENDIX A REPORT FROM FXM ASSOCIATES
APPENDIX B REPORT FROM GEI CONSULTING
APPENDIX C LIST OF CHAPTER 91 LICENSES
APPENDIX D NOTICE TO PROCEED
APPENDIX E HARBOR VILLAGE BUSINESS OVERLAY DISTRICT
FIGURES AND TABLES

FIGURE 1: FLYERS FOR PUBLIC WORKSHOPS.................................................................12
FIGURE 2: PARTICIPANTS AT PUBLIC WORKSHOPS....................................................13
FIGURE 3: SAMPLE OF RESULTS FROM A TABLE EXERCISE AT THE DECEMBER 2018 PUBLIC MEETING..15
FIGURE 4: HISTORIC POSTCARDS................................................................................26
FIGURE 5: COASTAL BARRIER RESOURCES SYSTEM VALIDATION TOOL, UNIT MA-12..........................30
TABLE 1: COHASSET ANNUAL LOBSTER LANDINGS ..................................................44
TABLE 2: ANNUAL ESTIMATED ECONOMIC IMPACT OF COHASSET COMMERCIAL FISHERY ..........45
TABLE 3: PARKING IN COHASSET HARBOR.................................................................47
TABLE 4: USACE DREDGING PROJECTS .......................................................................48
FIGURE 6: 1961 “BENJAMIN PLAN” OF COHASSET HARBOR.......................................49
FIGURE 7: USACE 1986 MAP OF COHASSET HARBOR................................................50
FIGURE 8: MASSACHUSETTS BOARD OF HARBOR AND LAND COMMISSIONERS, 1911 PLAN OF COHASSET HARBOR.............................................................55
FIGURE 9: WETLANDS IDENTIFIED BY THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTIONS..................................................................................................................57
FIGURE 10: FEMA FLOOD ZONES ................................................................................59
FIGURE 11: CZM SEA LEVEL RISE AND COASTAL FLOODING.......................................61
TABLE 5: LIST OF HISTORIC ASSETS ON GOVERNMENT ISLAND.................................66
FIGURE 12: HISTORIC POINTS WITHIN THE HARBOR PLANNING CONTEXT AREA ................67
FIGURE 13: LAND USE WITHIN THE HARBOR PLANNING CONTEXT AREA ......................68
FIGURE 14: EXISTING ZONING WITHIN THE HARBOR PLANNING CONTEXT AREA ...............69
FIGURE 15: HARBOR VILLAGE BUSINESS OVERLAY DISTRICT; APPROVED APRIL 2019 ........70
FIGURE 16: BLOCKED VIEW FROM ELM STREET TO HARBOR........................................71
FIGURE 17: GOVERNMENT ISLAND RESOURCES ........................................................72
FIGURE 18: PROPOSED STREETSCAPE IMPROVEMENTS, 2000........................................82
FIGURE 19: EXPLANATION OF CHAPTER 91 BOUNDARIES ..........................................92
FIGURE 20: EXPLANATION OF CHAPTER 91 USE ZONES..............................................93
FIGURE 21: APPROXIMATE CHAPTER 91 BOUNDARY ...............................................94
TABLE 6: MODIFICATIONS TO CHAPTER 91 STANDARDS.........................................98
FIGURE 22: PROPOSED HARBOR-WIDE WALKWAY....................................................100
OVERVIEW

The people and Town of Cohasset have created this Municipal Harbor Plan to guide the future use and character of the Harbor. The Plan provides strategies and actions to support commercial and recreational activity on the waterfront, while strengthening the local economy and maintaining and improving the ecological health of the Harbor.

In the pre-planning work done by the Harbor Committee, the clear goal for the process was to “make Cohasset Harbor the best possible resource for the town.” Improvements to the watersheet, the edges, and the land will enhance the connections among those who work, play, and live here; the environmental health of the Harbor (water and land); and the potential for strengthened economic and physical links between the Harbor and the Village.

In addition, this Plan provides information on the underlying conditions within the Planning Area – economic, physical, and regulatory – that identify the opportunities to support the community’s vision and the potential barriers to achieving that vision.
OVERVIEW

The Town of Cohasset received an $80,000 grant from the Seaport Economic Council to produce a Municipal Harbor Plan (MHP) as part of its efforts to plan and set priorities for future work in the Harbor. This Plan was prepared in accordance with state regulations governing the preparation of Municipal Harbor Plans (301 CMR 23.00, Review and Approval of Municipal Harbor Plans). More detailed information on the regulations, their purpose, and application is provided throughout this Plan.

The Town of Cohasset is not pursuing a joint MHP with Scituate to cover the entire harbor, as provided for by 301 CMR 23.03, and instead has chosen to proceed with a plan that covers most but not all of the Harbor resources. Sections of this MHP provide additional later steps after the adoption of this plan to address Harbor resources in Scituate.

This plan will expire twenty years from the date of approval by the Secretary of the Department of the Executive Office of Energy and Environmental Affairs.

PLANNING AREA

The 134-acre Planning Area includes the watersheet (68 acres) and land (66 acres) immediately along the shoreline between White Head island to the area of Bailey Creek. The upland boundary is defined by the parcels' boundaries and the public roadways (e.g., Howard Gleason Road, Margin Street, Border Street) closest to the water's edge. The Planning Area contains three specific areas (see two-page spread overleaf):

- **COHASSET HARBOR** A large shallow bight located southwestward of the Minot's Ledge Light and about six miles southeastward of Point Allerton. The Harbor is frequented by numerous yachts and fishing craft. A prominent lookout tower is near the summit of a hill eastward of the Glades, on the east side of the Harbor.

- **COHASSET COVE** The inner harbor, protected by a breakwater which extends about 0.1 mile northward from near the westerly end of Bassing Beach. The breakwater is partially covered at high water. A dredged channel leads southward from the outer harbor to an anchorage basin southward of the Cohasset Cove anchorage.

- **BAILEY CREEK** A dredged anchorage area located in the southeastern part of the inner harbor. The mouth of the creek merges into the Harbor; upland areas stretch into the Town of Scituate. The creek contains a number of different ecosystems and is home to recreational boating, both public and private (including the Cohasset Harbor Marina), and two local nonprofit groups: the Cohasset Maritime Institute (CMI) and the Center for Student Coastal Research (CSCR).

In addition to these areas, the Plan has considered the relationship between the Planning Area and the Village to ensure proper coordination with other planning initiatives linked to the Harbor and the recommendations of this Plan.

BACKGROUND TO THE PLANNING PROCESS

The Town of Cohasset seeks to redirect investment to support the existing lobster fleet and marine-related businesses, enhance public access to the waterfront and the water, link economic development in the Harbor to the Village, and create a more vibrant Harbor.

The Town also seeks to maintain a healthy ecosystem of water, land, and the edges between, understanding that the impacts of increased activity in the Harbor area must take into account the impact on the ecosystem. Finally, the Town seeks to understand and incorporate the projected impacts of sea level rise and climate change on both the Harbor itself and the connected areas further inland into future planning processes and implementation actions. This will include the protection of prioritized assets from both sea level rise and climate change.

The Harbor today faces significant challenges, such as limited space to accommodate multiple and varied user groups, overlapping and competing uses, and vulnerability to climate change. The Harbor needs to support the existing fishing fleet and enhanced public access to the waterfront, while protecting its capacity to endure environmental pressures and projected sea level rise.

The Harbor Committee identified four specific topics of concern, based on current conditions within the Harbor:
• **COMMERCIAL FISHING** Preservation of the water-dependent fishing fleet in Cohasset has strong support in the community and meets the goals of economic diversity and preservation of the Town’s historic character as a fishing village. In addition to the preservation of moorings for commercial fishermen, the Town needs to preserve the landside support system and infrastructure for the fishing fleet.

• **RECREATIONAL BOATING** Cohasset Harbor has been at capacity for some time with approximately 200 recreational and commercial boats, and the Harbormaster maintains a long waiting list for slips and moorings. The only public boat launch is at the end of Parker Avenue.

• **LANDSIDE DEVELOPMENT** Not all the landside parcels are owned by the Town, and the proximity of residential and commercial interests in the Harbor has led to past contentious discussions about physical improvements and changes in use.

• **COASTAL INFRASTRUCTURE** Sixteen structures within the Harbor are either publicly owned or of unknown ownership, including seawalls, bulkheads, wharfs, docks, and piers; these structures provide significant coastal protection.

The Board of Selectmen reappointed the Harbor Committee in July 2017 to begin the pre-planning process prior to hiring a consultant for the MHP process. The Harbor Committee developed objectives for this planning process based on previous plans and studies conducted for the Harbor and the Town.

The August 16, 2017, meeting of the Harbor Committee, posted by the Town Clerk, included an “Issues Analysis” for the Harbor. The Committee’s description of the event notes that 25 people attended.

The primary goal for the MHP planning process that emerged from that session was to make “Cohasset Harbor the best possible resource for the Town of Cohasset.” Ten areas of concern were identified as part of the analysis, including access to the Harbor, shoreline development, commercial fishing fleet, environmental, and infrastructure issues. The following list of goals is based on this analysis, subsequent meetings and conversations, and public feedback and comments received during the MHP process:

- Support the Cohasset Commercial Fishing Fleet.
- Support public use of and access to the Harbor, including, but not limited to, recreational boating.
- Identify and plan for appropriate improvements to landside and waterside infrastructure.
- Support public use of the Harbor, including support for those town and civic organizations that enable such use.
- Improve the geographical relationship between the Village and the Harbor.
- Identify and improve commercial landside and waterside commercial activity.
- Integrate and improve Harbor management and uses.
- Identify and address improvements to ecosystem and environmental issues.
- Provide recommendations for a recurring dredging plan (areas, frequency, type of dredging project, potential funding sources).
- Provide an action plan and steps to implement the MHP recommendations, identifying responsible entities, the timeline, and potential funding sources.
GENERAL PLANNING AREA

The general planning area is centered on the watersheet of the Harbor, following the bounding roadways on the land and beginning and ending at the breakwater that protects the entrance to the Harbor. The red line is the approximate boundary of Chapter 91 jurisdiction.
The Town of Cohasset is conducting a public process to plan for the future of its harbor. This process will look at the future of the land and water in the harbor in terms of commercial, recreational, and environmental uses and connections to the rest of Cohasset, including the downtown. The Selectmen’s Economic Council has provided a grant to support this process.

Participants at the first public workshop, on May 31, will learn about current conditions and help develop a vision and goals for the harbor area based on the opportunities and constraints on future activities.

The workshop will address five initial themes:
- Balance between Recreational and Commercial Needs
- Impact of Sea Level Rise
- Environment of the Harbor
- Infrastructure
- Harbor Management and Governance

The Harbor Committee has selected a consultant team, led by Harriman and including GEC Consulting and FXM Associates, to assist with the collection and analysis of data, public engagement, and the preparation of the final reports. The process will be completed in Fall 2019.

Questions? Please email Peter Matchak, Town Planner:
P.Matchak@cohassetma.org

Additional information can be found here: https://www.mass.gov/service-details/czm-ter-91-the-massachusetts-public-waterfront-act

A Municipal Harbor Plan allows a town to vary certain requirements of Chapter 91 to implement the community’s goals. The planning process requires a public process, led by the Town, to educate the community about the harbor plan and solicit input about opportunities, constraints, and recommendations. The draft plan must be approved by the Board of Selectmen and the Commonwealth’s Executive Office of Energy and Environmental Affairs (EEA).

Additional information can be found here: https://www.mass.gov/service-details/com-ports-and-marina-planning-program-municipal-harbor-plans

The Town of Cohasset, with funding from the Seaport Economic Council, was assisted by a consultant team in the development of this Plan. The Cohasset Planning Board Office served as the Town’s lead department. Harriman, an urban planning, design, and engineering firm, was the lead consultant. GEI Consultants and FXM Associates also provided supporting data, analysis, and recommendations for waterfront infrastructure and the implications of climate change and economic development, respectively.

Data collected for use in this Plan came from site visits, previous planning studies, stakeholder interviews, public meetings, and relevant economic and labor databases.

COMMUNITY PARTICIPATION

Harbor Planning Group

The Cohasset Harbor Committee was the Harbor Planning Group, overseeing the development of the Plan. The Harbor Committee was established by §30-62 of the Bylaws of the Town of Cohasset. The Board of Selectmen appoints the members according to the requirements of the bylaw; membership is defined as the following: two citizens-at-large for three-year terms, one representative of the Cohasset Yacht Club (CYC), one representative of the Cohasset CSCR, one representative of the CMI, one representative of the Cohasset Sailing Club (CSC), two representatives of the commercial fishermen, one independent member, and one representative of the Recreation Commission. The Harbormaster is an ex-officio member of the committee. The Board of Selectmen accepted applications in the spring of 2017 for open positions prior to appointing the current membership of the Committee.

Public Participation Process

Public engagement is a critical component of every planning process. Ensuring that people – residents, business owners, institutions, property owners, elected and appointed officials, and Town staff – are engaged in the process and have tangible mechanisms for input that are addressed/incorporated during the planning process helps build ownership so that the implementation of the plan begins once it is approved. The Harbor Committee recognized that successful
planning involved early and continuing interaction with the public and coordination with the Town’s boards, committees, and officials with jurisdiction. In addition, the Harbor Committee and the consultant team consulted with the relevant state, regional, and federal agencies, including Massachusetts Coastal Zone Management (CZM) and Massachusetts Department of Environmental Protection (DEP). The planning analysis used to develop goals, address potential issues, and assess alternatives involved a thorough public participation program including a written public outreach and engagement plan, regular meetings of the Harbor Committee, two public meetings, two public outreach events, and stakeholder interviews.

To involve the public in the process and encourage attendance at the Harbor Committee meetings and the public workshops, the Town worked with the Harbor Committee to develop physical outreach methods, such as flyers, and coordinate social media outreach.

- **MEETINGS WITH CZM** The first meeting with CZM, in March 2018, included the Town’s MHP Planning Representative and representatives from the consultant team to discuss the planning process and the requirements for State approval. To ensure coordination of the process with state requirements and policies, representatives from CZM regularly participated in Harbor Committee meetings and public meetings and has also had input on the drafts of this report.

- **HARBOR COMMITTEE MEETINGS** Held regularly and open to the public, the meetings of the Harbor Committee included an update of the MHP planning process and discussion with stakeholders regarding the existing conditions of the Harbor. The dates and times of all Harbor Committee meetings were posted on the Town website.
  - 2018: March 22, June 19, September 19, October 17, November 14
  - 2019: January 24, April 3, June 18, August 8, September 16
  - 2020: March 10

- **PUBLIC ENGAGEMENT** Held April 25, 2018, at Cohasset Lightkeepers’ House. During the annual CSCR State of the Harbor community outreach and education event, CSCR invited
representatives from the Harbor Committee, consulting team, and Town staff and officials to participate in a panel discussion of the ongoing planning efforts regarding Cohasset Harbor.

- **PUBLIC MEETING 1** Held May 31, 2018, at the Cohasset Senior Center. This meeting introduced the planning process to the public and allowed for a discussion of perceived positive aspects, opportunities, constraints, and the community’s vision within the study area. Comment cards were also distributed and collected for community members to provide additional feedback and ask questions.

- **STAKEHOLDER INTERVIEWS** The consultant team interviewed stakeholders during Summer and Fall 2018. These interviews included the following people and organizations:
  - Lorren Gibbons, Harbormaster
  - Chief William Quigley, Police Department
  - Chief Robert Silvia, Fire Department
  - Officer Mark Jenkins, Police Department
  - Representatives from the Commercial Fishing Fleet: Matt Marr, Adam Donovan, Rick Barron, Sandy Carter, Bill Kelley, Paul Figueiredo, and Mandy Burgeen
  - Bill McGowan, Cohasset Yacht Club
  - Brian Joyce, DPW Director
  - Susan Bryant and Jack Buckley, Center for Student Coastal Research
  - Susan Campbell, Lisa Hewitt-Dick, Mike Dick, John Liffman, and Eric Penanhoat, Cohasset Maritime Institute Board Members
  - Brian Kimla and Sean Kenealy, Cohasset Sailing Club
  - Jeffrey Summers, Conservation Agent
  - Pamela Fahey, Health Agent
  - Suzanne Wadsworth and Jacqueline Dormitzer, Cohasset Historical Commission
  - Paul Trendowicz, Cohasset Harbor Marina

- **SITE WALK** A site walk of the Harbor in October 2018 included members of the Harbor Committee, some of the stakeholders, members of the consultant team, and representatives from CZM and DEP.

- **NOTICE TO PROCEED** The Notice to Proceed begins the official planning process for the Municipal Harbor Plan. The Request for Notice to Proceed describes the study area, defines the study program and planning analysis, and describes the public participation program. The Town sent its Request for the Notice to Proceed in September 2018. The request was published in the Environmental Monitor and a local newspaper and copies of the request were sent to agencies defined by 301 CMR 23.08(4)(c). The 30-day public comment period began with the publication in the Environmental Monitor. CZM provided the Notice to Proceed to the Town in December 2018; the Town has until December 2020 in which to submit the plan for approval.

- **PUBLIC ENGAGEMENT 2** Held December 8, 2018, at the Cohasset Library. This Open House solicited feedback from the community regarding draft Harbor Plan recommendations.

- **PUBLIC MEETING 2** Held December 17, 2018, at the Cohasset Senior Center. This meeting reviewed the planning process and existing condition analysis. Interactive exercises allowed for a discussion refining the concepts and strategies for public waterfront access and prioritization of draft Harbor Plan recommendations.

- **BOARD OF SELECTMEN** Held on September 24, 2019 at Town Hall for the purpose of introducing the plan to the Board of Selectmen and describing the process to date.

- **PLANNING BOARD** Held on November 6, 2019 at Town Hall for the purpose of discussing the Harbor Village Business Overlay District, the requirements of Chapter 91, and potential amplifications, substitutions, and offsets.

- **PUBLIC MEETING 3** Sponsored by the Board of Selectmen and held on November 18, 2019 at the Willcutt Commons to present the vision and draft recommendations to attendees. The overlapping requirements of the newly-approved zoning and Chapter 91 were also presented and discussed.

- **PUBLIC HEARING WITH BOARD OF SELECTMEN** On June 23, 2020 Town Staff, the Harbor Committee, and consultant team presented the findings and recommendations from the draft MHP during a public hearing with the Board of Selectmen. The Board voted unanimously to approve the plan for submittal to CZM.

The public meetings were designed to appeal to the widest audience and attract the most people. The
Draft Conceptual Plan

Figure 3: Sample of results from a table exercise at the December 2018 Public Meeting
meeting structure included an opening presentation that set the base of information and framework for the discussion, question session, and interactive exercises. The interactive exercises were designed to guide discussion toward productive feedback that informed the direction of the Plan. Consideration was given during the venue selection and scheduling to ensure the meetings were accessible to the greater Cohasset community.

The MHP planning process also included targeted stakeholder focus groups and interviews to engage local business owners, property owners, community and neighborhood organizations, commercial fishermen, individuals familiar with real estate and development within the study area, and Town staff. Stakeholders were not limited to those within Cohasset’s borders. Members of the Harbor Committee, Town staff, and the consultant team also held discussions with CZM, DEP, and other affected state agencies, and the Town of Scituate. Cohasset Harbor is divided by the town boundary between Cohasset and Scituate; Bassing Beach, the breakwater, and certain parcels adjacent to the Harbor are within Scituate’s borders.

ZONING CHANGE PROCESS

During the preparation of this Plan, a development team signed an agreement to purchase the Cohasset Harbor Inn and the Atlantic/Olde Salt House properties. The Town and members of the Harbor Committee recognized the opportunity to ensure that the zoning for the Harbor area was consistent with the goals for this Municipal Harbor Plan. The Town of Cohasset hired Harriman to assist with the preparation of draft zoning and design guidelines for review by the Planning Board. As part of the process for developing the language of the proposed zoning changes, Harriman met with Town staff, Town officials, and the development team for the Cohasset Harbor Inn. Harriman then presented to the Planning Board options and draft language for the zoning changes – looking at modification to an existing zoning district and creation of an overlay district – on the following occasions:

- **FEBRUARY 6** Introduction to the proposed modification of the Waterfront Business District; discussion of proposed uses, special permit process, and development standards.
- **FEBRUARY 20** Discussion of FEMA and Chapter 91 regulations; the use of FAR as a control of density; other regulations within the Town’s zoning bylaw; and the difference between modification to the underlying zoning and the creation of an overlay district.
- **MARCH 13** Implications of modifying the Waterfront Business District vs. creating an overlay district; the properties affected by each option; the proposed regulations for the Harbor Village Business (HVB) Overlay District; fit studies showing the impact of the regulations on the largest parcel (the Cohasset Harbor Inn), including the proposed view corridor requirement; identification of alternatives for design and performance standards.
- **MARCH 20** Final discussion of design and performance standards; review of the implications of Chapter 91 regulations on development within the HVB Overlay District; final discussion of language; Planning Board vote to send to Town Meeting for approval.
- **PRIOR TO TOWN MEETING** Town Counsel conducted a legal review of the draft and provided edits.
- **APRIL 29** Town Meeting adopted the revised zoning language.
- **POST-APPROVAL** The bylaw has been approved by the Attorney General of the Commonwealth.
- **SUBSEQUENT APPLICATION** On June 17, 2020, the Cohasset Planning Board began its public hearing on an application for the Cohasset Harbor Inn site. The application is for site plan review and a special permit under the Harbor Village Business Overlay District. The Applicant would raze or remove the existing two-story inn at 124 Elm Street and the existing two-story building (currently mixed-use) at 87 Elm Street. The proposed development for these two sites would include the following: three structures with twenty-nine multifamily residential units and commercial space; a waterfront park, and an unobstructed view corridor of the Harbor from Elm Street.

The goals for and provisions of the HVB Overlay District, which was passed by Town Meeting on April 29, 2019, are described in *Land*, below.
IMPACT OF PUBLIC INPUT ON PLAN

The discussion, vision, goals, and implementation plan are a combination of the following:

- Issues Analysis developed by the Harbor Committee in their meeting of August 16, 2017.
- Goals for the planning process as stated by the Town and the Harbor Committee in the original Request for Proposals and Request for Notice to Proceed.
- Research and analysis undertaken by the consultant team.
- Ongoing meetings with the Harbor Committee.
- Interviews with stakeholders.
- Public process for changing the zoning within the Harbor planning area.
- Input from the public meetings and open house.
- Public comment period on the January, April, July, and September 2019 drafts of the plan.
- Zoning process for the HVB Overlay District.

The information gathered during this process and preferences expressed during the public engagement are wrapped into a vision of the Harbor as expressed on the following pages. That vision is accompanied by a series of chapters which define the existing conditions and provide a set of recommendations that address those existing conditions according to the goals originally expressed by the Harbor Committee and modified during the planning process. The recommendations are brought forward into an implementation plan that defines specific actions that, over time, will fulfill the community vision for the Harbor.

DRAFT REVIEW AND REVISIONS

After the public planning process for the Plan was completed in December 2018, an initial draft was submitted to the Town and the Harbor Committee for their first review and comment in January 2019. The purpose of this draft, which was not complete, was to get feedback from the Harbor Committee on the direction and general content of the plan. The Committee provided comments on the plan and also posted it on the Town’s website for public comment.

The March 2019 draft was mostly complete and included a first draft of proposed modifications to Chapter 91. While these modifications responded to the proposed zoning change, they attempted to address the entire harbor area. The draft text did include significant new material, including the draft implementation plan, and addressed comments from the Harbor Committee based on the January draft. This draft was posted to the Town’s website in early April for public comment.

The July 2019 draft responded to comments from the members of the Harbor Committee, the public, CZM, and the owners of the Cohasset Harbor Inn property. Changes from the March draft were indicated with red text, so that members of the Harbor Committee and the public could track the changes. In particular, this draft contained a more detailed explanation of the public process, an explanation of the parallel zoning process and the implications for the plan, additional information about harbor governance, additional information about climate change and the harbor ecosystem, a significant expansion of the information about Chapter 91, a second draft of the proposed Chapter 91 modifications that more closely tied the recommendations to the zoning change, and an expanded implementation plan that grouped related actions and tied potential funding sources to specific actions.

This draft was available for review and comment by the Harbor Committee, the Town, and CZM in July with comments due in August.

The fourth draft was prepared in September in response to the comments on the July draft, a review of the July draft in September by Town Counsel, Paul DeRensis, and a full proof by the Harriman team. Changes from the July draft were in blue text to make comparisons easier. This draft provided more information about the zoning process and an update to the proposed Chapter 91 modifications, directly linking them to the new overlay district.

The November draft included the updated Chapter 91 modifications drafted after discussion at a Planning Board meeting on November 9, 2019 and a public meeting on November 18, 2019.

After discussion with CZM and DEP and additional review by Mr. DeRensis and the Harbor Committee, this March 2020 draft was prepared for final review by the Harbor Committee and submission to the
Board of Selectmen. This draft has two amplifications to Chapter 91 requirements reducing the allowable building height to 35’ above base flood elevation (BFE) and a no-build setback of 25 feet from the project shoreline. Both of these are consistent with the HVB Overlay District. This draft was approved by the Board of Selectmen at a public hearing on June 23, 2020.

The Town submitted a final proofed draft to CZM and MassDEP in July 2020 for their approval process.

**STATE APPROVAL PROCESS**

Under 301 CMR 23.00, a Municipal Harbor Plan must be approved by the Commonwealth of Massachusetts, specifically by the Secretary of the Department of the Executive Office of Energy and Environmental Affairs. The plan must be submitted by December 7, 2020 (unless a written extension is granted by the Secretary). The Board of Selectmen must approve the plan for submission to the state, after a public hearing.

As with the Request for Notice to Proceed, the submission must be publicized in the Environmental Monitor and in a local paper, and distributed to the agencies defined in 301 CMR 23.08(4)(c). A thirty-day public comment period begins with the publication in the Environmental Monitor. During that period, the Secretary will hold a public hearing on the plan. After the close of that period, the Secretary will consult with the Planning Director and the Harbor Committee. The Secretary may also consult with other state agencies with legal jurisdiction and/or special expertise related to the content of the Harbor Plan. The consultation period is 60 days after the end of the public comment period.

The Secretary or the Town of Cohasset may request an extension to the comment period if the Town requires more time to submit additional information after the close of the 30-day comment period.

Within 21 days of the close of the consultation period, the Secretary will issue a written decision on the MHP. This period may be extended at the request of the Town. The criteria for determination are set forth in 301 CMR 23.04(4).

Although Municipal Harbor Plans can include a wide array of local planning goals and actions as well as site-specific design guidelines for proposed developments, state review and approval of Municipal Harbor Plans under 301 CMR 23.00 is primarily limited to the formal evaluation and authorization of proposed substitute and amplification provisions to specific standards of the Chapter 91 Waterways Regulations. As such, the process of reviewing and approving Municipal Harbor Plans does not consider all elements of proposed development(s) such as traffic, parking, water and wastewater, or energy efficiency—these matters are the subject of other jurisdictions, authorities and reviews.

**Harbor Plan FAQs**

**Does this plan have legal ramifications?**

Yes and no. Any modifications to Chapter 91 that are included in a state-approved municipal harbor plan are regulatory in impact; a property owner who has property within Chapter 91 jurisdiction must comply with relevant approved modifications when applying for a Chapter 91 license. The modifications proposed in this plan to date are not intended to be applicable to all properties within Chapter 91 jurisdiction in Cohasset Harbor.

The recommendations, goals, policies, strategies, and actions are road maps for the Town rather than legal obligations. The plan provides a path for implementation of the recommendations but the timing of implementation or even whether a recommendation is implemented is up to the Town.

**What is the link between the Municipal Harbor Plan and the Zoning?**

During the planning process for the harbor, it became obvious that the Cohasset Harbor Inn was a critical location for some of the public amenities identified at the public meetings. These include a connected harbor-wide walkway, a view of the Harbor from Elm Street, and the ability to connect the Village to the Harbor both physically and economically.

The Inn and related sites were in the process of changing hands, and the land uses, particularly residential, that could support such amenities were not allowed under the zoning. From January - April 2019, the focus of the planning process shifted to working with the Planning Board to determine whether zoning that was acceptable to the community and consistent with Chapter 91 development standards could be developed to
support revitalization of this underused site and the underdeveloped mixed-use parcels across the street.

The Planning Board held public hearings to discuss the zoning on February 6 and 20, and March 13 and 20, 2019. The presentations on February 20 and March 20 linked the Chapter 91 requirements to the zoning discussion. The presentation in February introduced the Chapter 91 standards and the presentation in March looked at the specific implications of those standards on the Cohasset Harbor Inn site.

This zoning was passed at the Spring 2019 Annual Town Meeting and is now in effect after approval by the Attorney General in Fall 2019.

How does the zoning work with Chapter 91?

Certain dimensional and uses standards required by Chapter 91 may be modified by a state-approved municipal harbor plan. Once the zoning has passed, the combination of substitutions, amplifications, and offsets that will complement the zoning was being developed by the consultant team and discussed with CZM and MassDEP.

Does the Town need to modify Chapter 91?

The Town does not have to use the Harbor Plan to modify Chapter 91, however, this plan does recommend modifying building height and setback from the project shoreline to ensure consistency with the new zoning.

Were the owners of the Cohasset Harbor Inn involved in these discussions?

Yes. In order to ensure that the site may be developed according to the zoning, the requirements of Chapter 91, community expectations, and the development team’s expectations, the current owners of the Cohasset Harbor Inn have been involved in the discussions.

Has the public commented on these drafts?

The April and July drafts of the plan included the proposed modifications that were current at the time of discussion. The respective drafts were presented at the April 3 and August 7 Harbor Committee meetings and each was available online for public comment after the respective meeting. The September draft was also posted to the Town’s website and available prior to the meetings in October and November.

Has the state seen these draft modifications?

Yes! CZM and DEP have discussed both drafts with Harriman, once with Peter Matchak on May 1, 2019 and once with Lauren Lind on August 5, 2019. CZM and DEP reviewed a November 2019 draft at a meeting with Lauren Lind and Harriman on January 21, 2020.

The modifications in the April draft were prepared by Harriman. The revised modifications in the July draft included modifications prepared by the development team for Cohasset Harbor Inn. Frankly, CZM and DEP determined both versions to be inadequate. Harriman prepared a significantly revised draft and provided them to the Town, the state, and the development team for comment. The proposed modifications in the September draft included some minor changes based on comments from the development team.

The March 2020 draft includes two major changes: the modifications are limited only to those sites within the new overlay district and they are limited to a reduction in height and a no-build setback from the project shoreline.

This plan requires approval from the state and from the Town. Who is in charge?

The Town! This is a voluntary process. The Town decided to undertake this planning process and will decide whether to send the plan to the state for its approval.

However, to be eligible for approval, the Town must follow the legislative and regulatory requirements for municipal harbor plans (301 CMR 23). In addition, the Town has received a grant from the Seaport Economic Council to complete a state-approved municipal harbor plan.

I have more questions. Who can help?

The Planning Director, Lauren Lind, is the Town’s representative in this process. She can be reached at LLind@cohassetma.org or (781) 383-4100 ext. 5128.

All documents to date are on the Cohasset Harbor Committee’s website: https://www.cohassetma.org/284/Harbor-Committee

VISION

Cohasset Harbor is a jewel-box of a harbor. This small area supports a variety of users – commercial fishermen, recreational boaters, sailors, rowers, scientists, dog-walkers, coffee-drinkers, diners, artists, residents, visitors, and those just hanging out and enjoying the beautiful sunrises, sunsets, and breezes off the water.

The vision for this Harbor is simply to enhance the land, the water, and the edge in between to support access to and enjoyment of the Harbor for all ages, interests, and abilities. The key is to balance the needs of the variety of uses to ensure a safe and pleasant experience for all.

Part of that enhancement is a strong link between the Harbor and the Village – a link with physical, visual, and economic components.
The Implementation Plan for this vision draws together the investment, regulatory changes, and other actions needed to support the recommendations of this MHP for improvements to infrastructure that will implement the goals for the Harbor. Modifications to the requirements of Chapter 91 are included to address future development to strengthen the Harbor in terms of its water, land, and edges and the complex interweaving of ecosystems and economic systems in this small area.
The Plan for the Harbor is divided into four sections:

**Harbor Governance** defines the entities responsible for the health of the Harbor and how those entities work together. Health is defined as social, environmental, and economic health.

**Watersheet** includes the activities on or under the surface of the water. Components include commercial fishing, recreational boating, moorings, dredging, underwater ecosystems and other elements.

**Edges** are the soft and hard infrastructure that join or separate water and land. Components include seawalls, docks, piers, and vegetative ecosystems that protect against wave and wind action or that allow access between water and land.

**Land** allows access to the water, supports commercial and recreational activities, and provides the infrastructure to support those activities. Components include buildings, parking, and links to the Village.
The waterfront and shoreline have a special place in the heritage and identity of Cohasset. Cohasset Harbor has long been at the center of the Town’s history. The area was first visited by English colonists in 1614, when Captain John Smith explored the coast of New England and was reportedly attacked by native Algonquins from what was later called John Smith Rocks. Native Americans used to spend summers in the Harbor area hunting and fishing until they moved inland in the winter.
Although the Town has 6.12 miles of shoreline, only 3.4% of that shoreline is publicly owned, creating the smallest percentage of public coastal frontage of any municipality in the South Shore region from Weymouth to Plymouth. By contrast, a larger portion of the shoreline in the Harbor is publicly owned. Strategies for greater public access to the water are part of the benefit of this Plan; the challenge identified throughout is to balance the varied needs with the small size of the harbor.
Fishing activities and shipbuilding continued during colonial times. The Town Pier on Government Island is about 100 years old. While the Harbor was safe, ledge along the coast posed significant dangers to shipping, with reportedly 40 vessels sunk in a period of nine years before 1841. Minor’s Ledge Light was built and completed in 1850, then destroyed one year later by a major storm with the loss of two lightkeepers, who are memorialized in a monument on Lighthouse Lane in Government Island. Rebuilt and completed in 1860, Minot’s was at the time the most expensive lighthouse built in the United States, and as a historic landmark, still marks proximity to the Harbor.

The Yacht Club, founded in 1894, added recreational boating to the existing fishing and shipbuilding activities. Today, recreational boating is the dominant summertime activity in the Harbor, limiting the space available for commercial fishing and supporting activities. Finding a workable balance between commercial fishing and recreational boating was an important aim of the latest Harbor Plan, completed in 1980, and continues to be a priority for current Harbor planning efforts.

Those Cohasset residents who do not live directly on the water gain physical access to the shoreline at Sandy Beach (owned by an association but open to all Town residents), Bassing Beach, and Cohasset Harbor. Management of Cohasset Harbor is a delicate balance between its small size and multiple interests, including commercial fishing and water-dependent uses, such as a historic Marine Railway, lobster pound, docks and piers; recreational boating and public access; its status as a scenic, historic, recreational, and natural resource; the desire for economic development, including boating and the links to the Village; the needs of nearby residential neighborhoods; and the ability of the Harbor to exacerbate or mitigate the impacts of climate change.

The remaining pages in this section provide a picture of the Harbor, including the historic assets, the civic and nonprofit uses within the Harbor, the infrastructure related to commercial fishing and recreational boating, existing means of public access, and the protective elements in the Harbor including a mix of soft edges and constructed infrastructure.

After this introductory section, this report examines the different elements of the Harbor in more depth, including the watersheet, the edge where water and land meet, the landside conditions and uses, and the connections between the Harbor and Cohasset Village.
Finally, this report presents the recommendations for implementation and modifications to the regulatory standards of Chapter 91 of the Massachusetts General Laws (Chapter 91) and the consistency between the recommendations of this plan, the policies of CZM, and the requirements of Chapter 91.

HARBOR GOVERNANCE

During the planning process, discussions of the governance of the Harbor contributed to thoughts about the implementation of the recommendations of this Plan. Cohasset Harbor falls under several sets of jurisdictions.

TOWN OF COHASSET

Chapter 121 of the Town ordinances governs the operations of Cohasset Harbor.

Harbormaster

The majority of Cohasset Harbor is within the jurisdiction of the Town of Cohasset (and is thus included in Norfolk County). The Town has a Harbormaster appointed by the Town Manager. The Harbormaster is responsible for daily operations within the Harbor, including enforcing local, state, and federal regulations and ensuring the safe use of the Harbor, Little Harbor, and Gulf River for all users. The Harbormaster is also responsible for the management of Town moorings and is responsible for the locally issued Annual Harbormaster Permit under Chapter 91.

The Harbormaster is often the first responder to a public safety incident in Cohasset Harbor; the police and fire departments in both the Town of Cohasset and the Town of Scituate also have jurisdiction over public safety within the Harbor.

The Town’s Harbor Regulations are available on the Harbormaster’s page on the Town’s website, as is the waiting list of Town moorings.

Harbor Committee

The Town of Cohasset has a Harbor Committee, appointed by the Board of Selectmen and responsible for making recommendations to the Board of Selectmen about the operations and condition of Cohasset Harbor. The Harbor Committee is the sponsor of this planning process and acts as the Advisory Committee under 301 CMR 23.00, the
regulations for the preparation of a municipal harbor plan. The Harbor Committee has nine members drawn from harbor-related organizations and residents of the Town and includes the Harbormaster as an ex-officio member.

Government Island Advisory Committee

The Town also has a Government Island Advisory Committee, which has seven members including the Harbormaster, and is responsible for making recommendations for the maintenance and improvement of Government Island to the Board of Selectmen. This committee does not have a full roster of members.

Conservation Commission

The Conservation Commission administers and enforces the Massachusetts Wetlands Protection Act (Chapter 131, Section 40 of the Massachusetts General Laws) within the Town of Cohasset and the Town’s regulations and bylaws for wetlands and stormwater management. In addition to reviewing Notices of Intent and holding hearings on applications for altering wetlands and buffer zones, the Conservation Commission also works to promote and educate people about local environmental resources and maintains areas of wetlands, floodplains, and other natural resource areas within the Town.

Regulated areas are defined by 310 CMR 10.00 and the Cohasset Wetland Bylaw and Regulations. A permit from the Conservation Commission is required to remove, dredge, fill, or alter areas under the Conservation Commission’s jurisdiction. The Conservation Commission may grant an Order of Conditions on such changes within their jurisdiction, including the building of docks. The Conservation Commission has an excellent FAQ sheet.

Planning Board and Zoning Board of Appeals

These two bodies are responsible for administering the zoning bylaws in the Town. The Planning Board is responsible for site plan review and special permit applications within the Town. The Zoning Board of Appeals (ZBA) hears applications for zoning variances and appeals for the issuance or denial of building permits and grants certain special permits. The ZBA grants special permits for docks in Cohasset.

Building Department

The Building Department is responsible for ensuring that buildings in the area meet both the building code and the zoning regulations. The Building Inspector is also responsible for ensuring that new development meets the building code for structures within FEMA flood zones.

Board of Health

The Board of Health is responsible for administering Title 5 of the State Environmental Code (310 CMR 15.00) which governs septic systems. In Cohasset, the Board of Health also passed supplemental rules and regulations to govern sewage treatment and disposal in the town.

The Health Department tests beaches for water quality, including Bassing Beach, and posts a yellow flag if the beach is closed. According to their website, the Harbor is “automatically closed after 0.5 inches of rain within a 24 hour period.”

Historical Commission

The Historical Commission is responsible for identifying, preserving, and maintaining archaeological and historic resources in Cohasset. Their Captain’s Walk brochure identifies many historic resources in the Harbor. The Historical Commission may be asked to give an advisory opinion to the Planning Board on the redevelopment of buildings older than a certain date.

TOWN OF SCITUATE

The remainder of Cohasset Harbor, including Bassing Beach, is within the jurisdiction of the Town of Scituate (and is thus included in Plymouth County).

Scituate also has a Harbormaster. The Harbormaster’s Office has three members of staff: The Harbormaster, the Assistant Harbormaster, and a Business Manager.

The Scituate Waterways Commission works with the Harbormaster to update the Waterways Management Plan and Waterways Bylaws. The most recent Waterways Management Plan was adopted June 2011 and is available on the Harbormaster’s page on the Town’s website.

1 https://www.cohassetma.org/197/Cohasset-Beach-Water-Quality, last accessed July 15, 2019
The Waterways Commission is an advisory group appointed by the Board of Selectmen. They have 15 members, including the Harbormaster, Associate Members, and three liaisons: one to the Board of Selectmen, one to the Planning Board, and one to the Advisory Committee. The Waterways Commission has monthly meetings, which are open to the public. The Waterways Commission advises the Board of Selectmen on policies for the Scituate waterways.

The Town established a Waterways Enterprise Fund in 1995. Funding sources include excise tax, mooring registrations, marina user fees, and town slip and tie-up fees. The funds are used for direct operating and capital costs and indirect costs related to municipal services.²

The Waterways Management Plan calls for shellfishing along Scituate’s shoreline within Cohasset Harbor with an emphasis on programs to “resolve pathology problems and support shellfish propagation and productivity.”³ Bassin[g]’s Beach is noted as one of the prime shellfish beds for mussels and soft-shell clams.⁴ Meeting minutes of the Waterways Commission in December 2018 include discussions about establishing a Shellfishing Commission and about 5 acres in the Bassing Beach area for shell fishing. The minutes record initial discussions with the Town of Cohasset. The Shellfish Advisory Committee began meeting in Spring 2019.

COMMONWEALTH OF MASSACHUSETTS
Office of Coastal Zone Management (CZM)

CZM is an integral part of the planning process for this Harbor Plan. CZM implements the coastal program for the Commonwealth under the federal Coastal Zone Management Act. Detailed information can be found at CZM’s website: https://www.mass.gov/orgs/massachusetts-office-of-coastal-zone-management

CZM is part of the Commonwealth’s Executive Office of Energy and Environmental Affairs (EEA). The regional offices of CZM help coordinate local and regional collaboration with respect to the economic and natural resources of Massachusetts’ coast and waterways. The agency provides a wealth of resources for local communities, and technical assistance in the areas of planning, permitting, environmental resources including habitat and water quality, public access, mapping, and managing storm damage and climate change.

CZM published the Massachusetts Office of Coastal Zone Management Policy Guide in October 2011. This is an important resource for understanding federal and state policies related to the Coastal Zone Management Act.

Massachusetts Department of Environmental Protection (DEP)

DEP grants licenses for projects under Chapter 91 (Simplified License, Water-Dependent License, Nonwater-Dependent License), permits for projects in wetlands, 401 water quality certifications, and authorization for dredging projects. Chapter 91 Authorization is required for activities occurring in, on, over, or under Flowed and Filled Tidelands. Additional definition of Chapter 91 terminology and requirements is found in Modifications to Chapter 91.

A quick introduction to Waterways permitting can be found here: https://www.mass.gov/guides/waterways-permitting-frequently-asked-questions

Department of Marine Fisheries

This state agency supports fishing by managing commercial and recreational saltwater fisheries. It provides information about commercial fishing, including landings, and manages permits for

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2 Town of Scituate, Waterways Management Plan, June 7, 2011, page 29
3 Town of Scituate, Waterways Management Plan, June 7, 2011, page 11
4 Town of Scituate, Waterways Management Plan, June 7, 2011, page 38
recreational fishing. The agency is also responsible for determining shellfish closures, the opening and closing dates of fishing seasons, and provides other advisory notices.

Massachusetts Harbormasters Association

This organization has two chapters: The North Shore and the South Shore. Cohasset is a member of the South Shore chapter. The organization provides resources to harbormasters in Massachusetts, but has no regulatory authority within the harbor.

FEDERAL GOVERNMENT

National Oceanic and Atmospheric Administration (NOAA)

As noted above, the Coastal Zone Management Act governs the management of the coastal zone of the United States. This Act was passed in 1972 and is administered at the federal level by NOAA and by the Office of Coastal Zone Management in each state. More information about NOAA is available here: https://coast.noaa.gov/czm/act/

NOAA administers the Coastal Zone Enhancement Program (https://coast.noaa.gov/czm/enhancement/) and the Coastal Nonpoint Pollution Control Program (https://coast.noaa.gov/czm/pollutioncontrol/).

US Fish and Wildlife Service

Under the Coastal Barrier Resources Act (1982), the Federal government identified “relatively undeveloped coastal barriers along the Atlantic...and made these areas ineligible for most new federal expenditures and financial assistance.” This was to prevent the use of federal dollars to develop at-risk areas. The restrictions are on federal expenditures that “tend to encourage the development or modification of coastal barriers.” There is no prohibition on private or non-federal expenditures and certain activities are exempted from the ban, including the maintenance of existing federal navigational channels and related structures, such as jetties. Federal expenditures for the “study, management, protection, and enhancement of fish and wildlife resources and habitats, including acquisition of fish and wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects” are allowed.

Cohasset is within the Coastal Barrier Resource (CBR) Unit (MA-12), as shown in Figure 5. The U.S. Fish and Wildlife Service will provide a “CBRS Property Determination” for properties within 20 feet of the CBRS boundary (the CBRS Buffer Zone) that identifies whether a property is within the CBRS

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Figure 5: Coastal Barrier Resources System Validation Tool, Unit MA-12
HTTPS://WWW.FWS.GOV/CBRA/DOCUMENTATION.HTML, LAST ACCESSED JULY 15, 2019

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8 Ibid.
Boundary and thus ineligible for certain types of federal funding, including flood insurance through the Federal Emergency Management Agency’s (FEMA) National Flood Insurance Program (NFIP). 9

More information about U.S. Fish and Wildlife and CBRS can be found here: www.fws.gov/CBRA/.

U.S. Army Corp of Engineers (Corps)
The Corps has regulatory responsibility for construction in navigable waterways, including docks, piers, and dredging. The enabling legislation is Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. A permit is required from the Corps before beginning work in navigable waterways. More information about the Corps in New England and a list of regulations can be found here: https://www.nae.usace.army.mil/.

Public Safety
The United States Coast Guard is responsible for coastal security in the harbor at the federal level. Operations are coordinated with local public safety officials, including the Harbormaster, police department, and fire department.

RECOMMENDATIONS RELATED TO HARBOR GOVERNANCE

• MERGE THE GOVERNMENT ISLAND ADVISORY COMMITTEE WITH THE HARBOR COMMITTEE
Merging the responsibilities would allow one committee to make recommendations to the Board of Selectmen and the Town Manager on the needs of both the water and the land within Cohasset Harbor.

• REVIEW AND MODIFY THE CHARGE OF THE CURRENT HARBOR COMMITTEE
Ensure that the charge is consistent with best practices across the Commonwealth for similar committees. Consider the charge of the Master Plan Implementation Committee as a model.

• CONSIDER ESTABLISHMENT OF A WATERWAYS ENTERPRISE FUND
Such a fund could capture fees from moorings, tie-ups, and other relevant sources to target funds for operating and capital needs within the Harbor. Further study is needed to determine the benefits and impacts.

• ESTABLISH A “FRIENDS OF COHASSET HARBOR” Consider establishing a Massachusetts nonprofit public charitable entity able to qualify for charitable tax treatment pursuant to section 501(c)3 of the U.S. Internal Revenue Code to help raise funds for needed improvements to the Harbor and to publicize the needs and opportunities within the Harbor. The 501(c)3 should be similar to other “Friends of” groups, such as the Friends of the Cohasset Library.

• DOCUMENT PUBLIC SAFETY RESPONSIBILITIES
Publicize the roles of the Harbormaster, the police and fire of both Towns, and the Coast Guard so that the distribution of responsibilities in the Harbor are clear to members of the public.

• ESTABLISH AN INTER-MUNICIPAL AGREEMENT
Work with the Town of Scituate to establish an inter-municipal agreement pursuant to Chapter 40 Section 4A of the General Laws of the Commonwealth or a Joint Powers Agreement pursuant to Chapter 40 Section 4A 1/2 related to the management of Bassing Beach, the responsibility for public safety operations within Cohasset Harbor on both sides of the town/county line; the responsibility for maintenance and repairs of shared infrastructure, including the breakwater, and stormwater management to reduce the introduction of pathogens and harmful chemicals to the Gulf River and Cohasset Harbor. Formalize communications between the Cohasset Harbor Committee and the Scituate Waterways Commission to ensure coordination of policies that affect the entire operations, health, and safety of Cohasset Harbor. Consider semi-annual or quarterly meetings between the two groups.

• PUBLICIZE THE EMERGENCY RESPONSE PLAN
Either as a stand-alone plan or as a subset of the inter-municipal agreement, the Town should create an emergency response plan that specifies the jurisdictional requirements in an emergency and is widely distributed to the public, including on the Town’s website.

The Cohasset Historical Commission produced a map of the Captain's Walk, which identifies some of the historical buildings, structures, and places within the Harbor and provided details about the signage at each station on the walk.

**LEGEND**

**STATION NUMBER ON CAPTAIN'S WALK**

**SPONSORED BY COHASSET HISTORICAL COMMISSION**

Modern names of sites provided in parenthesis if different from the historical names

Supplemental information from Massachusetts Cultural Resource Information System (MACRIS)
TOWN, CIVIC ORGANIZATIONS, AND BUSINESSES IN THE HARBOR

Cohasset Yacht Club
Cohasset Harbor Inn
Olde Salt House
Atlantica
George H. Mealy American Legion Post
Cohasset Lobster Pound
Harbormaster
Lightkeepers' Cottage
Cohasset Sailing Club
Cohasset Harbor Inn
JAMES BROOK
The Town of Cohasset is fortunate to have many nonprofit organizations that draw people to enjoy the Harbor and the water. Harbor businesses are also a draw, although opportunities exist to enhance the possibilities for more activity on the land to supplement the vibrancy of the water uses.
COMMERCIAL FISHING AND RECREATIONAL BOATING
Commercial fishing and recreational boating share similar needs in the Harbor; the challenge is to support the commercial fishing fleet by providing for certain unmet needs while ensuring that recreational vessels of all types are able to safely navigate with minimal conflicts.
Public access to the water includes the ability to walk alongside the water and the ability to be on the water itself. Chapter 91 of the Massachusetts General Laws (The Waterways Act or Chapter 91) protects the rights of public access to Commonwealth tidelands. These rights were first established during the Colonial era and allow public access for fishing, fowling, and navigation. Today, Chapter 91 requires Facilities of Public Accommodation to allow the public to access areas under the jurisdiction of Chapter 91.
Soft Edges and Hard Infrastructure

Hard infrastructure, such as sea walls or the breakwater, may protect the Harbor and its assets from flooding, but such infrastructure must be maintained on a regular basis, and must be evaluated for the projected increase in regular tides and storm surges based on current estimates of sea level rise.

