

# **SHELTER ISLAND's**

# **SEAGRASS MANAGEMENT PLAN**

*"Protecting Our Seagrass Beds for Generations to Come"*

November 2017



**Developed by Shelter Island's Waterways Management Advisory Committee**

**John Needham---Chairman, George Zinger, Michael Anglin,  
James Eklund, William Geraghty, Al Loreto, Marc Wein  
and**

**Shelter Island's Conservation Advisory Council**

**Ed Bausman---Chairman, John Reilly, Peder Larsen, Howard Johansen,  
Paulette VanVranken, Jr, Mark Cappellino  
and**

**Shelter Island's Town Board**

**Supervisor Jim Dougherty and Town Board Members  
Chris Lewis, Paul Shepherd, Amber Brach-Williams & Jim Colligan**

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# **BASIC COMPONENTS FOR OUR LOCALIZED SEAGRASS MANAGEMENT AREA PLAN**

## **INTRODUCTION:**

What is seagrass?

How does seagrass benefit our coastal waters?

What factors have impacted the decline of our seagrass beds?

## **SUMMARY:**

General threats and impacts to Shelter Island seagrass habitats.

## **MANAGEMENT STRATEGIES:**

NYS Seagrass Task Force Report, Protection Act and our local planning efforts to preserve our coastal natural heritage.

## **SHELTER ISLAND'S SEAGRASS/MEADOW LOCATIONS:**

Exact locations (subject to change over time) of our Seagrass beds/habitat.  
Specific concerns for the protection of these resources at each location.

## **PROPOSED ACTIONS:**

Specific actions that can be taken to address conservation and protect measures at each seagrass meadow.

## **ASSESSMENT AND EVALUATION:**

Identify resources available to conduct periodic assessment of the seagrass sites.

Evaluate implementation of the seagrass management actions and amend plan as needed..



## **INTRODUCTION**

### **What is Seagrass?**

The primary seagrass found in Shelter Island waters is eelgrass (scientific name: *Zostera marina*). It is a submerged flowering vascular plant that lives in marine and estuarine environments. It is a common seagrass that forms valuable meadows along the Northeast coast, they are some of the most biologically productive natural systems in the world. Eelgrass grows well in cool, clear water. Unfortunately, these meadows have been greatly reduced in the Peconic Estuary due to changes in water quality, climate, and physical impacts.

Shelter Island is fortunate to still have some healthy eelgrass meadows and is seeking measures to help protect this valuable resource. This plan is designed to help gain public attention, gain local governmental support, as well as to formulate an "Action Plan" that supports its seagrass management strategies.

### **How Does Seagrass Benefit Our Coastal Waters?**

1-Healthy eelgrass can have positive benefits for society both locally and globally. Seagrass meadows are federally recognized as "Essential Fish Habitat" for many commercially and recreationally prized fish and shellfish because it provides them with critical shelter, nursery habitat and feeding grounds. Examples of local shellfish supported by eelgrass habitat include bay scallops and crabs, fish include: fluke, flounder, blackfish, black sea bass, striped bass, bluefish, puffers and seahorses.

2-Seagrasses are highly productive, providing food for a whole ecosystem. Their photosynthesis processes carbon dioxide and nutrients, resulting in growth and producing oxygen for waters near the seabed.

3-Seagrasses help stabilize the seabed, deterring erosion, which also provides resilience to our shorelines.

4-Seagrasses help to ensure water quality. The leaves of these grasses cause floating particles to settle to the bottom in a process known as sedimentation which traps particles before they reach other environments.