Streets and pathways may be damaged by flooding, leading to increased maintenance costs. However, some pathways along the water’s edge may be designed to flood and allow the floodwaters to recede on a regular basis.

Soft edges, such as tidal flats, marshes, and other wetlands, allow for the absorption of water from flooding but may be less effective if subject to pollution, siltation, infill, or other degrading impacts.
Watersheet

The word “watersheet” refers to the surface of the water. The term is used when discussing those uses which require access to the watersheet: docks, slips, moorings, and watercraft of all sizes and types. The watersheet in the Cohasset Harbor has a variety of users and vessel types, creating a need to balance the needs of many users in a small area and a short boating season.

Both commercial fishing and recreational boating provide economic value to the Town of Cohasset in terms of fees, property taxes, and in their contribution to the overall quality of life for residents in the Town.

Because of the impact of dredging on the future use of the watersheet, the discussion of dredging is also included in this section.
COMMERCIAL FISHING

The focus of this section is on the economic context of the fishing industry in Cohasset and the infrastructure needs identified by the fishing fleet as necessary for their survival.

ECONOMIC CONTEXT

The commercial fishing industry has been part of Cohasset since the beginning. A major part of this planning process has been the identification of the needs of the fishermen in order to support the fishing fleet. Current facilities are inadequate for the needs of the existing fishing vessels; these inadequacies are a hindrance to either expanding the size of the fleet or encouraging new entrants into the market. As noted by the FXM report (see Appendix A), commercial fishing in Cohasset Harbor is currently almost exclusively lobstering. Since 2010, both the landings and ex-vessel value of Cohasset’s lobster industry have varied – ranging from nearly 422,462 pounds and almost $1.8 million in value in 2017, to a low of 345,673 pounds and $1.2 million in value in 2012. It is not possible from these data to reliably project longer term trends, but both landings and ex-vessel values have been fairly consistent in recent years as they have been in Plymouth County, a more appropriate comparator for Cohasset’s fishing industry than Norfolk County. The SAFIS Dealer Database reported 26 active harvesters, a 6-year high, and only 4 active dealers, a 10-year low in 2017 as shown in Table 1 below.

Notwithstanding these variations, local lobstermen report a very stable fishery over the past 10 years and prospects of continuation at least at current catch levels. According to local fishermen, there are currently 19 active boats regularly engaged in commercial lobstering, providing jobs and income to 40 vessel owners and crew. The contribution of this industry to the economy of Cohasset includes an estimated $760,000 in local spending for goods and services (including the spending of fishermen earnings for local goods and services other than those required to support their businesses). Local resident fishermen also contribute property taxes directly and indirectly to the Town of Cohasset, as well as mooring and dinghy fees and vessel excise taxes totaling about $214,000 annually as shown in the Table 2 below.

However, data from the Harbormaster for 2018 shows lower amounts than Table 2:

| Boats | 24 |
| Total linear feet of boats | 810 |
| Mooring fees | $9,090 |
| Total Excise taxes | $2,360 |
| Property value of homes owned by resident fishermen | $6,087,500 |
| Real estate taxes on houses | $78,528 |

Noteworthy in Table 2 is the relatively low average annual earnings of commercial fishermen in Cohasset – about $24,000 per year compared to an average annual wage of $43,000 for all jobs in Cohasset (see Appendix A, Table 6, page 13).

Local fishermen note an absence of infrastructure investment to support vessel off-loadings, refrigerated storage, and other facilities. Hauling the catch landside

Table 1: Cohasset Annual Lobster Landings

<table>
<thead>
<tr>
<th>YEAR</th>
<th>LIVE POUNDS</th>
<th>EX-VESSEL VALUE</th>
<th># OF TRIPS</th>
<th># ACTIVE DEALERS</th>
<th># ACTIVE HARVESTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>492,855</td>
<td>$1,871,089</td>
<td>2296</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>2011</td>
<td>421,861</td>
<td>$1,628,838</td>
<td>2040</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>2012</td>
<td>345,673</td>
<td>$1,207,305</td>
<td>1879</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>2013</td>
<td>375,169</td>
<td>$1,358,553</td>
<td>1689</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>2014</td>
<td>353,623</td>
<td>$1,481,856</td>
<td>1448</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>2015</td>
<td>388,964</td>
<td>$1,767,814</td>
<td>1597</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>2016</td>
<td>441,853</td>
<td>$1,922,849</td>
<td>1744</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>2017</td>
<td>422,462</td>
<td>$1,879,363</td>
<td>1537</td>
<td>4</td>
<td>26</td>
</tr>
</tbody>
</table>

SOURCE: SAFIS Dealer Database

1 The latest available data (2017) for commercial finfish and shellfish landings other than Cohasset’s lobster catch for all of Norfolk County was negligible and suppressed in the SAFIS dealer database. A far more robust and diverse commercial fishery is evident in Plymouth County, which includes the ports of Scituate, Duxbury, Hingham, Hull, Marshfield and Kingston. Cohasset commercial vessels landed about 11% of the combined Cohasset and Plymouth County lobster catch in 2017.
at low tide is especially difficult and the lack of lighting and electricity is problematic for efficient and safe operations. For the relatively modest investments in physical facilities described elsewhere in the Plan, local fishermen estimate that they might increase their catch (and therefore their economic contribution to the Town) by 20-30% as well as sustain a fishery in need of new participants to replace the current aging workforce.

The presence of commercial fishing vessels adds to the attraction of Cohasset Harbor to both residents and visitors, and enhances the prospects of success for local restaurants and other businesses.

TOWN FACILITIES
Commercial fishermen can access the water at either Fisherman’s Wharf on Government Island or the Town Landing (next to Lawrence Wharf).

Fisherman’s Wharf has 18 parking spaces; Town Landing has 3 spaces. Fisherman’s Wharf has approximately 90 feet of dockage, but Town Landing can only accommodate a maximum of two vessels at a time.

The facilities are typically small floating timber docks with a gangway access. Neither facility provides a lift system for vessel supply and transfer of bait and catch. The gangways provide split pathways for carts and walking; these pathways are narrow and limit the amount of material that can be transferred at one time.

The Town plans to install a conveyor belt system at Fisherman’s Wharf to provide mechanical transfer of materials between the floats and land. An alternative to this would be a hoist or davit, however this would require boats to approach the site along the seawall where current water depths are not sufficient at lower tides.

The Town planned to restore access to electric power to Town Landing in spring 2019.

INFRASTRUCTURE NEEDS
As noted in the report from GEI Consultants (Appendix B), representatives from the commercial fishermen have identified a number of actions necessary to support the survival and potential expansion of their industry. The fishermen provided the list below to the Harbor Committee at its meeting on March 22, 2018.

Table 2: Annual Estimated Economic Impact of Cohasset Commercial Fishery

<table>
<thead>
<tr>
<th>Annual Estimated Economic Impact of Cohasset Commercial Fishery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex-vessel value of the catch (revenues) $ 1,900,000</td>
</tr>
<tr>
<td>Expenditures (fuel, bait, maintenance, repairs) $ 950,000</td>
</tr>
<tr>
<td>Earnings to fishermen (net of expenditures) $ 950,000</td>
</tr>
<tr>
<td>Average earnings per boat $ 50,000</td>
</tr>
<tr>
<td>Average earnings per fisherman $ 23,750</td>
</tr>
<tr>
<td>Local spending for goods and services $ 760,000</td>
</tr>
<tr>
<td>Property taxes paid by resident fishermen $ 181,350</td>
</tr>
<tr>
<td>Other local taxes attributable to fishermen spending $ 9,880</td>
</tr>
<tr>
<td>Mooring &amp; dinghy fees $ 18,000</td>
</tr>
<tr>
<td>Vessel excise taxes $ 5,200</td>
</tr>
<tr>
<td>Annual fiscal revenues to Town of Cohasset $ 214,430</td>
</tr>
</tbody>
</table>

Sources: 2017 data from SAFIS Dealer Database and Cohasset Town Report; interviews with fishermen; and FXM Associates
• Extend and rebuild the pier at Government Island with a conveyor system and hydraulic lift designed to ease the loading and unloading of bait, traps, rope, and equipment necessary for operations. The conveyor system and lift must be usable at all tides.

• Construct a new pier suitable for direct vehicle/vessel loading and unloading between piers at the Cohasset Sailing Club and Parker Avenue.

• Install a designated dinghy dock for commercial mooring holders.

• Reconfigure the floats at Government Island to accommodate more boats.

• Install a marine fueling station on Government Island, with credit card capability.

• Provide water and electric service year-round at all commercial docks.

• Introduce trash receptacles, dumpsters, and an oil reclamation station.

• Reconfigure Town Landing to include conveyor/hoists and addition of more floats to the NW (towards the inner cove area).

• Add security cameras with live video access via smart phones.

• Create a designated area for bait coolers, usable by all fishermen.

• Create a draft plan detailing future dredging needs

• Undertake a mooring field study to determine if reconfiguration of the mooring fields could create more moorings and moorings for larger vessels.

• Create a Harbor webpage where people can view current communications about and activities in the Harbor.

• Establish specific dates for deployment and retrieval of floats and docks each spring and fall.

Including representatives from the commercial fishermen as part of the design committee would be critical to ensure that the design of new infrastructure supports their operations.

CLIMATE CHANGE AND FISHING
As climate change impacts the availability of different types of ground fish and shellfish, the Town and the commercial fishing fleet will need to work together to continue to find ways to support the fishing industry in Cohasset. This may include looking at new and innovative fishing industry techniques, joint programs with the Commonwealth of Massachusetts for supporting a new generation of fishermen, public education about eating different varieties of fish, or other programs to support the industry in the long-term.

EMERGENCY MANAGEMENT
The Harbormaster maintains three vessels as part of the emergency fleet. These include a 17-foot and a 21-foot work boat and the primary response vessel, which is a 25-foot Parker Walkaround. The emergency fleet is typically moored in the Harbor and accessed via dinghy because sufficient space is not available at the Government Island Road facility. This arrangement may cause delays in emergency response times, especially in winter months. During these months, emergency response vessels are located on the other side of the Harbor and the Harbor may have ice or other impediments. Storage of equipment required for emergency calls near the vessels is required.

While the Harbormaster is either working or on-call most of the time, the Town may wish to consider additional emergency response vessels for other first responders, including the Police and Fire Departments. The ability to respond to different types of emergencies or multi-jurisdictional emergencies was brought up during the public engagement efforts.

RECREATIONAL BOATING
Public Access and recreational boating by all Cohasset Citizenry is a major goal of the Town of Cohasset. Recreational boating includes Town moorings, organizational use (including, for the purposes of this discussion, the scientific research of the Cohasset Center for Student Coastal Research) and Town facilities for occasional users (as opposed to those who have designated moorings or slips).

TOWN FACILITIES
Town facilities include mooring fields, the Town Pier on Margin Street, and the Parker Avenue boat ramp.

• MOORING FIELDS The Town has a waiting list of over 500 people for a mooring. Cohasset Harbor
has approximately 90 moorings, Cohasset Cove has approximately 30 moorings, and Bailey Creek has approximately 30 moorings. The Town Pier on Margin Street consists of a timber pile supported timber pier and floating docks. The docks are accessed via a ramp at the end of the pier. The pier extends approximately 75 feet into the Harbor and has a “T” at the end providing additional space. The floating docks extend another 40 feet into the Harbor with a “T”-shaped dock system providing space for dinghies. The Margin Street property does not have parking facilities.

• **PARKER AVENUE BOAT RAMP** The Town’s only boat ramp is located at the end of Parker Avenue. Shorelines immediately east and west of the ramp are protected by rip rap. Cohasset Harbor Marina is located east of the ramp and has floats. West of the ramp, a small timber pier supports a gangway and floating docks usually occupied by dinghies used for accessing moored vessels. The ramp is not suitable for use with trailered boats at lower tides because the bottom of the ramp does not extend far enough below the water surface into the Harbor. The Town is working to redesign this ramp and has hired an engineer to begin the design work.

• **PARKING** The Town offers public parking in several places throughout the Harbor, but general agreement is that not enough parking is available for current uses. Future private development will need to provide off-street parking for planned uses. For future public parking, Government Island, particularly the unpaved overflow parking behind the Lighthouse Keepers’ Cottage, could be reconfigured to provide additional parking.

### Table 3: Parking in Cohasset Harbor

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>PARKING SPACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Island: Fisherman’s Wharf</td>
<td>18</td>
</tr>
<tr>
<td>Harbor Master</td>
<td>4</td>
</tr>
<tr>
<td>Sailing Club</td>
<td>14</td>
</tr>
<tr>
<td>Back Lot (behind Lighthouse Keepers’ Cottage)</td>
<td>40</td>
</tr>
<tr>
<td>Town Landing</td>
<td>3</td>
</tr>
<tr>
<td>Town Pier/Margin Street</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>79</td>
</tr>
</tbody>
</table>

On-street parking is available along Border Street. The Town does not charge for on-street parking.

**COHASSET MARITIME INSTITUTE (CMI)**

CMI provides rowing and other recreational waterfront activities to the community (youths and adults) and uses the Parker Avenue Boat ramp to access the water. CMI has approximately 200 participants and employs both youth and adult coaching staff. The CMI boathouse, owned by the Town but maintained by CMI members, is over 150 years old and is subject to the historic preservation restrictions of Chapter 184 of the Massachusetts General Laws. This building was originally a lifesaving outpost for the Harbor, and was moved to its present location from Government Island.

**COHASSET CENTER FOR STUDENT COASTAL RESEARCH (CSCR)**

While not a recreational use, CSCR also uses the Parker Avenue Boat Ramp to access the water. CSCR provides opportunities for students to explore and study the watershed and coastal environment. As with CMI, CSCR is also housed in an historic Town-owned building. This building provides the only public restroom in the harbor and is maintained by CSCR and CMI. CSCR has indicated the need for a designated mooring or slip for its activities.

**COHASSET YACHT CLUB (CYC)**

The CYC is located on the north western shore of the Harbor near the Harbor entrance. CYC has a pile-supported building and floating dock system providing dockage for approximately 150 boats, including slips, club boats, and dinghy slips. CYC has a small marine railway to the west that appears to be actively used by the club.

**COHASSET SAILING CLUB (CSC)**

The CSC is located at the end of Lighthouse Lane. There is a walking bridge between the CSC and CMI. The CSC is protected by stacked stone seawalls with water access via a ramp to timber floats. Based on aerial imagery, the CSC provides additional dinghy access to boats within the Harbor. The Center has approximately 300 linear feet of available berthing along the floats. The Center’s water access is very limited in width; the channel near the floats is the only access into Bailey’s
Cove and is only 80 feet wide. The area immediately outshore of the floats was dredged in 2017 by the U.S. Army Corps of Engineers (the Corps).

**COHASSET CONSERVATION TRUST (CCT)**

CCT is a private foundation and nonprofit that owns property and hold conservation restrictions throughout Cohasset for conservation and preservation. Some of the properties, including Bassing Beach, are open to the public. The beach is used for fishing, swimming, picnicking, and walking and is very popular with recreational boaters.

**COHASSET HARBOR MARINA**

Cohasset Harbor Marina is a private facility located along the southern shore of Bailey Cove. The Marina supports a gangway to provide access to timber floating docks. The facility consists of approximately 750 linear feet of floating docks, which provide 73 slips out of the 85 permitted slips. Outshore of the Marina, boats moored within Bailey Cove are on Town moorings and not part of this Marina.

**ATLANTICA**

The Atlantica restaurant has two floating docks that can be used by transient boaters eating at the restaurant.

**PRIVATE DOCKS**

The status of the privately-owned “dockominiums” in front of The Olde Salt House was raised during the planning process. 44 Border Street is a condominium divided into two units. Unit 1 is the Olde Salt House restaurant property. Unit 2 is a combination of a deck, access platform to the deck, dock, metal gangway, wood floats, and boat slips. The purpose of Unit 2 is specified in the Master Deed (dated March 9, 2011) as recreational boating. The deed transferred Unit 2 from Cohasset Cove LLC to the Olde Sale House Marina, LLC. A Condominium Unit Owner’s Association was created under a Declaration of Trust dated March 9,

<table>
<thead>
<tr>
<th>WORK DATES</th>
<th>WORK ACCOMPLISHED</th>
<th>QUANTITIES (CUBIC YARDS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>May - August 1903</td>
<td>Improvement Dredging of 4-Foot MLW Channel to Point West of Tower Wharf</td>
<td>20,629; plus 105 ledge</td>
</tr>
<tr>
<td>June - July 1960</td>
<td>Improvement Dredging of 8-Foot MLW Channel and 7-Foot Outer Anchorage</td>
<td>157,624</td>
</tr>
<tr>
<td>May 1967 - April 1968</td>
<td>Improvement Dredging of Three Inner Harbor 6-Foot Anchorage Areas</td>
<td>58,200</td>
</tr>
<tr>
<td>May 1967 - May 1968</td>
<td>Maintenance Dredging of 8-Foot Entrance Channel</td>
<td>8,700</td>
</tr>
<tr>
<td>May - July 1978</td>
<td>Maintenance Dredging of 8-Foot Entrance Channel by US Sidecast Dredge Fry</td>
<td>15,000</td>
</tr>
<tr>
<td>September 1998 - February 1999</td>
<td>Maintenance Dredging of 8-Foot Entrance Channel and the 7-Foot and 6-Foot Anchorage Areas</td>
<td>84,000</td>
</tr>
<tr>
<td>November 1999 - February 2000</td>
<td>Continue Maintenance Dredging of 8-Foot Entrance Channel and the 7-Foot and 6-Foot Anchorage Areas</td>
<td>18,500</td>
</tr>
<tr>
<td></td>
<td>Maintenance Dredging of 8-Foot Entrance Channel and the 7-Foot and 6-Foot Anchorage Areas – Partially Completed and Contract Terminated for Nonperformance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maintenance Dredging of a High Shoal in the 8-Foot Entrance Channel by US Hopper Dredge Currituck with Placement Nearshore off Green Harbor Beach</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete Maintenance Dredging of 8-Foot Entrance Channel and the 7-Foot and 6-Foot Anchorage Areas</td>
<td></td>
</tr>
</tbody>
</table>
2011. The deed and the Declaration of Trust were recorded with the Norfolk Registry of Deeds on March 30, 2012.

The plan dated January 8, 2010 and recorded with the Norfolk Registry of Deeds on March 30, 2012 does not provide a Chapter 91 license for Unit 2. However, Old Salt House, Inc. was granted license #4342 in April 1960 for 44 Border Street to maintain the existing wharf; build a building constructed over tidewater and supported on concrete piers; and to construct a “marina type installation” of main and spur or finger floats held in place by concrete piers and reached by ramps from the existing wharf. The license was recorded with the Norfolk Registry of Deeds on September 7, 1960.

Single-family homes in the area (including The Oaks) also have private docks. A map and summary of all Chapter 91 licenses discovered during this planning process is provided in Appendix C.

**NAVIGATIONAL CHANNELS AND DREDGING**

Cohasset Harbor is accessed via the Corps channel that runs in a northeast/southwest orientation and is maintained by the Corps.

Cohasset Harbor has been dredged many times since 1903 (see the list in Table 4.) Figure 6 shows the 1960 dredging area. In 2017, the Corps performed a survey of the federal project including the entrance channel and basins as part of its Massachusetts Navigation Projects. Based on the findings, dredging was performed to reduce some shallowed sections of the Harbor and provide safe access into Cohasset Harbor. The project map identifies the project area for the 2017 dredging effort. The After Dredge/Condition Survey Complete Project Drawings (March 30, 2017) are available here: https://www.nae.usace.army.mil/Portals/74/docs/Navigation/MA/COH/COH132.pdf.

Since the Corps performed the maintenance dredging, the channel and Harbor have experienced
minimal siltation. The channel should be monitored for siltation as part of the overall dredge evaluation. The commercial fishermen have indicated a desire for more dredging to support their needs; during the public input process, several people indicated a need for dredging to support both commercial fishing and recreational boating.

Electronic Navigational Charts (ENC) from the National Oceanic and Atmospheric Administration (NOAA, 2018) and as seen in Navionics Software (Navionics, 2018) show depths in Cohasset Cove vary greatly. Data show the Harbor has depths of 6 to 7 feet within the main anchorage and less than 3 feet in the remainder of the Harbor, including the dredged anchorage near Cohasset Harbor Marina. Some portions are less than 2 feet deep at low water and therefore unusable by most boat traffic. The Town noted that sediment builds in areas around the sewer treatment outflow.

According to the Corps, the Harbor has four anchorages, inclusive of the three anchorages noted above, which are to be dredged to between 6 and 7 feet in depth (the Corps, 2018), two of which had dredging performed in 2017. These are the channel outshore of the CSC, including a portion of the anchorage to the north, and main Cohasset Channel. While these areas have been deepened to allow vessel traffic, the remainder of the Harbor needs dredging to continue to facilitate use of existing infrastructure.

The Town would need to request regulatory approvals from the following agencies to perform additional dredging within the Harbor:

- The U.S. Army Corps of Engineers
- MA DEP Chapter 91
- MA DEP Water Quality
- MEPA
- Town Conservation Commission (Notice of Intent)

As part of the permitting process, the Town should review the material testing results with the Corps. This will help understand potential opportunities

*Figure 7: USACE 1986 Map of Cohasset Harbor*
to secure Corps dredging and disposal approvals. Disposal options may include upland disposal at landfills, offshore disposal, and beneficial reuse on nearby beaches if materials are clean enough and of compatible grain size for the receiving beach. Dredge material from Cohasset Channel was placed on Sandy Beach as a beneficial reuse as part of the 2016 ACOE dredge project for Cohasset Harbor.

RECOMMENDATIONS FOR THE WATERSHEET

In addition to the requests from the commercial fishermen noted above, the following recommendations seek to address the concerns brought forward during the public engagement process:

- **CONDUCT A MOORING STUDY** Although existing mooring fields are configured to provide sufficient depths for boats in the Harbor, and moorings are generally aligned in a grid pattern with minimal overlaps, currents within the Harbor limit the ability to rearrange mooring fields or increase mooring density. A mooring study of the Harbor would help identify potential increases in the number of moorings.

- **INSTALL A PILE SUPPORTED-PIER** A Town-owned pile supported pier could provide many economic benefits and a balance of commercial and recreational uses. A new facility could provide deeper draft loading abilities with cranes or hoists and convenience utilities including water, power, and sewer in addition to increased dockage and ADA boat access. Major improvements resulting in enlarged structures, increased floats, or mixed-use facilities should be studied further to identify appropriate shapes, sizes, and configurations. To understand if such a facility may be feasible for Cohasset Harbor, a more detailed analysis of economic and environmental impacts is required. Two potential locations for a mixed-use facility include Government Island and the Town Pier at Border Street. Efforts to secure funding for these facilities could potentially be aided by providing additional emergency response vessels and support to the waterfront.

- **CONDUCT A DREDGING STUDY** The Town should undertake a dredging study to evaluate the need for additional dredging to restore historic depth and support both commercial fishing and recreational boating, including potential additional moorings. In the review of soundings from the 2017 survey, approximately 150,000 cubic yards (cy) of sediment needs to be removed to reach the target depths of the federal project with a 1-ft over-dredge. The dredging study should include an evaluation of how siltation into the Harbor could be slowed, including the use of green infrastructure such as eelgrass or shellfish beds.

- **COMPLETE THE PARKER AVENUE BOAT RAMP**
  Current plans are to redesign the structure within the same footprint with the potential of expanding the length or modifying the slope to allow use throughout the tidal range; that design process is underway. Other improvements may include: widening the ramp, if property ownership lines allow; installing floats along the sides for easier access to boats and vehicles; identifying designated dinghy ramping for CSCR and CMI boats, and dredging the bottom of the ramp to provide sufficient depths at low tides.

- **DETERMINE THE ECONOMIC, PUBLIC SAFETY, AND PUBLIC ACCESS BENEFITS OF SEPARATING COMMERCIAL AND RECREATIONAL BOATING**
  Some concern was expressed during the public engagement process about safety in the Harbor given the small size and large amount of activity. One suggestion was to formalize the division of resources by separating the infrastructure supporting commercial fishing from that supporting recreational boating. Determining whether separation of recreational boating and commercial fishing operations is possible, and if so, how and where such separation could occur, would require further study to determine the feasibility of access (including parking), the depth of the Harbor in that area, the impact on the shoreline, and the ability to provide power and water to proposed site(s). The impact of proposed changes to existing users and the benefit to future users would also need to be part of the study.

SOURCE: U.S. ARMY CORPS OF ENGINEERS, HTTPS://WWW.NAE.USACE.ARMY.MIL/PORTALS/74/DOCS/NAVIGATION/MA/COH/COHMAP.PDF; LAST ACCESSED JANUARY 15, 2019
EDGES

Edges are where sea and land meet. Hard edges are designed to prevent flooding by creating a barrier or channel. Soft edges are designed to absorb floodwaters and gradually drain water back to the Harbor or allow it to infiltrate into the water table. Both require regular maintenance to ensure the effective protection against high tides and storm surges.

Predictions for sea level rise fall within a range of possibilities. The existing Harbor infrastructure, hard and soft, has already been overwhelmed by high tides and storm surges; the March 2018 storm was a recent example.

Landings and marine railways knit together land and water; they are necessary for the function of the Harbor and may also be endangered by projected conditions.
PROTECTION AND HARD INFRASTRUCTURE

A mixture of public and private seawalls provide a hard separation between water and land. Marine railways and piers interact with both land and water. Piles support buildings above the water. The breakwater mitigates the impact of storm surge and wave action on the Harbor. GEI Consultants evaluated the following hard infrastructure as part of the planning process. Please see Appendix B for more details.

- **COHASSET SAILING CLUB** The CSC is protected by stacked stone seawalls. The seawall in front of the building was in satisfactory condition with minor deterioration and some voids observed at the bottom of the wall. The high-water mark appeared to be about 1 foot below the wall. This small amount of freeboard would likely result in overtopping during extreme high tides.

- **MILL RIVER MARINE RAILWAY/COHASSET LOBSTER POUND** The Mill River Marine Railway facility is located along Border Street on the southern shoreline of Cohasset Harbor, west of the Commercial Pier and rock waterfall. The facility includes the Cohasset Lobster Pound and a small marine railway. While the railway may be usable, it was in poor condition at the time of the site visit. Many of the timber elements below water (exposed at low tide) were cracked or split and no longer function properly. The shoreline along the railway facility is protected by a stone seawall to the north and west, and the east wall consists of rock ledge along the waterfall. The walls were in satisfactory condition and the concrete foundation elements appeared to be in satisfactory condition. There is also a sluice-way under the Mill River building that was previously used for hydro-power. The structure was not evaluated during this project, but inspection should be considered during future improvements of the property.

- **ATLANTICA** The shoreline consists of a variety of construction types including rip rap slope with a seawall, rock ledge, and stacked stone walls. The Atlantica restaurant is supported on pier foundations. At the time of the site visit, the concrete piers and timber pilings were in fair to satisfactory condition. The stacked stone walls exhibited some loss of mortar between stones below the high tide mark. The revetment supporting the parking lot showed evidence of movement and settlement between stones and between the stones and top wall. The parking area exhibited several locations of settlement and voids under the asphalt. There were also several holes in the pavement that appear to warrant immediate repair inshore of the seawalls.

- **OLDE SALT HOUSE** This includes the filled area adjacent to the Town Pier at Border Street. The seawall on the west side of the filled structure had a previous failure and was temporarily stabilized using a dumped stone revetment. However, this temporary stabilization interferes with low water access to the adjacent float. Permanent repairs are needed that will address structural issues with the wharf and will not impair use of adjacent facilities.

- **TOWN LANDING/LAWRENCE WHARF** The shoreline for the Town Landing at Border Street consists of a stacked stone seawall. At the time of the site assessment, seawalls in this area were deteriorated with missing mortar and loose stones. The seawall around the gazebo was in better condition, with mortar in place and no loose stones. The east side of the embankment appeared to have a previous wall failure where rip rap had been placed.

- **TOWN PIER/MARGIN STREET** The 75-foot pier was in satisfactory condition. The Town Pier does not have a seawall.

- **COHASSET YACHT CLUB** The Yacht Club has a pile-supported building. It has a small marine railway to the west that appears to be actively used by the club.

- **PARKER AVENUE** The only boat ramp in Cohasset Harbor is located at the end of Parker Avenue and is owned by the Town. This ramp is not suitable for use with trailered boats at lower tides; the Town is in the process of redesigning the ramp to make it more usable. Seawalls edge the parking lot to the left of the pier and docks (Town-owned) and to the right of the boat ramp (owned by the Town and/or Cohasset Harbor Marina).

- **HARBOR SEAWALLS** The seawalls around the Harbor consist mainly of stacked stone walls. The Border Street seawall was generally in satisfactory condition, however there were several small to large settlement points behind the wall. This had most likely been caused by fine sediments being
flushed from behind the wall. The section behind the wall along Border Street between the Atlantica and Cohasset Harbor Inn was in better condition than the section between the Atlantica and the Mill River Facility. Seawalls around the Town Pier at Border Street were in better condition than the seawall at Border Street, however they are also exhibiting minor material loss and settlement. Opposite the Town Pier at Border Street there was evidence of a seawall failure and dumped stone repair. Based on aerial imagery this was estimated to have occurred in 2017. The GEI report did not note unusual conditions for the shoreline on either side of the Parker Avenue boat ramp.

- **BREAKWATER** The jurisdiction of the breakwater has been a continuing concern throughout the planning process. While there are indications that the breakwater was constructed by the Commonwealth, the ownership and jurisdiction of the breakwater has not been fully established. Other research has suggested the Massachusetts Department of Conservation and Recreation (DCR) or the federal government as owners. According to the 1961 Report of Cohasset Harbor by Allan Benjamin and Shurcliff & Merrill (the Benjamin Report), the Commonwealth of Massachusetts built the jetty in 1910-1911 (see Figure 8 below).

Jetties at the entrance of the Harbor, including the breakwater, were in satisfactory condition. The top of the jetties were noted to be at the approximate high tide mark, which would allow some waves to proceed over and into the Harbor during storm events. The Harbormaster noted that the jetties are over-topped during high tide events where predicted tides exceed +12 feet.
However, Town properties do not typically incur damage. The Benjamin Report report noted that the breakwater settled 5 feet between 1911 and 1961, and at that time was awash during high tide and submerged in spring tides or storms.\footnote{Benjamin, Allen and Shurcliff & Merrill, Report of Cohasset Harbor Area, 1961, page 1.}

In an email, the Harbormaster noted that the breakwater was rebuilt after the Blizzard of ’78. Details of the reconstruction are provided in a plan for the Town of Scituate: Shore Protection Bassing Beach, dated April 1979 and prepared by Camp, Dresser, & McKee, Inc.

### Pollutants and Soft Infrastructure

Cohasset Harbor is part of an overall system of natural resources that includes a series of smaller ecosystems. The health of the harbor is dependent upon the proper functioning of these systems and the interactions among them.\footnote{Thanks to Susan Bryant of the Center for Student Coastal Research who presented to the Harbor Committee, on May 23, 2018 significant detail about the ecosystems within and impacts on Cohasset Harbor: https://docs.google.com/presentation/d/1wYjTcXT2Hoe2z0uAJY-99HwGSSp9MyhPhoXBP9AxedfNslodeidgJxb273a14/3_18}

Some of these systems are critical, but are outside the scope of this Harbor Plan. However, mitigation of some of the effects may be possible within the scope of the Harbor Plan.

### Infiltration of Pollutants into the Harbor

Water, and therefore pollutants (including debris, pathogens, and/or heavy metals), enters Cohasset Harbor in several ways:

- **Tidal Flows and Storm Surge from the Atlantic** Bassing Beach protects the Harbor from many of the impacts of storm surge, including capturing debris carried on currents which might otherwise wash into the Harbor. A storm surge can overtop the beach, shifting sand and silt in its path and introducing pollutants into the Harbor.

- **James Brook** Water from James Brook flows into the Cove area of the Harbor. During the public process, some concerns about siltation from this flow were expressed.

- **Treated Water** Treated water from the Town’s wastewater treatment plant, which is discharged from an outflow diffuser to the west of Lawrence Wharf, is freshwater. While non-polluting in the traditional sense of pathogens or heavy metals, increased freshwater flows will have an impact on the salinity levels at the mouth of the Brook.

- **Gulf River** The waters of the Gulf River flow into the Cohasset Harbor near the Mill River Marina. Any pollutants from further upstream will be deposited into the Harbor at the mouth of the river.

- **Bailey’s Creek** Bailey’s Creek also introduces water into Cohasset Harbor, including any pollutants captured further upstream.

- **Stormwater Runoff** In a heavy rainstorm, the first rush of precipitation sweeps surface materials into surface water, including the water sources listed above and directly into the Harbor itself. Runoff upstream of the Harbor can carry debris, including trash and dog waste, and chemical pollutants, including gas and oil spills from surface parking lots, into the water bodies. Lawn fertilizers are another problem for the health of the Harbor and its ecosystems; excess fertilizer can be washed into the watershed during a storm and introduce additional nitrogen into the system, upsetting the balance of the ecosystem.

- **Seawage** Many houses, within the Cohasset Harbor watershed in both Cohasset and Scituate, are on septic systems. Failure of such systems can introduce pathogens into the watershed which will impact the quality of the water and thus public health.

- **Other Pollutants** Pollutants from previous uses of the Harbor (both land and water) may be trapped into benthic sediments (those found at the bottom of the harbor). Other potential pollutants include wind-driven debris, such as trash, sand, silt, and leaves; mammal and bird pollutants, and airborne pollutants. Acidified ocean waters may also impact the tidal harbor. Finally, both commercial and recreational boating can introduce pollutants into the Harbor, including trash, fuel and oil spills, flaking paint, and pathogens from improper sewage disposal.

### Soft “Infrastructure”

As a barrier beach, Bassing Beach provides shelter from wave and wind for Cohasset Harbor, creating the safe mooring areas for both commercial fishing and recreational boating. Bassing Beach is within the
Figure 9: Wetlands Identified by the Massachusetts Department of Environmental Protections
jurisdiction of the Town of Scituate, although 12.5 acres of the beach are owned by the CCT, a private foundation.

Cohasset Harbor contains three main types of vegetation that mitigate the impacts of environmental pollution and the potential for storm-related damage:

- **BEACH GRASS** Important for preventing erosion from storms and providing habitat. Location: Bassing Beach; areas above the tide.
- **SALT MARSH** Important for mitigating wave action and absorbing water from storm surges and releasing it slowly back into the Harbor. Also provides habitat for fish and birds; and helps control pollutants. Location: Bassing Beach, Bailey's Creek and the Cohasset Harbor Marina, James Brook, the Gulf, the waterside of Howard Gleason Road near the Cohasset Yacht Club; other areas within the tidal flow.
- **EELGRASS** Important for filtering pollutants from the water, trapping sediment, and providing habitat for shellfish. Also helps with wave mitigation from storms. Eelgrass is also a carbon sink (off-setting CO$_2$ emissions) and oxygenates the soil. Location: areas below the tide outside the breakwater.

The advantage of these vegetation types is the ability to mitigate many of the adverse impacts on the Harbor from storms, such as flooding, wave action, and stormwater runoff, while requiring little to no maintenance and providing other benefits, such as habitat for birds, fish, shellfish, and insects.

Other components of a healthy ecosystem that may also help mitigate wave action include: rockweed and kelp; sand and mud; and dense shellfish beds. Upland forest may mitigate wave action (by reducing the impact of wind) and prevent erosion of soil into the Harbor.

Soft infrastructure requires little maintenance once established but is vulnerable to a number of threats, including ocean acidification, shifts in the salinity of the water, pollution, and climate change including both shifts in temperature and changes in precipitation timing and intensity. Monitoring changes in the location, extent, and health of the soft infrastructure is important.

**FLOODING AND SEA LEVEL RISE**

**FEMA FLOOD ZONES (FIGURE 10)**

FEMA determines the boundaries and types of flood zones. In Cohasset Harbor, the FEMA flood zones include the VE zone (which is a velocity zone and indicates a greater potential for damage from wave-related action), the AE zone (1% annual chance of flooding), and the X zone (0.2% chance of annual flooding). The 1% annual chance of flooding is popularly called the 100-year storm; with the increasing number and intensity of precipitation events, the 100-year storm may occur on a much more frequent basis.

**MUNICIPAL VULNERABILITY PREPAREDNESS (MVP) PROGRAM**

The Town of Cohasset participated in the Commonwealth of Massachusetts Municipal Vulnerability Preparedness (MVP) Program. Governor Charlie Baker signed Executive Order 569 in 2016, instructing the Secretary of Energy and Environmental Affairs and the Secretary of Public Safety to “coordinate efforts across the Commonwealth to strengthen the resilience of our communities, prepare for the impacts of climate change, and to prepare for and mitigate damage from extreme weather events,” including establishing a framework for municipalities to complete climate change vulnerability assessments and resiliency action plans.

The Commonwealth’s MVP grant program provides funding to municipalities to conduct vulnerability assessments and develop action-oriented resiliency plans. Implementation funding is available to those communities who have achieved certification as an MVP community.

The Metropolitan Area Planning Council (MAPC) worked with the Town of Cohasset to facilitate the MVP process. This process is a high-level look by members of the community at the impacts of climate change, which include (among other issues) impacts from an increased number of days over 90 degrees, the increase in the number and severity of precipitation events, and the impacts of sea level rise on both daily tides and storm events.

The call-out box on the next page contains the results from this planning process that are related to Cohasset Harbor.
Extract from MVP Risk Matrix:

**Top Hazards**
- Flooding.
- Severe Storms.
- Drought.
- Extreme Heat.

**Strengths**
- Salt marshes (flood absorption).
- Rocky, elevated coast (flood buffer).
- Limited amount of coastal hardening (sea walls).
- Pre-storm planning.

**High Priorities**
- Protect fish stocks from storm surge aspects.
- Enforce bylaws for wetlands and marsh protection.
- Restrict fertilizers.
- Have strong stormwater management for new construction.

- Study whether storms and rising seas will increase the frequency of needed dredging.

**Medium Priorities**
- Check zoning laws to make sure they discourage new development in flood zones.
- Promote wetland protection through strong bylaws and enforcement.

**Low Priorities**
- None.

**No Priority Listed**
- Do more public education regarding stormwater and sewage overflow.
- Raise all seawalls; raise and extend jetty; have an on-going dredge plan.
- Make sure all tide gates will be functional in extreme conditions.

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**National Flood Hazard Layer FIRMette**

This map complies with FEMA’s standards for the use of digital flood maps if it is not void as described below.

The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/11/2019 at 5:19:23 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, jurisdiction boundary, special flood hazard areas, cross sections with 1% annual chance flood, regulatory floodway, levee, and wetland protection.

This map image is void if the one or more of the following map elements do not appear: NFHL panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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**Figure 10: FEMA Flood Zones**

SOURCE: FEMA NATIONAL HAZARD LAYER FIRMETTE; ACCESSED JULY 11, 2019
STORM TIDE PATHWAYS

In June 2019, the Towns of Cohasset and Scituate received $112,668 for a joint program that will map the pathways of storm tides in both towns. These funds were from the Climate Action Grant program, funded by the Commonwealth of Massachusetts, and is a result of the MVP planning effort. 1

FLOODING DAYS

In addition to the work completed during the MVP process, GEI Consultants undertook a more in-depth look at the impacts of sea level rise (SLR), and, in particular, in the shifting patterns of flooding days. Appendix B contains the detailed methodology and conclusions for this report. This report looks at the risk of flooding over 5 feet in any single-year and the risk of flooding over 5 feet in a group of multiple years at four scenarios of sea level rise: slow rise, medium rise, fast rise and extreme rise.

Appendix B provides a risk assessment of the likelihood of a flood above five feet both in a single year or over a five-year period. The risk assessment is based on four scenarios of sea level rise (slow, medium, fast, and extreme). The graphs provided demonstrate that the risk of a flood over 5 feet increases significantly for any single year in 2040 or later, and in any five-year period, in 2030 or later.

The evaluation in Appendix B also reviews the expected flood elevations given sea level rise. This analysis uses the same four SLR scenarios, but adds a minor flood and major flood to the scenario-building. In 2020, SLR plus a minor flood could increase the water level from between approximately 2.75 feet to just under 4 feet (depending on the scenario). In 2060, the same minor flood would range from 4 feet to about 7.5 feet, and by 2100, a minor flood with SLR would range from just over 4 feet to just under 14 feet. A major flood plus SLR would range from about 5 feet to 6 feet in 2020, from 6 feet to just under 10 feet in 2060, and from about 6.5 feet to 16 feet in 2100.

The impact of sea level rise and extreme flooding is not limited to the Harbor area alone. The maps from the Massachusetts Sea Level Rise and Coastal Flooding Viewer, provided by the Massachusetts Office of Coastal Zone Management indicate the impact to the Harbor and the Village of various levels of SLR, from 1 foot above Mean Higher High Water (MHHW) to 6 feet above MHHW. While this report recommends Elm Street as the physical connection between the Harbor and the Village, the CZM maps in Figure 11 show that connection is at risk from flooding now (a portion is in the AE Zone), hurricane surge from all four categories, and SLR beginning at about 3 feet above MHHW. At the higher estimates of SLR, 4 - 6 feet, portions of the Village itself are at risk.

The key takeaway from this analysis is two-fold: (1) flooding from the Harbor onto land will increase in terms of the depth of the water on land and the extent of water on land and (2) stormwater from increased precipitation events (in terms of duration and intensity) will run off the land into the water. In both cases, water moving from land to Harbor will carry debris and pollutants, leading to a degradation of the water quality and the subsequent impacts on the ecosystem and public health.

In addition, flooding from the impact of sea level rise and storm surge will be salt water, leading to the corrosion of surfaces susceptible to salt that have been submerged by the floods. The increased frequency and intensity of storms will also increase the likelihood of wind and rain damage to coastal buildings.

The patterns of flooding days and how those are impacted by the range of sea level rise scenarios are critical to understanding the implications for uses, buildings, infrastructure, and the soft edges in the Harbor, the wetlands area around James Brook, (including the Town’s water treatment plant), and portions of the Village. Existing sea walls may be overwhelmed, salt marshes may not have sufficient absorption capability, and buildings may be damaged on a more regular basis. Understanding the ranges for the frequency and height of floods provides information that is crucial when evaluating repairs to buildings and infrastructure, the placement and construction of new buildings and infrastructure, or the health of the creeks, rivers, and salt marshes in absorbing the impact of flooding without creating additional risk to properties upstream from the Harbor.

Beyond the risks of sea level rise and extreme storms, climate change will have other impacts on the Harbor. Increased days over 90 degrees will affect the health of people and ecosystems in the Harbor. Areas of dark, impervious surface radiate heat into the

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1 https://www.mass.gov/news/baker-polito-administration-awards-12-million-to-municipalities-to-prepare-for-climate-change, accessed November 19, 2019
Sea Level Rise (SLR) in Cohasset Harbor:

The lighter colors indicate higher levels of sea level rise (dark red indicates an increase of one foot in sea level over Mean Higher High Water (MHHW) and pale yellow indicates an increase of six feet over MHHW. At 6’ of SLR the floodplains to the left and right of the rail line at Parking Way and James Lane almost connect.

FEMA Flood Zones in Cohasset Harbor:

This is similar to the earlier FEMA map but extends to the Village. Note that the path of SLR follows the path of the existing floodplains, consistent with the topography of the Town. Areas that experience flooding now will flood more frequently in SLR scenarios.

Hurricane Surge in Cohasset Harbor:

CZM provides the worst-case storm surge estimates for hurricane categories 1-4. Light green is a Category 1 storm and Red is a Category 4 storm.

These are shown at the current sea level; an increase in SLR will increase the impact of hurricanes or other severe storms.
surrounding area creating a heat island effect which can be uncomfortable for vulnerable people such as the very young or the very old. Reducing the impact of higher heat days in the Harbor area and along Elm Street will be critical to encouraging year-round use of the Harbor for those who engage in activities that are not water-based. Measuring the location and health of the ecosystems now will provide a baseline for understanding how the health of Harbor ecosystems changes as the impacts of climate change begin to manifest.

RECOMMENDATIONS FOR THE EDGES

The edges protect more than just Cohasset Harbor;

- **UNDERTAKE A HAZARD MITIGATION PLAN**
  Because of the interrelationship between the soft edges of the Harbor and the remainder of Cohasset, sea level rise and increased precipitation events will have an impact on more than just the Harbor. A hazard mitigation plan will integrate the findings from the MVP process and from this MHP into an implementation plan that addresses the entire Town. The Hazard Mitigation Plan should address how improvements in the Harbor area will mitigate the impacts of SLR on the rest of the Town, including the wastewater treatment plant which is connected to the Harbor through James Brook, and should also address the risks from extreme heat. The results of this plan should be integrated into future plans for the Town and the Harbor to ensure that future policies and actions are consistent with adaptation and mitigation of the projected risks.

- **BREAKWATER STUDIES**
  The Town should work with the Town of Scituate and the Commonwealth of Massachusetts to establish jurisdiction. The Town reached out to DCR during the planning process but received no response. The Town, either jointly or on its own, should undertake a detailed engineering study of the breakwater to determine (1) any deficits in the structure of the breakwater and the required repairs; (2) the appropriate performance and design criteria for current and future conditions, incorporating the most current understanding of the implications of sea level rise; and (3) the cost of the repairs and improvements. Once the estimated costs are known, the Town and any relevant partners should apply for grants for design and construction of the improvements.

- **EVALUATE SEAWALLS**
  All seawalls, public and private, should be evaluated as part of an overall study on suitability of the existing Harbor infrastructure for protection against sea level rise and storm surge event.

- **REPAIR SEAWALLS**
  Several seawalls in the Harbor need repair to limit further deterioration of roadways behind them. An investigation of the cause of damage should be considered to stop or minimize the future deterioration.

- **EVALUATE THE HEALTH OF SOFT INFRASTRUCTURE**
  Eelgrass beds, the salt marshes, and Bassing Beach act as critical absorption and buffer systems and as low maintenance methods of improving water quality. Establishing a benchmark for these systems is critical to measuring the impact of changes in land use, improvements in stormwater management, and the effects of climate change. Ensuring the health of these ecosystems is as important as repairs to the infrastructure in terms of preventing additional flood damage upstream and filtering out pollutants. The role of soft infrastructure as habitat should also be considered in the evaluation.

- **CREATE AN EDUCATION PROGRAM**
  This program should educate residents about the impact of stormwater runoff on the health of the Harbor, identifying actions such as the proper disposal of dog waste, the need to mitigate stormwater on-site, the impact of runoff from lawn fertilizers into the Harbor, and the impact on run-off from failing septic systems.

- **CONSIDER HYDROLOGICAL MODEL OF THE HARBOR**
  This model would look at impacts on specific sites at the parcel level, modeling the specific path of flood waters in response to topographical changes, buildings, and the presence (or lack of) hard and soft infrastructure. This is not a hydrodynamic model of the circulation of water within the Harbor.

- **ADOPT REGULATORY CHANGES**
  The Town’s zoning bylaws should consider addressing resiliency measures to either prevent or mitigate the impact of flooding on new development in the Harbor area. Such changes could range from allowing the maximum height to be from Base
Flood Elevation (BFE) to the addition on a Flood Fringe District which addresses development standards along the edges of the FEMA Flood Zones, understanding that those may change over time. Appendix B provides suggestions for minimum design standards for construction in a Flood Fringe District.

- **CONSIDER DEVELOPMENT INCENTIVES** Such incentives could include the reduction of permitting fees, density bonuses (where appropriate), waivers of local regulatory restrictions, small grants, and other options to include innovative flood resiliency and/or adaptation measures to enhance the resiliency of the Harbor and the land. Resiliency measures may include energy-efficient design, use of alternative energy sources, the use of appropriate native or adapted, non-invasive vegetation in open spaces that are designed to flood and allow the flood waters to be absorbed or recede without damage, locating generators on the roof or upper stories, locating utilities underground, flood-proofing electrical transformers, and moving mechanical, electrical and HVAC equipment to upper stories.

- **EVALUATE INFRASTRUCTURE** The Town of Cohasset should evaluate its infrastructure in the area, including stormwater collection, the tide gate at the mouth of James Brook, the outfall diffuser off Lawrence Wharf, and current and proposed streets and sidewalks. All should be evaluated for performance during flooding at the varying estimates of SLR and flood projections. Future infrastructure should be designed to either withstand floods or be made of durable materials that will resist salt-water corrosion.

- **REDUCE THE IMPACT OF HEAT ISLAND EFFECT** As the Town and other property owners consider improvements to the area, strategies to reduce the heat island effect are important. This includes open areas that are landscaped or paved with lighter surfaces and the provision of shade trees along walkways. A source of drinking water for humans and animals is also critical for hotter days; some communities are installing water bottle fountains. Buildings should channel breezes from the Harbor rather than blocking them. Seating along the proposed Harbor-wide walkway would allow people to rest on very hot days.
**LAND**

Uses on the land support and enhance the watershed uses. Commercial fishermen require additional infrastructure to support their businesses. Residential recreational boaters are supported by the Town and members of several organizations in the Harbor; nonresidential boaters are also supported by those facilities, but there is less support for transient boaters.

Restaurants are often a draw for residents and visitors, but the Olde Salt House is closed due to the state of its sea wall and the Atlantica and the Cohasset Harbor Inn are under new management. Connections to Cohasset Village exist, but are not well-marketed.
HISTORICAL LAND USE

The number of historic assets in and around Cohasset Harbor is a testament to the Harbor's status as a central element of Cohasset's history. Land use around the Harbor was much more intense in the past, including a significant fishing industry, supporting industrial uses, and, in later years, stores, restaurants, and a hotel. Recreational boating has been a part of the Harbor since the 1800s. Table 5 provides a list of historical assets on Government Island from the Massachusetts Cultural Resource Information System (MACRIS) database maintained by the Massachusetts Historical Commission (MHC). Figure 12 shows other assets identified by MHC and provided in data from MassGIS.

In a letter to the Town in October 2018, MHC noted the presence of historical and ancient Native American period archaeological resources and resources relevant to 18th and 18th century waterfront industrial operations, including underwater resources. MHC recommends contacting the Cohasset Historical Commission (members of whom were interviewed during this process), the Massachusetts Board of Underwater Archaeological Resources (MBUAR), the Cohasset Historical Society, the Maritime and Irish Mossing Museum, and interested Native American

Table 5: List of Historic Assets on Government Island

<table>
<thead>
<tr>
<th>INVENTORY NUMBER</th>
<th>PROPERTY NAME</th>
<th>STREET</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>COH.B</td>
<td>Government Island Historic District</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COH.794</td>
<td>Government Island - Harbormaster's Office</td>
<td>Border St</td>
<td>c 1975</td>
</tr>
<tr>
<td>COH.940</td>
<td>Minot's Ledge Light Watch Room and Lantern Replica</td>
<td>Border St</td>
<td>c 1860</td>
</tr>
<tr>
<td>COH.941</td>
<td>Government Island Stone Wharf</td>
<td>Border St</td>
<td>r 1830</td>
</tr>
<tr>
<td>COH.942</td>
<td>Beacon Rock - Castle Rock</td>
<td>Border St</td>
<td>c 1860</td>
</tr>
<tr>
<td>COH.955</td>
<td>Beacon Rock - Stone Stairs</td>
<td>Border St</td>
<td>c 1855</td>
</tr>
<tr>
<td>COH.956</td>
<td>Government Island - Granite Entrance Posts</td>
<td>Border St</td>
<td></td>
</tr>
<tr>
<td>COH.957</td>
<td>Government Island - Entrance Stone Wall</td>
<td>Border St</td>
<td></td>
</tr>
<tr>
<td>COH.958</td>
<td>Government Island - Road Network</td>
<td>Border St</td>
<td>1855</td>
</tr>
<tr>
<td>COH.961</td>
<td>Government Island Park Flagpole</td>
<td>Border St</td>
<td>1990</td>
</tr>
<tr>
<td>COH.962</td>
<td>Government Island Park Benches</td>
<td>Border St</td>
<td>c 1968</td>
</tr>
<tr>
<td>COH.963</td>
<td>Government Island - Granite Beach Retaining Wall</td>
<td>Border St</td>
<td>r 1985</td>
</tr>
<tr>
<td>COH.965</td>
<td>Government Island Granite Quarry</td>
<td>Border St</td>
<td>r 1850</td>
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<tr>
<td>COH.2</td>
<td>Minot’s Ledge Lighthouse - Kerosene Storage House</td>
<td>Lighthouse Ln</td>
<td>c 1860</td>
</tr>
<tr>
<td>COH.4</td>
<td>Minot’s Ledge Lighthouse - Engineer’s Office</td>
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<td>c 1855</td>
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<td>Minot’s Ledge Lighthouse Fog Bell</td>
<td>Lighthouse Ln</td>
<td>c 1878</td>
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<td>COH.901</td>
<td>Minot’s Ledge Lighthouse Marker</td>
<td>Lighthouse Ln</td>
<td>1968</td>
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<td>COH.902</td>
<td>Minot’s Lighthouse Templates</td>
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<td>1855</td>
</tr>
<tr>
<td>COH.959</td>
<td>Minot’s Ledge Lighthouse - Rotating Mechanism</td>
<td>Lighthouse Ln</td>
<td>1894</td>
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<td>COH.960</td>
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<td>COH.985</td>
<td>Minot’s Lighthouse Granite Block</td>
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<td>c 1860</td>
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<td>COH.998</td>
<td>Minot’s Ledge Lighthouse Fresnel Lens</td>
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<td>COH.999</td>
<td>Antoine, Joseph - Wilson, Joseph Memorial</td>
<td>Lighthouse Ln</td>
<td>1999</td>
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<td>COH.9032</td>
<td>Government Island - Ship's Anchor</td>
<td>Lighthouse Ln</td>
<td>2005</td>
</tr>
<tr>
<td>COH.3</td>
<td>Minot’s Ledge Lighthouse - Keeper’s House</td>
<td>15 Lighthouse Ln</td>
<td>r 1850</td>
</tr>
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<td>COH.795</td>
<td>Government Island - Sailing Club Headquarters</td>
<td>19 Lighthouse Ln</td>
<td>1970</td>
</tr>
<tr>
<td>COH.796</td>
<td>Government Island - Sailing Club Storage Building</td>
<td>19 Lighthouse Ln</td>
<td>r 1965</td>
</tr>
<tr>
<td>COH.964</td>
<td>Government Island - Sailing Club Flagpole</td>
<td>19 Lighthouse Ln</td>
<td>r 1975</td>
</tr>
</tbody>
</table>

MACRIS, ACCESSED JANUARY 13, 2019
Figure 12: Historic Points within the Harbor Planning Context Area
groups and individuals. These resources would be appropriate contacts for the more detailed studies proposed as part of the recommendations of this Plan.

CURRENT LAND USE

Today the waterside uses include water-dependent uses such as the facilities to support commercial fishing and recreational boating, and the scientific research of CSCR. The Atlantica, the Olde Salt House, and the Cohasset Inn are remnants of the Harbor’s past and important components of its future: the restaurants could draw transient boaters and inland visitors while anchoring physical and economic links to the Cohasset Village. Redevelopment of the Cohasset Harbor Inn has the potential to transform the “hinge” of the waterfront, opening up views of the Harbor from Elm and Margin Streets while adding new life to the Harbor economy and anchoring a new mixed-use cluster at the Harbor end of Elm Street as a physical connection between the Village and the Harbor. The bones of this cluster already exist as shown in Figure 13 below.

ZONING

Cohasset Harbor includes six zoning districts; five are shown below in Figure 14. The majority of the land in the area is zoned for residential use; that use is unlikely to change. The Waterfront Business District contains four properties: the Cohasset Harbor Inn, the Olde Salt House, the Atlantica, and the Lobster Pound/Mill River Marina. A portion of the harbor area is zoned as the Village Business District (or Downtown Business) and a small portion, including the Cohasset Harbor Marina, is zoned as Light Industrial.

The Waterfront Business District (WB) and the Light Industrial District prohibit residential uses. All other districts within the Harbor area do allow residential use.

HARBOR VILLAGE BUSINESS (HVB) OVERLAY DISTRICT

The HVB Overlay District, a new overlay district under the Town of Cohasset’s Zoning Bylaws, was approved by Town Meeting in April 2019. The Planning Board sponsored this overlay district (Figure 15) to the Harbor area in order to accomplish some of the goals
Figure 14: Existing Zoning within the Harbor Planning Context Area
identified during the public planning process for the Harbor and to ensure that the Town had a better set of regulatory controls over the redevelopment of the existing small mixed-use cluster at the Elm Street end of the Harbor.

The purpose of the zoning is as follows:

1. To encourage a vibrant mix of uses, including multifamily residential, to support increased public access to and commercial activity within Cohasset Harbor.

2. To activate the edges of Border Street and the Cohasset waterfront, allowing commercial uses to contribute to public activity in the area.

3. To encourage physical and commercial links between Cohasset Harbor and Cohasset Village, anchoring Elm Street at each end with a complementary mix of commercial and residential uses.

4. To ensure that new development in the Harbor area is consistent with a local and state-approved Municipal Harbor Plan, including the requirements for public access under Massachusetts General Laws Chapter 91.

The dimensional and use standards for new development are tied to this Harbor Plan and the requirements of Chapter 91.

This overlay district, the Harbor Village Business (HVB) Overlay District, would allow multifamily uses as part of a mixed use building subject to a special permit from the Planning Board.

Key elements of the zoning relative to the recommendations of this Plan include the following:

- A view corridor that extends from Elm Street to the Harbor. This anticipates the removal of all or part of the current building on the site of the Cohasset Harbor Inn to provide that corridor, and is a key element in the connection of the Village and the Harbor via Elm Street. Figure 16 demonstrates that the view from Elm Street to the Harbor is completely blocked; until one passes the Inn, there is no indication that a harbor exists in this area.

- A 25-foot setback from the waterfront to allow for the water-dependent uses required by Chapter 91. Within that setback, the publicly accessible walkway required by Chapter 91 should connect on both sides of the property to the Harbor-wide walkway proposed by this Plan to form a continuous pedestrian pathway from Town Landing to Government Island.

- Pedestrian access from that walkway to public rights-of-way.

- A mix of publicly accessible ground floor uses along the waterfront, Summer Street, and Border Street.
Figure 16: Blocked View from Elm Street to Harbor

Legend
- Roof line of Cohasset Harbor Inn
- Approximate location of proposed Harbor-wide walkway
- Approximate location of proposed view corridor to connect Elm Street to view of Harbor

NOTE: For illustrative purposes only.
to increase commercial activity in the proposed new overlay district and to increase public access to and activity along the water’s edge, consistent with the requirements of Chapter 91.

• Residential uses to support the commercial activity and public access noted above.

The process of developing this zoning, described in Overview, considered the impact of the recommendations of this Harbor Plan for public access and activity, the requirements of Chapter 91, and the Town’s control of development through its zoning regulations. Modification to the requirements of Chapter 91 that are consistent with the new zoning will be discussed in Chapter 91 Modifications.

GOVERNMENT ISLAND

Government Island is home to historical assets, the Harbormaster’s Office, the CSC, and the Lighthousekeepers’ Cottage. It is the primary base for the commercial fishing fleet and provides the largest concentration of parking in the area. It is also the highest point in the harbor (Beacon Rock), and connects to the Parker Avenue boat ramp via a pedestrian bridge, providing access to CMI, CSCR, and the Cohasset Harbor Marina.

Many of the recommendations for additional infrastructure and amenities in the Harbor could be provided at Government Island. The needs of the commercial fishing fleet, a new Harbormaster’s office with public amenities for visitors and transient boaters, additional parking facilities, and a significant portion of the Harbor-wide walkway could, in theory, be provided in this area.

The Town owns the land and is thus able to control the uses on the island. However, there are constraints in terms of the existing layout of buildings, roads, and resources, both historic and environmental. Significant grade changes exist between the water’s edge and the Lighthouse Keepers’ Cottage, including granite outcrops at the highest points. Flooding, both current and projected, also presents significant challenges.
Antoine and Wilson Memorial
LAND: THE HARBOR AND THE VILLAGE

Cohasset Harbor does not exist in isolation. Elm Street is a direct physical connection between the Harbor and the Village, but this connection is a problematic one. From the Cohasset Harbor Inn to South Main Street is less than half a mile, but no signs inform the visitor to one area of the attractions in the other; Elm Street is broad and not completely friendly to either pedestrian or bicyclists; the Cohasset Harbor Inn blocks the view of the Harbor from Elm Street as it joins with either Margin Street or Summer Street; and the businesses in the Village and the businesses in the Harbor do not jointly market their offerings.
Elm Street is the major connection between the Village and the Harbor for pedestrians, bicyclists, and vehicles; but its current design privileges the movement of cars over people.

A walk radius of 0.4 miles defines a walk of between 10 and 15 minutes, depending on the person’s level of fitness. Easy connections are not just about walking, but also about the experience of getting there. An environment that is safe (separation from cars, flat pavement), shaded, well-lit, and with interesting views and a destination at the end seems shorter than a walk of the same distance but that is difficult to maneuver, noisy, hot, and with no sense of progression from one place to the next.
In New England, the stereotypical refrain is “You can’t get there from here.” Wayfinding addresses that by providing directional signage that indicates the road or path to a specific destination. Wayfinding signage is often paired with Gateways which are the point of entry into a specific place. Gateways often have specific sign styles paired with landscape elements that call attention to the identity of the area being entered. Gateways may mark a point of transition between lighting and street furniture styles, paving changes for sidewalks, and other design elements.

Informational signage is another component of a place’s identity, calling attention to an area’s unique historical, cultural, and environmental characteristics.
Wayfinding Signage to Village and Harbor

Harbor Signage: Historical/Environmental

LEgend

MAJOR GATEWAYS (ENTRY POINTS)

MAJOR VEHICULAR, PEDESTRIAN, AND BICYCLE CONNECTION
A viewshed is a planning term for a corridor that allows someone to view a feature. The view could be of a building, an object, a landscape, or, in this case, the Harbor itself. Some communities have put protections in place for views that are valued by the community.

Viewsheds can be blocked by other elements. For example, the view from Elm Street to the Harbor is blocked by the Cohasset Harbor Inn. In other cases, the blocking element becomes part of the view. For example, the CSC which is part of the view from elsewhere on Government Island.
In 2000, The Cecil Group worked with BSC Group to investigate streetscape improvements to Cohasset Village, the Elm Street connection between the Village and Cohasset Harbor, and Border Street within the Harbor (Figure 18). The study looked at options for improving public access in all three areas.

As shown in the images above, a particular focus was improving the pedestrian experience and safety along Elm Street and establishing a better approach to the Cohasset Harbor Inn and the current three-way intersection of Elm Street, Summer Street, and Margin Street. Potential redevelopment of the Cohasset Harbor Inn, discussed during the planning process for this MHP, offers an opportunity to reconsider this approach and include a viewshed, and possibly physical access, as an extension of Elm Street through the site of the current inn, and to the Harbor. This viewshed would act as a visual draw to those who approach the Harbor from the Village.
A second focus was the pedestrian experience along Border Street. The studies above suggest options for improving the safety rail, lighting, and sidewalk materials along a waterside pedestrian walkway that connects the Harbor from Margin Street to Parker Avenue.

A key element in linking the Village and the Harbor will be to develop a consistent streetscape language for the connections while allowing each area to have its own identity. The consistency can be accomplished by using the same family of street lighting and furniture while varying the individual elements, by using paving materials in the same family and colors but varying the patterns, by having similar signage, and by using other elements, such as banners or planters, that can express a more individual identity for each area.
Connections and the Economy

Connections between the Village and the Harbor are about more than Elm Street as a physical link, or the design elements that can reinforce both the joint and separate identities of each. The planning process for this MHP provided an opportunity to consider economic connections between the two areas.

The most likely scenario in terms of joint economic development would involve a joint marketing campaign that accomplishes two objectives:

- Drawing transient boaters from the Harbor to eat/shop in the Village.
- Encouraging visitors to the Village to eat/play in the Harbor.

This approaches relies on the implementation of several improvements:

- Docking/showering facilities for transient boaters.
- Easy and attractive connection (walking/summer bike share/summer shuttle) between the Harbor and the Village.
- Linking stores and restaurants in the Village to restaurants, marine-related businesses, and year-round publicly accessible outdoor activities in the Harbor. Such activities should promote visual and physical interaction with the water.
- Attractive design and presentation of historical, environmental, and cultural information about the Harbor.
- Wayfinding signage and markers linking a connected Harbor-wide walkway down Elm Street and through the Village to the entrance to the Great Brewster Trail on Highland Avenue.
- Sufficient parking in both places for nonresident, non-boaters.

Visitors and transient boaters will not be enough to support economic activity in either the Village or the Harbor, especially as this activity is concentrated in the summer. Increasing the number of options that are attractive to residents of Cohasset, and increasing the number of employees in Cohasset and residents in and near the Village and Harbor, will help drive demand for goods and services. The recently approved HVB Overlay District creates zoning that would allow, over time, the development of a small cluster of mixed-uses at the Harbor end of Elm Street, anchoring the walk from the Village to the Harbor. This zoning bylaw has been approved by the Attorney General of the Commonwealth. In the short term, the redevelopment of the Cohasset Harbor Inn property would support the development of this cluster.

According to the report from FXM Associates (see Appendix A), there is a demand for office space in Cohasset over the next five years. At least some of that demand could be captured in the smaller spaces of the Village. These spaces may be appropriate for existing small businesses or as collective third-space offices for those who want to reduce their commute without working from home.

FXM’s retail gap analysis, a snapshot of retail demand prepared for this project, indicates additional demand for limited services, eating establishments, and small stores that are compatible with existing offerings in the Village.

The economic category of Arts, Entertainment and Recreation lumps together uses that would support additional vibrancy in both the Village and the Harbor; creative collaborations between existing retail and restaurants and local arts, community, and Harbor groups could provide one-off and seasonal events that encompass both areas, adding to the vibrancy of the relationship between the two. Educational offerings for all ages is a related activity that could increase activity between the Village and the Harbor.

During the comment process of drafts of this plan, the significant presence of programs for teens in the area—CSC, CMI, and CSCR—has been mentioned as a possible source of entrepreneurial activity in the Harbor which could include links to the Village. Capturing interest from this group in the future of the Harbor would be an appropriate way to build stewardship while providing opportunities for year-round seasonal activities that increase access to the Harbor and entrepreneurial and employment.
opportunities for local teens. Possibilities include leading kayak, walking, and bicycle tours (from Cohasset commuter rail station through the Village to the Harbor); managing coffee/lemonade/ice cream hot chocolate stands; leading small excursion trips; conducting morning yoga classes or winter hot chocolate and painting sessions; these and many other ideas would create opportunities to both enliven the Harbor and engage future advocates.

The report also examines the demand for rental housing in the area. Massachusetts has a housing production deficit for all types of housing: as housing in Cohasset is primarily single-family, a variety of housing products attractive to all age groups and all income levels is missing. Rental housing may be more appropriate for the Village; historically, housing with water views has commanded a higher value whether rental or ownership.

FXM’s analysis considers the entire Town of Cohasset, and the projected demand is applicable to all commercial and mixed-use areas within the town.

**RECOMMENDATIONS FOR THE LAND**

- **STUDY GOVERNMENT ISLAND** The Town owns Government Island, which is a critical location for several municipal and nonprofit uses as well as a key location for the commercial fishing fleet. Discussions during this planning process indicate that the layout of infrastructure on Government Island could be reconfigured to incorporate a multi-use facility for the Harbormaster’s office and public amenities, infrastructure necessary to support the fishing fleet, and additional parking to support uses in the harbor. Any reconfiguration of uses and infrastructure should incorporate the Harbor-wide walkway, linking Border Street to the Parker Avenue boat ramp, including the existing pedestrian bridge and incorporating appropriate wayfinding signage. The study should evaluate the existing structures, both land and water, and access from Border Street to the Parker Avenue boat ramp, ensuring appropriate access for vehicles and boat trailers, pedestrians, and bicyclists; include the multi-use facility and the conveyor belt and other infrastructure needs for the commercial fishing fleet; and should identify costs and lead to a design study for the proposed structures and infrastructure.

- **EVALUATE THE NEED FOR MORE PARKING**

Additional activity in the Harbor is dependent upon appropriate parking, and a number of comments during public meetings suggested a need for additional parking to support current and proposed activity. One possibility mentioned is the extension of the current secondary parking area at the Lighthouse Keepers’ Cottage where overflow parking is accommodated in a field next to the existing paved surface. Other possibilities may be the reconfiguration of existing parking areas or the acquisition of land by the Town to support public parking; those options should be part of a parking study.

- **DESIGN / INSTALL STREETSCAPE IMPROVEMENTS**

As the principal connection between Cohasset Village and Cohasset Harbor, Elm Street requires modification to make it a pleasant pedestrian environment to draw people from one area to the other. The sidewalks along Border Street are painted in many areas and should be reconstructed to increase the safety of pedestrians. Consistent street furniture, street lighting, and other elements would reinforce the identity of the Harbor as a distinct area.

- **DESIGN AND INSTALL SIGNS**

Signage, both wayfinding and interpretive, is critical to the overall experience of the Harbor and in linking the Harbor to the Village. Wayfinding signage provides direction: to the Harbor from the Village and vice versa, to parking and dock access within the Harbor, and to specific destinations within the Harbor and the entrance to Great Brewster Trail in the Village. Informational signage provides information about the natural, cultural, and historic resources of the Harbor.

- **ESTABLISH GATEWAYS** These define the entrance to the Harbor and are identified by signage, a change in the streetscape, a change in landscape elements, and/or another signifier that someone is moving into or out of a specific place.

- **EVALUATE ZONING CHANGES TO THE LIGHT INDUSTRY ZONE**

During the public engagement process, the idea of a ship’s chandlery, or small store providing supplies to boaters, was identified. A chandlery would be allowed in the Light Industry District, but might require additional
zoning changes to implement. This zone might also include specific consideration of aquaculture.

• **MARKETING PLAN** As recommendations and improvements are implemented, the Town should work with local businesses to market the Village and the Harbor as joint destinations, promoting eating and retail establishments and walkability both within and between the two areas. The Cohasset Chamber of Commerce and/or a separate entity devoted to the Village and Harbor should be included as partners in this effort.

• **SPECIAL PERMITS FOR YOUNG ENTREPRENEURS**
  To encourage entrepreneurship, the Town could consider a special process for business permits and/or licenses for those between 16 and 21 or 25 years old that would allow them to create active uses within the Harbor. The Cohasset Chamber of Commerce, the Cohasset Public Schools, and the Town could sponsor an entrepreneurship program to provide information about permitting and licensing requirements, health codes, business plans, and other pre-business planning tools. The program could provide points for those business that support year-round access to and understanding of the Harbor.
Cohasset Harbor and Bassing Beach
MODIFICATIONS TO CHAPTER 91

Chapter 91 governs the use of Commonwealth tidelands and protects the public’s right to access those tidelands.

This section defines the provisions of Chapter 91 and key terms; provides the modifications (substitutions, amplifications, and off-sets) to Chapter 91 that would help implement the goals of this Municipal Harbor Plan; and provides guidance to property owners who may require a Chapter 91 license for activities within the jurisdictional boundary.
Chapter 91 refers to Chapter 91 of the Massachusetts General Laws, also known as The Waterways Act. The Department of Environmental Protection and the Executive Office of Energy and Environmental Affairs promulgate regulations to help implement this Act (310 CMR 9.00 and 301 CMR 23.00 and 25.00, respectively).
Chapter 91 refers to Chapter 91 of the Massachusetts General Laws, also known as the Waterways Act. This legislation governs the use of and public access to tidelands below the current or historic high water mark and other waterways. The regulations define which structures can be built, where they can be built, and for which purpose they may be used within the boundary of Chapter 91 jurisdiction.

For the purposes of this Municipal Harbor Plan, this discussion will focus on the regulations surrounding filled and flowed tidelands. Chapter 91 jurisdiction also applies to Great Ponds (including Lily Pond in Cohasset) and certain non-tidal rivers and streams.

Under Chapter 91, DEP is the regulatory and enforcing authority for this enabling legislation. Chapter 91 has three levels of regulatory implications, two of which apply to the Town of Cohasset. The first is the regulatory requirements of 310 CMR 9.00 which provides the regulations that implement the enabling actions of Chapter 91. 310 CMR 9.00 describes the license and permitting processes, the application process, and the dimensional and use standards for structures and uses within the jurisdictional lines.

301 CMR 23.00 is the Review and Approval of Municipal Harbor Plans. This set of regulations establishes the context, public process, content and approval process by which this, and all other, Municipal Harbor Plans are prepared and approved.

The final set of regulations, for the Designation of Port Areas (301 CMR 25.00), does not apply to Cohasset.

**KEY TERMINOLOGY**

To understand Chapter 91 and its implications for this plan, it is important to become familiar with certain terms. The terms can be broadly grouped into the definition of tidelands; high and low water marks and project shoreline; and use zones and types. The following discussion will take each set of terms and explain why they are important to this Plan. The legislative and regulatory definitions of these terms are located at the end of this section and are in bold the first time they are mentioned in the following discussion.

**TIDELANDS**

An understanding of TIDELANDS is key to understanding the requirements of Chapter 91 in Cohasset Harbor. Tidelands are defined by Chapter 91, Section 1 as “Present and former submerged lands and tidal flats lying below the mean high water mark.” Section 1 differentiates among COMMONWEALTH TIDELANDS, PRIVATE TIDELANDS, and LAND-LOCKED TIDELANDS. These definitions are important because the Waterways regulations, 310 CMR 9.00, have different requirements for the different types of tidelands. 310 CMR 9.00 also defines FILLED TIDELANDS and FLOWED TIDELANDS.

Property owners should understand which types of tidelands they own. The presence of tidelands indicate possible Chapter 91 jurisdiction. The implications of that jurisdiction depend on understanding whether the tidelands are filled tidelands or flowed tidelands and whether those tidelands are considered Private tidelands or Commonwealth tidelands.

**WATER MARKS**

The definitions of Private and Commonwealth Tidelands are dependent upon the relationships of the HISTORIC HIGH WATER MARK and the HISTORIC LOW WATER MARK with each other and with the land.

Private tidelands and Commonwealth tidelands are defined by the relationship between defined boundary lines. In general, Commonwealth tidelands lie seaward of the boundary and Private tidelands lie landward of the boundary.

The first boundary is the historic low water mark. Commonwealth tidelands lie seaward of that mark; Private tidelands lie landward of that mark.

The second boundary is 100 rods (1,650 feet) seaward from the historic high water mark. For ease of reference, this Plan will refer to this line as Boundary 2. The dividing line between Commonwealth tidelands and Private tidelands is dependent on whether Boundary 2 is landward of the historic low water mark. If it is, then Boundary 2 regulates the difference; if it is not, the historic low water mark regulates the difference. As always, Commonwealth tidelands are seaward of the boundary; Private tidelands are landward of the boundary.
LAND USE AND STRUCTURES

The ability to build structures on filled or flowed tidelands and to use those structures for specific purposes is dependent on the placement of those structures relative to certain areas defined under the regulations.

A parcel that is partly within Chapter 91 jurisdiction will be divided into three zones; one that is completely within Chapter 91 will be divided into two zones. The area of the parcels outside of Chapter 91 jurisdiction is subject to local zoning, but not to the requirements of Chapter 91 or 310 CMR 9.00. The area landward of and parallel to the PROJECT SHORELINE is the WATER-DEPENDENT USE ZONE (WDUZ). WATER-DEPENDENT USES are required within the WDUZ; a selection of this uses appropriate to Cohasset Harbor are found in this section.

The WDUZ must be within Chapter 91 jurisdiction; in other words, there may be land adjacent to the Project Shoreline that is not filled or flowed tidelands and is thus not within Chapter 91 jurisdiction. 310 CMR 9.51(3)(c) provides the calculation for the WDUZ which is based on the relationship between the project shoreline (for filled tidelands), the present HIGH WATER MARK, and the landward lot line of the property. The WDUZ must run parallel to the project shoreline. For flowed tidelands, the zone is based on the ends and sides of piers and wharves. The minimum distance from the Project Shoreline or end of wharves or piers is 25 feet; the maximum is 100 feet.

310 CMR 9.51 governs the ability to fill or add structures to areas within Chapter 91 jurisdiction while ensuring that water-dependent uses are given priority next to the water and that the capacity for future water-dependent uses is preserved by restricting permanent NONWATER-DEPENDENT USES in the WDUZ. The area between the landward boundary of the WDUZ and the boundary of Chapter 91 jurisdiction may be used for nonwater-dependent uses.

A project that contains a nonwater-dependent use or a mixture of non-water dependent and water-dependent uses is considered to be a NON-WATER DEPENDENT USE PROJECT. A WATER-DEPENDENT USE PROJECT may only contain water-dependent or accessory uses. Note that a project may be fill, one or more structures, or both.

A second factor comes into play when considering where to build structures for which use types. Chapter 91 protects the public’s right to access and enjoy the water and tidelands – in fact, Private tidelands assume a public easement “for the purposes of navigation and free fishing and fowling and of passing freely over and through the water.” The WDUZ protects the ability to have water-dependent uses next to the project shoreline; the requirement for FACILITIES OF PUBLIC ACCOMMODATION (FPA) requires publicly accessible activities on the ground floor of any structure within the area defined for these uses. FPA may be water-dependent, accessory to water-dependent, or nonwater-dependent.

The location of FPA within the Chapter 91 jurisdiction is defined in 310 CMR 9.51(3)(b). FPA shall be located on a pile-supported structure over flowed tidelands. For filled tidelands, FPA shall be located on the ground floor of structures within 100 feet of a project shoreline.

310 CMR 9.52 provides a list of water-dependent uses and uses that are considered to be FPA. Note that some FPA uses are not allowed within a WDUZ, such as parking at or above grade (parking below grade in a WDUZ is allowed).

Water-dependent uses suitable for Cohasset Harbor include, but are not limited to, the following:

- Waterfront boardwalks and esplanades for public recreation.
- Ferries, excursion boats, and water shuttles, including small craft access or storage.
- Public landings.
- Swimming/fishing areas.
- Excursion/charter/rental docks.
- Community sailing centers.
- Kayak or water craft rental, sale, access and storage facilities, including associated items such as life jackets, paddles and other water dependent use items.
- Fishing rental, sale, access and storage facilities, including bait and other associated items.
- Any other water dependent uses allowable in the 310 CMR 9.00.
FPA that meet the goals of this Harbor Plan include the following:

- Public restaurants; food or drink service.
- Hotels or overnight accommodations open to the public.
- Art galleries or display spaces open to the public.
- Educational, historical, or cultural institutions open to the public.
- Interior spaces for community meetings.
- Informational displays or activation attractions open to the public.
- Special recreational events.
- Sports or fitness facilities open to the public.
- Open spaces, pedestrian walkways, bikeways, or other outdoor recreation facilities open to the public.
- Retail sales or service facilities.
- Vehicular ways open to the public or parking facilities open to the public, including users of Facilities of Public Accommodation.
- Any other FPA allowable by 310 CMR 9.00 and the Town of Cohasset's Zoning Bylaw as applicable to the Harbor.

Note that the scale of these uses would need to match the scale of Cohasset Harbor. Excursion boats would most likely be local sunset or lobster tours; ecotours in kayaks or smaller boats; learn-to-row or learn-to-sail programs, or other small scale programs that balance public safety and the amount of dockage and watersheet available for all users of the Harbor.

In addition to FPA, there are two other important terms: **Facilities of Private Tenancy** (FPT) and **Facilities of Limited Accommodation** (FLA). FPT are not allowed at the ground level within the area reserved for a FPA. FLA provide some flexibility in smaller buildings (those less than or equal to 75 feet in height) to address concerns about the lack of a market for FPA within a given area. Standards for FLA are found in 310 CMR 9.56.

Figures 19 and 20 are modified versions of illustrative graphics used in the public discussion of the HVB Overlay District to illustrate the approximate
locations of these zones on the parcel on which the Cohasset Harbor Inn is built. This property is used as an example here for three reasons: (1) the importance of the location of this property relative to the proposed view corridor from Elm Street to the Harbor as discussed earlier in this Plan; (2) the strategic location of this parcel with respect to the proposed Harbor-wide walkway from the Town Pier on Margin Street to Government Island; and (3) because the parcel does not fall completely within the jurisdiction of Chapter 91, it is a useful example of the areas described above.

CHAPTER 91, THE ENVIRONMENT, AND INFRASTRUCTURE

Chapter 91 also protects the public interest in the waterways by regulating the safety of the Harbor in terms of both the natural and the built environment. 310 CMR 9.33 provides environmental protection standards for waterways. 310 CMR 9.37 identifies certain standards for the construction of licensed structures and fill; 310 CMR 9.39 regulates marinas, boat yards, and boat ramps; and 310 CMR 9.40 provides standards for dredging and the disposal of dredged material. In addition, 310 CMR 9.54 requires that this Plan be consistent with the Coastal Zone Management Policies, many of which provide standards for protection of the Harbor and its edges.

IMPLICATIONS OF CHAPTER 91 FOR COHASSET HARBOR

Under a state-approved Municipal Harbor Plan, the timeline for the approval of a Chapter 91 license is different from that of an area without an approved Municipal Harbor Plan. Property-owners within Chapter 91 jurisdiction should be aware of their responsibilities to obtain a license or permit for certain activities and comply with these Chapter 91 requirements.

The primary parcels affected by Chapter 91 jurisdiction in terms of land area are the Cohasset Harbor Inn (as discussed earlier), Olde Salt House, and Atlantica sites, all of which changed ownership in 2018; two Town-owned properties: Lawrence Wharf and Government Island; and a private property known as the Oaks, which also changed hands in 2018.

Legend
- Parcel Boundary
- Landward line of Chapter 91 Jurisdiction
- Project Shoreline (contiguous with sea wall)
- Landward Boundary of WDUZ
- Area for Facilities of Public Accommodation

NOTE: All boundary areas are approximate and for illustrative purposes only.
Figure 21: Explanation of Chapter 91 Boundary (Red line)

The red line in this illustrative maps is the inferred Chapter 91 jurisdiction line based upon the following combination of data, lines downloaded from MassGIS in 2018:

- Jurisdiction
- Contemporary High Water
- Inferred Contemporary High Water
- Inferred Historic High Water
- Landlocked Tidelands

The resulting boundary of Chapter 91 jurisdiction, shown as a red line in this figure, is not continuous and is used only for the discussion in this Plan. CZM also provides a presumptive jurisdictional line for Chapter 91 on the MORIS interactive mapping site. A property owner may challenge the presumptive jurisdictional Chapter 91 boundary as published by the Commonwealth.
This planning process included compiling the available Chapter 91 licenses. A list of those licenses is provided in Appendix C and PDF copies of all the licenses found have been provided to the Town Planner. A property owner who wishes to develop their property should contact a lawyer and civil engineer and/or surveyor who specializes in Chapter 91 jurisdiction. The lines shown in Figures 19, 20, and 21 should not be used for development purposes.

MODIFICATIONS TO 310 CMR 9.00

Modifications to Chapter 91 are allowable under 301 CMR 23.05 Standards for Municipal Harbor Plan Approval for the numerical standards found in 310 CMR 9.51(3)(a) through (e) and 9.52(1)(b)1 (see box to right). The dimensional standards of Chapter 91, including the calculation of the WDUZ and the area for FPA, can act as a restriction on development for parcels that are irregular in shape and small in size. The combination of Chapter 91 requirements and those of the Town's zoning regulations create an added layer of complication for development projects on waterfront sites. The ability of a Municipal Harbor Plan to modify certain standards in 310 CMR 9.00 to allow for local preferences and the ability of the Town to coordinate its zoning with those modifications is critical to the enhanced uses along the water envisioned by the Plan.

In a discussion in May 2019, representatives from CZM and DEP expressed a preference for design solutions to the standards that could be modified in this Plan. In other words, where possible, the design of the structures and fill should be compliant with the regulations as expressed in 310 CMR 9.00.

As a result, the proposed modifications to the application of the requirements 310 CMR 9.51 and 9.52 have been limited to ensuring consistency with the height and the no-build setback of the HVB Overlay District. The no-build setback allows for the continuation of the proposed connected Harbor-wide walkway, to be as close to the shoreline as reasonably possible given the existing conditions relative to the shoreline. This walkway, a priority of this Plan, would stretch from the Town Landing on Margin Street to the Parker Avenue Boat Ramp. A significant portion of this walkway would be on Town-owned land, including existing portions as identified in the earlier illustration of public access. 310 CMR (9.52(1)(b) requires a publicly accessible walkway within the WDUZ with a minimum width of 10’. Such walkway must be connected to a public right-of-way or a public walkway on adjacent tidelands. This may be modified by a state-approved municipal harbor plan.

The height and no-build setback also encourage visual access to the Harbor in addition to physical access. Preserving views of the Harbor has been a topic of discussion during the public engagement process. This is expressed in terms of the view corridor across the Cohasset Harbor Inn property, discussed in Land, above, but could also apply to development elsewhere in the Harbor; new development should not completely block the view of the Harbor as the Cohasset Harbor Inn today does.

In each case, the regulation under 310 CMR 9.00 is identified and the relevant amplification is listed to the right.
These standards (310 CMR 9.00) may be modified by a state-approved Municipal Harbor Plan:

### 9.51 CONSERVATION OF CAPACITY FOR WATER-DEPENDENT USE

**(3)(a)** New pile-supported structures for nonwater-dependent use shall not extend beyond the footprint of existing, previously authorized pile-supported structures or pile fields, except where no further seaward projection occurs and the area of open water lost due to such extension is replaced, on at least a 1:1 square foot basis, through the removal of existing, previously authorized fill or pile-supported structures or pile fields elsewhere on the project site.

**(3)(b)** Facilities of Public Accommodation, but not nonwater-dependent Facilities of Private Tenancy, shall be located on any pile-supported structures on flowed tidelands and at the ground level of any filled tidelands within 100 feet of a project shoreline. The Department may allow any portion of the equivalent area of a Facility of Public Accommodation to be relocated within the building footprint, or in other buildings owned, controlled or proposed for development by the applicant within the Development Site if the Department determines the alternative location would more effectively promote public use and enjoyment of the project site.

**(3)(c)** New or expanded buildings for nonwater-dependent use, and parking facilities at or above grade for any use, shall not be located within a water-dependent use zone; except as provided below, the width of said zone shall be determined as follows:

1. along portions of a project shoreline other than the edges of piers and wharves, the zone extends for the lesser of 100 feet or 25% of the weighted average distance from the present high water mark to the landward lot line of the property, but no less than 25 feet; and

2. along the ends of piers and wharves, the zone extends for the lesser of 100 feet or 25% of the distance from the edges in question to the base of the pier or wharf, but no less than 25 feet; and

3. along all sides of piers and wharves, the zone extends for the lesser of 50 feet or 15% of the distance from the edges in question to the edges immediately opposite, but no less than ten feet.

**(3)(d)** At least one square foot of the project site at ground level, exclusive of areas lying seaward of a project shoreline, shall be reserved as open space for every square foot of tideland area within the combined footprint of buildings containing nonwater-dependent use on the project site; in the event this requirement cannot be met by a project involving only the renovation or reuse of existing buildings, ground level open space shall be provided to the maximum reasonable extent.

**(3)(e)** New or expanded buildings for nonwater-dependent use shall not exceed 55 feet in height if located over the water or within 100 feet landward of the high water mark; at greater landward distances, the height of such buildings shall not exceed 55 feet plus ½ foot for every additional foot of separation from the high water mark.

### 9.52 UTILIZATION OF SHORELINE FOR WATER-DEPENDENT PURPOSES

**(1)(b)** Walkways and related facilities along the entire length of the water-dependent use zone; wherever feasible, such walkways shall be adjacent to the project shoreline and, except as otherwise provided in a municipal harbor plan, shall be no less than ten feet in width.

**(2)(b)** The amount of [exterior open spaces for active or passive public recreation] shall be at least equal to the square footage of all Commonwealth tidelands on the project site landward of a project shoreline and not within the footprint of buildings, less any space deemed necessary...to accommodate other water-dependent uses.

### 310 CMR 9.53 ACTIVATION OF COMMONWEALTH TIDELANDS FOR PUBLIC USE

**(2)(c)** Such [interior space devoted to facilities of public accommodation] shall be at least equal in amount to the square footage of all Commonwealth tidelands on the project site within the footprint of buildings containing nonwater-dependent facilities of private tenancy.
The following amplifications modify some of the requirements in the call-out box on the previous page. These modifications are specific to the HVB Overlay District. Each substitution identifies the relevant Chapter 91 standard and implementation action. In discussions with CZM and MassDEP, representatives of both agencies have expressed a strong preference for design solutions; i.e. those that would not require modifications to Chapter 91.

More extensive modifications were first discussed at a meeting of the Town of Cohasset Planning Board on November 9, 2019. The draft modifications were presented in concept form at a public meeting on November 18, 2019 and further discussed at a Planning Board meeting on November 20. The discussion centered on the potential for conflict between the HVBOD zoning passed by Town Meeting and the standard requirements of Chapter 91 as described in the call-out box on the previous page. The key point of the discussions was to ensure that modifications to Chapter 91 requirements would make those requirements consistent with the local preferences as expressed by Town Meeting in passing the HVBOD.

Table 6: Modifications to Chapter 91 Standards

| GOAL: ENSURE DIMENSIONAL STANDARDS ARE CONSISTENT WITH THE REQUIREMENTS OF THE RECENTLY APPROVED HARBOR VILLAGE BUSINESS OVERLAY DISTRICT. |
| EXISTING STANDARD: 310 CMR 9.51(3)(e) |
|  New or expanded buildings for nonwater-dependent use shall not exceed 55 feet in height if located over the water or within 100 feet landward of the high water mark; at greater landward distances, the height of such buildings shall not exceed 55 feet plus ½ foot for every additional foot of separation from the high water mark. |
| Amplification I |
| New or expanded buildings shall not exceed 35 feet in height above Base Flood Elevation within the HVBOD. |
| Reference: Section 300-22.8(C) of the Town of Cohasset Zoning Bylaw |
| EXISTING STANDARD: 310 CMR 9.51(3)(c) |
|  New or expanded buildings for nonwater-dependent use, and parking facilities at or above grade for any use, shall not be located within a water-dependent use zone; except as provided below, the width of said zone shall be determined as follows: |
| 1. along portions of a project shoreline other than the edges of piers and wharves, the zone extends for the lesser of 100 feet or 25% of the weighted average distance from the present high water mark to the landward lot line of the property, but no less than 25 feet; and |
| 2. along the ends of piers and wharves, the zone extends for the lesser of 100 feet or 25% of the distance from the edges in question to the base of the pier or wharf, but no less than 25 feet; and |
| 3. along all sides of piers and wharves, the zone extends for the lesser of 50 feet or 15% of the distance from the edges in question to the edges immediately opposite, but no less than ten feet. |
| Amplification II |
| No building within the HVBOD may be constructed within 25 feet landward of the Project Shoreline. |
| Reference: Section 300-22.8(B) of the Town of Cohasset Zoning Bylaw |
Figure 22: Proposed Harbor-Wide Walkway
LEGEND

- **PROPOSED 10’ HARBOR-WIDE WALKWAY**
- **PROPOSED STREETSCAPE IMPROVEMENTS**
GLOSSARY OF TERMS

Legislative Definitions

The following terms are defined in Title XIV, Chapter 91, Section 1 of the Massachusetts General Laws:

• **TIDELANDS** Present and former submerged lands and tidal flats lying below the mean high water mark.

• **COMMONWEALTH TIDELANDS** Tidelands held by the commonwealth in trust for the benefit of the public or held by another party by license or grant of the commonwealth subject to an express or implied condition subsequent that it be used for a public purpose.

• **PRIVATE TIDELANDS** Tidelands held by a private party subject to an easement of the public for the purposes of navigation and free fishing and fowling and of passing freely over and through the water.

• **LANDLOCKED TIDELANDS** Filled tidelands, which on January 1, 1984 were entirely separated by a public way or interconnected public ways from any flowed tidelands, except for any portion of such filled tidelands that are presently located: (a) within 250 feet of the high water mark of flowed tidelands;...

• **WATER-DEPENDENT USES** those uses and facilities which require direct access to, or location in, marine or tidal waters and which therefore cannot be located inland, including but not limited to: marinas, recreational uses, navigational and commercial fishing and boating facilities, water-based recreational uses, navigation aids, basins, and channels, industrial uses dependent upon waterborne transportation or requiring large volumes of cooling or process water which cannot reasonably be located or operated at an inland site.

Regulatory Definitions: Tidelands

The following terms are defined in 310 CMR 9.00 Waterways:

**TIDELANDS** means present and former submerged lands and tidal flats lying between the present or historic high water mark, whichever is farther landward, and the seaward limit of state jurisdiction. Tidelands include both flowed and filled tidelands, as defined in 310 CMR 9.02.

**COMMONWEALTH TIDELANDS** means tidelands held by the Commonwealth, or by its political subdivisions or a quasi-public agency or authority, in trust for the benefit of the public; or subdivisions or a quasi-public agency or authority, in trust for the benefit of the public; or tidelands held by a private person by license or grant of the Commonwealth subject to an express or implied condition subsequent that it be used for a public purpose. In applying 310 CMR 9.02: Definitions: Commonwealth Tidelands, the Department shall act in accordance with the following provisions:

(a) the Department shall presume that tidelands are Commonwealth tidelands if they lie seaward of the historic low water mark or of a line running 100 rods (1650 feet) seaward of the historic high water mark, whichever is farther landward; such presumption may be overcome only if the Department issues a written determination based upon a final judicial decree concerning the tidelands in question or other conclusive legal documentation establishing that, notwithstanding the Boston Waterfront decision of the Supreme Judicial Court, such tidelands are unconditionally free of any proprietary interest in the Commonwealth;

(b) the Department shall presume that tidelands are not Commonwealth tidelands if they lie landward of the historic low water mark or of a line running 100 rods (1650 feet) seaward of the historic high water mark, whichever is farther landward; such presumption may be overcome only upon a showing that such tidelands, including but not limited to those in certain portions of the Town of Provincetown, are not held by a private person.
**FILLED TIDELANDS** means former submerged lands and tidal flats which are no longer subject to tidal action due to the presence of fill.

**FLOWED TIDELANDS** means present submerged lands and tidal flats which are subject to tidal action.

**PRIVATE TIDELANDS** means tidelands held by a private person subject to an easement of the public for the purposes of navigation and free fishing and fowling and of passing freely over and through the water. In accordance with the Colonial Ordinances of 1641-47, the Department shall presume that tidelands are private tidelands if they lie landward of the historic low water mark or of a line running 100 rods (1650 feet) seaward of the historic high water mark, whichever is farther landward; such presumption may be overcome upon a showing that such tidelands, including but not limited to those in certain portions of the Town of Provincetown, are not held by a private person or upon a final judicial decree that such tidelands are not subject to said easement of the public.

**TRUST LANDS** means present and former waterways in which the fee simple, any easement, or other proprietary interest is held by the Commonwealth in trust for the benefit of the public. All geographic areas subject to the jurisdiction of M.G.L. c. 91, as specified in 310 CMR 9.04, are generally considered to be trust lands.

**Regulatory Definitions: High and Low Water Marks; Project Shoreline**

The following terms are defined in 310 CMR 9.00 Waterways:

**HIGH WATER MARK** means

(a) for tidelands, the present mean high tide line, as established by the present arithmetic mean of the water heights observed at high tide over a specific 19-year Metonic Cycle (the National Tidal Datum Epoch), and shall be determined using hydrographic survey data of the National Ocean Survey of the U.S. Department of Commerce; and

(b) for Great Ponds, rivers, and streams, the present arithmetic mean of high water heights observed over a one year period using the best available data as determined by the Department.

**HISTORIC HIGH WATER MARK** means the high water mark which existed prior to human alteration of the shoreline by filling, dredging, excavating, impounding, or other means. In areas where there is evidence of such alteration by fill, the Department shall presume the historic high water mark is the farthest landward former shoreline which can be ascertained with reference to topographic or hydrographic surveys, previous license plans, and other historic maps or charts, which may be supplemented as appropriate by soil logs, photographs, and other documents, written records, or information sources of the type on which reasonable persons are accustomed to rely in the conduct of serious business affairs. Such presumption may be overcome by a clear showing that a seaward migration of such shoreline occurred solely as a result of natural accretion not caused by the owner or any predecessor in interest. For Great Ponds, the historic high water mark is synonymous with the natural high water mark.

**HISTORIC LOW WATER MARK** means the low water mark which existed prior to human alteration of the shoreline by filling, dredging, excavating, impounding or other means. In areas where there is evidence of such alteration by fill, the Department shall make its determination of the position of the historic low water mark in the same manner as described in 310 CMR 9.02: Definitions: Historic High Water Mark.

**LOW WATER MARK** means the present mean low tide line, as established by the present arithmetic mean of water heights observed at low tide over a specific 19-year Metonic Cycle (the National Tidal Datum Epoch), and shall be determined using hydrographic survey data of the National Ocean Survey of the U.S. Department of Commerce.

**PROJECT SHORELINE** means the high water mark, or the perimeter of any pier, wharf, or other structure supported by existing piles or to
be replaced pursuant to 310 CMR 9.32(1)(a)4., whichever is farther seaward.

**PROJECT SITE** means the area owned, controlled, or proposed for development by the applicant in which a project will occur and which is subject to the geographic jurisdiction of the Department, as specified in 310 CMR 9.04.

**Regulatory Definitions: Use Types and Zones**

The following terms are defined in 310 CMR 9.00 Waterways:

**FACILITY OF LIMITED ACCOMMODATION** means a facility at which goods or services are made available directly (e.g., in person by customer access to the facility, not exclusively by means of mail order, telecommunications or other electronic transmission) to the public on a regular basis primarily by appointment or enrollment on essentially equal terms to the public at large rather than restricted to a relatively limited group of specified individuals. Facilities of Limited Accommodation may be either water-dependent, accessory to water-dependent, or nonwater-dependent, and shall include but not be limited to:

(a) Rehabilitation clinics and medical facilities;

(b) Business or professional offices that serve customers by appointment or enrollment and by customer access to the facility;

(c) Child care centers and elderly or other social service centers, provided that the facility does not interfere with access to public spaces outside of a building; and

(d) Artist and photography studios open to the public by appointment.

**FACILITY OF PRIVATE TENANCY** means a facility at which the advantages of use accrue, on either a transient or a permanent basis, to a relatively limited group of specified individuals (e.g., members of a private club, owners of a condominium building) rather than to the public at large (e.g., patrons of a public restaurant, visitors to an aquarium or museum). Such facilities may be water-dependent, accessory to water-dependent, or nonwater-dependent, and may include but are not limited to:

(a) houses, apartments, condominiums, and other residential units;

(b) business or professional offices that do not rely upon customer access as a significant element of the business or profession;

(c) industrial facilities, including but not limited to manufacturing plants and electric power generating stations;

(d) vehicular ways or parking facilities not open to the public;

(e) open spaces, pedestrian walkways, or outdoor recreation facilities not open to the public; and

(f) marina berths for long-term exclusive use.

**FACILITY OF PUBLIC ACCOMMODATION** means a facility at which goods or services are made available directly to the transient public on a regular basis, or at which advantages of use are otherwise open on essentially equal terms to the public at large (e.g., patrons of a public restaurant, visitors to an aquarium or museum), rather than restricted to a relatively limited group of specified individuals (e.g., members of a private club, owners of a condominium building). Facilities of public accommodation may be either water-dependent, accessory to water-dependent, or nonwater-dependent, and shall include but are not limited to:

(a) public restaurants or entertainment facilities;

(b) theaters, performance halls, art galleries, or other establishments dedicated to public presentation of the fine arts;

(c) hotels, motels, or other lodging facilities of transient occupancy;
(d) educational, historical, or other cultural institutions open to the public;

(e) interior spaces dedicated to the programming of community meetings, informational displays, special recreational events, or other public activities;

(f) sports or physical fitness facilities open to the public;

(g) open spaces, pedestrian walkways, or outdoor recreation facilities open to the public;

(h) retail sales or service facilities;

(i) ferry terminals, transit stations, and other public transportation facilities;

(j) marina berths for transient use; and

(k) vehicular ways open to the public or parking facilities open to the public, including users of facilities of public accommodation.