## **What Factors Have Impacted the Decline of Our Seagrass Beds?**

Many activities and environmental conditions can threaten or stress the health and extent of eelgrass beds. Several simultaneous multiple stressors can be blamed for the significant loss of eelgrass in the Peconic Estuary and worldwide. Within the Peconic Estuary and specifically within Shelter Island waterways, eelgrass beds have been negatively impacted by the following activities and/or conditions:

- 1- Pollution---specifically, nitrogen overloading from both septic and fertilizers
- 2- Harmful algal blooms
- 3- Disease
- 4- Shellfish harvesting practices
- 5- Boating and personal watercraft activities
- 6- Dredging and excavation
- 7- Shoreline stabilization structures
- 8- Fishing practices
- 9- Global warming and sea rise
- 10- Storms and ice scouring

**Note:** Obviously, our eelgrass management program needs to focus on the activities and conditions that we can be most successful in controlling. Specifically, those are listed above as items 4, 5, 6, 7 and 8. However, to a lesser degree and when feasible, attempts will be made to help mitigate items 1, 2 and 3 which are needed to help support the efforts of the other East End Towns in establishing a more favorable habitat for seagrasses. Unfortunately, we do not feel that our plan can address those activities and conditions that are listed in items 9 and 10.

## **SUMMARY**

The goal of our Eelgrass Management Plan is to help protect and prevent the loss of our current and future eelgrass populations, to the maximum extent possible. Furthermore, the plan will help ensure the existence of suitable habitat conditions for eelgrass natural recovery and potential future restoration or enhancement initiatives.

In order to accomplish our goals, it is imperative to advance our understanding of eelgrass dynamics. If we can better appreciate the important value of healthy eelgrass habitat and what threatens its existence, we should have the motivation to act. The Town of Shelter Island and its governing body, namely the Town Board, needs to embrace and implement this action plan to protect this valuable resource to the best of its ability.

Based upon a 2014 survey, Shelter Island has 226 acres of eelgrass, including some widgeon grass. Our realistic and achievable goal, is to provide the conditions needed to support healthy seagrass through management strategies and actions, maintaining the current eelgrass acreage as much as possible and promote habitat expansion when feasible.



## MANAGEMENT STRATEGIES

The New York State Seagrass Protection Act (2012), developed from the NYS Seagrass Task Force Report, provides a basis for this management initiative. Our local planning efforts aims to preserve Shelter Island's eelgrass beds, which is an important asset to our coastal natural heritage.

We have identified ten (10) activities and/or conditions in our planning process that are collectively impacting our eelgrass beds. We chose to **focus primarily on five (5) activities** that we expect will provide the greatest chance for success in reducing the negative stressors, creating protection and enhancing our eelgrass habitat. Those five include:

- 1- Shellfish harvesting practices
- 2- Boating and personal watercraft activities
- 3- Dredging and excavation
- 4- Shoreline stabilization structures
- 5- Fishing practices

Management actions were developed to help achieve the goals of this Seagrass Management Plan for Shelter Island. Respective management actions and action steps are grouped under eight (8) larger objectives.

**Objective 1:** Protect existing and future eelgrass beds from physical disturbances.

**Objective 2:** Increase stakeholder, user group, and public awareness of eelgrass and the importance of the habitat in an effort to foster responsible steward-like resource enjoyment.

**Objective 3:** Have consistent and comprehensive eelgrass assessments and sentinel monitoring program.

**Objective 4:** Improve our knowledge and understanding of eelgrass by supporting research initiatives to ensure that efforts to protect and restore the habitat are successful and effective.

**Objective 5:** Increase eelgrass bed abundance and density through restoration efforts.

**Objective 6:** Ensure the water quality conditions necessary for conserving, maintaining, and restoring eelgrass.

**Objective 7:** Minimize shading of eelgrass beds that could result from structures or vessels.

**Objective 8:** Fostering education through the town website, town newspaper (SI Reporter), as well as channel 22, that raises awareness and knowledge of aquatic plants and their importance to fish and shellfish habitat.

**Note:** In order to accomplish some of these "objectives", the Town of Shelter Island will need the assistance of NYS Seagrass Coordinator, Soren Dahl, of the Atlantic States Marine Fisheries Commission, of the Peconic Estuary Program, of the Cornell Cooperative Extension, of The Nature Conservancy and of Stony Brook University. Specifically, this will be imperative in terms of monitoring and restoring eelgrass beds as part of a comprehensive eelgrass inventory program (objective 3). Additionally, the town will need assistance with both objectives 4 (research and education) and objective 5 (eelgrass restoration efforts).