**NONWATER-DEPENDENT USE** means a use as specified in 310 CMR 9.12.

**NONWATER-DEPENDENT USE PROJECT** means a project consisting of one or more nonwater-dependent uses, or a mix of water-dependent and nonwater-dependent uses, as specified in 310 CMR 9.12(1).

**WATER-DEPENDENT USE** means a use as specified in these regulations at 310 CMR 9.12(2).

**WATER-DEPENDENT USE PROJECT** means a project consisting entirely of fill or structures for one or more water-dependent or accessory uses as specified in 310 CMR 9.12(1).

**WATER-DEPENDENT USE ZONE** means an area within the geographic jurisdiction of the Department and running landward of and parallel to the project shoreline, the width of which is determined in accordance with 310 CMR 9.51(3)(c). For purposes of such determination, the landward lot line of a property shall mean that in existence as of the effective date of 310 CMR 9.00, unless subsequent reconfiguration thereof results in a more landward location at the time of license application; and all baselines and distances shall be specified according to accepted land regulation and survey practices.
IMPLEMENTATION PLAN

Implementation is critical to the future success of the Harbor. Town officials and departments will have primary responsibility for such implementation, but should consider redefining the Harbor Committee’s charge and including the many Harbor organizations as partners in the effort to realize the vision of this Plan.

The recommended actions to implement the goals of this Harbor Plan build upon the recommendations of previous reports and studies and input from this planning process. They are the result of the research and analyses of current economic and physical conditions, as well as feedback from the community members and businesses who participated in public meetings, public events, and interviews.

Details for each action are provided in the Recommendations section of each chapter above.
Implementation actions are divided into phases that allow for some immediate actions while setting the stage for longer-term projects that may require several short- to mid-term steps to achieve. Given the complexity of the Harbor, the Town will most likely seek partnerships with the nonprofits, businesses, neighboring municipalities, and property owners to achieve the goals outlined in this Plan.
The recommended actions in this implementation plan have been drawn from the research into underlying conditions by the consultant team, input from public workshops, interviews with stakeholders, Harbor Committee meetings, and two public comments periods on the drafts in January, March, July, and September 2019. The recommendations have been tied to the original planning goals developed by the Harbor Committee (see white text in blue boxes).

### 1 HARBOR GOVERNANCE

**Planning Goal 4: Support public use of the Harbor, including support for those town and civic organizations that enable such use.**

- **ACTION 1.1** Continue the efforts of this planning process by establishing a regular program of joint meetings engaging Cohasset and Scituate Town officials and staff, residents, nonprofits, commercial fishermen, recreational boaters and property and business owners, and other interest parties to share information about their interests and needs within the Harbor.

- **ACTION 1.2** Consider creating a website with Town departments, boards, and committees and nonprofits to coordinate events, plans, and activities in the Harbor.

- **ACTION 1.3** Consider establishing a Massachusetts nonprofit Public charitable entity able to qualify for charitable tax treatment pursuant to section 501(c)3 of the U.S. Internal Revenue Code to help raise funds for needed improvements to the Harbor and to publicize the needs and opportunities within the Harbor. Gifts, grants, and other fund-raising activities could support improvements throughout the Harbor. Use the Friends of the Cohasset Public Library or other “Friends of” organizations as a model.

**Planning Goal 7: Integrate and improve Harbor management and uses.**

- **ACTION 1.4** Merge the responsibilities of the Government Island Advisory Committee into the Harbor Committee to allow one committee to make recommendations to the Board of Selectmen and the Town Manager on the needs of both the water and the land within Cohasset Harbor.

- **ACTION 1.5** Review and modify the charge of the current Harbor Committee, appointed by the Board of Selectmen, to oversee all waterside and landside activities that have an impact on the waterways. Ensure that the charge is consistent with best practices across the Commonwealth for similar committees and provide the authority to track the implementation of the recommendations in this Plan and recommend further actions. Consider the charge of the Master Plan Implementation Committee as a model.

- **ACTION 1.6** As a long-term action, consider establishing a Waterways Enterprise fund to capture fees from moorings, tie-ups, and other relevant sources to target funds for operating and capital needs within the Harbor. Such funds would be used for maintenance, repairs, and capital projects consistent with the management of Cohasset’s current Water and Sewer Enterprise funds.

- **ACTION 1.7** Document and publish organizational structure of public safety in the Harbor, including cross-jurisdictional responsibilities.

- **ACTION 1.8** Establish an inter-municipal agreement pursuant to Chapter 40 Section 4A of the General Laws of the Commonwealth or a Joint Powers Agreement pursuant to Chapter 40 Section 4A 1/2 between the Town of Cohasset and the Town of Scituate related to the management of Bassing Beach, the responsibility for public safety operations within Cohasset Harbor on both sides of the town/county line; the responsibility for maintenance and repairs of shared infrastructure, including the breakwater, and stormwater management to reduce the introduction of pathogens and harmful chemicals to the Gulf River and Cohasset Harbor.

- **ACTION 1.9** Formalize communications between the Cohasset Harbor Committee and the Scituate Waterways Commission to ensure coordination of policies that affect the entire operations, health, and safety of Cohasset Harbor. Consider semi-annual or quarterly meetings between the two groups.
2 WATERSHEET

Planning Goal 1: Support the Cohasset Commercial Fishing Fleet.
Planning Goal 2: Support public use of and access to the Harbor.

- **ACTION 2.1** Conduct an in-depth mooring analysis of the Harbor. As part of the study, consider the following:
  - Alternative mooring technology for improved/increased moorings.
  - The balance of moorings available for residents and transients; commercial fishing and recreational boating.
  - Feasibility of assigning commercial fishing docking and recreational boating docking to particular areas of the harbor front.
  - Evaluate feasibility of improved dinghy access for mooring holders and/or a town launch/water taxi.
  - Discuss potential limits on and fee structure for recreational moorings.

- **ACTION 2.2** Investigate the potential of adding boat slips in Bailey Creek.

- **ACTION 2.3** Address safety of small craft/swimmers in channel through water safety programs, signage, and demarcation of swimming areas, small boat areas, and channels for larger boats, as appropriate.

- **ACTION 2.4** Establish specific dates for deployment and retrieval of floats and docks each spring and fall.

- **ACTION 2.5** Investigate the feasibility of a Town-owned pile supported pier, including the possibility for deeper draft loading abilities with cranes or hoists and convenience utilities including water, power, and sewer in addition to increased dockage and ADA boat access. The feasibility study should include a more detailed analysis of economic and environmental impacts.

- **ACTION 2.6** Work with commercial fishermen to enhance economic activity of waterside enterprises. Consider joint marketing with local businesses: catch of the day at local restaurants; establishing a “Caught in Cohasset” program.

- **ACTION 2.7** Consider the viability of an aquaculture program while balancing the planning goals of supporting the Commercial Fishing Fleet and supporting public use and access to the Harbor.

Planning Goal 9: Provide recommendations for a recurring dredging plan.

- **ACTION 2.8** Conduct updated hydrographic surveys and dredge analysis. Establish a plan for monitoring depths.

- **ACTION 2.9** Identify long term dredging needs for channel and Harbor, including Bailey Creek, Cohasset Cove, and the area around Government Island.

- **ACTION 2.10** Investigate coordinating dredging efforts, including equipment, with other harbors. Investigate reuse of dredge material to supplement beach reclamation efforts (if appropriate).

- **ACTION 2.11** Conduct a study of siltation in the Cove area from James Brook and address the increased siltation from the outflow pipe.

- **ACTION 2.12** Determine the edge of the ledge within the Harbor; could be accomplished separately or as part of Action 2.8.

3 EDGES

Planning Goal 3: Identify and plan for appropriate improvements to landside and waterside infrastructure.

- **ACTION 3.1** Working with private owners, conduct an in-depth investigation of the conditions of public and private seawalls and design improvements that take into consideration projections of sea level rise.

- **ACTION 3.2** Based on the study above, develop a seawall repair program, identify funding sources,
including grants, and establish priorities for replacement, repair, and maintenance.

- **ACTION 3.3** Establish jurisdiction over and conduct in-depth investigation of the breakwater and design improvements that take into consideration existing overtopping during storms and projections of sea level rise.

- **ACTION 3.4** Consider improved docking in the Cove area for recreational use.

- **ACTION 3.5** Complete planned improvements to the Parker Avenue boat ramp.

- **ACTION 3.6** Investigate the feasibility of separating facilities for commercial fishing and recreational boating by undertaking a study to determine the needs for access (including parking and a second boat ramp on Government Island), the depth of the Harbor in that area, the impact on the shoreline, and the ability to provide power and water to proposed site(s). The impact of proposed changes to existing users and the benefit to future users would also need to be part of the study. This study could be combined with others, including the mooring study (Action 2.1), the dredging study (Actions 2.8 and 2.9), or the study of Government Island (Action 4.1).

- **ACTION 3.7** Create an education program around stormwater, including the proper disposal of dog waste, the need to mitigate stormwater on-site, the impact of runoff from lawn fertilizers into the Harbor, and the impact on run-off from failing septic systems. Consider providing information about solutions such as updated Title V options, reducing impermeable surfaces, and low-impact strategies for managing stormwater on-site.

- **ACTION 3.8** Review existing studies and/or conduct new studies to establish baseline conditions for the health of existing ecosystems in the Harbor, including current locations of beach grass, eelgrass, and salt marsh, and baseline conditions of pollutants.

- **ACTION 3.9** Establish regular monitoring systems of ecosystems resources to understand how climate change, harbor activities, and educational programs such as Action 3.7 above are shifting conditions in the Harbor.

- **ACTION 3.10** Coordinate infrastructure studies and improvements/modifications with consideration of the ecosystems to ensure that changes preserve existing ecosystems. All proposed studies under this plan should include methods to minimize and/or mitigate any negative impacts of infrastructure improvements on the ecosystems.

- **ACTION 3.11** Undertake a hazard mitigation plan to integrate the findings from the MVP process and from this Municipal Harbor Plan into an implementation plan that addresses the entire Town. The Hazard Mitigation Plan should address how improvements in the Harbor area will mitigate the impacts of extreme heat, extreme precipitation, and SLR on both the Harbor and the rest of the Town. The results of this plan should be integrated into future plans for the Town and the Harbor to ensure that future policies and actions are consistent with adaptation and mitigation of the projected risks.

- **ACTION 3.12** Evaluate the Town’s current zoning bylaw and consider addressing resiliency measures to either prevent or mitigate the impact of stormwater runoff from or flooding on new development in the Harbor. Such changes could range from allowing the maximum height to be from Base Flood Elevation (BFE) to the addition on a Flood Fringe District which addresses development standards along the edges of the FEMA Flood Zones, understanding that those may change over time.

- **ACTION 3.13** Consider incentives for innovative flood resiliency and/or adaptation measures to enhance the resiliency of the Harbor and the land. Such incentives could include the reduction of permitting fees, density bonuses (where appropriate), waivers of local regulatory restrictions, small grants, and other options. Resiliency measures may include energy-efficient design, the use of appropriate native or adapted, non-invasive vegetation in open spaces that are designed to flood and allow the flood waters to be absorbed or recede without damage, use of alternative energy sources, locating generators on the roof or upper stories, locating utilities underground, flood-proofing electrical...
transmit transformers, and moving mechanical, electrical and HVAC equipment to upper stories.

- **ACTION 3.14** Consider a hydrological model of the Harbor. This model would look at impacts on specific sites at the parcel level, modeling the specific path of flood waters in response to topographical changes, buildings, and the presence (or lack of) hard and soft infrastructure. This is not a hydrodynamic model of the circulation of water within the Harbor.

- **ACTION 3.15** Evaluate infrastructure owned by the Town for performance during flooding at the varying estimates of SLR and flood projections. Future infrastructure should be designed to either withstand floods or be made of durable materials that will resist salt-water corrosion.

- **ACTION 3.16** Reduce the impact of heat island effect by providing mitigating measures such as open areas that are landscaped or paved with lighter surfaces; shade trees and benches along walkways; sources of drinking water for humans and animals; and requiring the placement of structures to channel breezes from the Harbor rather than blocking them.

### LAND

- **Planning Goal 1**: Support the Cohasset Commercial Fishing Fleet.
- **Planning Goal 2**: Support public use of and access to the Harbor.
- **Planning Goal 4**: Support public use of the Harbor, including support for those town and civic organizations that enable such use.
- **Planning Goal 6**: Identify and improve commercial landside and waterside activity.
- **Planning Goal 7**: Integrate and improve Harbor management and uses.
- **Planning Goal 8**: Identify and address improvements to the ecosystem and environmental issues.

- **ACTION 4.1** Conduct a feasibility study of Government Island and Parker Avenue, including the boat ramp and Mariners Park. This study should include investigating the feasibility for, location of, and related costs for design, construction, and/or rehabilitation of the components below. Economic impact, environmental impact, and costs should be part of the study.

- The condition, maintenance and programmatic needs of the Harbor master’s office, the CMI boathouse, and the CSCR building.
- A new mixed-use facility, including the Harbormaster’s office and amenities, including public restrooms, for visitors and transient boaters.
- Extension and rebuilding of the pier at Government Island with a conveyor system and hydraulic lift.
- Extension of docking facilities to allow 3-4 boats to operate at a time.
- Designated area for bait coolers, usable by all fishermen.
- Installation of a marine fueling station with credit card capability.
- Reconfiguring of existing floats to accommodate more boats.
- Trash receptacles, dumpsters, and an oil reclamation station.
- Designated dinghy dock for commercial mooring holders.
- New pier suitable for direct vehicle/vessel loading and unloading between piers at the Cohasset Sailing Club and Parker Avenue.
- Continuation of the Harbor-wide walkway including establishing consistent paving materials, street furniture, lighting, and landscaping.
- Reconfiguration of current roadway and parking, considering the safe movement of pedestrians, bicyclists, and boats on trailers.
- Ability to create additional parking to support public uses, commercial fishermen, and water-related nonprofits in the Harbor.

- **ACTION 4.2** Investigate the feasibility of reconfiguring Town Landing to include conveyor/hoists and addition of more floats to the northwest (towards the inner Cove area).
• **ACTION 4.3** Provide water and power to commercial docks and existing Town piers.

**Planning Goal 2: Support public use of and access to the Harbor**

• **ACTION 4.4** Use the Captain’s Walk as the basis for a Harbor-wide connected public walkway along the water’s edge from The Oaks to Government Island and incorporate consistent wayfinding and interpretive signage for historical, cultural, and environmental resources throughout the Harbor. Such a walkway could be expanded to include James Brook Meadow.

• **ACTION 4.5** Conduct a parking study that evaluates the need for and potential locations of additional on- and off-street parking and designated pick-up and drop-off spots, including existing Town-owned property on Government Island and the potential to purchase land for public parking. Other strategies could include a seasonal shuttle loop including the Cohasset commuter rail station, the Village, and the Harbor; adding bike racks at strategic points in the Harbor; and considering a mini-bike share throughout the Town.

• **ACTION 4.6** Consider adding security cameras with live video access via smart phones. Such cameras should be placed to survey areas critical infrastructure, without impinging on the privacy of residents.

• **ACTION 4.7** Investigate the feasibility of adding a facility for careening boats next to the pier where sand used to be.

• **ACTION 4.8** Increase recreational draws by establishing ecotours, kayak rental, etc.

• **ACTION 4.9** Consider establishing a special process for business permits and/or licenses for those between 16 and 21 or 25 years old that would allow them to create active year-round uses within the Harbor.

**Planning Goal 5: Improve the geographic relationship between the Village and the Harbor**

• **ACTION 4.10** Redesign Elm Street and design improvements to sidewalk on Border Street to enhance walking/biking access to Village and Harbor; include a change in street furniture, lighting, and other design elements as Elm and Border Streets enter the Harbor area.

• **ACTION 4.11** Provide retail, restaurant, temporary outdoor seasonal uses throughout the year, or other active uses in the Harbor to encourage activity from Village to Harbor.

• **ACTION 4.12** Work with Cohasset Harbor Inn property owners to enhance access to and view of Harbor.

• **ACTION 4.13** Install wayfinding signage to direct between the Village and the Harbor, and to specific destinations within the Harbor and the entrance to Great Brewster Trail in the Village, and interpretive signage to highlight historic, cultural, and natural resources within the Harbor.

• **ACTION 4.14** Establish gateway areas and install appropriate signage, landscape treatment, and other elements.

**Planning Goal 6: Identify and improve commercial landside and waterside commercial activity**

• **ACTION 4.15** Work with private ownership to enhance economic activity of landside enterprises. Consider joint marketing effort between Village businesses and Harbor businesses: “Spend a day in Cohasset”; tie recreational activities to eating/shopping/arts.

• **ACTION 4.16** Update the zoning regulations within the Harbor area to be consistent with the goals of this Plan and the requirements of Chapter 91. This would include a re-evaluation of the Waterfront Business District and the Light Industry Zone.
CONSISTENCY WITH CZM POLICIES

The implementation actions for this Plan must be consistent with CZM Policies (301 CMR 23.05(1)) and the state tidelands policy objectives and associated regulatory principles (301 CMR 23.05(2)). The following tables compares the actions above with CZM Policies. Not all the policies are relevant to the recommendations of this Plan.

<table>
<thead>
<tr>
<th>POLICY</th>
<th>SUMMARY STATEMENT*</th>
<th>PLAN ACTION(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Hazards 1</td>
<td>Preserve, protect, restore, and enhance the beneficial functions of storm damage prevention and flood control provided by natural coastal landforms, such as dunes, beaches, barrier beaches, coastal banks, land subject to coastal storm flowage, salt marshes, and land under the ocean.</td>
<td>3.8, 3.9, 3.13</td>
</tr>
<tr>
<td>Coastal Hazards 2</td>
<td>Ensure that construction in water bodies and contiguous land areas will minimize interference with water circulation and sediment transport. Flood or erosion control projects must demonstrate no significant adverse effects on the project site or adjacent or downcoast areas.</td>
<td>3.10, 3.13</td>
</tr>
</tbody>
</table>
| Coastal Hazards 3           | Ensure that state and federally funded public works projects proposed for location within the coastal zone will:  
  • Not exacerbate existing hazards or damage natural buffers or other natural resources.  
  • Be reasonably safe from flood and erosion-related damage.  
  • Not promote growth and development in hazard-prone or buffer areas, especially in velocity zones and Areas of Critical Environmental Concern.  
  • Not be used on Coastal Barrier Resource Units for new or substantial reconstruction of structures in a manner inconsistent with the Coastal Barrier Resource/Improvement Acts. | 3.10, 3.11, 3.13, 3.15               |
| Coastal Hazards 4           | Prioritize acquisition of hazardous coastal areas that have high conservation and/or recreation values and relocation of structures out of coastal high-hazard areas, giving due consideration to the effects of coastal hazards at the location to the use and manageability of the area. | Not applicable. This Plan does not anticipate further land acquisitions by the Town. |
| Energy 1                    | For coastally dependent energy facilities, assess siting in alternative coastal locations. For non-coastally dependent energy facilities, assess siting in areas outside of the coastal zone. Weigh the environmental and safety impacts of locating proposed energy facilities at alternative sites. | Not applicable.                     |
| Energy 2                    | Encourage energy conservation and the use of renewable sources such as solar and wind power in order to assist in meeting the energy needs of the Commonwealth. | 3.13                                  |
| Growth Management 1         | Encourage sustainable development that is consistent with state, regional, and local plans and supports the quality and character of the community. | 3.12, 3.13, 4.1, 4.4                 |
| Growth Management 2         | Ensure that state and federally funded infrastructure projects in the coastal zone primarily serve existing developed areas, assigning highest priority to projects that meet the needs of urban and community development centers. | 2.1, 2.5, 2.9, 2.10, 3.2, 3.3, 3.6, 4.1, 4.4, 4.5, 4.10 |
## POLICY | SUMMARY STATEMENT* | PLAN ACTION(S)
--- | --- | ---
Growth Management 3 | Encourage the revitalization and enhancement of existing development centers in the coastal zone through technical assistance and financial support for residential, commercial, and industrial development. | 4.4, 4.10, 4.12, 4.13, 4.14, 4.15
Habitat 1 | Protect coastal, estuarine, and marine habitats—including salt marshes, shellfish beds, submerged aquatic vegetation, dunes, beaches, barrier beaches, banks, salt ponds, eelgrass beds, tidal flats, rocky shores, bays, sounds, and other ocean habitats—and coastal freshwater streams, ponds, and wetlands to preserve critical wildlife habitat and other important functions and services including nutrient and sediment attenuation, wave and storm damage protection, and landform movement and processes. | 3.9, 3.10
Habitat 2 | Advance the restoration of degraded or former habitats in coastal and marine areas. | 3.9, 3.10
Ocean Resources 1 | Support the development of sustainable aquaculture, both for commercial and enhancement (public shellfish stocking) purposes. Ensure that the review process regulating aquaculture facility sites (and access routes to those areas) protects significant ecological resources (salt marshes, dunes, beaches, barrier beaches, and salt ponds) and minimizes adverse effects on the coastal and marine environment and other water-dependent uses. | 2.7
Ocean Resources 2 | Except where such activity is prohibited by the Ocean Sanctuaries Act, the Massachusetts Ocean Management Plan, or other applicable provision of law, the extraction of oil, natural gas, or marine minerals (other than sand and gravel) in or affecting the coastal zone must protect marine resources, marine water quality, fisheries, and navigational, recreational and other uses. | Not applicable.
Ocean Resources 3 | Accommodate offshore sand and gravel extraction needs in areas and in ways that will not adversely affect marine resources, navigation, or shoreline areas due to alteration of wave direction and dynamics. Extraction of sand and gravel, when and where permitted, will be primarily for the purpose of beach nourishment or shoreline stabilization. | Not applicable.
Ports and Harbors 1 | Ensure that dredging and disposal of dredged material minimize adverse effects on water quality, physical processes, marine productivity, and public health and take full advantage of opportunities for beneficial re-use. | 2.8, 2.9, 2.10, 2.11, 3.10
Ports and Harbors 2 | Obtain the widest possible public benefit from channel dredging and ensure that Designated Port Areas and developed harbors are given highest priority in the allocation of resources. | 2.8, 2.9, 2.10, 2.11
Ports and Harbors 3 | Preserve and enhance the capacity of Designated Port Areas to accommodate water-dependent industrial uses and prevent the exclusion of such uses from tidelands and any other DPA lands over which an EEA agency exerts control by virtue of ownership or other legal authority. | Not applicable; Cohasset Harbor is not part of a DPA.
Ports and Harbors 4 | For development on tidelands and other coastal waterways, preserve and enhance the immediate waterfront for vessel-related activities that require sufficient space and suitable facilities along the water’s edge for operational purposes. | 3.4, 3.5, 3.6, 4.1, 4.2, 4.7, 4.8
<table>
<thead>
<tr>
<th>POLICY</th>
<th>SUMMARY STATEMENT*</th>
<th>PLAN ACTION(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ports and Harbors 5</td>
<td>Encourage, through technical and financial assistance, expansion of water-dependent uses in Designated Port Areas and developed harbors, re-development of urban waterfronts, and expansion of physical and visual access.</td>
<td>3.4, 3.5, 3.6, 4.1, 4.2, 4.4, 4.7, 4.8, 4.10, 4.12, 4.14</td>
</tr>
<tr>
<td>Protected Areas 1</td>
<td>Preserve, restore, and enhance coastal Areas of Critical Environmental Concern, which are complexes of natural and cultural resources of regional or statewide significance.</td>
<td></td>
</tr>
<tr>
<td>Protected Areas 2</td>
<td>Protect state designated scenic rivers in the coastal zone.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Protected Areas 3</td>
<td>Ensure that proposed developments in or near designated or registered historic places respect the preservation intent of the designation and that potential adverse effects are minimized.</td>
<td>4.4</td>
</tr>
<tr>
<td>Public Access 1</td>
<td>Ensure that development (both water-dependent or nonwater-dependent) of coastal sites subject to state waterways regulation will promote general public use and enjoyment of the water’s edge, to an extent commensurate with the Commonwealth’s interests in flowed and filled tidelands under the Public Trust Doctrine.</td>
<td>3.6, 4.1, 4.4, 4.12 and see Ports and Harbors 5. HVB Overlay District requires that the redevelopment of structures built before 1955 be reviewed by the Historic Commission.</td>
</tr>
<tr>
<td>Public Access 2</td>
<td>Improve public access to existing coastal recreation facilities and alleviate auto traffic and parking problems through improvements in public transportation and trail links (land- or water-based) to other nearby facilities. Increase capacity of existing recreation areas by facilitating multiple use and by improving management, maintenance, and public support facilities. Ensure that the adverse impacts of developments proposed near existing public access and recreation sites are minimized.</td>
<td>4.4, 4.5, 4.9, 4.13, 4.14</td>
</tr>
<tr>
<td>Public Access 3</td>
<td>Expand existing recreation facilities and acquire and develop new public areas for coastal recreational activities, giving highest priority to regions of high need or limited site availability. Provide technical assistance to developers of both public and private recreation facilities and sites that increase public access to the shoreline to ensure that both transportation access and the recreation facilities are compatible with social and environmental characteristics of surrounding communities.</td>
<td>2.1, 2.2, 2.3, 2.4, 2.5, 2.9, 3.4, 3.5, 3.6, 4.1, 4.2, 4.8</td>
</tr>
<tr>
<td>Water Quality 1</td>
<td>Ensure that point-source discharges and withdrawals in or affecting the coastal zone do not compromise water quality standards and protect designated uses and other interests.</td>
<td>3.7, 3.8, 3.9, 3.10, 3.11, 3.15, 3.16</td>
</tr>
<tr>
<td>Water Quality 2</td>
<td>Ensure the implementation of nonpoint source pollution controls to promote the attainment of water quality standards and protect designated uses and other interests.</td>
<td>3.7, 3.8, 3.9, 3.10, 3.11, 3.15, 3.16</td>
</tr>
<tr>
<td>Water Quality 3</td>
<td>Ensure that subsurface waste discharges conform to applicable standards, including the siting, construction, and maintenance requirements for on-site wastewater disposal systems, water quality standards, established Total Maximum Daily Load limits, and prohibitions on facilities in high-hazard areas.</td>
<td>3.7, 3.8, 3.9, 3.10, 3.11, 3.15, 3.16</td>
</tr>
</tbody>
</table>
IMPLEMENTATION AND FUNDING

Funding implementation is a critical component of this Plan. This page divides the recommended actions into studies, policy changes, construction projects (often dependent on studies), public outreach and education, and zoning changes. This section also offers potential combinations of individual studies to help with grant applications. The following two pages describes various grant programs and identifies the actions for which those grants may be appropriate.

FUNDING NEEDS AND DEPENDENCIES

<table>
<thead>
<tr>
<th>STUDIES</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moorings</td>
<td>2.1</td>
</tr>
<tr>
<td>Docking, boat slips, and</td>
<td></td>
</tr>
<tr>
<td>floats</td>
<td>2.2, 3.4, 4.2</td>
</tr>
<tr>
<td>Pile-supported pier</td>
<td>2.5</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>2.7</td>
</tr>
<tr>
<td>Dredging</td>
<td>2.8, 2.9/2.9, 2.10, 2.12</td>
</tr>
<tr>
<td>Siltation</td>
<td>2.11</td>
</tr>
<tr>
<td>Seawalls</td>
<td>3.1</td>
</tr>
<tr>
<td>Breakwater</td>
<td>3.3</td>
</tr>
<tr>
<td>Separate commercial/</td>
<td>3.6</td>
</tr>
<tr>
<td>recreational facilities</td>
<td></td>
</tr>
<tr>
<td>Baseline environmental</td>
<td>3.8</td>
</tr>
<tr>
<td>Hazard Mitigation Plan</td>
<td>3.11</td>
</tr>
<tr>
<td>Hydrological flood model</td>
<td>3.14</td>
</tr>
<tr>
<td>Town-owned infrastructure</td>
<td>3.15</td>
</tr>
<tr>
<td>Government Island</td>
<td>4.1</td>
</tr>
<tr>
<td>Town Landing</td>
<td>4.2</td>
</tr>
<tr>
<td>Parking</td>
<td>4.5</td>
</tr>
<tr>
<td>Streetscape and signage</td>
<td>4.10, 4.13</td>
</tr>
</tbody>
</table>

| POLICY CHANGES                |         |
| Harbor Governance             | 1.1-1.8 |
| Coordinate infrastructure     | 3.10/3.10 |
| improvements with             |         |
| environmental impacts         |         |
| Special license/permit        | 4.9     |
| program                       |         |

| ZONING CHANGES                |         |
| Flood mitigation on new       | 3.12    |
| development                   |         |
| Incentives for flood          | 3.13    |
| resiliency                    |         |
| Evaluate zoning in Harbor     | 4.11, 4.12, 4.16 |
| area                          |         |

| CONSTRUCTION PROJECTS         | ACTIONS |
| Moorings                      |         |
| Facilities for boats of all   |         |
| types and purposes            |         |
| Pile-supported pier           | 2.5     |
| Seawall repair                | 3.2     |
| Dredging                      | 3.3     |
| Breakwater                    |         |
| Parker Avenue Boat Ramp       | 3.5     |
| Monitoring systems            | 3.9     |
| Mitigation of Heat Island     | 3.16    |
| Effect                        |         |
| Water and power to Town piers | 4.3     |
| Streetscape improvements      | 4.4, 4.13 |
| Security cameras              | 4.6     |
| Careening facility            | 4.7     |
| Wayfinding and interpretive   | 4.4, 4.13, 4.14 |
| signage                       |         |

| PUBLIC OUTREACH AND EDUCATION|         |
| Water safety                 | 2.3     |
| Spring/fall dates            | 2.4     |
| Impacts of stormwater        | 3.7     |
| runoff                       |         |
| Marketing campaigns          | 2.6, 4.8, 4.15 |

Examples of Potential Combined Studies and Policies

- In **blue**: Actions 2.1, 2.2, 2.5, 2.9, 3.4, 3.6, 3.10, 3.11, 4.1, 4.2
- In **red**: Actions 2.8, 2.9, 2.10, 2.11, 2.12, 3.1, 3.8, 3.10, and 3.11
- In **green**: Actions 4.5, 4.10, 4.13, and 4.14
FUNDING SOURCES

MassWorks Dredging Grant
First announced by the Baker-Polito administration for fiscal 2018 as part of the MassWorks Infrastructure Program and intended to support the blue economy by the saltwater dredging of public waterways. EEA and CZM will coordinate this program. More information is available here: https://www.mass.gov/service-details/about-the-massdredge-program.

- Dredging (supported by Actions 2.8-2.12)

MassWorks Infrastructure Program
Administered by the Executive Office of Housing and Economic Development (EOHED); this is a competitive grant program for public infrastructure projects. Priority is given to those projects that support multi-family housing in walkable mixed-use districts; immediate job creation; and/or economic development in weak or distressed areas. MassWorks grants may be used for streetscape improvements, bridge repairs, and other such improvements. Municipalities must demonstrate that the application is consistent with the Commonwealth's Sustainability Principles and meets the programs investment goals. More information is available here: https://www.mass.gov/service-details/massworks-infrastructure-grants.

- Streetscape improvements (Actions 4.4 and 4.13)

MassDOT/Chapter 90
Chapter 90 refers to the highway funds in the annual state funding packages provided to municipalities throughout Massachusetts. These funds are used for improvements to roads and could be used to address the recommendations for Elm and Border Streets.

- Streetscape improvements (Actions 4.4 and 4.13)

EEA MVP Program Action Grant
Cohasset has completed its Municipal Vulnerability Plan and is eligible to apply for the related action grants. These grants help communities implement infrastructure improvements to address the impacts of climate change. The program prefers those strategies that are nature-based. More information about the criteria to apply can be found here: https://www.mass.gov/service-details/mvp-action-grant-eligibility-criteria.

- Mitigation of Heat Island Effect (Action 3.16)

EEA Dam and Seawall Removal or Repair Program
This program helps fund repairs to dams and seawalls. More information can be found here: https://www.mass.gov/dam-and-seawall-repair-or-removal-program

- Seawall repair (Action 3.2)

Seaport Economic Council Grant
This grant addresses economic growth in the maritime sector by providing funds for capital projects. More information can be found here: https://www.mass.gov/seaport-economic-council-programs-and-grants.

CZM Coastal Resilience Grant Program
This program provides funds to address coastal flooding, erosion, and sea level rise. The StormSmart Coasts program provides funds for planning, design, permitting, construction, and monitoring. More information can be found here: https://www.mass.gov/service-details/coastal-resilience-grant-program

- Seawall repair (Action 3.2)
- Breakwater (Action 3.3)
- Monitoring systems (Action 3.9)
- Mitigation of Heat Island Effect (Action 3.16)

CZM Coastal Pollutant Remediation Grant Program
This program helps communities address nonpoint source pollution, including stormwater runoff from paved surfaces and the construction of pumpout facilities for commercial boats. More information can be found here: https://www.mass.gov/service-details/coastal-pollutant-remediation-cpr-grant-program

- Monitoring systems (Action 3.9)
- Impacts of stormwater runoff (Action 3.7)
- Facilities for boats of all types and purposes
MA DEP s319 and 604(b) Grant Programs
These address water quality, including nonpoint source pollution, management planning, and stormwater management. More information can be found here: https://www.mass.gov/info-details/grants-financial-assistance-watersheds-water-quality

- Monitoring systems (Action 3.9)
- Impacts of stormwater runoff (Action 3.7)

Massachusetts Boating Infrastructure Grant/US Fish and Wildlife Sport fish Restoration Program
This grant funds facilities for transient recreational boats longer than 26 ft. More information can be found here: https://www.mass.gov/service-details/boating-infrastructure-grant-funding-opportunities

- Facilities for recreational boats

Massachusetts Division of Marine Fisheries Marine Recreational Fisheries Development Fund
The fund can support improvements to recreational fishing. More information can be found here: https://www.mass.gov/service-details/the-marine-recreational-fisheries-development-fund

- Facilities for recreational boats

Land and Water Conservation Fund
This program funds a combination of preservation activities and outdoor recreation. However, the program expired on September 30, 2018. More information can be found here: https://www.lwcfcoalition.com/

- Wayfinding and interpretive signage (Actions 4.4, 4.13, 4.14)

Hazard mitigation grant program
The Commonwealth provides funding for hazard mitigation plans. More information can be found here: https://www.mass.gov/hazard-mitigation-assistance-grant-programs.

Information on this page also includes the Flood Mitigation Assistance Grant; and the Pre-Disaster Mitigation Grant.
Cohasset Municipal Harbor Plan:  
Market Conditions, Trends and Opportunities; Economic Impacts  

January 2019 (Revised July 2019)

Introduction

This memorandum

- summarizes FXM Associates’ analysis of baseline demographic and economic characteristics for the Town of Cohasset compared to those of Norfolk County and the state of Massachusetts;
- assesses market conditions and trends by industry sector;
- projects employment and space demand for key industry sectors;
- provides a retail opportunity gap analysis and assesses trends in the supply of retail space; and
- analyzes relevant industry data for the commercial fisheries and other waterfront industries in Cohasset and Norfolk and Plymouth Counties.

While a housing market analysis was not included in the scope of work for this assignment, data on trends in the inventory, absorption, and prices of multi-family rental housing are included based on client requests.

An Appendix contains demographic and employment data for the project area and compares these to the Town of Cohasset overall.

The assessment of market conditions and trends was conducted in parallel with other study tasks; including a full inventory and analysis of available land and other physical and regulatory opportunities and constraints for development within the harbor area. At the outset of this study potential redevelopment of two key waterfront area parcels in commercial use\(^1\) had not been determined, so this analysis sought, in part, to address potential market support for those parcels as well as other potential sites. While limited land and parking in the harbor area for new development is a finding of the parallel investigations and public process conducted for the overall study, the findings of the market assessment are still useful and potentially applicable for other areas of Cohasset, especially including the nearby Cohasset Village area.

\(^1\) Specifically including the Cohasset Harbor Inn and Atlantica restaurant parcels.
This study specifically analyzes the commercial fishing industry in Cohasset Harbor along with regional trends in water-dependent and other marine industries, though none appear especially promising for Cohasset Harbor.

**Summary Findings**

A principal concern of the study has been the sustainability of commercial fishing in Cohasset Harbor, which is currently almost exclusively lobstering. Since 2010 both the landings and ex-vessel value of Cohasset’s lobster industry have varied – ranging from nearly 422,462 pounds and almost $1.8 million in value in 2017, to a low of 345,673 pounds and $1.2 million in value in 2012. It is not possible from these data to reliably project longer term trends, but both landings and ex-vessel values have been fairly consistent in recent years as they have been in Plymouth County, a more appropriate comparator for Cohasset’s fishing industry than Norfolk County. The SAFIS Dealer Database reported 26 active harvesters, a 6-year high, and only 4 active dealers, a 10-year low in 2017 as shown in the text table below.

### Cohasset Annual Lobster Landings, Ex-Vessel Value, Effort, and Active Permit Counts, 2010-2017

<table>
<thead>
<tr>
<th>YEAR</th>
<th>LIVE POUNDS</th>
<th>EX-VESSEL VALUE</th>
<th># OF TRIPS</th>
<th># ACTIVE DEALERS</th>
<th># ACTIVE HARVESTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>492,895</td>
<td>$1,871,089</td>
<td>2296</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>2011</td>
<td>421,861</td>
<td>$1,628,838</td>
<td>2040</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>2012</td>
<td>345,673</td>
<td>$1,207,305</td>
<td>1679</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>2013</td>
<td>378,169</td>
<td>$1,358,563</td>
<td>1689</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>2014</td>
<td>353,623</td>
<td>$1,481,956</td>
<td>1448</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>2015</td>
<td>388,964</td>
<td>$1,767,814</td>
<td>1697</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>2016</td>
<td>441,953</td>
<td>$1,922,849</td>
<td>1744</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>2017</td>
<td>422,462</td>
<td>$1,879,363</td>
<td>1937</td>
<td>4</td>
<td>26</td>
</tr>
</tbody>
</table>

**SOURCE:** SAFIS Dealer Database

Notwithstanding these variations, local lobstermen report a very stable fishery over the past 10 years and prospects of continuation at least at current catch levels. According to local fishermen, there are currently 19 active boats regularly engaged in commercial lobstering, providing jobs and income to 40 vessel owners and crew. The contribution of this industry to the economy of Cohasset includes an estimated $760,000 in local spending for goods and services (including the spending of fishermen earnings for local goods and services other than those required to support their businesses). Local resident fishermen also contribute property taxes directly and indirectly to the Town of Cohasset, as well as mooring and dinghy fees and vessel excise taxes totaling about $214,000 annually as shown in the text table below.³

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² The latest available data (2017) for commercial finfish and shellfish landings other than Cohasset’s lobster catch for all of Norfolk County was negligible and suppressed in the SAFIS dealer data base. A far more robust and diverse commercial fishery is evident in Plymouth County, which includes the ports of Scituate, Duxbury, Hingham, Hull, Marshfield and Kingston. Cohasset commercial vessels landed about 11% of the combined Cohasset and Plymouth County lobster catch in 2017.

³ In 2017 total vessel excise taxes, mooring fees and other receipts to the Town attributable to Cohasset Harbor operations (mostly serving recreational boating) totaled about $153,000. While there is considerable question about the spending of recreational boaters locally, based on estimated statewide per boat averages, the occupants of the
Noteworthy in the above table is the relatively low average annual covered wages\textsuperscript{4} of the crews of commercial fishing vessels in Cohasset – about $24,000 per year compared to an average annual wage of $43,000 for all jobs in Cohasset (see Table 6, page 13). This does not include the earning of fishermen who are self-employed and likely vessel owners.

Local fishermen note an absence of infrastructure investment to support vessel off-loadings, refrigerated storage, and other facilities (the detailed results of conversations/meetings and facility requests of the commercial fishermen in Cohasset are covered in the plan.) Hauling the catch landside at low tide is especially difficult and the lack of lighting and electricity problematic for efficient and safe operations. For the relatively modest investments in physical facilities described elsewhere in the plan, local fishermen estimate that they might increase their catch (and therefore their economic contribution to the Town) by 20-30% as well as sustain a fishery in need of new participants to replace the current aging workforce.

The presence of commercial fishing vessels adds to the attraction of Cohasset Harbor to both residents and visitors, and enhances the prospects of success for local restaurants and other businesses. Improvements to the connectivity between the harbor and Cohasset Village are discussed in the plan.

As noted in the introduction, the market assessment was undertaken on the assumption that there could be suitable land available and adequate parking to

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\textsuperscript{4} Wages covered by unemployment compensation as reported to the Massachusetts Department of Labor. Self-employed persons are not included.
support replacement or additional commercial uses in the harbor area. Notwithstanding subsequent planning efforts showing limited suitable land for development in the immediate harbor area, the following findings are potentially applicable to other areas of Cohasset, especially the nearby Cohasset Village area.

Additional summary findings relate to the social and economic conditions within the Town of Cohasset overall as a context that potential developers and other investors will find useful, as they will the analyses of employment and absorption trends and potential demand for commercial space shown in the report.

- In 2017 Cohasset held an estimated 3,700 jobs and 290 business establishments with $630 million in annual sales. Cohasset has a relatively high concentration of jobs in the Retail Trade sector (22% of all jobs compared to 15% in Norfolk County overall) and a relatively low proportion of health care and social assistance jobs (10% compared to 16% in Norfolk County overall). Average wages in Cohasset’s manufacturing sector were 29% higher in 2016 ($103,376) than in Norfolk County overall ($80,236) and higher than the statewide average ($86,372). All other industries besides healthcare and social assistance and manufacturing lag in wages when compared to the county.

- Office-using industries are projected to add nearly 200 jobs in Cohasset over the next 5 years, generating projected demand for about 43,000 square feet of office space. Within both Norfolk and Plymouth Counties overall projected increases in employment and projected demand for office space suggest additional opportunities for Cohasset to capture a greater share of regional growth in office space. Among the potentially attractive potentials for office space is shared work space that can be adapted to many types of existing buildings, and is in high demand not only from smaller local businesses but also other workers seeking small spaces locally to reduce their out of town commutes. Employment growth extrapolated from historical trends also suggests potential demand for additional health care related, arts and recreation, hospitality and restaurant uses.

- A retail gap analysis projects the potential to capture some of the current leakage of approximately $122 million in retail sales with 5-15-minute drive times of the harbor area. FXM estimates a potential to capture about 76,000 square feet in 19 stores, including limited service eating establishments, clothing, jewelry and other store types that might be suitable for Cohasset Village.

Analysis of trends in the supply of retail space suggests some opportunities for growth in Cohasset and the surrounding submarket over the next five years, with the market characterized by increasing occupancies, very low vacancy rates, and rising rents. At $29 per square foot per year the average retail rents in Cohasset are substantially higher than the $19 per square foot per year for the Route 3 Corridor submarket overall.
Within Norfolk County overall employment has grown and is projected to continue to grow in marine transportation, encompassing passenger transportation/sightseeing and other related industries. Cohasset is currently underrepresented in excursion/charter services compared to other South Shore communities. In addition to waterfront access and sufficient water depth to accommodate excursion vessels, adequate parking is also essential. Both of these constraints are currently problematic for Cohasset Harbor.

Cohasset’s population is estimated at about 8,325 in 2017, a 10% increase since 2010. It is projected to increase by another 6% by 2022, to over 8,790 persons. Between 2000 and 2010 population increased in Cohasset by about 4% while population in Norfolk County and Massachusetts overall increased by 3% during the same period. Households, currently estimated at 3,095, are projected to grow to 3,298 by 2022, a 7% increase which would continue to be greater than household growth projections for Norfolk County and Massachusetts overall.

In 2017, median household income in Cohasset is estimated at $117,919, compared to $94,435 for Norfolk County overall and $72,671 for Massachusetts. Cohasset’s workforce population has a higher proportion of persons with a Bachelor’s Degree or higher (65%) than in Norfolk County (51%) and Massachusetts overall (40%) and a lower proportion of persons (3%) with less than a high school education than in Norfolk County (6%) and Massachusetts overall (10%).

The median value of owner-occupied housing in Cohasset is estimated at $932,595 in 2017, substantially higher than in Norfolk County ($451,077) and Massachusetts overall ($370,000).

Population and Households

As shown in Table 1, the estimated population of the Town of Cohasset is 8,325 residents in 2017. The town has gained 729 residents since 2010 (an increase of 10%), double the rate of Norfolk County (5%) and the state of Massachusetts (5%). Cohasset’s population grew by 4% between 2000 and 2010, also a period of growth for both Norfolk County (3%) and the state (3%). Projections for the next five years show continued growth for the Town of Cohasset at 6%, a growth rate again double that of Norfolk County (3%), and notably higher than the state (4%). This growth is crucial to Cohasset’s economic health, which depends to a large extent on a growing population’s demand for goods and services as well as a potential source of labor for town businesses. Projections for the next five years show continued growth for Cohasset at 7%, greater than the projected growth for both Norfolk County (4%) and the state (4%).

The estimated 3,095 households in the Town of Cohasset experienced a small gain of 2% in the decade between 2000 and 2010, followed by a more significant gain of 12% since 2010, and are projected to grow at 7% as the population rises. Average
household size in Cohasset is 2.6, similar to that of Norfolk County (2.5) and that of the state (2.5).

As shown by data in Table 1, the average income in Cohasset ($174,029) is markedly higher (32% greater) than the average incomes for Norfolk County ($131,940), and 70% higher than the Commonwealth ($102,378). The estimated median income ($117,919) is over $23,000 more than that of Norfolk County ($94,435), and over $45,000 higher than that for the state of Massachusetts ($72,671). Notably, Cohasset's poverty rate is less than half that of the Massachusetts poverty rate and 1% lower than Norfolk County.
Table 1

Population & Households Compared

<table>
<thead>
<tr>
<th>Town of Cohasset</th>
<th>Norfolk County</th>
<th>State of MA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022 Projection</td>
<td>8,792</td>
<td>726,490</td>
</tr>
<tr>
<td>2017 Estimate</td>
<td>8,325</td>
<td>702,290</td>
</tr>
<tr>
<td>2010 Census</td>
<td>7,596</td>
<td>670,850</td>
</tr>
<tr>
<td>2000 Census</td>
<td>7,323</td>
<td>650,738</td>
</tr>
</tbody>
</table>

- *Projected Growth 2017 - 2022*: 6% 3% 4%
- *Estimated Growth 2010 - 2017*: 10% 5% 5%
- *Growth 2000 - 2010*: 4% 3% 3%

- *2017 Estimated Average Age*: 41.1 40.3

<table>
<thead>
<tr>
<th><strong>Households</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2022 Projection</td>
<td>3,298</td>
<td>280,398</td>
</tr>
<tr>
<td>2017 Estimate</td>
<td>3,095</td>
<td>270,670</td>
</tr>
<tr>
<td>2010 Census</td>
<td>2,759</td>
<td>257,914</td>
</tr>
<tr>
<td>2000 Census</td>
<td>2,711</td>
<td>249,005</td>
</tr>
</tbody>
</table>

- *Projected Growth 2017 - 2022*: 7% 4% 4%
- *Estimated Growth 2010 - 2017*: 12% 5% 5%
- *Growth 2000 - 2010*: 2% 4% 4%

- *2017 Average Household Size*: 2.6 2.5

<table>
<thead>
<tr>
<th><strong>2017 Estimated Household Income</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Less than $15,000</td>
<td>123</td>
<td>4%</td>
<td>19,134</td>
<td>7%</td>
<td>282,172</td>
<td>11%</td>
</tr>
<tr>
<td>Income $15,000 - $24,999</td>
<td>175</td>
<td>6%</td>
<td>16,424</td>
<td>6%</td>
<td>223,710</td>
<td>8%</td>
</tr>
<tr>
<td>Income $25,000 - $34,999</td>
<td>125</td>
<td>4%</td>
<td>15,495</td>
<td>6%</td>
<td>195,913</td>
<td>7%</td>
</tr>
<tr>
<td>Income $35,000 - $49,999</td>
<td>184</td>
<td>6%</td>
<td>21,768</td>
<td>8%</td>
<td>269,589</td>
<td>10%</td>
</tr>
<tr>
<td>Income $50,000 - $74,999</td>
<td>290</td>
<td>9%</td>
<td>36,685</td>
<td>14%</td>
<td>404,456</td>
<td>15%</td>
</tr>
<tr>
<td>Income $75,000 - $99,999</td>
<td>403</td>
<td>13%</td>
<td>32,786</td>
<td>12%</td>
<td>326,932</td>
<td>12%</td>
</tr>
<tr>
<td>Income $100,000 - $124,999</td>
<td>336</td>
<td>11%</td>
<td>28,836</td>
<td>11%</td>
<td>264,287</td>
<td>10%</td>
</tr>
<tr>
<td>Income $125,000 - $149,000</td>
<td>271</td>
<td>9%</td>
<td>23,259</td>
<td>9%</td>
<td>197,545</td>
<td>7%</td>
</tr>
<tr>
<td>Income $150,000 - $199,999</td>
<td>331</td>
<td>11%</td>
<td>29,226</td>
<td>11%</td>
<td>229,286</td>
<td>9%</td>
</tr>
<tr>
<td>Income $200,000 - $249,999</td>
<td>188</td>
<td>6%</td>
<td>14,939</td>
<td>6%</td>
<td>106,318</td>
<td>4%</td>
</tr>
<tr>
<td>Income $250,000 - $499,999</td>
<td>375</td>
<td>12%</td>
<td>19,711</td>
<td>7%</td>
<td>121,994</td>
<td>4%</td>
</tr>
<tr>
<td>Income $500,000 and over</td>
<td>294</td>
<td>10%</td>
<td>12,407</td>
<td>5%</td>
<td>60,200</td>
<td>2%</td>
</tr>
<tr>
<td>Household Income Less than $25,000</td>
<td>298</td>
<td>10%</td>
<td>35,558</td>
<td>13%</td>
<td>505,882</td>
<td>19%</td>
</tr>
<tr>
<td>Household income more than $150,000</td>
<td>1,188</td>
<td>38%</td>
<td>76,283</td>
<td>28%</td>
<td>517,798</td>
<td>19%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>2017 Families by Poverty Status</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2017 Families Below Poverty</td>
<td>75</td>
<td>3%</td>
</tr>
<tr>
<td>2017 Families Below Poverty with Children</td>
<td>68</td>
<td>3%</td>
</tr>
</tbody>
</table>

| **2017 Estimated Average Household Income** | $ 174,029 | $ 131,940 | $ 102,378 |
| **2017 Estimated Median Household Income** | $ 117,919 | $ 94,435 | $ 72,671 |

Source: EnvironAnalytics, 2017 and FXM Associates
**Workforce Characteristics**

The data in Table 2 show that Cohasset’s workforce is similar to those of Norfolk County and Massachusetts except with regard to education: the percent of workers with less than a high school degree is half of that in Norfolk County and only 30% of that in the state. The proportion of workers with a bachelor’s degree or higher for the Town of Cohasset is 14 percentage points greater than that for Norfolk County and 25 percentage points greater than that of the Commonwealth.

The occupational classifications of workers are similar across all geographic areas, as are the types of workers. The proportion of white collar workers in Cohasset is higher, 7% greater than the county, and 14% greater than the state. The allocation of worker types is almost identically distributed through all three geographic areas with the exception of Cohasset having more self-employed workers. The proportion of households in Cohasset that do not own a vehicle is a third that of the county, and a fourth that of the state. Households in Cohasset are also slightly more likely to be a two-vehicle household than in the county or state. Travel times to work for those in Cohasset are slightly longer than for the county and state: 40 minutes, compared to 36 and 32 minutes at the county and state levels respectively.
Table 2

Workforce Characteristics

<table>
<thead>
<tr>
<th>Education (Pop. Age 25+)</th>
<th>Town of Cohasset</th>
<th>Norfolk County</th>
<th>State of MA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 9th grade</td>
<td>5,374</td>
<td>490,824</td>
<td>4,766,815</td>
</tr>
<tr>
<td>Some High School, no diploma</td>
<td>126</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>High School Graduate (or GED)</td>
<td>737</td>
<td>14%</td>
<td>21%</td>
</tr>
<tr>
<td>Some College, no degree</td>
<td>659</td>
<td>12%</td>
<td>14%</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>312</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>2,096</td>
<td>39%</td>
<td>28%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>962</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Professional School Degree</td>
<td>299</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>138</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td>171</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Bachelor's Degree or higher</td>
<td>3,495</td>
<td>65%</td>
<td>51%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation Classification (Pop. Age 16+)</th>
<th>4,117</th>
<th>366,164</th>
<th>3,490,028</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Collar</td>
<td>378</td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td>White Collar</td>
<td>3,342</td>
<td>81%</td>
<td>74%</td>
</tr>
<tr>
<td>Service and Farm</td>
<td>397</td>
<td>10%</td>
<td>14%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Worker (Civ. Employed Pop. 16+)</th>
<th>4,117</th>
<th>366,164</th>
<th>3,490,028</th>
</tr>
</thead>
<tbody>
<tr>
<td>For-Profit Private Workers</td>
<td>2,531</td>
<td>61%</td>
<td>66%</td>
</tr>
<tr>
<td>Non-Profit Private Workers</td>
<td>434</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>Local Government Workers</td>
<td>343</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>State Government Workers</td>
<td>109</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Federal Government Workers</td>
<td>89</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Self-Emp Workers</td>
<td>611</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Unpaid Family Workers</td>
<td>0</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

2017 Est. Households by Number of Vehicles

| No Vehicles | 2,975 | 246,086 | 2,348,032 |
| 1 Vehicle   | 709   | 35%     | 36%       |
| 2 Vehicles  | 1,462 | 40%     | 36%       |
| 3 Vehicles  | 534   | 35%     | 36%       |
| 4 Vehicles  | 152   | 3%      | 3%        |
| 5 or more Vehicles | 118 | 1% | 1% |

Average Travel Time to Work (minutes) 40 36 32

Source: EnvironAnalytics, 2017 and FXM Associates
**Housing**

Table 3 summarizes housing characteristics within Cohasset, Norfolk County, and the state. The great majority, 83%, of Cohasset residences are owner-occupied, higher than the 69% of Norfolk County residents who own, and the 62% of state residents who own. Average lengths of residence for owner-occupied units in all three areas are about 18 years; average lengths of residence for renter-occupants are also similar, ranging from 6 to 7.5 years.

The median value of owner-occupied structures in Cohasset is considerably higher than in the county and state: $932,595, compared to $451,077 in Norfolk County and $370,000 in the state. For the county and the state, the largest proportion of structures is in the $300,000 to $399,999 ranges, where almost a third of Cohasset’s structures are valued at $1,000,000 or more.

For all three geographic areas examined, the largest proportion of housing stock was built before 1939. Cohasset’s median year of structures built is just two years older than the county and equal to that of the state (1963).
### Table 3

#### Housing Characteristics

<table>
<thead>
<tr>
<th>Tenure (Occupied Housing Units)</th>
<th>Town of Cohasset</th>
<th>Norfolk County</th>
<th>State of MA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner Occupied</td>
<td>3,095</td>
<td>270,670</td>
<td>2,661,460</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>2,570</td>
<td>83%</td>
<td>186,749</td>
</tr>
<tr>
<td></td>
<td>525</td>
<td>17%</td>
<td>83,921</td>
</tr>
<tr>
<td><strong>Avg. Length of Residence (yrs)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>18</td>
<td>18.7</td>
<td>18.5</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>6</td>
<td>7.4</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Owner-Occupied Housing Values</strong></td>
<td>2,570</td>
<td>183,819</td>
<td>1,667,112</td>
</tr>
<tr>
<td>Value Less than $20,000</td>
<td>19</td>
<td>2,731</td>
<td>29,208</td>
</tr>
<tr>
<td>Value $20,000 - $39,999</td>
<td>17</td>
<td>1%</td>
<td>14,758</td>
</tr>
<tr>
<td>Value $40,000 - $59,999</td>
<td>9</td>
<td>0.4%</td>
<td>9,329</td>
</tr>
<tr>
<td>Value $60,000 - $79,999</td>
<td>6</td>
<td>0.2%</td>
<td>8,787</td>
</tr>
<tr>
<td>Value $80,000 - $99,999</td>
<td>6</td>
<td>0.2%</td>
<td>11,641</td>
</tr>
<tr>
<td>Value $100,000 - $149,999</td>
<td>1</td>
<td>0.0%</td>
<td>61,582</td>
</tr>
<tr>
<td>Value $150,000 - $199,999</td>
<td>25</td>
<td>1%</td>
<td>121,968</td>
</tr>
<tr>
<td>Value $200,000 - $299,999</td>
<td>64</td>
<td>2%</td>
<td>333,286</td>
</tr>
<tr>
<td>Value $300,000 - $399,999</td>
<td>182</td>
<td>7%</td>
<td>339,976</td>
</tr>
<tr>
<td>Value $400,000 - $499,999</td>
<td>208</td>
<td>8%</td>
<td>256,411</td>
</tr>
<tr>
<td>Value $500,000 - $749,999</td>
<td>610</td>
<td>24%</td>
<td>273,479</td>
</tr>
<tr>
<td>Value $750,000 - $999,999</td>
<td>650</td>
<td>25%</td>
<td>113,888</td>
</tr>
<tr>
<td>Value $1,000,000 or more</td>
<td>773</td>
<td>30%</td>
<td>92,799</td>
</tr>
<tr>
<td><strong>Median Value</strong></td>
<td><strong>$932,595</strong></td>
<td><strong>$451,077</strong></td>
<td><strong>$369,832</strong></td>
</tr>
<tr>
<td><strong>2017 Est. Housing Units by Year Structure Built</strong></td>
<td>3,367</td>
<td>283,680</td>
<td>2,951,917</td>
</tr>
<tr>
<td>Housing Units Built 2010 or later</td>
<td>394</td>
<td>12%</td>
<td>15,823</td>
</tr>
<tr>
<td>Housing Units Built 2000 to 2009</td>
<td>202</td>
<td>6%</td>
<td>22,246</td>
</tr>
<tr>
<td>Housing Units Built 1990 to 1999</td>
<td>230</td>
<td>7%</td>
<td>21,924</td>
</tr>
<tr>
<td>Housing Units Built 1980 to 1989</td>
<td>327</td>
<td>10%</td>
<td>28,836</td>
</tr>
<tr>
<td>Housing Units Built 1970 to 1979</td>
<td>264</td>
<td>8%</td>
<td>32,096</td>
</tr>
<tr>
<td>Housing Units Built 1960 to 1969</td>
<td>340</td>
<td>10%</td>
<td>32,327</td>
</tr>
<tr>
<td>Housing Units Built 1950 to 1959</td>
<td>417</td>
<td>12%</td>
<td>39,371</td>
</tr>
<tr>
<td>Housing Units Built 1940 to 1949</td>
<td>240</td>
<td>7%</td>
<td>18,789</td>
</tr>
<tr>
<td>Housing Unit Built 1939 or Earlier</td>
<td>953</td>
<td>28%</td>
<td>72,268</td>
</tr>
</tbody>
</table>

Source: EnvironAnalytics, 2017 and FXM Associates
Business Characteristics

Table 4 below shows establishments, jobs and sales by major industry groups in Cohasset. The town holds about 3,700 jobs and 492 establishment producing $630 million in sales annually. The largest number of jobs and establishments in Cohasset is in the Retail Trade, followed by Accommodation and Food Services, Health Care and Social Assistance, and Arts, Entertainment, and Recreation. Retail Trade also generates the most sales.

Table 4

<table>
<thead>
<tr>
<th>Industry Sectors</th>
<th>Total Jobs</th>
<th>Establishments</th>
<th>Sales (000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23: Construction</td>
<td>165</td>
<td>33</td>
<td>$37,455</td>
</tr>
<tr>
<td>31-33: Manufacturing</td>
<td>78</td>
<td>12</td>
<td>$13,628</td>
</tr>
<tr>
<td>42: Wholesale trade</td>
<td>66</td>
<td>11</td>
<td>$100,884</td>
</tr>
<tr>
<td>44-45: Retail trade</td>
<td>861</td>
<td>70</td>
<td>$198,262</td>
</tr>
<tr>
<td>51: Information</td>
<td>52</td>
<td>7</td>
<td>$14,829</td>
</tr>
<tr>
<td>52: Finance and insurance</td>
<td>171</td>
<td>33</td>
<td>$41,521</td>
</tr>
<tr>
<td>53: Real estate and rental and leasing</td>
<td>194</td>
<td>28</td>
<td>$27,430</td>
</tr>
<tr>
<td>54: Professional, scientific, &amp; technical svcs</td>
<td>339</td>
<td>57</td>
<td>$55,238</td>
</tr>
<tr>
<td>56: Admin&amp;supp. and waste mgt &amp;remed. svcs</td>
<td>114</td>
<td>18</td>
<td>$22,842</td>
</tr>
<tr>
<td>61: Educational Services</td>
<td>260</td>
<td>14</td>
<td>$1,106</td>
</tr>
<tr>
<td>62: Health care and social assistance</td>
<td>499</td>
<td>80</td>
<td>$59,102</td>
</tr>
<tr>
<td>71: Arts, entertainment, and recreation</td>
<td>178</td>
<td>14</td>
<td>$23,654</td>
</tr>
<tr>
<td>72: Accommodation and food services</td>
<td>345</td>
<td>29</td>
<td>$20,639</td>
</tr>
<tr>
<td>81: Other services (except pub admin)</td>
<td>262</td>
<td>61</td>
<td>$13,534</td>
</tr>
<tr>
<td>92: Public Administration</td>
<td>140</td>
<td>25</td>
<td>NA</td>
</tr>
<tr>
<td><strong>TOTAL All Industries</strong></td>
<td><strong>3,724</strong></td>
<td><strong>492</strong></td>
<td><strong>$630,124</strong></td>
</tr>
</tbody>
</table>

Source: Mass Department of Labor, ES202 Data Series, Adjusted Values, 2016: and FXM Associates
Data in Table 5 show the proportion of jobs in Cohasset by industry compared to those of Norfolk County. Noteworthy in this comparison is the high concentration of Retail Trade jobs and the relatively low concentration of Health Care and Social Assistance jobs in Cohasset compared to the County, where this sector is the single largest employer.

### Table 5

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Cohasset</th>
<th>Norfolk County</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-Construction</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>31-33: Manufacturing</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>42-Wholesale trade</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>44-45-Retail trade</td>
<td>22%</td>
<td>15%</td>
</tr>
<tr>
<td>52-Finance &amp; Insurance</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>53-Real estate and rental and leasing</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>54-Professional, scientific, &amp; technical svcs</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>56-Admin&amp;supp. and waste mgt &amp; remed. svcs</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td>62-Health care and social assistance</td>
<td>10%</td>
<td>16%</td>
</tr>
<tr>
<td>71-Arts, entertainment, and recreation</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>72-Accommodation and food services</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>81-Other services (except pub admin)</td>
<td>11%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Mass Department of Labor, ES202 Data Series, Adjusted Values, 2016: and FXM Associates
Average wages overall in Cohasset lag behind the county and statewide annual average wages, by 37% or $19,760 when compared to the county and by 32% or $24,856 when compared to the state. The reason for these relatively lower average wages for all jobs combined is the large number of relatively low-paying jobs in Cohasset in Retail trade and Accommodation & food services (primarily restaurants). Wages in Cohasset’s Manufacturing sector stand out, as they are substantially higher than the industry-wide averages for the county and state; however, as shown in Table 4 above, there are only 78 employees in this sector in Cohasset. Cohasset’s wages for Health Care and Social Assistance are on par with Norfolk County’s and the Commonwealth’s. Besides Manufacturing, and Health Care and Social Assistance, all other sectors’ average annual wages fall behind those averages for Norfolk county overall.

Table 6

<table>
<thead>
<tr>
<th>Town of Cohasset Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Sectors</td>
</tr>
<tr>
<td>23: Construction</td>
</tr>
<tr>
<td>31-33: Manufacturing</td>
</tr>
<tr>
<td>42: Wholesale trade</td>
</tr>
<tr>
<td>44-45: Retail trade</td>
</tr>
<tr>
<td>52: Finance and insurance</td>
</tr>
<tr>
<td>53: Real estate and rental and leasing</td>
</tr>
<tr>
<td>54: Professional, scientific, &amp; technical svcvs</td>
</tr>
<tr>
<td>56: Admin&amp;supp. and waste mgt &amp;remed. svcvs</td>
</tr>
<tr>
<td>62: Health care and social assistance</td>
</tr>
<tr>
<td>71: Arts, entertainment, and recreation</td>
</tr>
<tr>
<td>72: Accommodation and food services</td>
</tr>
<tr>
<td>81: Other services (except pub admin)</td>
</tr>
<tr>
<td>Average All Industries</td>
</tr>
</tbody>
</table>

Source: Mass Department of Labor, ES202 Data Series, Adjusted Values, 2016: and FXM Associates

Market Conditions and Trends

The measure most used for commercial market trends analyses is employment because jobs are a good indicator of the current status and future direction of a given industry. Increasing employment indicates industries that are growing, whether through expansion of existing businesses or opening of new ones. Also, reasonably reliable historic data are readily available and can be used to project employment trends. The two sources used here for the employment trends graphs are the ES202 reports from the Massachusetts Department of Labor and Workforce
Development, modified by the more inclusive (because it includes self-employment data) reports from the Regional Economic Information System (REIS) of the U.S. Department of Commerce, Bureau of Economic Analysis.

When using historical data to produce future projections, it is important to consider the reliability of a given dataset. The statistic used to signify the reliability of a given projection is called the $R^2$ calculation and is presented alongside each projection given below. The closer the $R^2$ value is to 1, the better the predictive value of past performance. A limiting factor on 2017 projections is the influence of the 2007-8 recession, which is still being felt in some sectors and which may also affect the $R^2$ values. For example, a sector might be showing strong growth since 2011 but the volatility introduced by the recession could pull down the projected future growth and also lower the $R^2$ value of the projection. Meanwhile, it is still too soon to know whether and how post-recession growth will be sustained. 

Also note that, because of the relatively small number of jobs in Cohasset, the predictive value of past history is weak across all sectors. Trends in Norfolk County, in contrast, are stronger indicators of future growth, and the Town of Cohasset may find those data useful in identifying potential for economic growth.

The following graphs display trends and projections for the Town of Cohasset and Norfolk Counties. Note that because of the size differences, the graphs should be read on two axes, the counties on the right and Cohasset on the left.
Figure 1 shows these data for all industries.

The $R^2$ values for the projections for Cohasset and Norfolk County are high enough to suggest upward trends for both Cohasset and Norfolk over the next five years.

Office-using industries are a potential target for more growth and development. For the purposes of this analysis, FXM has defined office-using sectors by NAICS codes:

- 51–Information
- 52–Finance and Insurance
- 53–Real Estate and Rental & Leasing
- 54–Professional, Scientific, and Technical Services
- 55–Management of Companies and Enterprises
- 56–Administrative and Support Services and Waste Management & Remediation
(Data on Information, and Management of Companies and Enterprises are not available for Cohasset. The trends in Administration and Support Services and Waste Management & Remediation, for both Cohasset and Norfolk County, exhibit such wide swings over the last ten years that projections based on them are meaningless and are not displayed here.)

In the case of Cohasset, only Finance and Insurance, and Real Estate and Rental Leasing show evidence of potential, albeit weak, for future development. Figure 2 shows trends and projections for all office-using industries in Cohasset and in Norfolk County.

**Figure 2**

The projection for Cohasset is flat with an $R^2$ value close to zero, most likely due to the rise and then fall in employment during the recession and limited recovery since, making any prediction based on past performance impossible. The trend line for Norfolk County is more promising based on a significantly higher predictive value of historic growth, an $R^2$ value of .72. Consequently, it is difficult to know for sure whether these sectors as a group have potential for growth in the Cohasset area but the county does show gradual, persistent growth.
Among the office-using industries, Finance and Insurance shows growth potential in both Cohasset and Norfolk County. As shown in Figure 3, the R² for Cohasset is high, 0.71, with the R² for Norfolk County following relatively far behind at 0.33. Norfolk County employment experienced a sharp climb and subsequent descend following the years of the recession and appears to have become less volatile in the past few years. The consistency in Finance and Insurance industry employment over the past decade in Cohasset indicate potential for future growth.

**Figure 3**
Real Estate and Rental and Leasing, shown in Figure 4, makes up about 5% of the workforce, and has seen substantial growth in the past few years. The busting of the housing market bubble in 2008 greatly affected the real estate industry in the Town of Cohasset, as it did to many other places around the county. On the county level, Real Estate and Rental and Leasing has seen a more consistent linear growth with an $R^2$ of 0.91.

**Figure 4**
Other office-using industries, such as Professional, Scientific & Technical Services (Figure 5), show inconsistent employment numbers for Cohasset, making predictions difficult with an $R^2$ value as low as 0.12. Projected trends for Norfolk County are more reliable with an $R^2$ value of 0.68. Both trends exhibit gradual, steady growth for both Cohasset and Norfolk County, but with $R^2$ values below 0.5, the predictions for Professional, Scientific & Technical Services in Cohasset are less reliable.
Retail Trade is the single largest employer in Cohasset, accounting for 22% of all the jobs in the town. Retail Trade jobs can range widely and are composed of the following industry groups: motor vehicle dealers and automotive parts stores, furniture and home furnishing stores, electronics and appliance stores, building material and garden equipment, food and beverage stores, and gas stations. Average wages in this sector are comparable to Norfolk County wages and only slightly above the state average. The projection for the Retail Trade sector employment, as seen in Figure 8, for Norfolk County is projected to continue to rise over the next 5 years with an $R^2$ value of 0.66. Historical trend line projections for the Town of Cohasset are less reliable.
A notable industry with growth potential is Arts, Entertainment and Recreation, the third largest employer in Cohasset, accounting for 10% of jobs. Wages in this sector are low: 42% lower than in the county and 28% lower than the state. Employment data for Norfolk County in this sector follow an almost exactly linear projection, predicting constant growth with an $R^2$ value of 0.96. Employment projections for Cohasset are strong with an $R^2$ value of 0.73.
Accommodation and Food Services is the second largest employer for the Town of Cohasset, accounting for almost 13% of all the jobs in the town. Restaurants are the main component. Average wages in this sector are low but comparable with the county and state-wide average. The linear regression projection for the Accommodation and Food Services sector employment, as seen in Figure 8, for Norfolk County shows notable growth and dependability with an R² value of 0.89. Cohasset has seen similar growth in jobs paralleling trends observed in Norfolk County.
Other Services, mostly in the trades industry, such as personal services and repair and maintenance, show persistent projected growth for both Cohasset and Norfolk County. Cohasset has seen dramatic growth in the years from 2010-2016 and is projected to continue to grow with a strong $R^2$ of 0.75.
Space Demand Through 2022

Data in Table 7 summarize projected employment based on historical trends and converts these projections into potential demand for space using square feet per employee norms for each sector. Projected job losses are shown in red.

Table 7

Cohasset Projected Space Demand Through 2022 Based on Historical Employment Trends

<table>
<thead>
<tr>
<th>Sector</th>
<th>Cohasset</th>
<th>Norfolk County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Projected New Jobs</td>
<td>Projected Space Demand (SF)</td>
</tr>
<tr>
<td>23- Construction</td>
<td>(47)</td>
<td>(2,889)</td>
</tr>
<tr>
<td>31-33 - Manufacturing</td>
<td>(2)</td>
<td>(2,418)</td>
</tr>
<tr>
<td>44-45-Retail trade</td>
<td>(74)</td>
<td>(388)</td>
</tr>
<tr>
<td>48-49 Transportation and Warehousing</td>
<td>(29)</td>
<td>899</td>
</tr>
<tr>
<td>Subtotal Office-using</td>
<td>171</td>
<td>42,769</td>
</tr>
<tr>
<td>52-Finance &amp; Insurance</td>
<td>18</td>
<td>4,519</td>
</tr>
<tr>
<td>53 - Real Estate and Rental and Leasing</td>
<td>20</td>
<td>5,000</td>
</tr>
<tr>
<td>54 - Professional, Scientific, &amp; Technical</td>
<td>65</td>
<td>16,250</td>
</tr>
<tr>
<td>56-Administrative &amp; Support;Waste Mgt&amp;Remed.</td>
<td>68</td>
<td>17,000</td>
</tr>
<tr>
<td>Subtotal Office-using</td>
<td>171</td>
<td>42,769</td>
</tr>
<tr>
<td>62-Health care and Social Assistance</td>
<td>83</td>
<td>33,191</td>
</tr>
<tr>
<td>71-Arts, Entertainment, and Recreation</td>
<td>75</td>
<td>30,043</td>
</tr>
<tr>
<td>72 - Accommodation &amp; Food Services</td>
<td>147</td>
<td>25,796</td>
</tr>
<tr>
<td>81- Other Services (Excpub Pub Admin)</td>
<td>111</td>
<td>55,443</td>
</tr>
<tr>
<td>TOTALS</td>
<td>177</td>
<td>187,241</td>
</tr>
</tbody>
</table>

In the table, office-using industries are grouped since they require similar kinds of space. Note that job growth for Cohasset in all office-using industries shown, is expected to be positive adding 171 jobs over the next five years and generating demand for about 42,000 square feet of office space through 2022. Projected employment growth in Cohasset also suggests additional demand for space to accommodate health care and social assistance businesses (including medical offices), arts, entertainment & recreation businesses (including performing arts), and accommodation & food services (including hotels/motels and restaurants). Each of these sectors, plus office using businesses, is also projected to grow in Norfolk County overall suggesting opportunities for Cohasset to increase its relative share of regional growth.

While Cohasset is technically located in Norfolk County, it is notable that surrounding towns are primarily located within Plymouth County and about 20% of Cohasset workers commute to jobs within Plymouth County (40% within Norfolk County and 28% within Suffolk County/Boston). Table 7a below shows space demand in Plymouth County based on projected employment growth. The same sectors showing growth in Norfolk County are also projected to grow in Plymouth County...
FXM Associates

County, again suggesting opportunities for Cohasset to increase its relative share of regional growth.

Table 7a

| Cohasset Projected Space Demand Through 2022 Based on Historical Employment Trends |
|---------------------------------|-----------------|-----------------|-----------------|
| | Projected New Jobs | Projected Space Demand (SF) | Projected New Jobs | Projected Space Demand (SF) |
| Sector | | | | |
| 23- Construction | (47) | (1887) | |
| 31-33 - Manufacturing | (2) | (278) | |
| 44-45-Retail trade | (74) | (388) | (237,500) |
| 48-49 Transportation and Warehousing | (29) | 273 | 204,750 |
| Office-using | | | |
| 52-Finance & Insurance | 18 | 4,519 | (4) | 3,250 |
| 53 - Real Estate and Rental and Leasing | 20 | 5,000 | 2,349 | 497,000 |
| 54 - Professional, Scientific, & Technical | 65 | 16,250 | 569 | 78,000 |
| 56-Administrative & Support; Waste Mgt&Remed | 68 | 17,000 | 600 | 127,750 |
| Subtotal Office-using: | 171 | 42,769 | 3,514 | 706,000 |
| 62-Health care and Social Assistance | 83 | 33,191 | 5,542 | 1,837,200 |
| 71-Arts, Entertainment, and Recreation | 75 | 30,043 | 343 | 77,200 |
| 72 - Accommodation & Food Services | 147 | 25,796 | 1,339 | 235,664 |
| 81- Other Services (Excpet Pub Admin) | 111 | 55,443 | 318 | 159,000 |
| TOTALS | 177 | 187,241 | 12,290 | 3,688,314 |

Source: Massachusetts Department of Labor and Workforce Development, ES202 reports (adjusted by REIS); FXM Associates

Retail Opportunity Gap Analysis

While the historical population and employment growth analyses do not suggest demand for additional retail space in Cohasset (other than replacement of older spaces with newer competitive facilities), some opportunities may be capturable based on current sales leakages. The retail opportunity gap analysis is a tool used by major retailers and chain restaurants to gauge market demand and competition within a specified geographic area. It presents a snapshot of the current consumer spending on various retail categories within a specified geographic area alongside actual retail store sales in those same categories within the same geographic area. Where expenditures by households in the market area exceed sales in that market area, a gap or opportunity exists for stores within the market area to “capture” more of those household expenditures. (This loss of potential sales is also called “leakage”.) Conversely, where market area household expenditures are less than
actual sales categories, it indicates that stores in that retail category in the market area already attract consumer dollars from outside the market area and opportunities for additional retail activity would be more limited.

The retail gap analysis is a picture of current opportunities for retailers to newly locate or expand facilities based on a well-established principle drawn from many empirical studies. This analysis shows that people will typically purchase goods and services within the shortest available walking or drive time from where they live. The principle applies to comparable and competitive goods, services, and pricing: there is no guarantee of success based strictly on location advantage, which simply presents the opportunity.

Retailers typically define market areas in terms of drive times, with a 15-minute drive time considered the maximum time consumers would be willing to drive for all but the largest stores and store types. Market support within a 5-minute drive time is considered the maximum time consumers would be willing to drive to smaller, convenience type retailers, and market demand within a 10-minute drive time is considered essential for most medium sized stores and restaurants. In the case of Cohasset, a 10-minute drive time was selected for most sectors as the most likely area from which to draw additional retail activity. Table 8 presents the results of the analysis. The 5-10-15-minute drive times are drawn from a centroid in Cohasset Village.

Data in Table 8 summarize FXM’s analysis of current consumer expenditures, and actual store sales within the local retail market area. The analysis shows a mature retail market and therefore limited opportunities to capture sales leakages.

### Table 8

<table>
<thead>
<tr>
<th>Retail Stores</th>
<th>Market Area Gap</th>
<th>Supportable SF</th>
<th>Potentially Captured SF</th>
<th>Potentially Supportable</th>
</tr>
</thead>
<tbody>
<tr>
<td>4421- Furniture Stores</td>
<td>$9,543,218</td>
<td>22,297</td>
<td>5,000</td>
<td>1</td>
</tr>
<tr>
<td>443142- Electronics Stores</td>
<td>$13,026,215</td>
<td>25,842</td>
<td>5,600</td>
<td>2</td>
</tr>
<tr>
<td>4441- Building Material &amp; Supply Dealers</td>
<td>$53,160,460</td>
<td>269,850</td>
<td>30,000</td>
<td>3</td>
</tr>
<tr>
<td>4442- Nursery and Garden Centers</td>
<td>$3,111,353</td>
<td>13,890</td>
<td>2,600</td>
<td>1</td>
</tr>
<tr>
<td>44812- Women's Clothing Stores</td>
<td>$5,164,197</td>
<td>24,591</td>
<td>6,000</td>
<td>2</td>
</tr>
<tr>
<td>44814- Family Clothing Stores</td>
<td>$12,323,323</td>
<td>31,437</td>
<td>6,000</td>
<td>1</td>
</tr>
<tr>
<td>4482- Shoe Stores</td>
<td>$2,778,496</td>
<td>13,423</td>
<td>3,000</td>
<td>1</td>
</tr>
<tr>
<td>44831- Jewelry Stores</td>
<td>$3,955,000</td>
<td>8,598</td>
<td>1,200</td>
<td>2</td>
</tr>
<tr>
<td>451211- Book Stores</td>
<td>$2,783,104</td>
<td>15,044</td>
<td>4,400</td>
<td>1</td>
</tr>
<tr>
<td>45321- Office Supplies and Stationery Stores</td>
<td>$5,073,995</td>
<td>15,807</td>
<td>4,000</td>
<td>1</td>
</tr>
<tr>
<td>4539- Other Miscellaneous Store Retailers</td>
<td>$5,910,215</td>
<td>18,586</td>
<td>2,650</td>
<td>2</td>
</tr>
<tr>
<td>722513- Limited-Service Eating Places</td>
<td>$4,994,463</td>
<td>9,224</td>
<td>3,125</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$121,824,039</strong></td>
<td><strong>468,389</strong></td>
<td><strong>75,575</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

Source: Environics Analytics, Spotlight Reports, 2017, and FXM Associates

The number of potentially supportable stores assumes that Cohasset could capture almost a third of the retail opportunity within a 10-minute drive time, a fairly optimistic assumption. The number of new retail stores is relatively high, with three potential stores in the Building Material and Supply Dealer category and one in the Nursery and Garden Center category, which would both only be appropriate for
certain kinds of sites. Four additional potential retail stores are for clothing and or 
shoes, which would most likely merge into one retail store in order to avoid 
competition in an area with such a small geographical radius. Adequate parking is 
also essential for new stores to attract customers.

A further analysis of trends in the supply of retail space in Cohasset has been 
completed because of potential retail expansion within the waterfront/Cohasset 
Village study area. Figure 10 graphs historical trends in the inventory of retail space 
in Cohasset and the Route 3 Corridor submarket overall. Since 2006 Cohasset has 
added only 33,000 square feet of net retail space compared to 755,000 square feet 
throughout the Route 3 Corridor submarket. The average annual increase has been 
less than 3,000 in Cohasset and 63,000 per year corridor-wide.

Figure 11 shows trends in retail space occupancy. Extrapolating from historical 
trends, Cohasset is projected to increase retail space occupancy by 40,000 square 
feet and the Route 3 Corridor by 570,000 square feet over the next 5 years.

Figure 12 shows declining vacancy rates, reinforcing the prospect for additional 
retail space, while Figure 13 shows substantially higher average rents in Cohasset, 
another favorable factor for potential retail space expansion including new 
construction.

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5 The Route 3 Corridor Submarket is defined by CoStar Property Information Systems, the leading data source for 
realtors and real estate analysts, to comprise Cohasset, Hingham, Scituate, Hull, Norwell, Hanover, Rockland and 
parts of Weymouth and Marshfield. Data include the 2nd Quarter of 2018.
Figure 10

RETAIL Space Inventory: Cohasset & Route 3 Corridor

- Cohasset Inventory SF
- Rte 3 Corridor Inventory SF

Figure 11

RETAIL Space Occupancy: Cohasset & Route 3 Corridor

- Cohasset Occupancy SF
- Rte 3 Corridor Occupancy SF
Figure 12

RETAIL Space Vacancy Rates: Cohasset & Route 3 Corridor Overall

Cohasset Vacant %  Rte 3 Corridor Vacant %

Figure 13

RETAIL Space NNN Rents: Cohasset & Route 3 Corridor

Cohasset NNN Rent  Rte 3 Corridor NNN Rent

[Graph showing data and trends over the years for both Cohasset and Route 3 Corridor]
Waterfront Industries Market Conditions and Trends

This part of the report focuses on potential for growth in selected waterfront industries (such as marinas, water transportation, fishing, and so forth) and commercial and recreational harbor use related businesses. Historical trends in employment are projected for the next 5 years in these industries. The data used for the following analyses are based on Economics: National Ocean Watch (ENOW) 2015, produced by the National Oceanic and Atmospheric Administration (NOAA), Office for Costal Management. The employment statistics are derived from the Bureau of Labor Statistics’ Quarterly Census of Employment and Wages data.

A thorough look at Massachusetts’ maritime economy was also made possible by the Public Policy Center at UMass Dartmouth’s Report: Navigating the Global Economy: A Comprehensive Analysis of the Massachusetts Maritime Economy (April 2017).

On a national level, the marine economy comprises six different economic sectors dependent on the oceans and Great Lakes, contributed to more than $359 billion to the U.S. Gross Domestic Product and provided more than 3 million jobs in 2013.

On a state level, growth in the maritime economy was generally more stable than the state as a whole from 2005 to 2015; employment grew by 18.2% from 2005 to 2015 compared to 8.4% for all other industries statewide. The Massachusetts maritime economy is the largest among New England’s coastal states. For example, the state outpaced the National and New England maritime economies in terms of employment in the years from 2005 to 2013 experiencing growth of 11.8% versus a growth of 1.7% nationally and 11.3% in New England.

Tourism and Recreation is the largest maritime employment sector in the state of Massachusetts with Transportation, Living Resources, Construction, Mineral Extraction, and Ship & Boat Building following in order of employment. Ship and Boat Building employment data is so sparse in Norfolk County it was not included in this report. At one time, Boat and Ship building was a major industry of Massachusetts, but now Massachusetts’ firms are much more likely to make high tech marine navigational equipment than boats and ships themselves. Yet, the marine economy remains an important economic driver in the state, generating a total statewide economic impact of $17.336 billion in output, 135,924 jobs, and $6.839 billion in income. The maritime economy’s strength is evident in its ability to expand significantly between 2005 and 2015, a period disrupted by the Great Recession and its aftermath.

Most of the following maritime economy data pertain to Norfolk and Plymouth Counties because Cohasset data is unavailable for industries with such limited local employment.
Employment in all ocean related sectors for Norfolk County, displayed in Figure 15, has not varied greatly from 2005 to 2015 ranging from 279 to 338 employees. Forecasted trends predict a slight fall in employment, however, with a low $R^2$ value of 0.27. This low $R^2$ value reflects the unpredictability of the market and how unfit the data are for a linear regression model.

\[
y = -2.7727x + 324.27 \\
R^2 = 0.2747
\]
Figure 15 shows the past employment and future employment trends for Marine Transportation in Norfolk County. This sector includes businesses engaged in the traffic of marine passengers, pipeline transportation, cargo transportation, warehousing, and the manufacturing of navigational equipment. Marine Transportation employment has increased by almost 65% since 2012. This industry subsector has seen the largest amount of growth of the harbor economy, but has only added 31 jobs to Norfolk County in the three-year span of 2012 to 2015.

On a state level, the Warehousing subsector of Marine Transportation comprises 49% of the sector’s employment, followed closely by the Search & Navigation Equipment subsector, at 44%. Employment in Marine Transportation is 78% higher in Massachusetts then in second place New Hampshire. Improvements to port infrastructure are particularly important to competitiveness of this sector.
Marine Construction employment in Norfolk County, depicted in Figure 12, includes the construction, maintenance, and repair of ships, recreational boats, commercial fishing vessels, ferries and other marine vessels. While vessel construction and maintenance involve skilled labor, workers in this sector mostly fall into the categories of metal and wood or general trade workers. This industry also engages in the construction of submarine oil and gas pipelines, as well as other heavy and civil engineering activities such as harbor dredging, pier construction, beach nourishment, and estuary restoration. Regulations prohibit offshore drilling in Massachusetts waters, hence there is limited need for construction of submarine oil and gas pipelines and most of the employment in this sector is in the Civil Engineering Construction industry.

Employment in this sector for Norfolk County often fluctuates between 30 and 50 employees, employing a relatively small number of workers and is highly dependent on overall economic conditions and larger government-supported projects such as dredging and infrastructure. Predictions in this sector are especially unreliable with an \( R^2 \) value of only 0.15 due to the volatility the data and the relatively small number of employees in the County.
Tourism and Recreation employs nearly twice as many workers as Marine Construction in Norfolk County. Data in Figure 17 show the variation in employment, ranging just above or below 87 jobs throughout 2005 to 2013. The linear regression forecasting employment trends has a low $R^2$ value of 0.06, reflective of the swings in employment. The years since 2013 do show a sharp increase in the number of industry jobs, but have yet to reach employment levels of the 2005 high. It is important to note that the Tourism industry is very seasonal, particularly on Cape Cod and the Islands. This sector is also hugely dependent on the volatility of the economy as a whole, as leisure activities rely on consumers’ disposable income.

Nationally, the Tourism and Recreation Sector has more business establishments and employs more people than all five other marine sectors combined. Tourism and Recreation includes a wide range of businesses such as eating and drinking places, hotels and lodging, scenic water tours, aquariums, parks, marinas, boat dealers, recreational parks and campsites, and associated sporting goods manufactures. In Massachusetts, the Eating and Drinking industry comprises 78% of the sector’s employment, followed by hotels and lodging at 14%. All of these businesses support an ocean-based Tourism and Recreation industry and hence waterfront economy.
Offshore Mineral Extraction includes oil and gas exploration and production, as well as limestone, sand, and gravel mining in the coastal and marine environment. As shown in Figure 18, there are very few jobs in this sector in Norfolk County, averaging around 11 workers, most likely due to the restrictions and regulations regarding the County’s natural resources. The Offshore Mineral Extraction sector, is a very small sector in Massachusetts and New England in general, although it accounts for high levels of economic activity nationally, particularly the states along the Gulf of Mexico. Massachusetts does not produce its own natural gas, and oil drilling was banned form the coasts of California, Florida, and Massachusetts in 1988 by President Ronald Reagan. The Limestone, sand and gravel industry accounts for the majority of the Commonwealth’s employment (63%).
The most noteworthy waterfront industry in Norfolk County is the Living Resources sector which is composed of four key subindustries: fish hatcheries & aquaculture, fishing, seafood markets, and seafood processing, aggregately shown in Figure 19. The Living Resources sector employs just shy of 100 employees in Norfolk County as of 2015, making up almost a third of all ocean related employment.

On a national level, roughly half the workers in this sector are self-employed, most of whom work in fish harvesting as opposed to seafood processing and marketing. Employment in the Living Resources sector has shown a decrease in growth over the past decade and has continued to decline gradually throughout that ten-year span. Note that the seafood industry is heavily reliant on the health of coastal and ocean ecosystems such as wetlands and estuaries that serve as a habitat and feeding grounds for marine fish, oysters and other shellfish, as well as the marine ecosystems where much of the finfish harvesting takes place.

On a state level, employment in the Living Resources sector is larger than in most New England coastal states, with the exception of Maine. Massachusetts has a long history of seafood processing in Gloucester, Boston and New Bedford and is considerably more diversified than other states. This diversification allows the Living Resources sector in Massachusetts to be more resilient to changes that affect a single subsector such as fishing. In 2015, fish landings in Massachusetts accounted for 10% of the nation’s catch by dollar value, second to only Alaska and 42% of the New England’s catch. Notably, scallops accounted for 8% of the total catch weight in 2015, but 50% of the total value of catch, making scallops the most valuable species largely responsible for driving this subsectors revenue.
Plymouth County’s living resources employment data and projections are also included in Cohasset’s waterfront industry analyses due to Cohasset’s close proximity to Plymouth County. Plymouth County employs five times as many Living Resources employees than Norfolk County. In the decade between 2005 to 2015 the number of Living Resources jobs decreased by 8%, but has started to rise again in 2015. Employment projections in this sector are rather unpredictable with an $R^2$ value of 0.60. The relatively low $R^2$ value is most likely due to the sharp decline in employment during the years preceding the recession which the commercial fishing industry, like most other industries is still feeling the effects of its aftermath.

Declines in Living Resources employment may also be driven by federal regulation that make it increasingly difficult for smaller fishing operations to operate profitably. Consequently, the industry is consolidating around larger fishing operations than have economies of scale and is less dependent on waterfront property than ever before.

A closer look at the Living Resources sector is possible based on data supplied especially for this study by Erich Druskat, Fisheries Statistics Project Data Analyst, Massachusetts Division of Marine Fisheries. Data for Cohasset specifically are quite limited hence most of the data pertain to Norfolk and Plymouth Counties.
Data in Figure 21 show the annual pounds of live lobster caught on the left axis, and the ex-vessel value in dollars on the right axis for the Town of Cohasset. Annual lobster landings have varied for Cohasset lobstermen, ranging from 345,673 pounds in 2012 to 422,462 pounds in 2017, still 70,000 pounds below the 2010 high. The dollar value for live lobsters in Cohasset has fluctuated proportionally to the amount caught, reaching its lowest value in 2012 and increasing steadily in subsequent years. Projections for lobster landings are unreliable with low $R^2$ values due to the variability of the data over time.

FXM also had the opportunity to meet with local Cohasset lobsterman, whose unanimous view of the fishing industry is that it has been fairly stable year-to-year and they expect it to stay that way. The numbers confirm that, even as the trend lines are a bit negative (but not significant) for lobster landings.
Table 9 displays Cohasset’s lobster landings, ex-vessel value, number of trips, dealers and active harvesters for the years 2010 to 2017.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>LIVE POUNDS</th>
<th>EX-VEssel VALUE</th>
<th># OF TRIPS</th>
<th># ACTIVE DEALERS</th>
<th># ACTIVE HARVESTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>492,895</td>
<td>$1,871,089</td>
<td>2296</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>2011</td>
<td>421,861</td>
<td>$1,628,838</td>
<td>2040</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>2012</td>
<td>345,673</td>
<td>$1,207,305</td>
<td>1679</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>2013</td>
<td>378,169</td>
<td>$1,358,563</td>
<td>1689</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>2014</td>
<td>353,623</td>
<td>$1,481,956</td>
<td>1448</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>2015</td>
<td>388,964</td>
<td>$1,767,814</td>
<td>1697</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>2016</td>
<td>441,953</td>
<td>$1,922,849</td>
<td>1744</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>2017</td>
<td>422,462</td>
<td>$1,879,363</td>
<td>1937</td>
<td>4</td>
<td>26</td>
</tr>
</tbody>
</table>

SOURCE: SAFIS Dealer Database

Figure 22 displays the same data but for Norfolk County. Overall trends in Annual Lobster Landings for Norfolk County are very similar to those observed in Cohasset in Figure 21. Both regions experience a sharp decline in 2012, and have experiences slow, but steady growth in the five years following. Again, the R² values for both trend lines are extremely low meaning the historical trend lines are unreliable when it comes to predicting the future.
Figure 23, displays the annual pounds of live finfish caught on the left axis, and the ex-vessel value in dollars on the right axis for Norfolk County. Annual finfish landings sharply decreased from 2010 to 2014 and plateaued between the years of 2014 and 2016. Projections for the next five years have annual finfish landings continuing to drop reaching negative values which are obviously unattainable.
Annual landings for other species in Norfolk County, displayed in Figure 20, show similar trends to those of finfish landings, displayed in Figure 24. Annual landings for other species have dramatically decreased in every year since 2010 except 2013. Both the ex-vessel value and live pounds caught, have reached a six-year low in 2016 with landings and ex-vessel value both predicted to decrease.
The top three highest annual landings in Plymouth County were for American Lobster, Eastern Oysters, and Atlantic Mackerel in the year 2017. Figure 25, exhibits the large amount of growth seen for all three species over the years since 2010. All three R² values are high and above 0.80 indicating the reliability of these linear predictions over the next five years. Annual landings for American Lobster, Eastern Oysters, and Atlantic Mackerel are expected to continue to increase.
Figure 26 displays the annual ex-vessel value for the top three species in Plymouth County. American Lobster, Eastern Oysters, and Atlantic Mackerel are the three most caught species in Plymouth County, however, not all three species are among the top in ex-vessel value. As of 2017, the three highest ex-vessel values were for the following species: American Lobster at $14,235,726; followed by Eastern Oysters at $8,249,105; and Winter Flounder at $530,367. Ex-vessel values for all top three species have promising R² values and are expected to continue to rise in price.
Supplemental Data on Trends in Rental Housing

A full analysis of market conditions, trends, and projections for rental housing was not considered in the scope of work for this study. However, recent information regarding potential re-use or expansion of existing properties within the waterfront study area suggests that rental housing may be considered by property owners/developers. Accordingly, FXM was asked to provide some analysis from data available from CoStar Property Information Systems on multi-family housing in Cohasset and the surrounding Route 3 Corridor submarket.

Figure 27 shows the number of units reported in CoStar’s data base (not inclusive of all units, but considered representative of the market) in Cohasset and the Route 3 Corridor submarket. About 560 units have been added in the submarket overall since 2009, 218 in Cohasset (all within the Avalon Cohasset development which opened in 2012).

Figure 28 shows vacancy rates in Cohasset and the Route 3 Corridor submarket overall. The vacancy rates are especially low in Cohasset, with increased net absorption in occupancy. Average annual net absorption (move ins less move outs) has been 24 units per year in Cohasset and 88 units per year in the Route 3 Corridor.
Corridor submarket. It should be noted that historical net absorption is not necessarily an indicator of market demand as net absorption is limited to the number of units within the supply. It also does not indicate market turnover, competition for existing or newer units with special amenities, or latent demand for rental housing not now met by the existing supply. A full market analysis is necessary to flesh out potential demand and net new absorption within specific proposed developments.

**Figure 28**

![Cohasset & Route 3 Corridor Multi-family Rental Vacancy Rates](image)

Data in Figure 29 show historical trends in average monthly rents. Average monthly rents in Cohasset are 20% higher in Cohasset than in the submarket overall. In 2018 the average monthly rent for the median size 1 BR unit (1,100 SF) in Cohasset was $2,152; $2,746 for the median size (1.441 SF) 2 BR unit.
Figure 29

Average Unit Monthly Rents
Cohasset & Route 3 Corridor

Source: CoStar Property Information System, 2018, and FXM Associates
APPENDIX A

Table A1 links various population and household demographic data for the Cohasset Polygon (Harbor Study) Area to the Town of Cohasset as a whole and provides relevant proportions for perspective and comparison purposes. The Polygon Area population is representative of 3.6% of Cohasset’s total population as of 2017. The study area has seen a growth of 2% in the years from 2010 to 2017, where the Town as a whole has experience 12% growth. The Polygon Area is also accountable for 4.7% of the Town’s households as of 2017. Again, the Polygon Area has seen much less growth than the town and is expected to continue to grow at a rate 5 percentage points less than the Town. Household type, tenure, and occupation class are almost identically distributed among the two geographical areas. Median year of structures built is eight years older in the Polygon Area when compared to all of Cohasset. The number of families below poverty status in the Polygon Region only make up 5% of Cohasset’s total number of families below poverty as of 2017.