**Recommendation:** It is our hope that the five East End Towns might meet at least once per year to discuss their Seagrass/Eelgrass Management Plans, with the NYS Seagrass Coordinator and other resources mentioned above, in an effort to share strategies that will enhance their goals. Since all five towns share a common interest, namely the overall health of the Peconic Estuary, it is imperative to share their knowledge and to build upon their management strategies.



## **SHELTER ISLAND'S SEAGRASS/MEADOW LOCATIONS**

**Figure 1: Coecles Harbor**

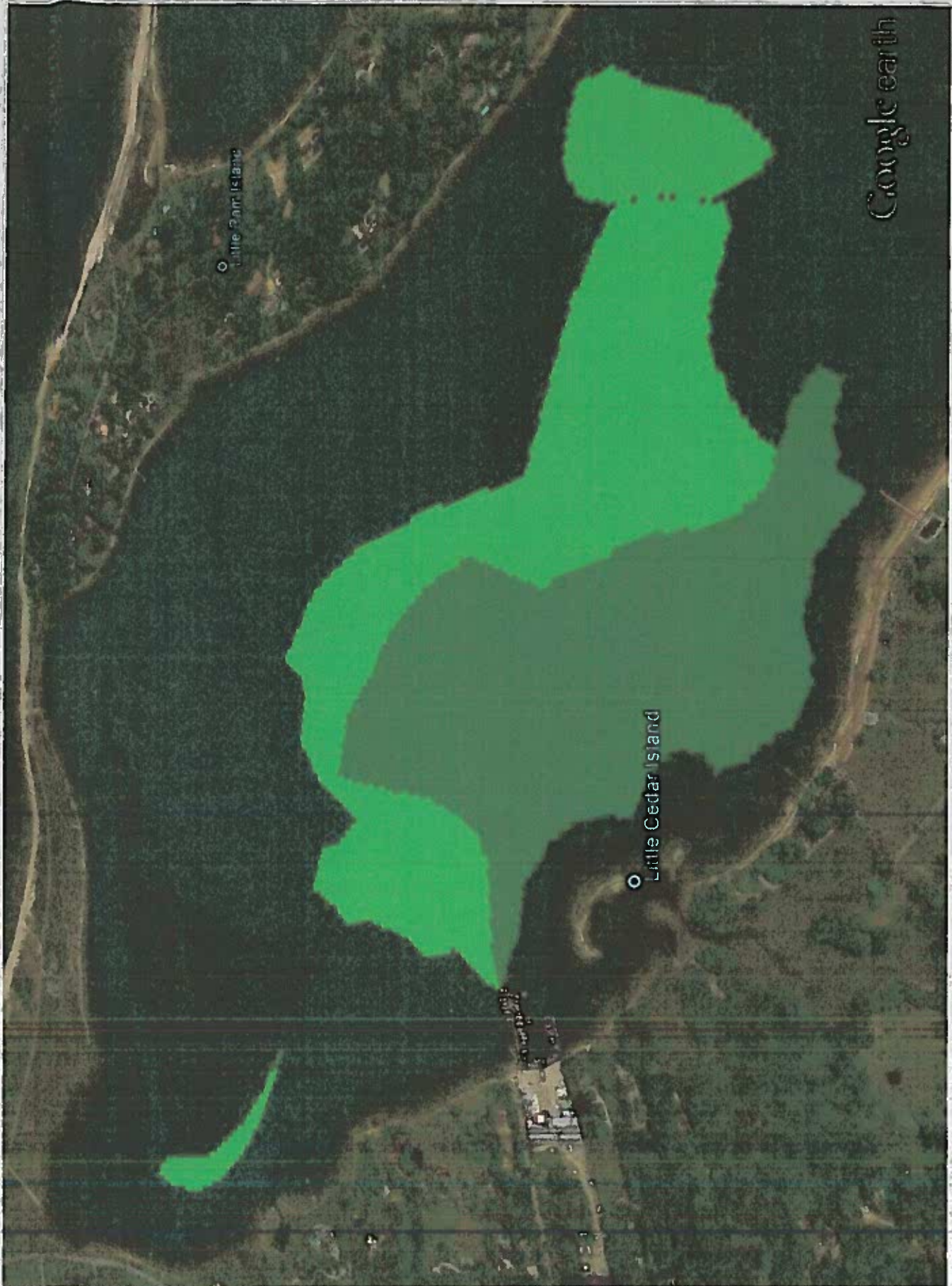
**Figure 2: North Ferry East to Dering Harbor**