Table A2 shows the concentration of workers in the Polygon Area in each industry sector listed below. Most significant, is the proportion of workers in the Public Administration industry, which make up 19% of Cohasset’s total employment in this sector.
Table A 1

Demographic Data: Population & Households Compared

<table>
<thead>
<tr>
<th></th>
<th>Cohasset Polygon Area</th>
<th>Town of Cohasset</th>
<th>Polygon Area as % of Cohasset</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022 Projection</td>
<td>304</td>
<td>8,792</td>
<td>3.5%</td>
</tr>
<tr>
<td>2017 Estimate</td>
<td>297</td>
<td>8,325</td>
<td>3.6%</td>
</tr>
<tr>
<td>2010 Census</td>
<td>290</td>
<td>7,596</td>
<td>3.8%</td>
</tr>
<tr>
<td>2000 Census</td>
<td>283</td>
<td>7,323</td>
<td>3.9%</td>
</tr>
<tr>
<td><strong>Projected Growth 2017 - 2022</strong></td>
<td>2%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td><strong>Estimated Growth 2010 - 2017</strong></td>
<td>2%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Growth 2000 - 2010</td>
<td>2%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td><strong>Households</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022 Projection</td>
<td>110</td>
<td>2,422</td>
<td>4.5%</td>
</tr>
<tr>
<td>2017 Estimate</td>
<td>108</td>
<td>2,275</td>
<td>4.7%</td>
</tr>
<tr>
<td>2010 Census</td>
<td>105</td>
<td>2,036</td>
<td>5.2%</td>
</tr>
<tr>
<td>2000 Census</td>
<td>108</td>
<td>2,028</td>
<td>5.3%</td>
</tr>
<tr>
<td><strong>Projected Growth 2017 - 2022</strong></td>
<td>2%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td><strong>Estimated Growth 2010 - 2017</strong></td>
<td>3%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Growth 2000 - 2010</td>
<td>-2%</td>
<td>0%</td>
<td></td>
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<tr>
<td><strong>Households by Type</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Households</td>
<td>81</td>
<td>2,275</td>
<td>74%</td>
</tr>
<tr>
<td>NonFamily Households</td>
<td>27</td>
<td>820</td>
<td>26%</td>
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<td><strong>2017 Occupied Housing Units by Tenure</strong></td>
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<tr>
<td>Owner-Occupied Housing Units</td>
<td>92</td>
<td>2,570</td>
<td>83%</td>
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<tr>
<td>Renter-Occupied Housing Units</td>
<td>16</td>
<td>525</td>
<td>17%</td>
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<tr>
<td><strong>2017 Housing Units by Year Structure Built</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017 Est. Median Year Structure Built</td>
<td>1954</td>
<td>1962</td>
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<td><strong>2017 Est. Families by Poverty Status</strong></td>
<td></td>
<td></td>
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<tr>
<td>2017 Families Below Poverty</td>
<td>4</td>
<td>75</td>
<td>3%</td>
</tr>
<tr>
<td>2017 Families Below Poverty with Children</td>
<td>4</td>
<td>68</td>
<td>3%</td>
</tr>
<tr>
<td><strong>2017 Est. Employed Population by Occupation Class</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Collar</td>
<td>124</td>
<td>3,342</td>
<td>81%</td>
</tr>
<tr>
<td>Blue Collar</td>
<td>11</td>
<td>378</td>
<td>9%</td>
</tr>
<tr>
<td>Service and Farming</td>
<td>10</td>
<td>397</td>
<td>10%</td>
</tr>
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</table>

Source: EnvironAnalytics 2017 and FXM Associates
Table A2

Employment Sectors Compared

<table>
<thead>
<tr>
<th>Industry Sectors</th>
<th>Polygon Area</th>
<th>Town of Cohasset</th>
<th>Polygon as % of Cohasset</th>
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<tbody>
<tr>
<td>22: Utilities</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23: Construction</td>
<td>1</td>
<td>165</td>
<td>1%</td>
</tr>
<tr>
<td>31-33: Manufacturing</td>
<td>1</td>
<td>78</td>
<td>1%</td>
</tr>
<tr>
<td>42: Wholesale Trade</td>
<td>-</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>44-45: Retail Trade</td>
<td>-</td>
<td>861</td>
<td></td>
</tr>
<tr>
<td>51: Information</td>
<td>-</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>52: Finance and Insurance</td>
<td>-</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>53: Real Estate and Rental and Leasing</td>
<td>4</td>
<td>194</td>
<td>2%</td>
</tr>
<tr>
<td>54: Professional, Scientific, &amp; Technical Svcs</td>
<td>9</td>
<td>339</td>
<td>3%</td>
</tr>
<tr>
<td>61: Educational Services</td>
<td>-</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>62: Health Care and Social Assistance</td>
<td>8</td>
<td>499</td>
<td>2%</td>
</tr>
<tr>
<td>71: Arts, Entertainment, and Recreation</td>
<td>1</td>
<td>178</td>
<td>1%</td>
</tr>
<tr>
<td>72: Accommodation and Food Services</td>
<td>-</td>
<td>345</td>
<td></td>
</tr>
<tr>
<td>81: Other Services (except pub admin)</td>
<td>13</td>
<td>262</td>
<td>5%</td>
</tr>
<tr>
<td>92: Public Administration</td>
<td>26</td>
<td>140</td>
<td>19%</td>
</tr>
<tr>
<td>TOTAL All Industries</td>
<td>63</td>
<td>3,724</td>
<td>2%</td>
</tr>
</tbody>
</table>
Waterfront Elements
Cohasset Harbor Plan
Cohasset Harbor, Massachusetts

Submitted to:
Town of Cohasset
41 Highland Ave
Cohasset, MA 02025
and
Harriman Associates

Submitted by:
GEI Consultants, Inc.
5 Milk Street
Portland, ME 04104

February 8, 2019
Project 1803614

Sam Merrill, Ph.D.
Practice Leader

Ronald R. Bourne, P.E.
Principal / Sr. Project Manager
# Table of Contents

## Executive Summary

<table>
<thead>
<tr>
<th>1. Harbor Vessel Dynamics</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Existing Vessels</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1 Commercial Vessels</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1.1 Current Vessels</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1.2 Current Facilities</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1.3 Facility limitations</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1.4 Facility Conditions and Needs</td>
<td>2</td>
</tr>
<tr>
<td>1.1.2 Emergency Vessels</td>
<td>3</td>
</tr>
<tr>
<td>1.1.3 Recreational Vessels</td>
<td>4</td>
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<tr>
<td>1.1.3.1 Current Vessels</td>
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<tr>
<td>1.1.3.2 Mooring Fields</td>
<td>4</td>
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<tr>
<td>1.1.3.3 Drafts</td>
<td>4</td>
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</table>

## Harbor Infrastructure

<table>
<thead>
<tr>
<th>2. Harbor Infrastructure</th>
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<tr>
<td>2.1 Cohasset Harbor</td>
<td>5</td>
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<tr>
<td>2.1.1 Description</td>
<td>5</td>
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<tr>
<td>2.1.2 Existing Structures</td>
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</tr>
<tr>
<td>2.1.2.1 Parker Avenue</td>
<td>5</td>
</tr>
<tr>
<td>2.1.2.2 Cohasset Harbor Marina, Parker Ave</td>
<td>6</td>
</tr>
<tr>
<td>2.1.2.3 Cohasset Maritime Institute and Cohasset Center for Student Coastal Research</td>
<td>7</td>
</tr>
<tr>
<td>2.1.2.4 Cohasset Sailing Club</td>
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</tr>
<tr>
<td>2.1.2.5 Fishermen’s Dock - Government Island, Lighthouse Lane</td>
<td>7</td>
</tr>
<tr>
<td>2.1.2.6 Mill River Marine Railway Facility, Border Street</td>
<td>8</td>
</tr>
<tr>
<td>2.1.2.7 Atlantica Restaurant Facility, Border Street</td>
<td>8</td>
</tr>
<tr>
<td>2.1.2.8 Town Landing, Border Street and Lawrence Wharf</td>
<td>9</td>
</tr>
<tr>
<td>2.1.2.9 Town Pier, Margin Street</td>
<td>9</td>
</tr>
<tr>
<td>2.1.2.10 Cohasset Yacht Club, Howard Gleason Road</td>
<td>9</td>
</tr>
<tr>
<td>2.1.2.11 Harbor Seawalls and Shoreline Protection</td>
<td>10</td>
</tr>
<tr>
<td>2.1.2.12 Mooring Fields</td>
<td>10</td>
</tr>
<tr>
<td>2.1.2.13 Navigational Channels</td>
<td>11</td>
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<td>2.1.2.14 Harbormaster Facilities</td>
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<thead>
<tr>
<th>2.2 Dredging</th>
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</tr>
</thead>
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<tr>
<td>2.2.1 Existing Dredging</td>
<td>12</td>
</tr>
<tr>
<td>2.2.1.2 Review of NOAA Charts, USACE Survey and Electronic Navigation Chart Data</td>
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</table>

<table>
<thead>
<tr>
<th>2.3 Recommended Dredging</th>
<th>12</th>
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</thead>
<tbody>
<tr>
<td>2.3.1 Regulatory Requirements</td>
<td>13</td>
</tr>
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</table>
3. **Harbor Improvements**

3.1 Mixed Use/Pier Facility
3.2 Dredging
3.3 Seawalls and Jetties
3.4 Boat Ramp
3.5 Recommended Additional Studies

4. **Environmental Issues**

4.1 Harbor and Waterfront Constraints Evaluation

4.1.1 FEMA - Flooding
4.1.2 Sea Level Rise and Flood Frequency Evaluation
   4.1.2.1 Data Sources
   4.1.2.2 Patterns in Flooding Days
   4.1.2.3 Patterns in Single- and Multi-Year Risk
   4.1.2.4 Expected Flood Elevations Given Sea Level Rise

4.1.3 Adaptation Actions
   4.1.3.1 Action Types
   4.1.3.2 The Need for Hydrologic Modeling
   4.1.3.3 Planning Opportunities
   4.1.3.4 Overlay Zones
   4.1.3.5 Additional Considerations

4.2 Waterfront/Coastal Environmental Regulatory Requirements

4.2.1 Municipal Approvals
   4.2.1.1 Massachusetts Wetlands Protection Act and Cohasset Wetlands Bylaw – Order of Conditions
   4.2.1.2 Site Plan and Special Permit

4.2.2 Commonwealth of Massachusetts Approvals
   4.2.2.1 Chapter 91 Waterways License
   4.2.2.2 Chapter 91 Waterways Permit
   4.2.2.3 Section 401 Water Quality Certification
   4.2.2.4 Massachusetts Endangered Species Act “Take” Determination
   4.2.2.5 Massachusetts Coastal Zone Management Consistency Review
   4.2.2.6 Massachusetts Environmental Policy Act Review

4.2.3 Federal Approvals
   4.2.3.1 U.S. Department of the Army Permit

5. **Potential Grants and Funding Opportunities**

5.1 Commonwealth of Massachusetts Coastal Grant Programs

5.1.1 MA Seaport Economic Council

5.1.2 Executive Office of Energy and Environmental Affairs
   5.1.2.1 Dam, Levee and Seawall Repair and Removal: Application for Funding – Design and Permit Grant
   5.1.2.2 Dam, Levee and Seawall Repair and Removal: Application for Funding – Construction Finance Grant
5.1.3 Department of Housing and Economic Development 39
  5.1.3.1 MassWorks Dredging Program 39
  5.1.3.2 MassWorks Infrastructure Program 39

6. Literature Cited 41

Figures
1. Fishing Conveyor Belt System 2
2. Parker Avenue Boat Ramp 6
3. Coastal Flooding Pattern 19
4. Single Year Risk of Flooding Above 5ft 20
5. Multi-Year Risk of Flooding Above 5 ft 21
6. Sea Level Rise Scenarios 22
7. Sea Level Rise - Moderate Flood 22
8. Sea Level Rise - Major Flood 23

Appendices
A. Site Photos
Executive Summary

In 2018, GEI Consultants, Inc. contributed to Harriman Associates’ efforts in coordination with the Massachusetts Office of Coastal Zone Management (CZM), to develop a Harbor Plan for Cohasset Harbor in Cohasset, Massachusetts. GEI conducted site visits of the harbor from both the water and land to observe the conditions of the existing waterfront infrastructure and gain an understanding of current and future uses of the harbor. GEI also reviewed the Harbor Committees’ notes from development meetings with the commercial fishing fleet as well as other publicly available studies and reports such as the Massachusetts Department of Conservation and Recreation (MA DCR) Coastal Hazards Study and U.S. Army Corps of Engineers (USACE) survey reports. These meeting notes and studies, along with GEI’s site visits, served to guide identification of the need for repairs, improvements, and dredging.

Considerations and recommendations in this report address potential improvements for harbor activities including moorings, boat ramps, commercial and recreational fishing, boating, dredging, boardwalks, permitting, and other elements relevant to development of the Cohasset Harbor Plan. Considerations additionally focus on issues of sea level rise and storm surge. Possible flood frequencies are evaluated, and potential adaptation actions are articulated, including changes to the Town’s planning and zoning documents.
1. Harbor Vessel Dynamics

1.1 Existing Vessels

Cohasset Harbor is home to a variety of vessels that range from commercial fishing to small and large recreational boats. The harbor provides a safe anchorage for local boaters to safely moor their boats. Vessels around the harbor use the Town-managed moorings and slips provided by private facilities, totaling approximately 550 berths within the harbor. Additionally, the harbor is home to private sailing and boating centers that have small boats including car topped boats and sail boats.

1.1.1 Commercial Vessels

1.1.1.1 Current Vessels

Of the 210 boats on the Town moorings, only 19 are commercial vessels (according to the list supplied by the Town); berths for the vessels range from 20 to 45 ft with drafts up to 6 ft.

1.1.1.2 Current Facilities

Current commercial fishing facilities provide small floats and gangway access for fishermen to transfer catch and materials to and from their vessels. There are four sites that commercial fishermen actively use in the harbor:

- Parker Avenue Boat Ramp*
- Fisherman’s Dock – Government Island
- Town Landing – Border Street
- Lawrence Wharf – Border Street
- Town Pier – Margin Street

*Parker Avenue is not known as a commercial facility, however during our site visit we witnessed it being used by commercial fishermen.

1.1.1.3 Facility limitations

The four sites each have small floating timber docks with gangway access. The sites typically have fewer than three designated parking spaces, except Government Island, which has approximately 15 designated parking spots. The waterfront facilities do not provide ample vessel docking areas because the floats are typically limited to three or fewer vessels at a time. Fishermen’s Dock at Government Island has the longest available dockage, at approximately 90 ft. However, currents at this location can make docking difficult.
None of the facilities provides a lift system for vessel supply and transfer of bait and catch. Most of the gangways provide split pathways for carts and walking; these pathways are narrow and limit the amount of material that can be transferred at one time.

### 1.1.1.4 Facility Conditions and Needs

Existing facilities currently provide little dockage for loading or offloading of the 19-vessel commercial fleet. The Government Island facility is the main facility for commercial fishermen, providing the most parking space and electric power. The secondary facility used by the commercial fleet is the Town Pier on Border Street. This facility provides a small amount of parking and dockage but does not provide electric power. Current plans are for power to be restored on this pier in spring 2019 (it has been active in the past).

Per discussions with the harbormaster, as part of the capital plan, the Town is considering installation of a conveyor belt system at the Government Island Pier to help load and offload vessels. A system similar to this is shown in the image below. This type of system provides mechanical transfer of materials between the floats and land. An alternative to this would be a hoist or davit, however this would require boats to approach the site along the seawall where current water depths are not sufficient at lower tides.

![Fishing Conveyor Belt System](image.jpg)

Fig. 1. Fishing Conveyor Belt System

Representatives of the commercial fleet have been requesting support from the Town for upgrades to existing facilities. A list of their suggested improvements includes:

- Extension and reconstruction of the pier at Government Island with a conveyor system and hydraulic lift designed to ease the loading and unloading of bait, traps, rope, and equipment necessary for operations – these must be usable at all tides.

- Construction of a new pier suitable for direct vehicle/vessel loading and unloading between piers at the Cohasset Sailing Club and Parker Ave.
• Installation of a designated dinghy dock for commercial mooring holders.
• Reconfiguration of the floats at Government Island to accommodate more boats.
• Installation of a marine fueling station on Government Island, with credit card capability.
• Provision of water and electric service year-round at all commercial docks.
• Introduction of trash receptacles, dumpsters, and an oil reclamation station.
• Reconfiguration of Town Landing to include conveyor/hoists and addition of more floats to the NW (towards the inner cove area).
• Addition of security cameras with live video access via smart phones.
• Creation of a designated area for bait coolers, usable by all fishermen.
• Creation of a draft plan detailing future dredging needs.
• Performing a mooring field study to determine if reconfiguration of the mooring fields could create more moorings and moorings for larger vessels.
• Creation of a harbor webpage where harbor users can view current communications about and activities in the harbor.
• Establishment of dates for deployment and retrieval of floats and docks each spring and fall.

Several of these recommendations are included in the Town’s 2019 budget and are consistent with other recommendations in this report.

In general, based on: 1) these requests from representatives of the commercial fleet, 2) review of existing landside facilities, and 3) condition of harbor structures observed during site investigations, the harbor currently provides inadequate support for commercial fishermen. A broad review of costs for some of these improvements is provided in Section 3.

1.1.2 Emergency Vessels

The Harbormaster maintains three vessels as part of the emergency fleet. These include a 17 ft skiff and a 23 ft pump out boat and the primary response vessel, which is a 25 ft Parker Walkaround. The emergency fleet is typically moored in the harbor and accessed via the skiff because sufficient space is not available at the Government Island Road facility.
Having the main response vessels not immediately at the facility could create delays in emergency response times, especially in winter months when emergency response vessels are located on the other side of the harbor and the harbor may have ice or other impediments.

While the harbormasters serve the public and are either working or are on-call most of the time, additional first responders’ emergency response vessels may need to be considered as an aid in the multitude of emergency scenarios that can occur on or near the waterfront. Additional response vessels from other agencies could include fire, police, environmental enforcement, or state police.

1.1.3 Recreational Vessels

1.1.3.1 Current Vessels

Current vessels range from 13 to 60 ft in length. Most vessels viewed during the harbor visit were recreational vessels in the smaller end of this range, typically less than 25 ft in length.

1.1.3.2 Mooring Fields

Existing mooring fields are configured to provide sufficient depths for boats in the harbor, and moorings are generally aligned in a grid pattern with minimal overlaps. However, per discussions with the Harbormaster, mooring requests face a waiting list of over 500. The harbor could thus benefit from a mooring study to determine potential increases in the number of moorings. This effort would need to include an evaluation on currents in the harbor that limit the ability to rearrange the mooring fields or increase mooring density.

Also, several areas in the harbor are difficult to navigate because there are no marked channels or fairways (except the USACE channel to access the harbor). There are informal fairways without markers in some areas. A mooring study could thus also help identify appropriate vessel passageways.

1.1.3.3 Drafts

The Town’s provided list of vessels using the harbor does not provide draft requirement information associated with each boat. Typical draft requirements for recreational vessels of the sizes currently in the harbor would be from 6 to 8 ft. Based on information provided by the Town, there are no vessels in the harbor that require a draft greater than 6 ft, including recreational motor, sail, and commercial vessels.
2. Harbor Infrastructure

2.1 Cohasset Harbor

2.1.1 Description

Cohasset Harbor is situated on the eastern shore of the Massachusetts coastline between the towns of Hull and Scituate. The harbor entrance off the Atlantic Ocean faces north with an SSW channel into Cohasset Cove per the USACE charts, properly known as Cohasset Harbor. The entrance channel is charted to be 90 ft wide with a depth of 7 ft at Mean Lower Low Water (MLLW). The Harbor consists of four main sections: Cohasset Harbor, Cohasset Cove, Government Island, and Bailey’s Creek.

The western and southern shorelines are developed land with mixed uses, while the eastern shoreline is mostly beach and vegetated land areas.

Photographs of Harbor infrastructure elements are provided in Appendix A.

2.1.2 Existing Structures

2.1.2.1 Parker Avenue

Parker Avenue provides access to the waterfront along the southern shoreline, and the road ends at the only boat ramp in the harbor (image below). Shorelines immediately east and west of the ramp are protected by rip rap. Cohasset Harbor Marina, described in more detail below, is located east of the ramp and has floats. West of the ramp, a small timber pier supports a gangway and floating docks usually occupied by dinghies used for accessing moored vessels.

At lower tides the ramp is not suitable for use with trailered boats because the bottom of the ramp does not extend far enough below the water surface into the harbor. There is gravel beyond the bottom of the ramp, which showed minor washout at the time of the site visit.
The timber pier associated with the boat ramp provides adequate space and access to the timber floats via the gangway. The gangway is of walkable width and adequate length to provide a suitable slope at low tide. Both the pier and gangway were in satisfactory condition at the time of the site visit.

At the time of this report the Town had procured an engineering firm to begin redesign of the ramp. Current plans are to redesign within the same footprint, however expansion of the ramp is under consideration based on potential uses. Other improvements are discussed in Section 3 of this report.

2.1.2.2 Cohasset Harbor Marina, Parker Ave

Cohasset Harbor Marina is a private facility located along the southern shore of Bailey Creek. The Marina supports a gangway to provide access to timber floating docks. The facility consists of approximately 750 linear ft of floating docks, which provide 67 slips. Outshore of the Marina, boats are moored within Bailey Creek.

At the time of the GEI site visit, the docks had been removed for winter storage. The timber pier used to access the floats was in fair condition. We recommend the pier undergo a detailed inspection for needed repairs. We understand the pier is not typically used, but should be inspected if public access is to be maintained. There were mooring piles along the shoreline for anchoring the floats that appeared to be in satisfactory to excellent condition.
2.1.2.3 Cohasset Maritime Institute and Cohasset Center for Student Coastal Research

The Cohasset Maritime Institute (CMI) and Cohasset Center for Student Coastal Research (CSCR) are two centers providing access to the waterfront adjacent to the Parker Avenue ramp facility. CMI provides rowing and other waterfront activities to the community and CSCR provides opportunities for students to explore and study the watershed and coastal environment. Both groups use the Parker Avenue boat ramp for water access. Parking for these groups is constrained due to the relatively small size of the lots. Further discussion of these properties is included in the overall Harbor Plan.

2.1.2.4 Cohasset Sailing Club

The Cohasset Sailing Club (CSC) is located at the end of Lighthouse Lane. There is a walking bridge between the CSC and CMI. The CSC is protected by stacked stone seawalls with water access via a ramp to timber floats. Based on aerial imagery the center provides additional dinghy access to boats within the harbor. The Center has approximately 300 linear ft of available berthing along the floats. The Center’s water access is very limited; the channel near the floats is the only access into Bailey’s Creek and is only 80 ft wide. The area immediately outshore of the floats was dredged in 2017 by the USACE.

At the time of the site assessment, the floats were bottom-moored, and no pilings were present. The floats were in satisfactory condition and appeared well-maintained. The seawall in front of the building was in satisfactory condition with minor deterioration and some voids observed at the bottom of the wall. The highwater mark appeared to be about 1 ft below the wall. This small amount of freeboard would likely result in overtopping during extreme high tides.

2.1.2.5 Fishermen’s Dock - Government Island Pier, Lighthouse Lane

The Commercial Fishing Pier at Government Island Road is adjacent to the sailing club and provides commercial access to the water for fishing and other commercial vessels. The dockage also provides the Harbormaster a means of keeping an emergency vessel near the office. This location has the largest area for parking to support commercial vessels in the harbor.

To the west of the site, draining of the tidal watershed at low tides creates a high flow inshore of the rock ledge. The area around the pier has numerous rocks exposed only at low tides. Photos of these rocks are provided in Appendix A. They present a hazard to boaters who may be new to the harbor or experience operational issues with their vessels. The obstructions are made more dangerous by strong currents that exist around the facility.

At the time of the site assessment, the floating docks were in satisfactory condition with heavy duty bumpers on the berthing face. The docks were sufficiently long for two to three
vessels to dock at the same time. The two gangways were in satisfactory condition. The commercial pier is a filled structure with stacked stone walls that appeared to be recently repointed. The lower sections of the wall had repairs that had been completed with concrete.

### 2.1.2.6 Mill River Marine Railway Facility, Border Street

The Mill River Marine Railway facility is located along Border Street on the southern shoreline of Cohasset Harbor, west of the Commercial Pier and rock waterfall. The facility includes the Cohasset Lobster Pound and a small marine railway. While the railway may be usable, it was in poor condition at the time of the site visit. Many of the timber elements below water (exposed at low tide) were cracked or split and no longer function properly.

The shoreline along the railway facility is protected by a stone seawall to the north and west, and the east wall consists of rock ledge along the waterfall. The walls were in satisfactory condition and the concrete foundation elements appeared to be in satisfactory condition.

There is also a sluiceway under the Mill River building that was previously used for hydropower. The structure was not evaluated during this project, but inspection should be considered during future improvements of the property.

### 2.1.2.7 Atlantica Restaurant Facility, Border Street

The Atlantica restaurant facility is located on the southern shore of Cohasset Harbor outshore of Border Street. The facility includes two restaurants, the Atlantica, and Olde Salt House. The shoreline consists of a variety of construction types including rip rap slope with a seawall, rock ledge, and stacked stone walls. The Atlantica restaurant is supported on pier foundations and has floating docks for guest docking and dock/condominium combinations.

At the time of the site visit, the concrete piers and timber pilings were in fair to satisfactory condition. The stacked stone walls exhibited some loss of mortar between stones below the high tide mark. The revetment supporting the parking lot showed evidence of movement and settlement between stones and between the stones and top wall. The parking area exhibited several locations of settlement and voids under the asphalt. There were also several holes in the pavement that appear to warrant immediate repair inshore of the seawalls.

The western portion of the Atlantica restaurant facility is used by the Olde Salt House and includes the filled area adjacent to the Town Pier at Border Street. The seawall on the west side of the filled structure had a previous failure and was repaired with a dumped stone slope. The other seawalls in this location were in fair condition and are discussed further in Section 2.1.2.11.
2.1.2.8 Town Landing, Border Street and Lawrence Wharf

The Town Landing on Border Street is a filled structure with stacked stone seawalls. Below it is a small floating dock facility referred to as Lawrence Wharf. It is approximately 50 ft long, accessed by a gangway, and provides a loading area for commercial fishermen and access to dinghies used to access boats moored in the harbor. An additional set of timber floats (approximately 60 ft) is also accessed by a gangway from the Landing. The private docks of Old Salt House were not included in the survey. These facilities have three parking and loading areas available along the Border Street.

At the time of the site assessment, seawalls in this area were deteriorated with missing mortar and loose stones. The seawall around the Town landing itself was in better condition, with mortar in place and no loose stones. The east side of the embayment East of Lawrence Wharf appeared to have a previous wall failure where rip rap had been placed. These seawalls are discussed further in Section 2.1.2.11.

2.1.2.9 Town Pier, Margin Street

The Town Pier on Margin Street consists of a timber pile supported timber pier and floating docks. The docks are accessed via a ramp at the end of the pier. The pier extends approximately 70 ft into the harbor and has a “T” at the end providing additional space. The floating docks extend another 50 ft from the pier into the harbor with a “T”-shaped dock system providing space for dinghies that are accessed by a 30-ft gangway. The property does not have parking facilities.

The pier was in satisfactory condition at the time of the site visit. The outshore footings on concrete block foundations showed minor cracking and deterioration. The timber docks were in satisfactory condition. The floats were bottom-moored, and the gangway was pinned to keep the float in alignment. The gangway was in satisfactory condition.

2.1.2.10 Cohasset Yacht Club, Howard Gleason Road

The Cohasset Yacht Club is located on the north western shore of the harbor near the harbor entrance. The Yacht Club has a pile-supported building and floating dock system providing dockage for approximately 150 boats, including slips, club boats, and dinghy slips. The shoreline around the Yacht Club is marsh with limited shoreline protection. The Yacht Club has a small marine railway to the west that appears to be actively used by the club. At the time of the site visit, the building and foundation appeared to have recently been replaced. The timber docks were generally in satisfactory condition.
2.1.2.11 Harbor Seawalls and Shoreline Protection

Seawalls around the harbor consist mainly of stacked stone walls. Based on the MA DCR Coastal Hazards Study of structures within the harbor, seawall conditions range from poor to good (MA DCR, 2013).

At the time of the site assessment, several of the structures showed signs of previous repairs and ratings ranged from fair to satisfactory. The Border Street seawall was generally in satisfactory condition, however there were several small to large settlement points behind the wall. This had most likely been caused by fine sediments being flushed from behind the wall. The section between the Atlantica and Cohasset Harbor Inn was in better condition than the section between the Atlantica and the Mill River Facility.

Seawalls around the Town Landing were in better condition than the seawall at Border Street, however they exhibited minor material loss and settlement. East of the Town Landing, at “Bates Wharf,” there was evidence of a seawall failure and dumped stone repair. Based on aerial imagery this was estimated to have occurred in June 2017.

The jetty on the west side of the harbor (Ballermine Estate/House) and the breakwater on the east were in satisfactory condition with minimal stone movement noticed. The top of the structures were noted to be at the approximate high tide mark, which would allow some waves to proceed over and into the harbor during storm events. The harbormaster noted that the structures are overtopped when tides exceed +12 ft, however Town properties historically have not typically incurred damage; these patterns are discussed further in Section 4.1.

The harbormaster also noted that in storm events the maximum typical wave that enters the harbor during storm events is about 5 ft. This size wave could potentially cause damage to smaller watercraft near the mouth of the harbor. The moorings are anchored by concrete/stone block and typically have not experienced damage in storm conditions.

2.1.2.12 Mooring Fields

The mooring fields within the harbor are split into three general areas according to the shape of the harbor. Because of intricate water flows within the harbor, moorings have historically been configured to maximize available space while reducing potential for vessels to collide. The estimated number of moorings below are estimated based on aerial imagery; exact numbers may vary.

Cohasset Harbor

Cohasset Harbor is the largest of the three mooring fields, with approximately 90 -125 moorings. While it provides access to other two, the mooring field layout does not appear to be well defined or provide a designated channel. At the time of the site visit, the moorings appeared to be configured in a grid without overlaps, taking up more space than necessary.
within the harbor. The harbor has a path down the center, however there was no defined navigational channel with markers at the time of the site visit.

**Cohasset Cove**

Cohasset Cove has approximately 20 moorings, including some double moorings with a float. The extent of the mooring field is limited by available water depth. At the time of the site visit, moorings appeared to be maximized for current drafts. Floating docks are used to double up mooring positions, but additional water draft would enable a more defined mooring configuration.

**Bailey Creek**

The Bailey Creek section of the harbor was accessed through the Government anchorage, which has approximately 30 moorings. Mooring locations in this area are arranged to provide access through narrow channels. The area in front of the Cohasset Harbor Marina may be able to be redesigned to maximize available space, but limited drafts restrict options. The mooring configuration could potentially benefit from a double-ended mooring system to prevent vessels from colliding and allow for additional vessels.

**2.1.2.13 Navigational Channels**

Cohasset Harbor was accessed via the USACE channel that runs in a northeast/southwest orientation and is maintained by the USACE. In 2017, the USACE performed survey of the federal project including the entrance channel and basins. Based on the findings, dredging was performed to reduce some shallowed sections of the harbor and provide safe access into Cohasset Harbor.

Since the USACE performed the maintenance dredging, the channel and harbor has experienced minimal siltation. The channel should be monitored for siltation as part of the overall dredge evaluation.

**2.1.2.14 Harbormaster Facilities**

The Harbormaster facility is located off Lighthouse Lane and while it has waterfront access, there was no designated waterfront dockage for the Harbormaster response vessel. The Harbormaster’s office is located at the inshore limit of the parking lot for the Commercial Pier and does provide good visibility of the harbor.

The existing facility limits the ability to have designated waterfront access for emergency response (i.e., for the Harbormaster to respond, personnel must currently motor to the response boat via the work boat, increasing response time). A facility upgrade that allows emergency vessels to dock at the Harbormaster’s office could thus shorten emergency
response time. Providing additional dockage in this manner could also be a potential economic benefit for the Town, with transient dockages or other short-term uses.

2.2 Dredging

Cohasset Harbor extends to the south to Cohasset Cove via an 8-ft-deep channel. Cohasset Cove consists of approximately 30 acres of water sheet at low water, per Google Earth imagery. Cohasset Cove consists of 4 anchorages according to the USACE project plans:

- 7 ft depth Cohasset Harbor Anchorage – 18.0 acres
- 6 ft depth Cohasset Cove Anchorage – 3.9 acres (near Town landing)
- 6 ft depth Government Island and Cove Anchorage – 3.3 acres (near Harbormaster Office)
- 6 ft depth Bailey Creek Anchorage – 5.4 acres (near Cohasset Harbor Marina)

2.2.1.1 Existing Dredging

The harbor has not had major dredging performed recently, however it appears to be in need of additional dredging to meet existing needs. The USACE performed minor dredging of the entrance channel and across from Government Island in 2017. No other dredging is currently proposed.

2.2.1.2 Review of NOAA Charts, USACE Survey and Electronic Navigation Chart Data

Electronic Navigation Charts (ENC) from the National Oceanic and Atmospheric Administration (NOAA, 2018) and as seen in Navionics Software (Navionics, 2018) show depths in Cohasset Cove vary greatly. Data show the harbor has depths of 6-7 ft within the main anchorage and <4 ft in a majority of the remaining harbor, including the dredged anchorage near Cohasset Harbor Marina. Some portions are <2 ft deep at low water and therefore unusable by most boat traffic.

It was noted by the Town that there is a possible issue with sediments building up in areas around the sewer treatment outflow and that dredging may be needed to resolve the issue.

2.3 Recommended Dredging

According to the USACE, the harbor has four anchorages, inclusive of the three anchorages noted above, which are to be dredged to between 6 and 7 ft in depth (USACE, 2018), two of which had dredging performed in 2017. These are the channel outshore of the Cohasset Sailing Center, including a portion of the anchorage to the north, and main Cohasset
Channel. While these areas have been deepened to allow vessel traffic, the remainder of the harbor needs dredging to continue to facilitate use of existing infrastructure.

In the review of soundings from the 2017 survey, approximately 150,000 cy of sediment is estimated to be in need of removal to reach the target depths of the federal project with a 1-ft over-dredge.

2.3.1 Regulatory Requirements

To perform additional dredging within the harbor the Town would need to request regulatory approvals from the following agencies:

- USACE
- MA DEP Ch 91
- MA DEP Water Quality
- Massachusetts Environmental Policy Act (MEPA)
- Town Conservation Commission (Notice of Intent)

As part of the permitting process, the Town should review the material testing results with the USACE. This will help understand potential opportunities to secure USACE dredging and disposal approvals. Disposal options may include upland disposal at landfills, offshore disposal, and beneficial reuse on nearby beaches if materials are clean enough.
3. Harbor Improvements

Cohasset Harbor is a generally well-protected harbor providing moorings for over 500 boats and serving as home to two sailing centers and a private marina. The town maintains two filled pier structures with floating docks, a timber pier with dinghy dock access, and moorings throughout the harbor. While the facilities appear to meet existing needs, several structures warrant typical maintenance and repairs. Additionally, potential harbor improvements should be considered ranging from dredging to construction including upgrading, expanding, or creating new piers or additional floats and moorings.

Existing uses are mainly recreational (roughly five to ten percent of current users are commercial). Existing Town facilities are generally in satisfactory condition and provide waterfront access. Through discussions with the Town it was determined that while there are several access points within the harbor for commercial and recreational waterfront uses, existing facilities need improvement to meet both existing and anticipated future needs of the harbor. These include dockage for the recreational boaters and upgrades to the commercial fishing facilities.

3.1 Mixed Use/Pier Facility

A mixed-use facility such as a town-owned pile supported pier could provide many economic benefits and a balance of commercial and recreational uses. A new facility could provide deeper draft loading abilities with cranes or hoists and convenience utilities including water, power, and sewer in addition to increased dockage and ADA boat access. Major improvements resulting in enlarged structures, increased floats, or mixed-use facilities should be studied further to identify appropriate shapes, sizes, and configurations. To understand if a mixed-use facility may be feasible for Cohasset Harbor, a more detailed analysis of economic impacts would need to be performed. Two potential locations for a mixed-use facility include Government Island and the Town Landing at Border Street. In our opinion the Government Island facility would provide better accommodations for the Harbormaster, easier access to the water, more ample parking, and would require fewer upland improvements.

Construction of a mixed-use facility could range from $3 million to $10 million depending on final design requirements. The broad range on this estimate is due to unknown size of the facility, foundation requirements, and utility considerations at the site. The Fishermen’s improvements (see Section 1.1.1.4) could be incorporated into this structure including the hoist or conveyor system, fueling facility, water and electrical service, trash and oil reclaim services, security cameras, and designated use areas for fishermen, while also serving the general public with Harbormaster dockage and other features noted above. Efforts to secure
funding for this work could potentially be aided by providing additional emergency response vessels and support to the waterfront.

3.2 Dredging

Based on results of the survey performed by the USACE in 2017, an estimated 150,000 cy of dredging could be required to restore to historic depths and limits and maximize use and benefits of the harbor, including potentially allowing additional moorings to be installed.

3.3 Seawalls and Jetties

Several seawalls in the harbor need repair to limit further deterioration of roadways behind them. At the time of the site visit, many of the seawalls had sinkholes or settlement inshore of the wall in the walkways and roads/parking lots. These should be repaired to stem deterioration and limit significant future damages. Parking for the Atlantica restaurant had many sections along the backside of the revetment/seawall where the asphalt had voids below and required repair. An investigation of the cause of damage should be considered to stop or minimize the future deterioration.

All seawalls should be evaluated as part of an in-depth study to determine the scope of required repairs and the appropriate amount of protection against sea level rise and storm surge events, which, in combination and over time, can be expected to create increasing likelihood of inundation in Town (see Section 4.1.2 for an evaluation of flood frequencies and likelihoods given the combination of these threats, and Section 2.1.2.11 for additional review of seawall issues). In particular, the jetty on the west side of the harbor and the breakwater on the east side (at the entrance of the harbor) may be too low in elevation to provide a desired degree of protection. The Town has been investigating both structures to determine if work conducted on them in the past was within the authorized construction limits. An in-depth resiliency study by an engineering firm could contribute to these efforts.

3.4 Boat Ramp

The Parker Avenue boat ramp is the only ramp in the harbor. At the time of this report the Town had procured an engineering firm to begin redesign of the ramp. Current plans are to redesign the structure within the same footprint with the potential of expanding the length or modifying the slope to allow use throughout the tidal range. Other improvements may include:

- Widening the ramp, if property ownership lines allow.
- Installation of floats along the sides for easier access to boats and vehicles.
- Identification of designated dinghy ramping for CSCR and CMI boats.
- Dredging the bottom of the ramp to provide sufficient depths at low tides.
3.5 Recommended Additional Studies

Based on our overall review of existing facilities and uses of the harbor, we recommend the following additional studies:

- In-depth seawall investigation and repair design $75,000
- In-depth harbor study and mooring analysis $60,000
- Updated hydrographic surveys and dredge analysis $25,000
- Feasibility study and concept design for a mixed-use facility $40,000

Performance of work similar to the above would enable order of magnitude of construction cost estimates of the potential harbor improvements.
4. Environmental Issues

4.1 Harbor and Waterfront Constraints Evaluation

4.1.1 FEMA - Flooding

FEMA flood mapping for Cohasset Harbor depicts the harbor within several different flood elevation regions (FEMA, 2018). Most areas are within VE zones, which are susceptible to wave conditions exceeding 3 ft in height. The FEMA maps are based on the North American Vertical Datum of 1988 (NAVD88), which is approximately 5.2 ft above Mean Low Water. The entrance area of the harbor has the highest flood elevation at +18 ft NAVD88 (+23 ft MLW) and the lowest at +10 ft NAVD88 (+15 ft MLW).

4.1.2 Sea Level Rise and Flood Frequency Evaluation

This evaluation of sea level rise and flooding trends in Cohasset is intended to augment results from the Municipal Vulnerability Program (MVP) initiative conducted in Cohasset during 2017 and 2018, and to enhance the Cohasset Municipal Harbor Plan. Using data summarized by the Metropolitan Area Planning Commission (MAPC, 2018), the MVP effort included general evaluation of: 1) Amounts of sea level rise that might be expected under different scenarios; 2) Trends in sizes and numbers of rainfall events that might be expected to occur as the climate changes; and 3) Expected changes in size over time (1961 – 2084) of a 10-year, 24-hour storm (MAPC, 2018).

The MAPC effort did not discuss patterns in flooding days that have been experienced or probabilities of different sized flooding events under the identified sea level rise scenarios. This information could be useful in making infrastructure upgrade decisions and addressing other issues implied by the Cohasset Municipal Harbor Plan. Fig. 3 below provides histograms showing:

1. Numbers of flooding days per decade that have been experienced in Cohasset since 1955.

2. Single-year risk and multi-year risk of flooding in Cohasset above 5 ft., in terms of percent likelihood.

3. Water levels (in ft) in Cohasset when considering sea level rise alone and with mild, moderate, and major flood levels in addition. These histograms are also provided for slow, medium, fast, and extreme sea level rise scenarios.
4.1.2.1 Data Sources

Sea level rise scenarios used for this evaluation were published by the NOAA in 2017 (Sweet et al., 2017) for use in the 2018 U.S. National Climate Assessment. The data portal used for creating the below plots was Surging Seas Risk Finder; data sources, assumptions and limitations are the same as elaborated on the website for this tool (Climate Central, 2018). The tool gives corresponding local projections also provided by NOAA, which vary due to local factors such as rising or sinking land also referred to as uplift and subsidence. Low, middle, and high sea level rise scenarios give a range of possible local outcomes (17th, 50th and 83rd percentiles) given each main scenario. The reference tide gauge used was located 15 miles from Cohasset in Boston Harbor.

4.1.2.2 Patterns in Flooding Days

Recent research indicates that human-caused global warming has driven the majority of observed 20th century global sea level rise (e.g., Kopp et al., 2017). A higher sea level baseline translates to more and bigger floods from the highest tides and storms. The Risk Finder tool used in this evaluation builds on these observations with analytic methods that show the impact human-caused sea level rise has had on past flood counts (Strauss et al., 2016). The stacked bar graph below, tailored for Cohasset, displays the total number of days each decade in which observed water levels exceeded the “minor flood” threshold, defined locally by emergency managers and the Weather Forecasting Offices of the National Weather Service (NWS). These occurrences are split between floods high enough to have exceeded this threshold regardless of human-caused sea level rise (blue), and those smaller, more frequent events that would have stayed below the threshold if such sea level rise had not happened (orange). Overall height of the bars indicates observed changes in frequency of flooding days for Cohasset (whether considering trends in observed sea level rise to be climate-linked or not). The data helped evaluate past and current vulnerability to coastal flooding.
For planning purposes going forward it is important to consider patterns in single- and multi-year risk as well as the likelihood of different flooding events under a range of sea level rise scenarios. Each person, committee, or department making infrastructure investment decisions may have different levels of individual or collective risk tolerance, so this type of information can enhance conversations about trade-offs and whether any particular capital investment is a good idea and if so, whether the same investment might become a bad idea at an identifiable point in the future. Several ways of presenting this information are below.

Concepts inherent in the Risk Finder tool are relevant to this analysis. For example, “water level” is understood to comprise different combinations of sea level rise, tide and storm surge. Therefore, water level values should not be seen as necessarily reflecting sea level rise or flooding alone. Also, local sea level projections incorporate global factors such as melting glaciers and ice sheets, combined with local effects such as sinking land. From a measurement point of view, water level means elevation above the local high tide line, instead of the standard elevation value found on most maps. Technically, the tool uses elevation above local “Mean Higher High Water” – the average of the higher high water height of each tidal day observed over the National Tidal Datum Epoch. For U.S. places, this is taken across the most recent national “tidal epoch” from 1983 to 2001, centered on 1992. Because this is a national standard and for consistency, sea level projections and flood levels are referenced to local high tide lines in 1992. Also note that sea level rise projections in most recent analyses only evaluate trends out to 2100. Although the Risk Finder tool extends projections to 2200, the below plots only go to 2120, rounding to a full century from the present.
Single-year Risk of Flooding Above 5 ft.

Fig. 4 below shows single-year risk of flooding above 5 ft. The y-axis shows the risk or percent likelihood of at least one flood within each year shown, under slow, medium, fast, and extreme sea level rise projections. Each bar in the histogram can be interpreted as an estimate of risk; for example, the fourth bar in the “fast rise” series shows that for the year 2050 and any year in the ten-year period of 2046 – 2055, the estimated likelihood of a flood of 5 ft or more above the current high tide line in any given year is 58%.

Multi-year Risk of Flooding Above 5 ft

Fig. 5 below shows multi-year risk of flooding above 5 ft. The y-axis shows the risk or percent likelihood of at least one flood from 2016 through each year shown, under slow, medium, fast, and extreme sea level rise projections. Each bar in the histogram can be interpreted as an estimate of risk; for example, the second bar in the “extreme rise” series shows that from the years 2016 - 2030, the estimated likelihood of a flood of 5 ft or more above the current high tide line in any given year is 76%.
4.1.2.4 Expected Flood Elevations Given Sea Level Rise

Besides the risk calculations as above, planners and infrastructure managers are often also concerned about water levels themselves. In many cases they know the elevations of door sills and other openings that provide access for water to enter critical facilities and could benefit from having projections of expected water levels under different sea level rise and storm surge scenarios. There are numerous ways to present this type of information; one is below. The information could be of assistance in Cohasset to help decide when certain capital investments to protect the Town might be appropriate or conversely, when investments would no longer be appropriate.

Again, data in these plots are based on NOAA’s most recent calculations for slow, medium, fast, and extreme amounts of sea level rise (Sweet et al., 2017), are relative to a 1992 baseline, and were created using the Risk Finder tool. The first plot shows water levels with localized sea level rise projections where there is *no flooding*. The second shows water levels with the same sea level rise scenarios where there is also a *moderate* flood, which has a roughly 10% chance of occurrence in any given year. The third shows water levels with the same sea level rise scenarios where there is also a *major* flood, which has a roughly 1% chance of occurrence in any given year.
Water Levels Under Projected Sea Level Rise Scenarios

![Sea Level Rise Scenarios Graph]

Fig. 6. Sea Level Rise Scenarios

Water Levels Under Projected Sea Level Rise Scenarios Plus a Moderate Flood

![Sea Level Rise Moderate Flood Graph]

Fig. 7. Sea Level Rise - Moderate Flood
4.1.3 Adaptation Actions

4.1.3.1 Action Types

Increases in sea level can be expected to present Cohasset with the need to adapt some buildings and infrastructure. Adaptation actions generally fall in three categories: fortify, accommodate or strategically relocate.

- Actions that *fortify* use hard or soft structures to prevent water from reaching community assets. Such armoring can be “hard” as with seawalls or bulkheads or “soft” as with geotextile tubes (giant fabric sandbags designed to be replaced after large storms).

- Actions that *accommodate* include modification of community assets to reduce the impact of water. They can reduce damage from storm surge but generally do not protect against sea level rise. Accommodation acknowledges that structures will become wet; actions are taken to make them more resilient such as elevation or using construction methods that allow water to pass through the first floor.

- Actions that *strategically relocate* include moving existing structures, people and land-uses away from areas at high risk of flooding to a new location to eliminate the potential risks. Once the structure is removed, these locations can be designed to allow wetlands, beaches and other coastal habitats to naturally migrate landward.
Actions to consider in Cohasset may be parcel-specific (e.g., wet- and dry-floodproofing or elevating buildings and critical infrastructure), area-wide (e.g., reinforcing or extending bulkheads) or infrastructure-specific (e.g., upsizing culverts, raising roads, or constructing barriers to modify the flow of water in areas of anticipated flooding). They can also be structural or focused on policy and planning reform. The following sections describe more specific candidate actions and discuss them in relation to availability of data showing where water in Cohasset may go under different environmental futures.

### 4.1.3.2 The Need for Hydrologic Modeling

As part of Cohasset’s MVP initiative, in 2018 the Town worked with MAPC to provide a two-day Community Resilience Building Workshop. The series was an overview of the impact of climate change on critical infrastructure, facilities, services, and areas. It helped identify key vulnerabilities and actions that may increase resiliency in Cohasset (MAPC, 2018). Note however that most of the recommended actions were broad, such as “Account for future sea level rise in Town permits and planning” and “Ensure harbor structures provide improved protection.” Some recommendations were specific to particular assets and do highlight the need for particular actions, such as “Elm Street sewage treatment plant: address infiltration through manhole covers and consider the need for a wall or other protection for the plant,” but overall the suggested actions simply point in a general direction for future activity.

In large part this is a result of the unavailability of detailed hydrologic information indicating where flood waters in Town may go. In other words, for resiliency planning efforts to have strong utility they often need to rely on sound underlying analysis of likely future hydrodynamic conditions to which a jurisdiction wishes to adapt. Although the Cohasset MVP process did use sea level rise projections to inform discussions, the combination of sea level rise evaluations and storm surge frequency analysis can be more robust.

Many coastal communities in Massachusetts that are engaging in the MVP program develop their workshops in reference to the Boston Harbor Flood Risk Model (BH-FRM) created by the Massachusetts Department of Transportation and the Federal Highway Administration (Massachusetts Department of Transportation, 2015; c.f. Beverly, City of, 2018). The model made probabilistic estimates for risk of flooding events of various sizes, taking into account riverine flows, tides, waves, wind, storm surge, and wave set-up, and under several sea level rise scenarios. It also included calculations of exceedance probabilities for water surface elevations from the various storm events both in the present and under sea level rise scenarios modeled in the years 2030 and 2070. This provides towns a useful starting point to evaluate which portions of town or pieces of critical infrastructure are more or less likely to experience flooding under a range of possible scenarios.

Clear steps Cohasset can take are therefore to work with the BH-FRM data as a basis for understanding possible impacts from flooding and then structuring more detailed
recommendations for adaptation action. This basis would make it possible for the general recommendations in the Cohasset MVP report such as “Raise all seawalls” to become more geographically and structurally tailored to risks the Town is facing. The steps would also be consistent with other recommendations in the Cohasset MVP report including “Analyze the vulnerability of the sewer pump stations,” “Study roads and bridges subject to flooding,” and “For Sandy Cove and other low-lying areas: research and install appropriate drainage systems.”

Even without using the BH-FRM data, however, additional categories of adaptation action could be evaluated that have potential to increase Cohasset’s resilience in the face of sea level rise and storm surge. These could include beach nourishment and/or planting of additional dune vegetation at Bassing Beach and creation of salt marsh habitat or shellfish beds that have the potential to absorb wave energy. Other actions are detailed below, both in the planning realm and regarding practical steps with buildings and utilities that could be taken immediately.

Another step is to ensure that in developing recommendations the focus is not only on minimizing direct impacts of flooding but also on other aspects of community structure. That is, adaptation in Cohasset should be conducted in a manner that simultaneously protects natural resources and recreational spaces, enhances resilience of Cohasset’s utility sector (as in Section 4.1.3.4 below), connects with forward-looking development incentives (as in Section 4.1.3.4 below), addresses issues of social equity and cohesion, and positively engages the public. GEI recommends that each of these categories of issues be carefully integrated into preparation of Cohasset’s Municipal Harbor Plan.

4.1.3.3 Planning Opportunities

Finally, Town planning documents should be updated to reflect possible changes in the environment including geometry of the coastline and frequency and intensity of storm surge events. Some questions the Cohasset Municipal Harbor Plan will address are focused on relatively short-term outcomes, such as specifying details about fishing piers, mooring fields, etc. These still need to be addressed, but we suggest the Plan will benefit from also considering longer-term changes and needs. GEI recognizes that the draft Cohasset Master Plan of 2003 (Cohasset, Town of, 2003) is currently being updated and may incorporate some of the items discussed here. Because many elements of harbor infrastructure are particularly vulnerable to sea level rise and storm surge, the Municipal Harbor Plan is another opportunity to address these vulnerabilities. For example, the breakwater at Bassing Island is in need of evaluation and possible upgrades to ensure it is ready for a range of possible sea level rise scenarios (see Section 3.3 for additional commentary on this).

Updating Town planning documents in the manner described above would be a change from how most planning efforts in Cohasset have developed in the last 15 years. For example, the draft Cohasset Master Plan of 2003 provided detailed discussion about zoning, dimensional
requirements, development capacity and other elements of the regulatory context at the time. Similarly, the 2003 Plan discusses waterfront access as a critical area for action but does not reference a changing coastline over time and whether this might negatively impact public access to the waterfront at some of the sites discussed.

Additional Cohasset planning documents since 2003 have intended to foster development but also make no reference to a changing environment, sea level rise or storm surge. These include “Transit-Oriented Development Overlay District Special Permit Rules and Regulations of the Planning Board of the Town of Cohasset, Massachusetts,” (Cohasset, Town of, 2006b) “Large Home Review Rules and Regulations of the Town of Cohasset, Massachusetts” (Cohasset, Town of, 2013), and “Rules and Regulations Governing the Subdivision of Land, Cohasset, Massachusetts (Cohasset, Town of, 2016). They are also as recent as the “Village Business District Design Guidelines” (Cohasset, Town of, 2017a), even though many of the sites discussed may be underwater at high tide within the next several decades (if not daily, then possibly on a semi-annual basis when astronomical high tides occur). One document, “Residential cluster development district special permit rules and regulations” (Cohasset, Town of, 2006a), does require identification of which parts of the proposed site are within a FEMA 100-year flood zone, but the requirement is not different from other simple steps in the “Analysis of Site” portion of the permitting process such as documenting topography and trees over 8 inches in diameter.

Because the threats of a changing coastline are not addressed in these Town planning documents, adaptation actions are also not discussed, including specification of new regulations that may become necessary to preserve the desired characteristics of assets in Town – for economic development purposes or otherwise. With each document of this nature a possible consequence is created, of developing in areas particularly vulnerable to economic loss or developing in a manner that does not take those risks into account (such as with adequate floodproofing, elevation adjustment, structural support, etc.). It is also a possible consequence that could be largely eliminated in Cohasset’s planning documents going forward if risk from environmental change is more fully integrated into various planning procedures. Therefore, in devising planning regulations it is advisable that dimensional and other requirements be structured in a flexible manner to allow evolution over time if high tide levels change markedly.

The purpose of this report is not to speculate about chances that new high tide levels or storm surge intensities will occur or when; these issues are discussed in Section 4.1.2 and could be evaluated further through use of data from the BH-FRM. Nor is the purpose to suggest that earlier planning efforts were inadequate; at the time of writing of several of them, threats of storm surge and rising sea levels may have been thought to be more remote than at present. Rather, per the intent of GEI’s Scope of Work with Harriman, it is to assist with beginning to reform the City of Cohasset’s municipal planning documents so that they no longer assume a stationary future.
With increases in collected tide gauge data, storm surge records and modeling efforts like the BH-FRM, now is a good time to ensure that going forward, the broadest possible number of Cohasset’s municipal planning documents adequately reflect what is understood about these threats. Doing so also provides a chance to 1) ensure that earlier recommendations are not lost when environmental conditions change, and new planning frameworks are required or initiated, and 2) bridge the gap between sustainability-oriented intentions of master planning documents and implementation-oriented intentions of documents that direct economic or waterfront development.

Taking these steps would additionally help harmonize potentially divergent planning initiatives in Town. For example, it is clear the Town wishes to integrate development of the harbor with development of the Cohasset Business District, to “increase the use and enjoyment of both areas of town in a way that increases business activity for all” (Cohasset, Town of, 2017b). Without working to have Town planning documents explicitly and carefully use knowledge about possible trends in sea level rise and storm surge, this integration is likely to remain difficult.

4.1.3.4 Overlay Zones

Planning mechanisms to consider for this type of incorporation include incentive-based and flood-fringe overlay zones, which have been used by numerous other municipalities to provide an alternative set of uses and development standards. For example, the Nantasket Beach Overlay District in Hull, MA provides incentives to encourage mixed use redevelopment for commercial and multi-family property at scales and densities appropriate for the type of community, capable of revitalizing local economic development and able to protect people, property and resources (Schechtman and Brady 2013, Hull, Town of, 2014).

The District incentivizes flood-resilient measures that could be considered in Cohasset, including:

- A rebate of $500 on building permit fees for inclusion of increased building floor elevation in the building design.
- Taller buildings may be permitted by the Planning Board to be elevated beyond the prescribed height limit.

To receive the incentives, candidate projects must include flood-resilient features such as:

- The lowest floor or story does not contain habitable space.
- Mechanical, electrical, and HVAC equipment is not located on the lowest floor.
- Generators are located on the roof or upper stories.
• Projects include "green building" components to the greatest extent possible such as energy-efficient design, use of alternative energy sources such as solar, onsite stormwater retention and layouts that promote walking and connections to public transport.

• Projects include underground utilities and floodproof electrical transformers.

Other municipalities use overlay districts to establish minimum design standards for construction in flood-prone areas. Districts of this type could additionally be considered for implementation in Cohasset. For example, Woodstock, NY has a Flood-Fringe Overlay District (Woodstock, Town of, 2014) where all land in the 100-year flood zone as mapped by FEMA plus additional lands designated by the Town Board (lands in the “fringe” of the flood zone) are subject to construction standards, including that structures:

• Are anchored and designed to prevent flotation, collapse or lateral movement due to floodwater-related forces.

• Use flood-resistant construction materials and utility equipment.

• Provide adequate drainage to reduce flood hazard exposure.

• Locate and construct public utilities and facilities to minimize or eliminate potential flood damage.

• Design all water supply and sanitary sewage systems to minimize or eliminate floodwater infiltration or discharges into floodwaters.

• Locate on-site sewage systems (e.g., septic tanks) to avoid damage to or contamination from them during flooding.

• Elevate the lowest floor of new residential construction (or during substantial improvement to existing construction) to at least 1 ft above BFE.

• Elevate or floodproof the lowest floor of all non-residential construction (or during substantial improvement to existing construction) to at least 1 ft above BFE, including utilities and sanitary facilities.

4.1.3.5 Additional Considerations

Although other regulatory approaches could be used to help manage future development in areas vulnerable to impacts of sea level rise and storm surge (such as rolling development restrictions that move landward as the tide line moves landward, or simply strengthening building codes by requiring additional adaptation strategies; EPA, 2017), we believe the zoning ordinance may be the most flexible tool.
In developing overlay districts of the types described, consideration should be given to amounts of exposure in different parts of the district. For example, some areas adjacent to the shore may have no sea walls and be more vulnerable to moderate levels of flooding, while other areas may have substantial sea walls and be less vulnerable to the same levels of flooding. Additional detail on suggested structure of overlay districts tailored to the impacts of sea level rise can be found in an Expert Review Report on the topic from the Georgetown Climate Center (2011). Among other elements, it provides language for a model zone that distinguishes between land with sensitive natural resources and land that could continue to be developed, and includes sub-districts with differential setbacks, structure elevations and sizes.

Political acceptability of each of these possible regulations should also be considered; outreach to private landowners in proposed future development areas may be appropriate or necessary as part of developing the overlay district(s).

4.2 Waterfront/Coastal Environmental Regulatory Requirements

Implementation of the various elements identified within the Cohasset Harbor Plan will be subject to obtainment of regulatory approvals at the municipal, state, and federal levels. Specific regulatory authorities from whom permits are likely to be required include the Cohasset Conservation Commission, the Massachusetts Department of Environmental Protection (MADEP), and the USACE. Depending on the size and sensitivity of specific construction activities, additional approvals may be required from the Massachusetts Office of Coastal Zone Management (CZM) and the Massachusetts Executive Office of Energy and Environmental Affairs – MEPA Office.

4.2.1 Municipal Approvals

4.2.1.1 Massachusetts Wetlands Protection Act and Cohasset Wetlands Bylaw – Order of Conditions

An Order of Conditions from the Cohasset Conservation Commission is required for activities to be conducted within the Harbor, along its shoreline, and within 100 ft of the Harbor shoreline pursuant to the provisions of the Massachusetts Wetlands Protection Act (M.G.L.c. 131, s. 40) and the Cohasset Wetland Bylaw. This approval process is initiated with the filing of a Notice of Intent (NOI) in compliance with MADEP Regulations 310 CMR 10.30 and the Cohasset Wetlands Regulations of August 24, 2001. The NOI consists of a completed WPA Form 3, project plans at appropriate scale, a project description identifying the activity’s compliance with performance standards specified for each affected wetland resource area in the above-referenced Regulations, a town-certified list of abutting property owners and owners of property located within 100 ft of the property upon which the activity is to be conducted, a copy of a completed abutter notification form, and an affidavit
certifying that the abutter notification was sent to each property owner included on the town-certified list on a specified date.

Within 21 days of receipt of a complete NOI, the Cohasset Conservation Commission will hold a public hearing on the proposed work. Within 21 days of the closure of the public hearing the conservation commission will issue an Order of Conditions specifying the conditions under which the activity may proceed. An Order of Conditions may be appealed to the MADEP within 10 days of its issuance by the applicant, any abutter, any 10 residents of the town, any person aggrieved by the Order, or the MADEP itself. If appealed, the MADEP will issue a Superseding Order of Conditions. The final Order of Conditions (initial or Superseding) must be recorded at the Norfolk County Registry of Deeds. Upon completion of the authorized work, a Certificate of Compliance must be obtained from the conservation commission.

The time allowed under the Order is three years for completion of the project but can be extended upon submission and approval by the Commission prior to its expiration date.

4.2.1.2 Site Plan and Special Permit

Depending on the activity proposed and its location, a site plan approval and/or special permit from the Cohasset Planning Board and/or Zoning Board of Appeals may be required pursuant to the provisions of the Cohasset Zoning Bylaw (Cohasset Bylaws Chapter 300). Additionally, and as a prerequisite to the issuance of a Chapter 91 Waterways License (see Commonwealth Approvals), the Planning Board must be notified of any pending License application.

4.2.2 Commonwealth of Massachusetts Approvals

4.2.2.1 Chapter 91 Waterways License

A Waterways License is required for any structure that is permanently installed (e.g., piers, mooring piles, bulkheads, revetments, etc.) outshore of the historic High-Water-Line (HWL) pursuant to the provisions of M.G.L.c. 91. A complete License application consists of a completed form, notifications to the planning board and code enforcement officer, and a set of plans and sections prepared in compliance with the rules and regulations for recording at the Norfolk Registry of Deeds. Upon receipt of notice from the MADEP, the applicant must publish a Legal Notice of the filing in a newspaper of local distribution and distribute copies of the Legal Notice and application plans to specified commonwealth agencies, all property abutters, board of selectmen, planning board, conservation commission, and zoning board of appeals. Within 60 days of issuance, the Waterways License must be recorded in the Norfolk County Registry of Deeds or it is no longer valid. The time allowed under the License is 5 years for project completion, but this may be extended upon submission and approval by MADEP prior to its expiration date.
4.2.2.2 Chapter 91 Waterways Permit

A Waterways Permit is required for the dredging of materials from within the harbor pursuant to the provisions of M.G.L.c. 91. This Permit is issued in combination with a Section 401 Water Quality Certification (see below). A complete application includes a completed Combined Application for Waterways License/Permit and 401 Water Quality Certification, together with a plan and section of the proposed dredging activity.

4.2.2.3 Section 401 Water Quality Certification

A Water Quality Certification from the MADEP is required for the placement of fill material into, and/or the dredging of material from, the waters of the Commonwealth of Massachusetts. For the purposes of this permitting program, dredging is defined as the “removal or repositioning of sediment or other material from below the elevation of mean high tide (HTL).” This approval is required pursuant to the provisions of Section 401 of the Federal Clean Water Act and is a prerequisite to the issuance of a Department of the Army Permit pursuant to the provisions of Section 404 of the same Federal statute.

A complete application includes a completed Combined Application for Waterways License/Permit and 401 Water Quality Certification, together with a plan and section of the proposed dredging activity, the results of sediment sampling with chemical and gradation analysis, and a description of methods to be used to mitigate the potential resuspension and discharge of sediment within the waterway. For projects involving a minimal amount of dredging (i.e., cumulative area of dredging ≤5,000 square ft and volume of dredging <100 cy), the final Order of Conditions issued pursuant to the provisions of the Massachusetts Wetlands Protection Act serves as the Section 401 Water Quality Certification.

For dredge projects, the WQC establishes conditions to minimize impacts at the site of dredging and approval for any upland disposal or beneficial reuse of the dredged material. When dredged material is to be disposed in offshore waters, the dredge disposal is under the USACE/EPA requirements for sampling, testing, and disposal including the likely requirement for biological testing – see Federal Approvals below.

4.2.2.4 Massachusetts Endangered Species Act “Take” Determination

Activities proposed to take place within “estimated habitat of rare wildlife” and/or “priority habitat of rare species” are subject to review of the Massachusetts Division of Fish & Wildlife, Natural Heritage and Endangered Species Program (MNHESP) for a determination of “Take/No Take.” If it is determined that the activity will result in a “Take” of a Massachusetts Endangered Species Act (MESA)-protected species, a Conservation & Management Permit from the MNHESP will be required. The “Take” determination can be completed during the review of a Notice of Intent (NOI) filed pursuant to the provisions of the Massachusetts Wetlands Protection Act, provided the information required for this
determination review is submitted with the NOI to the MNHESP along with a fee payment ($300 for a project involving disturbance of less than five acres). Determinations are typically completed within 30 days of an NOI-submitted request.

To determine if the activity will occur within an estimated habitat, the applicant must review the current version of the Massachusetts Natural Heritage Atlas, a document periodically updated by the MNHESP. Contents of the current atlas are available for viewing online using the MassGIS mapping tool OLIVER. The data are found within the Conservation/Recreation file under Natural Heritage Data.

4.2.2.5 Massachusetts Coastal Zone Management Consistency Review

Activities to be conducted within the “coastal zone” of the Commonwealth that are subject to the regulatory review of a Federal agency are reviewed for their consistency with the policies of the Massachusetts Coastal Zone Management Program. Typically, this review is triggered under certain conditions including when an individual Department of the Army Permit (see below) is required for the activity. Review is initiated by the applicant preparing a “Consistency Statement” describing the activity’s consistency with the policies for submission to the Massachusetts Office of Coastal Zone Management (MCZM). The MCZM responds to this Statement with a finding of either concurrence or nonconcurrence with the Statement. In the case of nonconcurrence, the applicant will be required to revise the activity to bring it into consistency with policies of the program.

4.2.2.6 Massachusetts Environmental Policy Act Review

Any project conducted with Commonwealth funds and/or requires issuance of a permit or approval from a Commonwealth agency is subject to provisions of MEPA (M.G.L.c. 30, s. 62-62H). Those projects that are subject to MEPA and exceed specific review thresholds are further subject to the review procedures specified at 301 CMR 11.00. The objective of MEPA review is to ensure that all Commonwealth agency actions, including permitting actions, are undertaken in a manner that avoids or minimizes, to the maximum extent practicable, damage to the environment. Accordingly, no Commonwealth agency action may be taken until they have been found to be in compliance with MEPA review requirements.

In the case of activities to be conducted within Cohasset Harbor, the MEPA thresholds most likely to be applicable include:

- Alteration of more than 2 acres of designated priority habitat.
- Alteration of a coastal dune or bank.
- Alteration of 1,000 square ft or more of salt marsh.
- New fill or structure in a FEMA-mapped velocity zone.
- Expansion of a fill or structure in a FEMA-mapped velocity zone.
- Alteration of 0.5 acres of wetlands.
- Dredging of 10,000 cy or more of material.
- Construction/reconstruction/expansion of a solid fill structure of 1,000 or more square ft of base area.
- Construction/reconstruction/expansion of bottom-anchored structure of 2,000 or more square ft of base area.

The exceeding of any of the above thresholds will trigger the filing of an Environmental Notification Form (ENF) with the MEPA Office of the Secretary of EOEEA. Following a public review of the ENF, the secretary will issue a Certificate stating whether any further review (e.g., Environmental Impact Report) will be required. The review of an ENF requires between 30 and 45 days. The applicant is required to publish a Legal Notice in a newspaper of local distribution prior to the filing of an ENF.

### 4.2.3 Federal Approvals

#### 4.2.3.1 U.S. Department of the Army Permit

A Department of the Army Permit from the USACE is required for the placement of structures within the navigable waters of the United States (pursuant to Section 10 of the Rivers and Harbors Act of 1899) and for the discharge of dredged or fill materials into “waters of the United States,” including adjacent wetlands (pursuant to Section 404 of the Federal Clean Water Act). For the purposes of Section 10, USACE jurisdiction extends to the elevation of mean high water (MHW). For the purposes of Section 404, USACE jurisdiction extends to the elevation of the high tide line (HTL).

A responsibility of the USACE is the coordination of the application with other federal agencies including EPA, National Marine Fisheries Service (NMFS), US Fish & Wild Life, etc., as well as historical agencies when required. No filing fees are associated with this application.

The USACE has issued General Permits (GPs) for most activities in Massachusetts requiring a Department of the Army Permit. The GPs authorize activities the USACE has generally found to have only minimal individual and cumulative adverse environmental impacts on waters of the United States. Should an activity be authorized pursuant to the terms and conditions of a GP, authorization by individual permit will not be required. In very limited circumstances, authorization under a GP can be secured by the filing of a simple Self-
Verification Form with the USACE New England District. In most instances, authorization can only be secured through the filing of a Pre-Construction Notification (PCN). Following an interagency review of the PCN, the USACE issues a determination of whether the activity is authorized under one or more GPs. Within the PCN approval, additional requirements may be imposed, i.e. a CZM Consistency Review. Activities that cannot be authorized or approved under the terms and conditions of a GP must be authorized through the issuance of an individual permit.

Activities that must be authorized through the issuance of an individual permit are subject to more extensive application review than those authorized under a GP. Additional filing requirements for an individual permit application include an essential fish habitat (EFH) assessment to be reviewed by the National Marine Fisheries Service and a Coastal Zone Management Consistency Statement to be reviewed by the Massachusetts Office of Coastal Zone Management. In addition to these reviews, the USACE must determine that issuance of the individual permit is “in the public interest.” The public interest review requires consideration of a broad range of potential project impacts on environmental and social conditions and issues.

In addition to interagency consultations with environmental agencies, the USACE also must consider impacts of an activity on significant cultural and historic resources. This task is accomplished through consultations with State Historic Preservation Officers (SHPO) and, where applicable, Tribal Historic Preservation Officers (THPO). To ensure appropriate consultation with these officers, the USACE requires applicants to notify them of any PCN or individual permit application at the time of filing. Should a SHPO or THPO express concerns regarding the activity, the applicant will be required to resolve those concerns before the USACE will issue its authorization of coverage under a GP or issue of an individual permit.

All authorization decisions issued by the USACE will include specific conditions under which the authorized activity is to be conducted. Such conditions may include time of year (TOY) restrictions specifying those time periods during which the activity may not occur, a variety of restrictions on construction means and methods, and both monitoring and reporting requirements.

Regulatory approvals from the USACE are required for the offshore disposal of dredge material. Disposal occurs at pre-approved disposal sites under conditions established by the USACE and the EPA, which dictate the testing and approval requirements. Testing of dredge material going to the Mass Bay Disposal Site generally requires biological testing in addition to physical and chemical testing. Disposal at the other offshore site requires cleaner material and the requirement of biological testing is based on the physical and chemical testing results.
We recommend reviewing the recent USACE dredge projects’ sampling and testing plans to determine the geographic limits of this testing and what testing would additionally be required to dredge more of the Harbor.
5. Potential Grants and Funding Opportunities

5.1 Commonwealth of Massachusetts Coastal Grant Programs

5.1.1 MA Seaport Economic Council

The Seaport Economic Council helps coastal communities develop and improve local assets to facilitate economic growth. The Seaport Council serves all 78 of Massachusetts’ diverse coastal communities and helps each to use their unique economic assets to grow the economy and unlock job creation. The Council also awards grants to create jobs and build resilience to climate change. Dredge projects are not eligible under this grant program.

The Governor of Massachusetts, Charlie Baker, recently signed economic development legislation that includes an additional $50 million in authorization for the Seaport Economic Council. Seaport Economic Council grants will be awarded on a competitive basis and will offer flexible funding to empower communities to bring forward the best ideas and projects for cultivating and stimulating the maritime economy and job growth.

Generally, five types of grants will be encouraged and prioritized with maximum awards of about $1 million. Most grants, however, are anticipated to be much smaller. Successful grant applications should seek funds for capital expenses rather than operating expenses.

1. Innovation Grants: Innovation Grants function as a resource to invest in innovative ideas and projects that promote job creation and economic growth in the maritime sector. This sector includes: shipping and trade, marine science and technology, coastal recreation and tourism, ocean-based clean energy initiatives, and the seafood industry.

2. Grants to Public Education Institutions: Grants for public education institutions range from fostering awareness of coastal assets and maritime traditions of the Commonwealth to investing in transformative public/private collaborations. Public educators from pre-K through higher education are eligible for this grant.

3. Local Maritime Economic Development Planning Grants: It is recognized that coastal communities vary in size and scope from deep-water port cities to small beach towns. These grants provide capacity for coastal communities to explore their unique advantages and generate economic development plans that help them realize their full potential, grow jobs, and maximize the maritime economic sector for their community.
4. Maritime Economic Sector Strategy Grants: Section 3 of the Executive Order governing the Seaport Economic Council articulates the Commonwealth’s role in promoting and growing the maritime economic sector and it is anticipated that from time to time investments will be made to fulfill this charge.

5. Supportive Coastal Infrastructure Project Grants: Infrastructure grants are available when, to fulfill the job or economic growth potential within a coastal community, investments may need to be made in coastal infrastructure to achieve these aims. Best available science and information regarding potential threats to coastal communities from sea level rise and extreme weather events will be used to evaluate and improve the sustainability and resilience of projects in which the Council invests.

Matching funds of 20% of overall project funding request is necessary. Acceptable sources of matching funds include the municipality, federal grants, private funds or contributions by partner organizations.

5.1.2 Executive Office of Energy and Environmental Affairs

In support of Governor Baker’s Executive Order 569, “Establishing an Integrated Climate Change Strategy”, the Dam and Seawall Removal or Repair Program provides financial assistance to plan and implement repairs to key infrastructure that provides storm damage protection and flood and erosion control. Projects may also remove unneeded infrastructure to increase resilience or establish natural protection solutions. Communities that have completed a Municipal Vulnerability Preparedness Plan and apply with a project identified as a priority in that plan may be eligible for additional points in this procurement.

Funding for awards will be from a combination of sources, including but not limited to The Dam and Seawall Repair or Removal Fund as established by M.G.L. c. 29, §2III and C. 286, §2A and 2G of the Acts of 2014, 2000-7028 and 2000-7026. Funds awarded under M.G.L. c. 29, §2III are subject to 301 CMR 15.00, entitled Provisions for Administration of the Dam and Seawall Repair or Removal Fund.


5.1.2.1 Dam, Levee and Seawall Repair and Removal: Application for Funding – Design and Permit Grant

Eligible Projects are for the completion of final design work and submittal of permits for repair and/or removal of dams, levees, seawalls and other forms of inland and coastal structures as defined by Category 1, Category 2, and Category 3 below. Eligible scopes of work include engineering and permitting services performed by qualified engineers.
• Category 1 - Dams and similar regulated and unregulated impoundments.
• Category 2 - Seawalls, coastal flood, and/or foreshore protection
• Category 3 - Inland flood control structures and levees, excluding dams and non-jurisdictional impoundments

For the selected projects, responding applicants will be offered a grant providing for reimbursement of approved costs. In addition to funds available from the Dam and Seawall Repair or Removal Fund established by M.G.L. c. 29, 2III, EEA may seek supplemental funding for projects critical to the protection of public health and safety as well as key public infrastructure.

5.1.2.2 Dam, Levee and Seawall Repair and Removal: Application for Funding – Construction Finance Grant

Eligible Project are for the repair and/or removal of dams, levees, seawalls and other forms of inland and coastal structures. The categories for which applications for the repair or removal of infrastructure will be accepted are the same as in Section 5.1.2.2 above.

For the selected projects, responding applicants may be offered funding through a grant or a finance package offering a combination of grant and loan funds. The availability of loan funds is expected to be extremely limited for FY2019. EEA will determine – at its own discretion – the form of any awarded finance package.

If included in a finance package, the interest rate for loans made shall be fixed at no more than 2% or one half the market rate as established by the Wall Street Journal prime rate in place at the time the application is made, whichever is greater.

To provide an incentive for projects that will maximize the use and/or restoration of natural systems, EEA reserves the right to modify the loan terms. Those projects which minimize or eliminate the use of hard infrastructure are eligible for a 0% interest rate. Projects will be considered for 0% interest if:

• Design plans recognize the potential impacts of climate change and improve resilience.
• Implementation will improve or expand the functions of naturally occurring systems.
• The project fits into a larger comprehensive plan to improve the environmental condition or the project complements other work ongoing in the local watershed.
In addition to funds available from the Dam and Seawall Repair or Removal Fund established by M.G.L. c. 29, 2III, EEA may seek supplemental funding for projects critical to the protection of public health and safety as well as key public infrastructure.

5.1.3 **Department of Housing and Economic Development**

5.1.3.1 **MassWorks Dredging Program**

The program will provide grant funding to cover expenses for dredging projects, including bid and procurement, mobilization and demobilization, mechanical dredging equipment, and dredged material management. Eligible projects must support public navigational dredging projects and be located within public tidelands. Projects that use grants to municipalities, for public infrastructure provided by this section, shall be procured by the municipality in accordance with Chapter 7, Section 39M of Chapter 30, Chapter 30B and Chapter 149.

The Governor signed economic development legislation that includes $50 million for saltwater dredging projects, creating an individual program for focused funding that will build upon the $4 million 2018 Navigational Dredging Pilot Program the Administration launched in 2018.

**Eligibility of Applicants and Projects**

Any of the 78 Massachusetts coastal cities/towns, acting by and through municipal officers or by and through any agency designated by such municipal officers to act on their behalf, or a public entity, may apply to the program for a grant in a specific amount to fund a specific public dredging project.

Eligible projects must be for navigational dredging of public waterways. Program investments will be targeted to proposed projects that can result in direct economic activity and/or address public safety issues. A particular emphasis will be placed on projects that are designed, permitted and ready for construction (“shovel-ready”) or will be within the 2019 fiscal year. MassWorks grants can be in addition to other forms of local, state, and federal assistance that the applicant might receive.

The Program was opened for the first time in 2018 with applications due in August. It is presumed this grant program will continue for the foreseeable future.


5.1.3.2 **MassWorks Infrastructure Program**

The MassWorks Infrastructure Program is a competitive grant program that provides a robust and flexible source of capital funds for municipalities and other eligible public entities to
complete public infrastructure projects that support and accelerate housing and job growth throughout the Commonwealth. Capital grants are available to all Massachusetts municipalities and public entities seeking support for public infrastructure improvement projects.

Per M.G.L.ch.23A§63, the primary purpose of the MassWorks Program is: to issue grants to municipalities and other public instrumentalities for design, construction, building, land acquisition, rehabilitation, repair and other improvements to publicly-owned infrastructure including, but not limited to, sewers, utility extensions, streets, roads, curb-cuts, parking, water treatment systems, telecommunications systems, transit improvements, public parks and spaces within urban renewal districts, and pedestrian and bicycle ways.

In past years this fund has been used for commercial piers to fund improvements to their infrastructure. In 2018 applications were accepted in early August. It is presumed this grant program will continue for the foreseeable future.

6. Literature Cited


Appendix A

Site Photos
Cohasset Harbor Infrastructure

Parker Ave

Cohasset Harbor Marina

Cohasset Harbor Marina

Cohasset Harbor Marina / Parker Ave
Cohasset Harbor Infrastructure

Parker Ave / CSCR

Cohasset Sailing Center

Parker Ave / CSCR

Cohasset Sailing Center
Cohasset Harbor Infrastructure

Cohasset Sailing Center

Cohasset Sailing Center

Cohasset Sailing Center

Cohasset Sailing Center
Cohasset Harbor Infrastructure

Border Street Seawall

Border Street Seawall

Border Street Seawall

Border Street Seawall
Cohasset Harbor Infrastructure

Seawall Failure - Stone Revetment

Salt House

Salt House

Lawrence Wharf
Cohasset Harbor Infrastructure

Seawall - Lawrence Wharf

Town Landing

Town Landing

Town Landing
Cohasset Harbor Infrastructure

- Town Landing
- Border Street Seawall
- Border Street Seawall
- Cohasset Harbor Inn
Cohasset Harbor Infrastructure

Cohasset Yacht Club

Cohasset Yacht Club

Cohasset Yacht Club

Cohasset Yacht Club
Cohasset Harbor Infrastructure

Breakwater

Breakwater

Breakwater
Appendix C
List of Chapter 91 Licenses
CHAPTER 91 LICENSES

This appendix contains a list of the Chapter 91 licenses relevant to the Harbor Planning Area identified during the planning process for the Cohasset Municipal Harbor Plan. The Department of Environmental Protection assisted with the research of the licenses, and special thanks are given to Michael Girvan, now retired, and Hannah Reardon. Significant research was aided by the online database of the Norfolk County Registry of Deeds.

Harriman provided the Town’s Planning Department with electronic copies of the licenses within the Harbor Planning Area retrieved during this process and many of the licenses for the properties abutting the Gulf. We did not list licenses for properties outside the Harbor Planning Area in the table in this Appendix.

Harriman also researched the “dockominiums” (the privately owned dock and slips near the Olde Salt House) and the history of the parcels that make up 124 Elm Street. During Harriman’s research, we found useful maps of the Harbor Planning Area that were not part of Chapter 91 licenses, but did show some of the earlier land, fill, and tidal areas. These documents (deeds, plans, etc.) were also provided to the Town.

Referenced lines in the table refer to the high and low water marks on the plan attached to each license. The lowest number is the line furthest out; note that the lines may cross. When appropriate, we have added other identifying information.

Where known, the current address is provided under the license number. This may not be the address originally listed in the license. For example, the parcel now known as 124 Elm Street was originally several parcels under different ownership.

Note that licenses and the accompanying plans must be recorded with the Registry of Deeds to be valid; property owners should check to ensure that licenses have been so recorded. Given the discrepancy between the records held by the Commonwealth of Massachusetts and the Registry of Deeds for the County of Norfolk, it is possible that some of the license numbers provided by Waterways were not registered, which may have happened during two amnesty periods (one in the 1960s and 1970s; the other in the 1980s). This table is comprehensive but does not claim to be complete. Other licenses may exist that were not uncovered by Harriman’s research. Chapter 91 licenses are filed by address; it is possible that an address has changed over the decades; the license would be more difficult to uncover. Anyone wishing to apply for Chapter 91 license or permit should do their own due diligence on the history of licenses relevant to their property.

A map is provided on the next page. Where possible, licenses have been tied to their modern address and mapped. Because of the difficulty of matching older licenses with the modern address, not all licenses listed in the table are shown on the map.
### SUMMARY OF LICENSES FOR THE HARBOR PLANNING AREA

<table>
<thead>
<tr>
<th>License</th>
<th>Plan?</th>
<th>Jurisdictional Lines Referenced</th>
<th>Date</th>
<th>Grantee</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Gulf Island</td>
<td></td>
<td>1933</td>
<td>Town of Cohasset - from U.S. Government</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>Various</td>
<td></td>
<td>1974</td>
<td>Various - coastal rights</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>124 Elm Street</td>
<td></td>
<td>1966</td>
<td>Acts of 1966 Chapter 639</td>
<td></td>
</tr>
<tr>
<td>232 UNK</td>
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<td>09/10/1992</td>
<td>Town of Cohasset</td>
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<td>320</td>
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<td>05/31/1923</td>
<td>License missing</td>
<td>In perpetuity: Acts of 1966 Chapter 639</td>
</tr>
<tr>
<td>427</td>
<td>Marine Rail Parker Avenue</td>
<td>Y MHW MLW</td>
<td>12/23/1924</td>
<td>John Eltman</td>
<td>None listed</td>
</tr>
<tr>
<td>437 UNK</td>
<td></td>
<td>Y Low Water High Water</td>
<td>10/09/1878</td>
<td>Eben Wright</td>
<td>None listed</td>
</tr>
<tr>
<td>441</td>
<td>Pier off Margin St</td>
<td>Y Bank of Marsh Low Water</td>
<td>10/17/1878</td>
<td>Wheelwright</td>
<td>Unknown</td>
</tr>
<tr>
<td>606</td>
<td>Breakwater off Howard Gleason Rd</td>
<td>Y MLW Top of Bank</td>
<td>11/21/1979</td>
<td>Town of Cohasset</td>
<td>None listed</td>
</tr>
<tr>
<td>744</td>
<td>124 Elm Street</td>
<td>Y MHW MLW</td>
<td>12/9/1926</td>
<td>Thereza A. Salvador</td>
<td>In perpetuity: Acts of 1966 Chapter 639</td>
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<tr>
<td>787</td>
<td>124 Elm Street</td>
<td>Y MHW</td>
<td>05/12/1937</td>
<td>Hugh Ormo and Edith Kimball Ormo</td>
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</tr>
<tr>
<td>837</td>
<td>46 Border St</td>
<td>Y MHW MLW</td>
<td>04/1/1982</td>
<td>Estate of John G. Carzis</td>
<td>None listed</td>
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<tr>
<td>427</td>
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<td>04/1924</td>
<td>John Eltman</td>
<td>Unknown</td>
</tr>
<tr>
<td>1241</td>
<td>Border St</td>
<td>Y MHW MLW</td>
<td>12/24/1930</td>
<td>Jessie Cox</td>
<td>None listed</td>
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<tr>
<td>License</td>
<td>Plan?</td>
<td>Jurisdictional Lines Referenced</td>
<td>Date</td>
<td>Grantee</td>
<td>Expiration Date</td>
</tr>
<tr>
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<tr>
<td>1261</td>
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<td>MHW MLW</td>
<td>02/18/1931</td>
<td>Jessie Cox</td>
<td>None listed</td>
</tr>
<tr>
<td>1512</td>
<td>Y</td>
<td>MHW</td>
<td>08/22/1933</td>
<td>Edith Kimball Ormo and Hugo Ormo</td>
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</tr>
<tr>
<td>1610</td>
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<td>MHW MLW EST LW</td>
<td>08/21/1934</td>
<td>Mary Copeland</td>
<td>None listed</td>
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<tr>
<td>2037</td>
<td>Y</td>
<td>Avg High Water Low Water</td>
<td>07/14/1897</td>
<td>Town of Cohasset</td>
<td>None listed</td>
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<tr>
<td>2112</td>
<td>Y</td>
<td>Water Line</td>
<td>03/15/1898</td>
<td>A.H. and N.B. Tower</td>
<td>None listed</td>
</tr>
<tr>
<td>2626</td>
<td>Y</td>
<td>None</td>
<td>05/22/1902</td>
<td>Joseph S. Bigelow</td>
<td>None listed</td>
</tr>
<tr>
<td>2974</td>
<td>Y</td>
<td>MHW HLW and Town Boundary</td>
<td>07/16/1992</td>
<td>Diane Figueiredo</td>
<td>10 years</td>
</tr>
<tr>
<td>3044</td>
<td>Y</td>
<td>None</td>
<td>Unknown</td>
<td>Frederic P. White</td>
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<tr>
<td>3153</td>
<td>$</td>
<td>MHW MLW</td>
<td>06/28/1949</td>
<td>John G. Carzis</td>
<td>None listed</td>
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<tr>
<td>3195</td>
<td>Y</td>
<td>Culvert and Stream bed within Harbor</td>
<td>07/19/1907</td>
<td>Town of Cohasset</td>
<td>None listed</td>
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<tr>
<td>3395</td>
<td>*</td>
<td>Unknown</td>
<td>07/21/1909</td>
<td>WA Bigelo</td>
<td>None Listed</td>
</tr>
<tr>
<td>3460</td>
<td>Y</td>
<td>Ledge (Top and Foot) Stream Mud flats</td>
<td>04/13/1910</td>
<td>Lura M. Tilden</td>
<td>In perpetuity: Acts of 1966 Chapter 639</td>
</tr>
<tr>
<td>3488</td>
<td>Y</td>
<td>Line of ownership Edge of channel Water level</td>
<td>01/1/1910</td>
<td>Longs</td>
<td>None listed</td>
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<tr>
<td>3565</td>
<td>Y</td>
<td>Sea wall MHW MLW</td>
<td>02/1/1911</td>
<td>J. Barron</td>
<td>None listed</td>
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<tr>
<td>License</td>
<td>Plan?</td>
<td>Jurisdictional Lines Referred</td>
<td>Date</td>
<td>Grantee</td>
<td>Expiration Date</td>
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<tr>
<td>3689</td>
<td>Y</td>
<td>Sea wall MHW MLW</td>
<td>09/25/1912</td>
<td>Jessie M. Barron</td>
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<tr>
<td>3830</td>
<td>Y</td>
<td>MHW</td>
<td>04/14/1914</td>
<td>Mabel F. Winters</td>
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<tr>
<td>3860</td>
<td>Y</td>
<td>Wall MLW</td>
<td>06/11/1956</td>
<td>John G. Carzis</td>
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<tr>
<td>3937</td>
<td>Y</td>
<td>MHW</td>
<td>02/09/1915</td>
<td>Cohasset Yacht Club</td>
<td>None listed</td>
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<tr>
<td>4342</td>
<td>Y</td>
<td>MHW MLW ELW</td>
<td>07/06/1960</td>
<td>Old Salt House Inc.</td>
<td>None listed</td>
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<tr>
<td>4506</td>
<td>Y</td>
<td>MHW MLW ELW</td>
<td>12/1/1995</td>
<td>Jesuit Community at Boston College</td>
<td>30 years</td>
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<tr>
<td>4603</td>
<td>Y</td>
<td>MHW MLW</td>
<td>08/30/1995</td>
<td>Jesuit Community at Boston College</td>
<td>30 years</td>
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<tr>
<td>4705</td>
<td>*</td>
<td>MHW MLW</td>
<td>07/16/1963</td>
<td>A or Arthur Herrington</td>
<td>None listed</td>
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<tr>
<td>4740</td>
<td>Y</td>
<td>MHW MLW</td>
<td>09/24/1963</td>
<td>US Coast Guard</td>
<td>None listed</td>
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<tr>
<td>5251</td>
<td>Y</td>
<td>MHW MLW HHW ELW</td>
<td>01/26/1995</td>
<td>Peter Roy, File #95-4110</td>
<td>99 years</td>
</tr>
<tr>
<td>5459</td>
<td>Y</td>
<td>MHW MLW ELW HTL</td>
<td>03/7/1997</td>
<td>Cohasset Yacht Club</td>
<td>99 years/30 years</td>
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<tr>
<td>5747</td>
<td>Y</td>
<td>None</td>
<td>03/08/1972</td>
<td>Town of Cohasset/Board of Sewer Commissioners</td>
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<tr>
<td>6101</td>
<td>Y</td>
<td>Original Shore MHW MLW ELW</td>
<td>Recorded 4/13/1973</td>
<td>Mill River Associates</td>
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<td>6165</td>
<td>Y</td>
<td>MHW MLW</td>
<td>07/18/1973</td>
<td>Town of Cohasset</td>
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<tr>
<td>6166</td>
<td>Y</td>
<td>MHW MLW</td>
<td>07/18/1973</td>
<td>John G. Carzis</td>
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<tr>
<td>License</td>
<td>Plan?</td>
<td>Jurisdictional Lines Referred</td>
<td>Date</td>
<td>Grantee</td>
<td>Expiration Date</td>
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<tr>
<td>6429</td>
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<td>4/4/1997</td>
<td>J. Nelson Beveridge</td>
<td>99 years</td>
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<tr>
<td>6813</td>
<td>Y</td>
<td>MHW MLW</td>
<td>10/30/1997</td>
<td>Paul Trendowicz</td>
<td>30 years</td>
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<tr>
<td>7086</td>
<td>Y</td>
<td>MHW/Stone wall MLW ELW Limit of Slope</td>
<td>04/09/1998</td>
<td>Georgina Massa and Charles J. Humphreys</td>
<td>99 years</td>
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<tr>
<td>7453</td>
<td>Y</td>
<td>None</td>
<td>12/15/1998</td>
<td>Cohasset Harbor Marina Inc.</td>
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<tr>
<td>7930</td>
<td>Y</td>
<td>None</td>
<td>Recorded 09/08/1999</td>
<td>Town of Cohasset</td>
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<tr>
<td>7959</td>
<td>Y</td>
<td>Original shoreline retaining wall</td>
<td>6/8/1999</td>
<td>John Whealler</td>
<td>99 years</td>
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<tr>
<td>7979</td>
<td>Y</td>
<td>MLW MHW/Bulkhead</td>
<td>7/21/1999</td>
<td>David Lord</td>
<td>99 years</td>
</tr>
<tr>
<td>7999</td>
<td>Y</td>
<td>Low water High water/stone wall</td>
<td>9/2/1999</td>
<td>Craigie Zildjian</td>
<td>30 years</td>
</tr>
<tr>
<td>8421</td>
<td>Y</td>
<td>MLW</td>
<td>12/30/1999</td>
<td>Town of Cohasset</td>
<td>Unlimited term</td>
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<td>8482</td>
<td>Y</td>
<td>MHW MLW</td>
<td>06/06/2001</td>
<td>Town of Cohasset</td>
<td>Unlimited term</td>
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<tr>
<td>8484</td>
<td>*</td>
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<td>4/10/2001</td>
<td>Reid Weedon</td>
<td>30 years</td>
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<td>12220</td>
<td>Y</td>
<td>MHW HTL</td>
<td>8/12/2008</td>
<td>Town of Cohasset</td>
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<td>12568</td>
<td>Y</td>
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<td>10/9/2009</td>
<td>Town of Cohasset</td>
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<td>13155</td>
<td>Y</td>
<td>MHW</td>
<td>2/9/2012</td>
<td>Cohasset Gulph, LLC</td>
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<td>License</td>
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<td>Jurisdictional Lines Referenced</td>
<td>Date</td>
<td>Grantee</td>
<td>Expiration Date</td>
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<tr>
<td>14145</td>
<td>Y</td>
<td>HTL MHW/HTL MHW MLW</td>
<td>7/1/2016</td>
<td>Cohasset Yacht Club</td>
<td>Unlimited term</td>
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<td>7/30/2017</td>
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<td>14453</td>
<td>Y</td>
<td>HTL MHW</td>
<td>8/3/2017</td>
<td>George McGoldrick</td>
<td>30 years</td>
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<td>UNK</td>
<td>6/28/2000</td>
<td>Town of Cohasset. File number 00-9520.</td>
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<td>N/A</td>
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<td>1/5/1994</td>
<td>William Hanney File number 94-3417. Filed during amnesty so license never granted.</td>
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</tbody>
</table>

Note: UNK indicates information not available or unknown.
Appendix D
Notice to Proceed
MEMORANDUM

To  Lauren Lind, Planning Director, Town of Cohasset

From  Emily Keys Innes, ACIP, LEED AP ND, Director of Planning

Date  September 29, 2019, revised November 20, 2019, final revision July 13, 2020

Project  17391 Cohasset Municipal Harbor Plan

Subject  Response to Notice to Proceed

The purpose of this memorandum (requested by Jason Burtner) is to tie the Notice to Proceed issued by the Office of Coastal Zone Management (CZM) on December 7, 2018 to the draft Municipal Harbor Plan. The current version is the July 2020 draft, prepared after approval by the Board of Selectmen at the public hearing on June 23, 2020. This memorandum has been updated as the process proceeds and is the introductory component of Appendix D: Notice to Proceed.

The Notice to Proceed contains eight sections:

- Overview
- 1. Municipal Harbor Planning Area
- II Substitution Guidance
- III. MHP Planning Guidance
- IV. MHP Renewal
- V. Public Participation
- VI. Compatibility with State Agency Responsibility
- VII. Implementation Strategy

In each section, CZM outlines specific requirements and/or guidance that must be addressed by the Municipal Harbor Plan. For ease of review, this memorandum has been divided into those same sections. The bulleted items indicated points from the Notice to Proceed and the italicized text underneath identifies how each point was addressed in the plan.

Overview

- While the Town’s plan may embody the vision for the development of its waterfront, the scope of an MHP is generally limited to the modification of certain Chapter 91 standards to fulfill the local planning goals.
The scope of this process, as defined by the Town, includes significant goals beyond the proposed modification of Chapter 91 standards, as detailed in the Background to the Planning Process in the Overview of the draft plan.

1. Municipal Harbor Planning Area

- The MHP should contain a clear and detailed discussion of the relationship between the harbor planning area and land subject to Chapter 91 jurisdiction.

  The Chapter 91 jurisdictional boundary is shown in the General Planning Area map on pages 10-11 and on the Chapter 91 boundary map on pages 94-95. A detailed discussion of Chapter 91 in relation to the planning area is found on pages 88-105.

- A Harbor Planning Area should include all areas that are relevant to the functional use and management of the harbor or other waterway segment in question. …At a minimum, the landward boundary of any harbor planning area subject to these regulations shall encompass all filled tidelands subject to the jurisdiction of MassDEP pursuant to 310 CMR 9.04.

  See note on maps above. The planning area extends landward of the filled tidelands.

- The MHP should describe the connection and the importance of this physical and cultural connection [the Cohasset downtown center and the waterfront].

  The links (physical and economic) between the planning area for the Harbor and the Village area is described on pages 74-87.

- The MHP should contain one or more maps that present a well-defined boundary of the proposed MHP and its relationship to Chapter 91 jurisdictional tidelands. …the MHP should depict the boundaries of such tidelands based on guidance for historic tidelands delineation provided by MassDEP’s Waterways Program.

  The draft plan contains several maps that seek to break the planning area down into the many components that make up this small harbor. The source of the Chapter 91 jurisdiction lines and any other jurisdictional lines is the Massachusetts GIS data available from Oliver and MORIS.

II Substitution Guidance

- Substitutions as described above will be allowed only if the municipality demonstrates in the MHP that the substitution provision will promote state tidelands objectives with comparable or greater effectiveness than the corresponding Chapter 91 provision.
• The planning analysis and data must be organized to clearly identify the substitute provisions proposed and the relative effects of the less restrictive provisions on the related tidelands policy objectives.

• Offsetting measures should be applied within reasonable proximity to the locus of adverse effects to ensure a balance in the distribution of public benefits and potential detriments.

After a meeting with the Planning Board on November 9, 2019, a public meeting on November 18, 2019, and discussions with representatives from CZM and DEP in January 2020, the proposed Chapter 91 modifications (two amplifications) are provided on page 98. These modifications are intended to ensure consistency between the Harbor Village Business Overlay District (passed by the Cohasset Town Meeting in April 2019) and Chapter 91.

III. MHP Planning Guidance

• Given the Harbor’s susceptibility to the impacts of storm damage, flooding, and Sea Level Rise, the MHP should include relevant analysis and implementation recommendations to improve coastal resiliency within the planning area.

This discussion is included on pages 58-63 and in Appendix B: Report from GEI Consultants.

• The planning process used to inform and develop the MHP should ensure that alternatives and priorities to meet the vision, goals and objectives of the MHP are developed through the iterative and defensible public participation process. This iterative process should be documented within the MHP including opportunities for public engagement, how alternatives were considered, vetted, and preferred alternatives selected.

The planning process, including the public participation process, is detailed on pages 12-19.

• Where appropriate, cross-cutting issues, opportunities, or consistency between plans [the MHP and the Town’s Comprehensive Plan] should be identified or referenced.

A meeting between the two consultant teams took place with Peter Matchak, the Planning Director for the Town of Cohasset and the Harriman team (the MHP) shared information with MAPC (the comprehensive plan).

• The MHP should include a description of inter-municipal coordination and associated management agreements between the Towns [Cohasset and Scituate] and how these agreements are reflected in associated implementation recommendations.

The draft plan recommends an inter-municipal agreement between the Towns of Cohasset and Scituate. The consultant team is unaware of current written agreements between the two Towns.
Brad Washburn, the Director of Planning and Development for the Town of Scituate provided comments on the September draft which were addressed in the November draft.

- The planning area, as specified in the MHP, may need to be amended and expanded to include the Bassings Beach area accordingly.

  *The Bassing Beach area on the Harbor side is included in the planning area. The direction Harriman received from the Town was to focus on the Harbor area within the breakwater.*

- MHC recommends that, as part of the MHP planning process, historic and archaeological resources are considered and that relevant parties be included in the planning process that may have specialized knowledge and information regarding potential cultural resources.

  *Members of the Cohasset Historical commission were interviewed as part of the planning process. The historic assets on the Captain’s Walk are identified on pages 32-33. A description of historical land use, a list of historic assets on Government Island, and map of the historic assets in the area are included on pages 66-67. Significant areas of archaeological resources are not provided to the public because of the risk of disturbance.*

IV. MHP Renewal

- The MHP should include a discussion recommending the period of time for which the MHP shall be in effect.

  *Per page 8, this plan will be in effect for twenty years from the date of approval by the Secretary of the Department of the Executive Office of Energy and Environmental Affairs.*

V. Public Participation

- The MHP should contain a comprehensive and detailed discussion (with any associated documentation) of the entire harbor planning process, including the public participation to date, as well as the planned public planning process.

  *The planning process, including the public participation process, is detailed on pages 12-19.*

VI. Compatibility with State Agency Responsibility

- The MHP must demonstrate that the municipality has worked with all relevant state agencies to maximize compatibility of the harbor plan with the plans or planned activities of all state agencies owning real property or responsible for the development/implementation of plans or projects in the harbor planning area.
Staff from CZM have been included throughout the planning process, including Harbor Committee meetings, public meetings, and a site walk on October 17, 2018. In addition, Peter Matchak and Harriman met with representatives from CZM and DEP on May 1, 2019 and Lauren Lind and Harriman met with CZM and DEP on August 5, 2019, January 21, 2020, and July 10, 2020.

While the Town of Cohasset is a significant landowner in the planning area, no state agencies are listed as owners in the parcel data provided by the Town.

VII. Implementation Strategy

- It is essential that the MHP include enforceable implementation commitments to ensure that all measures will be taken in a timely and coordinated manner to offset the effect of any MHP requirement that is less restrictive than that contained in the Waterways regulations (310 CMR 9.00).

After a meeting with the Planning Board on November 9, 2019, a public meeting on November 18, 2019, and discussions with representatives from CZM and DEP in January 2020, the proposed Chapter 91 modifications (two amplifications) are provided on pages 98. These modifications are intended to ensure consistency between the Harbor Village Business Overlay District (passed by the Cohasset Town Meeting in April 2019) and Chapter 91.

- In addition to implementation commitments regarding Waterways considerations, the MHP implementation strategy should provide a clear and concise action item implementation section to guide municipal actions to meet the objectives, goals, and vision for the Harbor that are developed and prioritized through the MHP planning process.