**Figure 3: Hay Beach Point S.E. Toward Cornelius Point**

**Figure 4: Mashomack's Gibson's Beach (S.W. of Nicoll's Point)**

**Figure 5: N.E. Part of Big Ram Island (Ram Head)**

**Note: Seagrass maps in the figures are from a 2014 Aerial Survey by the Peconic Estuary Program.**



Google earth

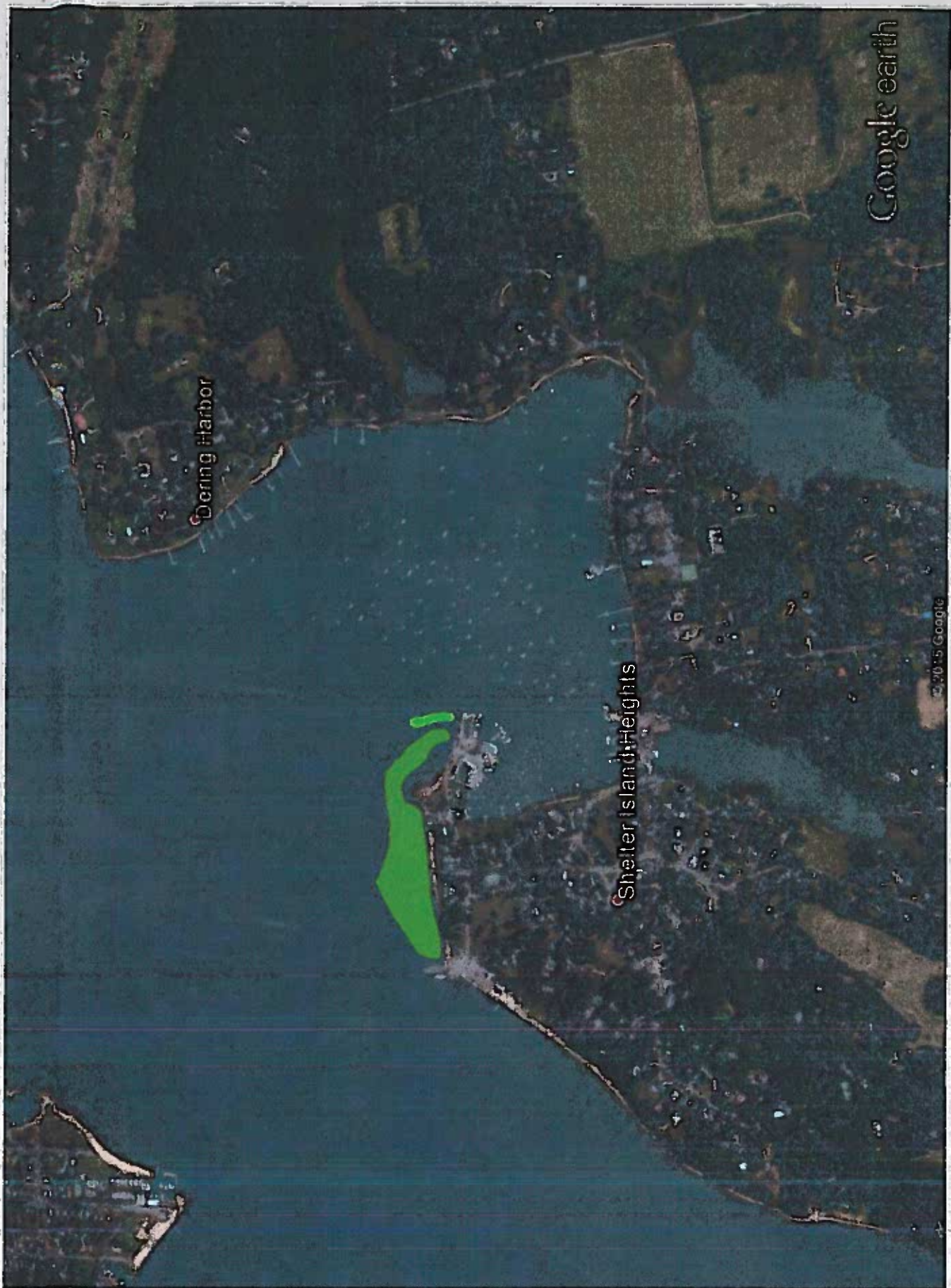
FIGURE 1: COECLES HARBOR — PAGE 8



**Eelgrass Area: Coecles Harbor (Area 1)**

<b>Common Threat</b>	<b>Issue Perceived to Impact Eelgrass Area</b>	<b>Management: Current</b>	<b>Management: Needed</b>
<b>Structures &amp; Hardened Shorelines</b>	Docks, low groins, bulkheads and other structures have adversely impacted SI shores.	Town committees review each application for permits and try to limit consequences to shorelines.	Limit new docks to 100' in length. Limit riparian moorings to one per property.
<b>Boating Related Activities</b>	A lack of signage near seagrass beds warning boaters of exact location of these resources.	Very limited signage in waterways or on maps depicting seagrass areas.	Enforce guest anchoring to designated area south of harbor entrance. Design & install signs at waterfront access points, including marinas & boat ramps which specifically educates boaters and fisherman to respect designated eelgrass beds. Some signage will be placed in those areas.
<b>Dredging</b>	Dredging in and around eelgrass beds is simply not acceptable.	Dredging has been limited to mouth of Coecles Harbor/Channel. Avoid direct removal & physical disturbance of eelgrass areas.	Ensure adequate dredging of harbor entrance to help flushing. Explore and investigate, on a case by case, as needed basis, the use of inlet maintenance dredging to improve flushing capacity and water quality conditions of eelgrass areas.