An implementation plan is provided on pages 106-119 and includes actions broken into the components of the plan (Harbor Governance, Water, Edges, and Land). The actions are tied to the original planning goals, relevant CZM policies, and appropriate potential funding sources. Where possible, actions that are compatible with each other or that may be combined to form a larger project are identified as are potential funding sources.
sources. Where possible, actions that are compatible with each other or that may be combined to form a larger project are identified.
December 7, 2018

Peter Matchak, Director
Office of the Planning Board
Town of Cohasset
Cohasset Town Hall
41 Highland Street
Cohasset, MA 02025

RE: Cohasset Municipal Harbor Plan

Dear Mr. Matchak,

Pursuant to 301 CMR 23.03, the Municipal Harbor Plan ("MHP") Regulations, the Town of Cohasset submitted a Request for Notice to Proceed ("RNTP") for a state approved MHP on September 25, 2018. Notice of this request was published in the Environmental Monitor on October 10, 2018 and public comments were accepted for a thirty-day period ending on November 9, 2018. Based on a review of the Town’s request and on comments received, I am pleased to issue the following Notice to Proceed for the Town of Cohasset Waterfront MHP.

Overview

The MHP Regulations (301 CMR 23.00) establish a voluntary procedure by which municipalities may obtain approval of MHPs from the Secretary, promoting long-term, comprehensive, municipally-based planning of harbors and other waterways that fully incorporates state policies governing stewardship of trust lands. Additionally, approved plans guide and assist the Massachusetts Department of Environmental Protection (MassDEP) Wetlands and Waterways Division in making regulatory decisions pursuant to MGL Chapter 91 and the Waterways Regulations (310 CMR 9.00) that are responsive to harbor specific conditions and other local and regional circumstances. As promulgated, the Waterways Regulations provide a uniform statewide framework for regulating tidelands projects and developments. MHPs present communities with an opportunity to adopt a vision that modifies these uniform standards through the amplification of the discretionary requirements of the Waterways Regulations or through the adoption of provisions, which if approved, are intended to substitute for the minimum use limitations or numerical standards of 310 CMR 9.00. While the Town’s plan may embody the vision for the development of its waterfront, the scope of an MHP is generally limited to the modification of certain Chapter 91 standards to fulfill the local planning goals. Project specific issues such as waterside development and broader environmental impacts will be described, analyzed, and assessed during any requisite reviews by the Massachusetts Environmental Policy Act Office (MEPA) or the local planning and zoning boards.
I. Municipal Harbor Planning Area

The harbor planning area identified in the RNTP includes the Cohasset waterfront along the westerly boundary of the outer harbor from White Head, to the Main Harbor Area and including Cohasset Cove and Bailey Creek. The overall planning area encompasses 134 acres, of which approximately 66 acres are land and 68 acres are watersheet. For consideration as you develop your MHP, I call particular attention to the provisions of 301 CMR 23.04, Review Procedures, and 301 CMR 23.05, Standards for Approval. The MHP should contain a clear and detailed discussion of the relationship between the harbor planning area and land subject to Chapter 91 jurisdiction. Pursuant to 301 CMR 23.02, a harbor planning area should include all areas that are relevant to the functional use and management of the harbor or other waterway segment in question. Functional use refers to those activities that have the potential to promote or impair water dependent activity or public use or enjoyment of waterways or shorelines. At a minimum, the landward boundary of any harbor planning area subject to these regulations shall encompass all filled tidelands subject to the jurisdiction of MassDEP pursuant to 310 CMR 9.04. From our participation in preliminary Harbor Planning activities, CZM understands that one issue area for planning consideration is improving the connectivity between the Cohasset downtown center and the waterfront. While the MHP planning area may not encompass the whole of Cohasset downtown center, the MHP should describe the connection and the importance of this physical and cultural connection.

To facilitate review of the MHP and future implementation, at a minimum, the MHP should contain one or more maps that present a well-defined boundary of the proposed MHP and its relationship to Chapter 91 jurisdictional tidelands. These maps may include sub-sets of the planning areas to provide necessary detail if necessary. Pursuant to 301 CMR 23.03(4) for planning purposes, the MHP should depict the boundaries of such tidelands based on guidance for historic tidelands delineation provided by MassDEP’s Waterways Program.

II. Substitution Guidance

A state-approved MHP can allow greater flexibility to the application of certain Waterways requirements in that it may include provisions that substitute for certain Chapter 91 limitations or numerical standards as long as the substitute provisions are at least as effective at meeting the state tidelands policy objectives as those stated in the corresponding Chapter 91 provisions and certain specific conditions are met. When a project conforms to a state-approved MHP, MassDEP will apply the use limitations or numerical standards specified in the MHP as a substitute for the respective limitations or standards contained in 310 CMR 9.00 in the licensing process.

Substitutions as described above will be allowed only if the municipality demonstrates in the MHP that the substitution provision will promote state tidelands objectives with comparable or greater effectiveness than the corresponding Chapter 91 provision. Substitute provisions may be less restrictive than the Chapter 91 requirements only if the plan includes other requirements that adequately offset adverse effects on public-related interests. The RNTP does not identify any specific parcels for substitutions but does indicate that based on goals and objectives identified by the community and Town, the MHP may propose and justify changes to the dimensional requirements of Chapter 91 regulations. In determining whether comparable or greater effectiveness is achieved by the substitute offsets in the MHP, the Secretary will consider the following provisions:
a. The planning analysis and data must be organized to clearly identify the substitute provisions proposed and the relative effects of the less restrictive provisions on the related tidelands policy objectives.

b. Offsetting measures should be applied within reasonable proximity to the locus of adverse effects to ensure a balance in the distribution of public benefits and potential detriments.

III. MHP Planning Guidance

Funding to support the development comes, in part, from an $80,000 grant from the Seaport Economic Council. The Town’s application for grant funding states that in order to best plan and prioritize future work to support both commercial and recreational uses, the Town recognizes the need for the creation of a formal harbor management plan that would be developed in accordance with procedures established under 301 CMR 23.00. The RNTP identifies four overarching topics of concern including commercial fishing, recreational boating, landside development, and coastal infrastructure. Within these overarching areas ten specific issue areas were identified including, but not limited to: supporting public use of and access to the harbor; identification and planning for appropriate improvements to landside and waterside infrastructure; integration and improvement of harbor management and uses; ecological considerations; and, considerations to address ongoing dredging needs. The RNTP also describes concurrent planning efforts, such as the Town’s Comprehensive Plan development and the Municipal Vulnerability Preparedness (MVP) initiative that will help to inform potential cross-cutting planning considerations. Given the Harbor’s susceptibility to the impacts of storm damage, flooding, and Sea Level Rise, the MHP should include relevant analysis and implementation recommendations to improve coastal resiliency within the planning area.

As described in Section V, the RNTP articulates a public participation and engagement process. The planning process used to inform and develop the MHP should ensure that alternatives and priorities to meet the vision, goals and objectives of the MHP are developed through the iterative and defensible public participation process. This iterative process should be documented within the MHP including opportunities for public engagement, how alternatives were considered, vetted, and preferred alternatives selected.

As the MHP is being developed concurrently with the Town’s Comprehensive Plan and MVP Plan/Priority Actions it provides the Town with a valuable opportunity to dove-tail initiatives to maximize opportunities for complementary planning and implementation actions. Where appropriate, cross-cutting issues, opportunities, or consistency between plans should be identified or referenced.

One issue identified during the preliminary planning efforts was the management of Bassings Beach and the associated breakwater which is located in the Town of Scituate. CZM understands that preliminary discussions between the Towns of Cohasset and Scituate Town Managers and/or Boards of Selectmen have been initiated to address future management of Bassings Beach. The MHP should include a description of inter-municipal coordination and associated management agreements between the Towns and how these agreements are reflected in associated implementation recommendations. The planning area, as specified in the MHP, may need to be amended and expanded to include the Bassings Beach area accordingly.
Comments received from the Massachusetts Historic Commission (MHC), provided during the public comment period, indicate that the majority of the planning area is within the Cohasset Maritime Historic area and that multiple historic resources are within the waterfront district municipal planning area. MHC comments also indicate that recorded archaeological resources are within and adjacent to the planning area which would suggest that undisturbed portions of the planning area may house intact archaeological resources contributing to the history of Cohasset and the Commonwealth. MHC recommends that, as part of the MHP planning process, historic and archaeological resources are considered and that relevant parties be included in the planning process that may have specialized knowledge and information regarding potential cultural resources.

IV. MHP Renewal
Pursuant to 301 CMR 23.06(2)(a), the MHP should include a discussion recommending the period of time for which the MHP shall be in effect. Approved MHPs expire on the date specified in the Secretary’s Approval Decision and must be renewed periodically to ensure continuing use by MassDEP in its licensing decisions.

V. Public Participation
The RNTP documented the extensive planning work and public outreach that has already been completed towards the development of this MHP as part of the Cohasset Harbor Planning effort as well as anticipated public outreach and engagement activities. The MHP should contain a comprehensive and detailed discussion (with any associated documentation) of the entire harbor planning process, including the public participation to date, as well as the planned public planning process.

VI. Compatibility with State Agency Responsibility
The MHP must demonstrate that the municipality has worked with all relevant state agencies to maximize compatibility of the harbor plan with the plans or planned activities of all state agencies owning real property or responsible for the development/implementation of plans or projects in the harbor planning area.

VII. Implementation Strategy
It is essential that the MHP include enforceable implementation commitments to ensure that all measures will be taken in a timely and coordinated manner to offset the effect of any MHP requirement that is less restrictive than that contained in the Waterways regulations (310 CMR 9.00). In addition to implementation commitments regarding Waterways considerations, the MHP implementation strategy should provide a clear and concise action item implementation section to guide municipal actions to meet the objectives, goals, and vision for the Harbor that are developed and prioritized through the MHP planning process.

We commend the Town’s work to develop an MHP that balances the local and regional economic importance of the Harbor area with the development demands of the Town and public access desires of the community. CZM and MassDEP have worked closely with the Town of Cohasset during preliminary harbor planning activities, and we look forward to continued collaboration in this MHP master planning process. Pursuant to 301 CMR 23.04 and 301 CMR 23.04, the submission deadline will be December 7, 2020. We look forward to consultation with the Town to provide guidance to ensure that the process is meaningful, efficient and productive.
In closing, I extend my sincere thanks to you and your staff for your continuing support for the pro-active management of our coastal resources. I encourage your staff to continue to work closely with CZM and our South Shore Regional Coordinator, Jason Burtner, on the development of the Cohasset Harbor Municipal Harbor Plan.

Sincerely,

Lisa Berry Engler
Acting Director

Cc:
Chris Senior, Cohasset Town Manager
Ben Lynch, MassDEP Waterways Program Chief
Brona Simon, State Historic Preservation Officer
Notice of submission of a Request for a Notice to Proceed for the Town of Cohasset Municipal Harbor Plan pursuant to 301 CMR 23.00

In accordance with the applicable regulations at 301 CMR 23.00, the Town of Cohasset has submitted a Request for a Notice to Proceed to the Director of the Office of Coastal Zone Management to initiate the development of a Municipal Harbor Plan for the Cohasset Harbor waterfront.

Written comments on the proposed planning program will be considered. Comments must be received by 5:00pm on Friday, November 9, 2018 (30 days after publication of this notice in the Environmental Monitor). Comments should be addressed to:

Office of Coastal Zone Management
251 Causeway Street, Suite 800
Boston, MA 02114
Attention: Jason Burtner

Copies of the state regulation under which the proposed planning program will be evaluated (301 CMR 23.00) can be obtained at the State Bookstore, Room 116, State House, Boston, MA 02133, or at https://www.mass.gov/files/documents/2016/08/oq/301-cmr-23.pdf

Notification Date: October 10, 2018
September 25, 2018

Bruce K. Carlisle
Director
Massachusetts Office of Coastal Zone Management
Executive Office of Energy and Environmental Affairs
251 Causeway Street, Suite 800, Boston, MA 02114

Re: Town of Cohasset Municipal Harbor Plan

Dear Director Carlisle:

On behalf of the Town of Cohasset, Massachusetts, this memorandum and attached letter requests the issuance of a Notice to Proceed with the preparation of an update to the Municipal Harbor Plan (MHP) for the Cohasset Harbor pursuant to the provisions of 301 CMR 23.03.

The Town requests the attached notice to be advertised in the upcoming October 10, 2018, Environmental Monitor.

Sincerely,

Peter Matchak
Director of Planning
September 25, 2018

Bruce K. Carlisle
Director
Massachusetts Office of Coastal Zone Management
Executive Office of Energy and Environmental Affairs
251 Causeway Street, Suite 800, Boston, MA 02114

Re: Town of Cohasset Municipal Harbor Plan

Dear Director Carlisle:

On behalf of the Town of Cohasset, Massachusetts, this letter requests the issuance of a Notice to Proceed with the preparation of an update to the Municipal Harbor Plan (MHP) for the Cohasset Harbor pursuant to the provisions of 301 CMR 23.03.

On February 2, 2017, the Town of Cohasset received an $80,000 grant from the Seaport Economic Council to produce an MHP as part of its efforts to plan and set priorities for future harbor work. The planning process that leads to a completed MHP will determine strategies and actions to support commercial and recreational activity on the waterfront, while strengthening the local economy. The planning effort will identify strategies to redirect investment to support the existing lobster fleet and marine-related retail businesses, enhance public access to the waterfront, link economic development in the Harbor to the downtown, and create a more vibrant Harbor. The plan will also be aimed at identifying potential land uses, solutions for transportation and environmental issues, enhancing the existing character and beauty of the area, and establishing better links between the harbor and the neighboring downtown.

Attached to this letter is the Town’s proposed program for the planning process for this MHP. The Town of Cohasset views their Harbor as uniquely situated to both protect the Town’s marine and waterfront resources and promote new opportunities for mixed use development that will provide enhanced public access and other elements that will allow for greater enjoyment of the waterfront. However, the Harbor faces challenges, including limited area to accommodate multiple user needs, the need to provide for an active commercial fishing fleet while balancing the desire for recreational boating, and the critical need to address the impacts of climate change, including projections for sea level
rise that will affect not just the Harbor, but significant portions of the entire Town. The planning process for the MHP will examine the area consisting of Cohasset Harbor and its adjacent uplands, running from the Harbor entrance at Whitehead Point to its terminus at the site of the Cohasset Harbor Inn, or approximately 66 acres of land and 68 acres of water (134 acres in total).

The Town expects to identify potential substitutions and/or amplifications and any related offsets to the standards in 310 CMR 9.00 as part of this planning process but has not identified specific changes at this stage. The planning process will include a robust public engagement process to identify and examine the impacts of any proposed substitutions, amplifications, and offsets.

Please publish a notice of the filing of this request in the next edition of the Environmental Monitor and forward a copy to the undersigned. It may be stated in this notice that copies of the proposed planning program may be obtained by contacting me. Once the Town of Cohasset receives a copy of this notice, it will publish the same in a local newspaper of general distribution and forward copies to all agencies listed at 301 CMR 23.08(a) and (b).

Thank you for your attention to this request. Please contact me at 781-383-4100 Ext: 5128 with any questions.

Sincerely,

[Signature]

Peter Matchak
Town Planner
1. **Description of the Harbor Planning Group and Consultants**

The Cohasset Harbor Committee will be the Harbor Planning Group, overseeing the development of the MHP. The Harbor Committee was established by §30-62 of the Bylaws of the Town of Cohasset. The Board of Selectmen appoints the members according to the requirements of the bylaw; membership is defined as the following: two citizens-at-large for three-year terms, one representative of the Yacht Club, one representative of the Cohasset Center for Student Coastal Research, one representative of the Cohasset Maritime Institute, one representative of the Sailing Club, two representatives of the commercial fishermen, one independent member, and one representative of the Recreation Commission. The Harbor Master is an ex-officio member of the committee. The Board of Selectmen accepted applications in the spring of 2017 for open positions prior to appointing the current membership of the Committee.

Current membership is as follows:

Timothy C. Davis  
Citizen-at-Large  
Chairman

Elizabeth Baker  
Yacht Club Representative

Lorren Gibbons, Harbormaster  
Ex-officio

Sean M. Kenealy  
Sailing Club Representative

George L. McGoldrick, Jr.  
Citizen-at-Large

Matthew B. Marr  
Commercial Fisherman Representative

Kimberly Joan Mulcahy  
Recreation Commission Representative
Thomas P. Norton
Independent Member

Lisa Hewitt
Cohasset Maritime Institute (CMI)
CMI Representative

Susan Bryant
Cohasset Center for Student Coastal Research (CSCR)
CSCR Representative

The Harbor Committee has hired a consultant team to assist with the production of the MHP. Harriman is the lead consultant, with GEI and FXM Associates proving supporting data, analysis, and recommendations for waterfront infrastructure and sustainability and economic development, respectively.

Harriman
170 Milk Street, Suite 5
Boston, MA 02109
(617) 426-5050

Project Director:
Steven G. Cecil, AIA, ASLA, Principal

Project Manager:
Emily Keys Innes, AICP, LEED AP ND, Associate and Senior Urban Planner

GEI Consultants
3 Bent St.
Franklin, MA 02038
(508) 533.6666
Waterfront Infrastructure and Facilities
Ronald R. Bourne, P.E.
Principal / Project Manager
Climate Adaptation Planning
Samuel B. Merrill, Ph.D., Senior Practice Leader
The Harbor Committee and its consultant team will engage Town staff from several departments, including the Department of Public Works, Police Department, Fire Department, and the Conservation Agent through interviews and discussions regarding the planning process, their experience within the study area, and issues that could be addressed through the Municipal Harbor Plan.

2. **Harbor Planning Area**

The Harbor contains three specific areas (see attached map):

- **Cohasset Harbor** – A large shallow bight located southwestward of the Minot’s Ledge Light and about six miles southeastward of Point Allerton. The Harbor is frequented by numerous yachts and fishing craft. A prominent lookout tower is near the summit of a hill eastward of the Glades, on the east side of the harbor.

- **Cohasset Cove** – The inner harbor, protected by a breakwater which extends about 0.1 mile northward from near the westerly end of Bassing Beach. The breakwater is partially covered at high water. A dredged channel leads southward from the outer harbor to an anchorage basin southward of the Cohasset Cove anchorage.

- **Bailey Creek** – A dredged anchorage area Located in the southeastern part of the inner Harbor.

3. **Historical Narrative, Initiating the Harbor Planning Process, and Prior Planning Efforts**

   a. **Historical Narrative of Land and Water Use and Development in the Harbor Planning Area**

   The waterfront and shoreline have a special place in the heritage and identity of Cohasset. Although the Town has 6.12 miles of shoreline, only 3.4% of that shoreline is publicly owned, creating the smallest percentage of public coastal frontage of any municipality in the South Shore region from Weymouth to Plymouth.
Cohasset Harbor has long been at the center of the Town’s history. The area was first visited by English colonists in 1614, when Captain John Smith explored the coast of New England and was reportedly attacked by native Algonquins from what was later called John Smith Rocks. Native Americans used to spend summers in the harbor area hunting and fishing until they moved inland in the winter.

Fishing activities and shipbuilding continued during colonial times. The Town Pier on Government Island is about 100 years old. While the harbor was safe, ledge along the coast posed significant dangers to shipping, with reportedly 40 vessels sunk in a period of nine years before 1841. Minot’s Ledge Light was built and completed in 1850, destroyed one year later by a major storm with the loss of two lightkeepers, who are memorialized in a monument on Lighthouse Lane in Government Island. Rebuilt and completed in 1860, Minot’s was at the time the most expensive lighthouse built in the United States, and as an historic landmark still marks proximity to the harbor.

The Yacht Club, in 1892, added recreational boating to the existing fishing and shipbuilding activities. Today, recreational boating is the dominant summertime activity in the harbor, limiting the space available for commercial fishing and supporting activities. Finding a workable balance between commercial fishing and recreational boating was an important aim of the latest Harbor Plan, completed in 1980, and continues to be a priority for current harbor planning efforts.

Those Cohasset residents who do not live directly on the water gain physical access to the shoreline at Sandy Beach (owned by an association but open to all Town residents), Bassing Beach (also a private association for Cohasset residents located in Scituate) or the harbor area. Management of Cohasset Harbor is a delicate balance between its small size and multiple interests, including commercial fishing and water dependent uses, such as a historic Marine Railway, lobster pound, docks and piers; recreational boating and public access; its status as a scenic, historic, recreational, and natural resource; the desire for economic development, including boating and the hospitality business; the needs of nearby residential neighborhoods; and the ability of the Harbor to exacerbate or mitigate the impacts of climate change.

b. Reasons for Initiating the Harbor Planning Process

The Town’s previous and current planning efforts, including the Cohasset Open Space and Recreation Plan (2009), Town of Cohasset Community Resilience Building Workshop Summary of Findings (2018), the planning process for an updated Cohasset Master Plan (in progress), and the work of the Harbor Committee recognizes Cohasset’s Harbor and all associated waterways as invaluable resources with unrealized potential.
These studies have common themes for both opportunities and the inherent challenges in realizing those opportunities, including increasing waterway activities, supporting recreational and commercial maritime uses, identifying land use strategies and economic development opportunities, increasing public access and open space, and developing transportation options to adequately support these activities.

The Harbor today faces significant challenges, such as limited space to accommodate multiple and varied user groups, overlapping and competing uses, and vulnerability to climate change. The Harbor needs to support the existing fishing fleet and enhanced public access to the waterfront, while protecting its capacity to endure environmental pressures and projected sea level rise. The MHP will serve to generate a shared vision for the future, identify goals and objectives, and provide recommendations to protect the harbor and the benefit it represents for the Town and all its constituencies.

The Harbor Committee has identified four specific topics of concern, based on current conditions within the Harbor. These topics are as follows:

- **Commercial Fishing** – Preservation of the water dependent fishing fleet in Cohasset has strong support in the community and meets the goals of economic diversity and preservation of the Town’s historic character as a fishing village. In addition to the preservation of moorings for commercial fishermen, the Town needs to preserve the landside support system and infrastructure for the fishing fleet.

- **Recreational Boating** – Cohasset Harbor has been at capacity for some time with approximately 200 recreational and commercial boats, and the harbormaster maintains a long waiting list for slips and moorings. The only public boat launch is at the end of Parker Avenue.

- **Landside Development** – Not all the landside parcels are owned by the Town, and the proximity of residential and commercial interests in the Harbor has led to past contentious discussions about physical improvements and changes in use.

- **Coastal Infrastructure** – Sixteen structures within the Harbor, either publicly owned or of unknown ownership, including seawalls, bulkheads, wharfs, docks, and piers; these structures provide significant coastal protection.

The Board of Selectmen reappointed the Harbor Committee in July 2017 to begin the preplanning process prior to hiring a consultant for the MHP process. The Harbor Committee developed objectives for this planning process based on previous plans and studies conducted for the Harbor and the Town.
The August 16, 2017 meeting of the Harbor Committee, posted by the Town Clerk, included an “Issues Analysis” for the harbor. The Committee’s description of the event notes that twenty-five people attended, although the names for the attendees, other than the Committee members, are no longer available.

The primary goal for the MHP planning process that emerged from that session was to make “Cohasset Harbor the best possible resource for the Town of Cohasset.” Ten areas of concern were identified as part of the analysis, including harbor access, shoreline development, commercial fishing fleet, environmental, and infrastructure issues. The following list of goals is based on this analysis and subsequent meetings and conversations. These goals may be expanded and will be further developed with public feedback and comments received during the MHP process.

- Support the Cohasset Commercial Fishing Fleet
- Support public use of and access to the harbor
- Identify and plan for appropriate improvements to landside and waterside infrastructure
- Support public use of the harbor, including support for those town and civic organizations that enable such use
- Improve the geographical relationship between the downtown and the harbor
- Identify and improve commercial landside and waterside commercial activity
- Integrate and improve harbor management and uses
- Identify and address improvements to ecosystem and environmental issues
- Provide recommendations for a recurring dredging plan (areas/frequency/dredge type/potential funding sources) Provide an action plan and steps to implement the MHP recommendations, identifying responsible entities, timeline, and available funding mechanisms

The Town has also identified a need to consider the relationship between the harbor, waterways, and the Town’s downtown area as part of this planning process.

c. Discussion of Prior Planning Efforts

Previous and concurrent planning processes that involve Cohasset Harbor include:

- Comprehensive Plan – The Town is updating its comprehensive plan with the assistance of the Metropolitan Area Planning Council (MAPC).
The comprehensive planning process will run parallel to the MHP process, and the MHP consultant team will work with the Town and representatives of the Cohasset Master Plan Committee to coordinate MHP findings and recommendations with the Comprehensive Plan.

- **Open Space Plan** – Cohasset is in the process of updating its 2009-2016 Open Space & Recreation Plan with the help of consultants Beals & Thomas Inc. The MHP consultant team will work with the Town and representatives of the Cohasset Open Space & Recreation Committee to coordinate MHP findings and recommendations with the Open Space Plan.

- **Municipal Vulnerability Preparedness Program** – Cohasset was one of 71 communities to receive funding in 2018 to undertake the planning to identify the conditions under which Cohasset is vulnerable to the impacts of climate change and develop and action plan to address those vulnerabilities. The MHP consultant team will work with the Town to incorporate findings from the vulnerability analysis into its recommendations and MHP action plan.

- **Cohasset Harbor Master Plan (1980)** – Cohasset has an existing Harbor Plan completed in 1980. The Town received a grant from NOAA thorough Massachusetts CZM to prepare this plan, which was completed prior to the adoption of 310 CMR 9.00 and 301 CMR 23.00. Although the contents are therefore not fully consistent with those regulations, the plan may provide useful information for this planning process. The current MHP process will build upon the 1980 Harbor Master Plan background and recommendations.

- **South Shore Coastal Infrastructure Inventory and Assessment Demonstration Project Report** – Inventory of existing infrastructure and the condition of that infrastructure.

4. **Participation Program**

Public engagement is a critical component of every planning process. Ensuring that people – residents, business owners, institutions, property owners, elected and appointed officials, and the Town itself – are engaged in the process and have tangible mechanisms for input that will be addressed/included during the planning process helps build ownership so that the implementation of the plan begins once it is approved. The Harbor Committee recognizes that successful planning will involve early and continuing interaction with the public and coordination with the Town’s boards, committees, and officials with jurisdiction. In addition, the Harbor Committee and their consultant team will consult with the relevant state, regional, and federal agencies, including CZM and
MassDEP. The planning analysis used to develop goals, address potential issues, and assess alternatives will involve a thorough public participation process.

The consultant team led by Harriman worked with the Harbor Committee to develop a robust participation program, including a written public outreach and engagement plan, regular meetings of the Harbor Committee, two public meetings, two public outreach events (such as attendance at a previously scheduled community event or an open house), and stakeholder interviews.

To involve the public in the process and encourage attendance at the Harbor Committee meetings and the public workshops, the Town works with the Harbor Committee to develop physical outreach methods, such as flyers, and coordinate social media outreach.

- **Harbor Committee Meetings** – Held regularly and open to the public, the meetings of the Harbor Committee include an update of the MHP planning process and discussion with stakeholders regarding the existing conditions of the Harbor. The dates and times of all Harbor Committee meetings are posted on the Town website.

- **Public Engagement 1** – Held April 25 at Cohasset Lightkeeper’s House. During the annual Cohasset Center for Student Coastal Research (CSCR) State of the Harbor community outreach and education event representatives from the Harbor Committee, and the consulting team, and Town staff and officials participated in a panel discussion of the ongoing planning efforts regarding Cohasset Harbor.

- **Public Meeting 1** – Held May 31 at the Cohasset Senior Center. This meeting introduced the planning process to the public and allowed for a discussion of perceived positive aspects, opportunities, constraints, and the community’s vision within the study area. Comment cards were also distributed and collected for community members to provide additional feedback and ask questions.

- **Public Meeting 2** – A second public meeting is planned for mid-way through the planning process. The format will include a review of the planning process and existing condition analysis. The interactive exercises will allow for a discussion refining the community’s vision for development and concepts and strategies for public waterfront access.

- **Public Engagement 2** – A second public engagement event is planned for the final stages of the planning process to solicit feedback from the community regarding draft harbor plan recommendations.

- **Public Hearing with Board of Selectmen** – During a public hearing with the Board of Selectmen, Town Staff, the Harbor Committee, and
consultant team will present the findings and recommendations from the planning process and the Municipal Harbor Plan to the Board of Selectmen for final approval.

The public meetings have been designed to appeal to the widest audience and attract the most people. The meeting structure includes an opening presentation that sets the base of information and framework for the discussion, question session, and interactive exercises. The interactive exercises are designed to guide discussion toward productive feedback that informs the direction of the MHP. Consideration was given during the venue selection and scheduling to ensure the meetings were accessible to the greater Cohasset community.

This MHP planning process will also include targeted stakeholder focus groups and interviews to engage local business owners, property owners, community and neighborhood organizations, commercial fishermen, and individuals familiar with real estate and development within the study area, and Town staff. This will engage the stakeholders in the planning process and enable a focused discussion of their experiences, concerns and vision for Cohasset Harbor and will also help the Harbor Committee and the consultant team prepare and test the goals, strategies, and actions for inclusion within the plan.

Stakeholders are not limited to those within Cohasset’s borders. The Harbor Committee and the consultant team will also reach out to CZM, DEP, and other affected state agencies and to the Town of Scituate. Cohasset Harbor is divided by the town boundary between Cohasset and Scituate; Bassing Beach, the breakwater, and certain parcels adjacent to the Harbor are within Scituate’s borders.

5. General Description of the Study Program and Planning Analysis

Pre-planning actions that have informed the planning process and this Request for Notice to Proceed include:

- Definition of the harbor boundaries
- In-person review of the existing conditions in the MHP study area
- Regular meetings and discussion with the Harbor Committee
- A pre-filing consultation meeting held with CZM on March 29
- Participation at CSCR’s State of the Harbor community outreach and education event held on April 25
- Public meeting held on May 31
Issues identified throughout the planning process will be addressed and recommended actions will be developed through the public process, as noted above, and incorporated into the MHP.

The Proposed Study Program will occur in three phases:

- **Phase I: Data Collection and Analysis** – The data on existing conditions collected in this phase will form the basis for the public discussion of future opportunities and challenges.

- **Phase II: Public Outreach and Engagement** – The participation program described above will inform the planning analysis used to develop the goals, address potential issues, and assess alternatives — including any potential substitutions or amplifications to 310 CMR 9.00. A significant public outreach program will invite the community to define their vision and goals for the future of the harbor area and understand the impact of existing conditions on options for the future.

- **Phase III: Draft and Final Report; Approvals** – The recommendations of the draft plan will be presented to the Town, Harbor Committee, identified stakeholders, and the public for their review and feedback. Once all feedback has been received, the consultant team will prepare the final draft for submission into the municipal and state approval process.

In addition, the project team will:

- **Analyze existing conditions** – Through additional review of prior studies; our own overall assessment of conditions; and discussions with the community through public meetings, Harbor Committee meetings, and stakeholder interviews. This would also include review of land uses and zoning districts, ecological and environmental spatial data, watersheet usage and preview dredging operations, and existing Waterways Chapter 91 licenses.

- **Clarify goals and objectives** – The community vision developed through previous planning efforts and Harbor Committee meetings will be reviewed and refined through an ongoing discussion with the Town and community members at public meetings, Harbor Committee meetings, and stakeholder interviews. This will ensure the MHP’s recommendations reflect the community’s current values and goals within the regulatory framework.

- **Identify and refine issues** – Through discussions with community members at public meetings, Harbor Committee meetings, and stakeholder
interviews. This would include developing goals and policies, and discussing their potential outcomes and implications with the community to gather public input and feedback

- **Develop strategies for public access to the waterfront** – Issues around public access and open space will balance the needs of water-dependent activities and public access, supporting facilities, and potential zoning changes to enhance the vitality of the area. Strategies and recommendations will be evaluated with the Town and community members at public meetings, Harbor Committee meetings, and stakeholder interviews.

- **Consultation with agencies** – Based on the findings from the public participation program, the State, Town, and consultant team will review findings and determine if any substitutions or offsets will be pursued.

- **Develop and select substitutions and offsets** – Following the interagency consultation and based on the goals and objectives identified by the community and Town, the MHP may propose and justify changes to the dimensional requirements of Chapter 91 regulations.

- **Draft an action plan** – The MHP will include a plan providing short-, medium- and long-term actions and the steps required to implement the MHP. The action plan will assign responsibilities among the stakeholders and identify potential resources to assist during the implementation process, including public participation and a list of available funding mechanisms.
Initial Study Area (Red dotted line)

Tidelands Jurisdiction - MHP Planning Area
August 12, 2019

Carol St. Pierre, Town Clerk
Town of Cohasset
41 Highland Avenue
Cohasset, MA 02025

Re: Cohasset Annual Town Meeting of April 29, 2019 – Case # 9386
Warrant Article # 18 (Zoning)
Warrant Article # 15 (General)

Dear Ms. St. Pierre:

Article 15 - We approve Article 15 from the April 29, 2019, Cohasset Annual Town Meeting. Our comments on Article 15 are provided below.

Article 18 - Because of a procedural defect in the adoption of Article 18, the Attorney General has elected to proceed under the authority conferred by G.L. c. 40, § 32, as amended by Chapter 299 of the Acts of 2000, and place Article 18 on “hold.”

In the materials submitted to this Office pursuant to G.L. c. 40, § 32, the Town Clerk has certified the following information: the planning board hearing notices that were posted and published did not contain a statement where the text and map, if any, of the zoning amendment may be inspected. Apart from this defect, the Town appears to have complied with the requirements of the statute.

A signed copy of Form 299 is enclosed. Once the procedures outlined in Form 299 are completed, and after the expiration of the 21 day period required by Chapter 299 of the Acts of 2000, please return a copy of Form 299 to us along with your certification that a true copy has been posted and published as required by Chapter 299. A copy of Chapter 299 is also enclosed for your reference. Please feel free to contact this Office with any questions about this procedure.

Article 15 - Article 15 amends the Town’s general by-laws Section 69-7, pertaining to penalties for violations of the Town’s dog noise and nuisance by-law (Section 69-6) by increasing the fine amounts. More specifically, Section 69-7 provides the following fine amounts for violations of Section 69-6:

A. First Violation: $50
B. Second Violation: $100
C. Third Violation: $300
D. Fourth and subsequent violations: $500

We approve Article 15 because G.L. c. 140, § 173A, as amended by Chapter 219 of the Acts of 2018, expressly allows for a fine of $500 for fourth and subsequent violations of dog by-law violation, as follows (with emphasis added):

Whenever a complaint is sought in a district court for a violation of an ordinance or by-law, made under the provisions of section one hundred and seventy-three, the clerk shall send a written notice to the person complained against stating that such a complaint has been sought and will issue unless such person appears before such clerk and confesses the offense either personally or through an agent duly authorized in writing, or by mailing to such clerk, with the notice the fine provided herein. The fine for the first offense committed by a person shall be $30. The fine for a second offense shall be $100. The fine for a third offense shall be $300. For a fourth or subsequent offense, the fine shall be $500 and the municipality may order the animal spayed or neutered.

For this reason, we approve Article 15 that authorizes a fine greater than the otherwise applicable cap of $300.00 (as provided in G.L. c. 40, § 21).

Note: Pursuant to G.L. c. 40, § 32, neither general nor zoning by-laws take effect unless the town has first satisfied the posting/publishing requirements of that statute. Once this statutory duty is fulfilled, (1) general by-laws and amendments take effect on the date that these posting and publishing requirements are satisfied unless a later effective date is prescribed in the by-law, and (2) zoning by-laws and amendments are deemed to have taken effect from the date they were voted by Town Meeting, unless a later effective date is prescribed in the by-law.

Very truly yours,
MAURA HEALEY
ATTORNEY GENERAL

Kelli E. Gunagan
by: Kelli E. Gunagan, Assistant Attorney General
Municipal Law Unit
Ten Mechanic Street, Suite 301
Worcester, MA 01608
(508) 792-7600

cc: Town Counsel Paul DeRensis
May 14, 2019

To Whom It May Concern:

This is to certify that the following article was contained in the warrant for the Annual Town Meeting held on April 29, 2019 at the Cohasset High School Gymnasium and was voted and acted upon as follows.

**Article 18: Zoning Amendment: Harbor Village Business Overlay District**

To see if the Town will vote to amend the Cohasset Zoning Bylaw, by adding a new Article 22, sections 300-22.1 through 300-22.9, as set forth below, or to take any other action related thereto.

Harbor Village Business Overlay District

Section 300-22.1 Purpose:

A. The following are the purposes of this Harbor Village Business Overlay District Bylaw (“HVBOD”)

1. To encourage a vibrant mix of uses, including multifamily residential, to support increased public access to and commercial activity within Cohasset Harbor.
2. To activate the edges of Border Street and Summer Street and the Cohasset waterfront, allowing commercial uses to contribute to public activity in the area.
3. To encourage physical and commercial links between Cohasset Harbor and Cohasset Village, anchoring Elm Street at each end with a complementary mix of commercial and residential uses.
4. To ensure that new development in the Harbor area is consistent with a local and state-approved Municipal Cohasset Harbor Plan, including the requirements for public access under Massachusetts General Laws Chapter 91.

B. The Town considers the mix of residential and commercial uses and public access to the Harbor in the HVBOD to be one of the fundamental purposes of Zoning Bylaw Article 22.

300-22.2 Location and boundaries.

The location and boundaries of the HVBOD are the Village Business District that abuts Border Street and the parcel within the Waterfront Business District at the junction of Border, Margin, and Elm Streets, excluding any other areas in the Town that are zoned Village Business or Waterfront Business. Said overlay district is comprised of Cohasset Assessors’ plots Map F5, Lot 30, Block 21; Map F5, Lot 27, Block 004; Map F5, Lot 27, Block 003; Map F5, Lot 27, Block 002; Map F5, Lot 27, Block 001; Map F5, Lot 32, Block 021; and Map F5, Lot 32, Block 022, all in accordance with a map showing the boundaries of such HVBOD dated April 29, 2019.

The HVBOD created herein shall be deemed to be an overlay district. The requirements set below shall constitute an alternative set of standards for development and use of real estate within this new boundary; provided, however, that a special permit in accordance with this Zoning Bylaw
Article 22 is granted by the Cohasset Planning Board. If such a special permit is not sought, is not granted, or lapses, then all requirements of the underlying districts shall apply to the land, but the alternative standards for development and use of real estate within said Village Business District and Waterfront Business District, as provided in this Zoning Bylaw Article 22, shall not apply.

300-22.3 Definitions
For the purposes of this Zoning Bylaw Article 22, the following terms and words are given the meanings stated below:

CO-WORKING SPACE
A building or portion thereof consisting of a shared office environment, which contains desks or other workspaces and facilities, including but not limited to, dedicated workstations, office suites, meeting rooms, event space, resource libraries, and business or administrative support services, and is used by a recognized membership who share the site to interact and collaborate with each other as part of a community. Rules for membership and participation in the co-working space are explicit, transparent, and available to the public. Co-working spaces may host classes or networking events which are open either to the public or to current and prospective members.

TEMPORARY HVBOD USE,
A programmed activity, retail, food-related, or water-dependent use that is available seasonally and serves the public. Such use may include one or more of the following: a seasonal or regularly scheduled outdoor exercise class or other group activity; a kiosk, stand, or truck selling goods or food; and a kayak, paddleboard, or other non-motorized boat rental.

300-22.4 Procedures.
A. Any development, use and/or change of use allowed pursuant to this Article 22 shall require an application for a special permit in the HVBOD, and for site plan review pursuant to § 300-12.6 of the Cohasset Zoning Bylaw, to be filed with the Town Clerk with a copy forthwith with the Cohasset Planning Board and shall be accompanied by 18 copies of a site plan of the entire tract under consideration, prepared by a professional engineer, architect, or landscape architect.

B. Said application and plan shall be prepared in accordance with the requirements for a site plan review in the rules and regulations for site plan review as adopted by the Cohasset Planning Board, inclusive of all checklists, and shall include the proposed location, bulk, and height of all proposed buildings. In addition, the applicant shall provide the following information:

(1) An analysis of the site, including wetlands, slopes, soil conditions, areas within the one-hundred-year floodplain, trees over eight inches in diameter and such other natural features as the Cohasset Planning Board may request.

(2) A summary of the environmental concerns related to the proposed site plan.

(3) Sufficient information, including soil evaluation and percolation test data, in accordance with the rules and regulations of the Cohasset Board of Health and applicable Department of Environmental Protection regulations, to make a determination that adequate provision is made for the disposal of septic waste or written confirmation from the Town of Cohasset Sewer Commission detailing an agreement to accept the proposed wastewater flow.

(4) A description of the neighborhood in which the lot lies, including utilities and other public facilities, and the impact of the proposed plan upon them.

(5) Design characteristics shall be shown through rendering or elevations and shall include, but not be limited to, building material, architectural design, streets, site and building landscaping.

(6) A municipal fiscal impact analysis of the proposed use and development upon the Town.
(7) Any other information required by the Cohasset Planning Board in the rules and regulations adopted by it with respect to such special permit process.
C. The Cohasset Planning Board shall hold a public hearing under this Zoning Bylaw Article 22 and take action thereupon, in conformity with the provisions of MGL c. 40A, §§ 9 and 11.
D. A special permit issued under this Zoning Bylaw Article 22 shall not be a substitute for compliance with the site plan review requirements of § 300-12.6 of the Cohasset Zoning Bylaw where such compliance is required pursuant to applicable law. The granting of a special permit pursuant to this Zoning Bylaw Article 22 shall not constitute a waiver of any requirement of § 300-12.6, as above. However, to facilitate processing, the Cohasset Planning Board may accept a combined plan and application which shall satisfy the requirements of this Zoning Bylaw Article 22 and § 300-12.6 of the Cohasset Zoning Bylaw where applicable.

300-22.5 Uses.
A. Special permit uses. One or more of the following single uses or mixed uses, in a single structure or in multiple standalone structures, of such features and dimensions as will be in compliance with the design and performance standards of § 300-22.6, the parking rules of § 300-22.7 and the dimensional requirements of § 300-22.8, are permitted in the HVBOD by grant of the special permit described in this Zoning Bylaw Article 22, if involving one or more of the following:
(1) Dwelling units in multifamily format in combination with one or more of the uses below.
(2) Stores for the sale of goods at retail, including dry goods, food, apparel and accessories, furniture and home furnishings, smallwares, and hardware.
(3) Restaurants (other than fast-food restaurants) serving foods or beverages from within the premises.
(4) Personal service establishments, including beauty salon, barbershop, tailor, etc. (5) Civic, cultural and community facilities.
(6) Offices and other business establishments.
(7) Temporary HVBOD Use, as defined in this bylaw, accessory to the special permit use.
(8) Co-Working Space, as defined in this bylaw.
(9) Buildings and uses accessory to the above, including ground floor parking accessory to dwelling units.
B. Prohibited uses. Any use that is not an allowed use (by right or special permit) in the Village Business or Waterfront Districts shall be prohibited in HVBOD, except as allowed by a special permit issued pursuant to this Zoning Bylaw Article 22.

300-22.6 Design and Performance Standards.
In addition to the requirements and procedures set forth in § 300-12.4, applications for special permits in HVBOD shall be subject to the additional required performance standards included in this Section 300-22.6
A. In addition to other findings of compliance as required pursuant to this bylaw, a special permit shall not be granted by the Cohasset Planning Board unless and until the Cohasset Planning Board has issued written findings certifying compliance with the performance standards of this Section 300-22.6, as follows:
(1) The maximum allowable floor area ratio (FAR) shall be 1.0; however, the maximum allowable FAR may be increased by the special permit granting authority, provided that any such increase in FAR shall not entitle the applicant to relief from other dimensional requirements of this bylaw and the approved use with a FAR greater than 1.0 will provide a public benefit in addition to those necessary to meet all the other requirements of this bylaw, including but not limited to: construction of off-site infrastructure serving a public purpose, such as parking and streetscape improvements, or
exceeding the requirements under §300-4.3 N, with inclusionary zoning units located within HVBOD or on the project site.

(2) The total residential gross floor area of a dwelling unit in the HVBOD shall be not less than 700 square feet nor more than 3,000 square feet.

(3) Ground floor parking must be screened from view of the public right-of-way by landscape treatment appropriate to the area as determined by the special permit granting-authority.

(4) For waterfront projects within or partially within the jurisdiction of Chapter 91 of the Massachusetts General Laws, the applicant must meet the requirements for open space and facilities of public accommodation as defined by Chapter 91 or by the requirements of a state-approved Municipal Cohasset Harbor Plan, when such plan is in effect. At a minimum, the applicant must provide open space, including a walkway, that is accessible to the public and that connects to a public right-of-way and to a harbor-wide walkway, should such walkway be built. The applicant must also provide a view corridor easement that aligns with the southern edge of Elm Street, allowing visual access across the parcel to Cohasset Harbor from the public right-of-way.

(5) In addition to the required performance standards in this Section 300-22.6, the Cohasset Planning Board may adopt regulations establishing additional design guidelines for development in HVBOD.

(6) In granting a special permit, the Cohasset Planning Board may impose conditions on building and site design to ensure the architectural compatibility with the surrounding neighborhood, and to ensure consistency with approved design guidelines.

(7) The Cohasset Planning Board shall not take final action on a special permit application proposing any expansion or exterior renovation of a building in the HVBOD that was built prior to January 15, 1955, until first requesting, in addition to those reports detailed in § 300-12.4B, a report thereof from the Historical Commission, or until the Historical Commission has allowed 35 days to elapse after receipt of a copy of such application without submission of a report. Reasons for not accepting any of the comments and recommendations of the Historical Commission shall be noted by the Cohasset Planning Board in the final action on the application.

B. In HVBOD, the Cohasset Planning Board may allow dwelling units on ground floors of buildings only where:

(1) A minimum of 15% of the building area (excluding basement and underground parking) is dedicated to publicly accessible ground floor commercial or non-residential (excluding parking) uses, including seasonal commercial uses. Of this 15% minimum, a maximum of 5% of the total building area may be dedicated to outdoor seasonal use, such as the outdoor eating area for an adjacent café or restaurant or for seasonal temporary uses. For a project adjacent to the waterfront, 10 feet of the 25-foot setback required from the shoreline may be included in this required area. Notwithstanding the foregoing, the special permit granting authority may waive this minimum if the Applicant provides sufficient evidence of active uses on the ground floor.

(2) For waterfront projects, the location of the dwelling units on the ground floor is not in conflict with the requirements of Chapter 91, and a state-approved Municipal Cohasset Harbor Plan.

(3) The applicant demonstrates, and the special permit granting authority specifically finds, that first floor residential uses will not have an adverse impact on the continuity of any retail or services uses located adjacent to a public right-of-way, including the shoreline of the Cohasset Harbor.

C. The Cohasset Planning Board shall be the special permit granting authority for uses identified by the letters "SPP" in § 300-4.2, the Table of Use Regulations. A special permit issued pursuant to this Zoning Bylaw Article 22 shall not be a substitute for compliance with § 300-12.6. Site plan review, of this Zoning Bylaw where such compliance is required pursuant to applicable law. The grant of a special permit pursuant to this Zoning Bylaw Article 22 shall not constitute a waiver of any requirement of § 300-12.6. However, to facilitate processing, the Cohasset Planning Board as special permit granting authority may accept a combined plan and application which must
satisfy all applicable requirements of this Zoning Bylaw, including without limitation the requirements of § 300-12.4, § 300-12.6, this Zoning Bylaw Article 22 and the rules of the special permit granting authority relative to issuance of special permits.

300-22.7 Parking Standards.
A. Parking requirements within HVBOD shall be consistent with the requirements of § 300-7.1, with the following exception:
   (1) Dwelling for occupancy by more than 1 family: 1 1/2 spaces per unit on same or contiguous lot in common ownership subject to covenant to assure permanent use for off-street parking, as the Cohasset Planning Board deems adequate.
   (2) On any lot in HVBOD that serves more than one use, the total number of spaces required for a development (taken as a whole) may be reduced, provided that the applicant submits credible evidence to the satisfaction of the Cohasset Planning Board that the peak parking demand of the uses does not coincide, and that the accumulated parking demand at any one time shall not exceed the total capacity of the facility. Such evidence must take into account the parking demand of residents, employees, customers, visitors, and any other users of the lot. It must also take into account parking demand on both weekends and weekdays, and both during the daytime and overnight. Parking may be provided on a lot within 100 feet of the principal lot subject to covenant to assure permanent use for off-street parking, as the Cohasset Planning Board deems adequate.

300-22.8 Dimensional requirements.
A. A building shall have no minimum front yard setback, in order to encourage the continuation of the existing street wall. However, buildings with more than 2 stories shall be required to step the upper story back by a minimum of 10 feet from the public right-of-way.
B. A building on the waterfront shall have a minimum set back of 25 feet from the shoreline.
C. Maximum height is 35 feet above Base Flood Elevation (BFE).
D. Maximum structural coverage is limited to 80%.
E. The minimum setback for a side yard shall be 10 feet from any adjacent residential building.

300-22.9 Further requirements.
A. Section 300-16.11C of the bylaw shall not apply to HVBOD.
B. No certificate of occupancy shall be issued by the Building Inspector until he has certified to the Cohasset Planning Board that the premises have been built in accordance with the plan approved hereunder.
C. The Cohasset Planning Board shall adopt, and from time to time amend, rules and regulations consistent with provisions of this Zoning Bylaw, Chapter 40A of the General Laws, and other applicable provisions of the General Laws, and shall file a copy of said rules and regulations with the Town Clerk. Such rules and regulations shall, subject to provisions of Zoning Bylaw 300-12.4, prescribe as minimum the size, form, contents, style and number of plans and specifications, the Town boards or departments from which the Cohasset Planning Board shall request written reports and the procedure for submission and approval of a special permit under the provisions of this Zoning Bylaw article 22. The Cohasset Planning Board shall also specify the fees to be paid in connection with application for a special permit for an HVBOD, bonding requirements to satisfy conditions of approval, and owner/occupancy reporting requirements to satisfy compliance with the age and affordability restrictions. Other specifications as deemed necessary by the Cohasset Planning Board shall be included in the rules and regulations. Failure to adopt such rules and regulations shall not affect the validity of this Zoning Bylaw Article 22, or to take any other action related thereto.
MOVED, that the Zoning Bylaws of the Town of Cohasset are hereby amended as printed in the Warrant.

Motion adopted by the requisite 2/3 vote.

A True Copy ATTEST:

Carol L. St. Pierre, Town Clerk