<b>Fishing/Harvest Gear</b>	Boaters can cause significant damage to eelgrass areas if they abuse anchoring practices in eelgrass bed areas. Currently there are no signs that would alert fisherman/boaters to these areas.	Currently, there is no signage in and around eelgrass beds.	Work with boating & fishing associations to promote less harmful practices to eelgrass habitats and incorporate educational materials with boating and fishing registrations, access permits, passes & licenses. This would include guidelines and fines for possible violations for abusing seagrass beds/areas.
<b>Water Clarity and Quality</b>	It is not clear whether water clarity and quality has worsened in this area. There may be a problem with nitrogen runoff.	Decrease storm-water runoff volumes carrying harmful sediments, nutrients, & toxic loadings of bacteria. Protect & restore vegetated buffers, wetlands, and open space. This has been an ongoing effort that needs considerably more attention by our town.	Work with MS4 Committee & Hwy Dept, as well as Public Works, to minimize nitrogen runoff. Implement some regulatory & voluntary measures & initiatives to reduce nutrition pollution of our waterways. This is a major focus for our town's new WQIP Committee.
<b>Other Considerations (monitoring meadows, educational initiatives)</b>	There has been a lack of education and viable seagrass management plan to address this very important issue.	Presently, Cornell Cooperative is doing some of the ground work, monitoring our meadows. The proposed management plan focuses mainly on the protection of our existing seagrass beds.	Have the DEC &/or Cornell accurately survey our seagrass meadows on an annual basis. Coordinate with other LL seagrass mapping initiatives to support improved monitoring of our seagrass assets. Develop & distribute up-to-date educational materials that will improve public understanding of the value & trends of eelgrass—utilizing SI Reporter, Channel 22 & other forms of media.





**FIGURE 2: NORTH FERRY TO DERING HARBOR - P.18**



**Eelgrass Area: North Ferry--East to Dering Harbor (Area 2)**

<b>Common Threat</b>	<b>Issue Perceived to Impact Eelgrass Area</b>	<b>Management: Current</b>	<b>Management: Needed</b>
<b>Structures &amp; Hardened Shorelines</b>	Docks, bulkheads and other structures have adversely impacted these shore lines.	Town committees review each application for permits and try to limit consequences to shorelines. Currently there are a total of 8 low groins in this area; 3 wooden low groins, 3 wooden medium sized groins and 2 very low concrete groins. The entire area contains bulkheading: the eastern portion is made of concrete & the western portion of traditional wood.	Both the CAC and the WMAC committees need to restrict further efforts aimed at the hardening of shorelines in this area.
<b>Boating Related Activities</b>	Boating activity seems to be minimal in this area, especially from local boaters. No signage in this area can result in damage to these eelgrass beds.	Currently, there are just four moorings in this entire area. Dering Harbor channel markers direct boats away from the eelgrass areas but smaller fishing boats still occasionally move in and out of this area.	Need to monitor boat traffic in and out of Dering Harbor in order to keep a safe distance from sea grass beds. Boats should not be moored in seagrass designated areas or kept to a minimum.
<b>Dredging</b>	Dredging is not an issue for this area—only the area in and around the North Ferry Terminal/Docks.		No dredging permitted in these seagrass areas.
<b>Fishing-Harvest Gear</b>		A lack of signage in and around eelgrass beds needs to be addressed as soon as possible.	Fisherman need to be respectful of seagrass beds. Signage would help protect this eelgrass area.
<b>Water Clarity and Quality</b>		The effluent from the SIH/POC wastewater treatment plant can negatively impact these waters, especially during the summer months when there is a significant increase in effluent due to higher use/population.	Long-term goal to redirect the effluent from the SIH/POC wastewater treatment facility to the Goat Hill Golf Course.
<b>Other Considerations (monitoring meadows, educational initiatives)</b>		No mention of removal of heavy metals (copper, zinc & lead) from pipe taking effluent to these waters.	Minimize direct shading of eelgrass beds & enhance light penetration. Need to test effluent material being released into the waterways on a more regular basis.





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FIGURE 3: HAY BEACH POINT SE TOWARD CORNELIUS PT. (R12)



**Eelgrass Area: Hay Beach Point S.E. Toward Cornelius Point (Area 3)**

<b>Common Threat</b>	<b>Issue Perceived to Impact Eelgrass Area</b>	<b>Management: Current</b>	<b>Management: Needed</b>
<b>Structures &amp; Hardened Shorelines</b>	85% of this shoreline is covered with bulkheads, with the remaining 15%, near Dawn Lane, as open beach with native plants. There is only one short dock and very few moorings in this area.	Shoreline has been hardened causing reflectance of wave energy into near-shore eelgrass.	Limit any new docks to a maximum of 100 feet. Limit riparian moorings as well. Because of the location of these seagrass beds (close to shoreline), both new docks and moorings need to be kept to a bare minimum.
<b>Boating Related Activities</b>		Some moorings located in eelgrass meadow. Boat traffic at low tide, which transverses the meadow, can result in "prop scarring" and erosion.	Designate appropriate eelgrass habitat areas as "Shellfish Spawning Sanctuaries" w/ limited activity in and around said area. Design (seek the advice of professions/resource agencies on design & content) and install signs at waterfront access points.
<b>Dredging</b>	Dredging has not been an issue in this area, except when bulkheads and low groins were installed. Note: there is very little evidence of low groins in this area.		
<b>Fishing-Harvest Gear</b>		Clamming/shellfishing in this meadow has caused some removal of eelgrass and increases in erosion.	All persons having fishing licenses and/or shellfish permits should receive guidelines pertaining to approved/recommended practices to follow & consequences for abusing seagrass beds (to include possible violations for such actions).
<b>Water Clarity and Quality</b>	Water quality in this area is very good because of ample flushing and slightly lower water temperatures than in our creeks, inlets, harbors and the like.		
<b>Other Considerations (monitoring meadows, educational initiatives)</b>			Have DEC &/or Cornell Cooperative accurately survey our seagrass meadows on an annual basis. Coordinate with other L.I. seagrass mapping initiatives to support improved monitoring of our seagrass assets. Develop & distribute up-to-date educational materials that will improve public understanding of the value & trends of eelgrass--utilizing SI Reporter, Channel 22 & other forms of media.





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FIGURE 4: MASHOMACK'S GIBBONS BEACH



Potential Impact Assessment and Management Issue Identification

**Eelgrass Area: Mashomack's Gibson's Beach--SW of Nicoll's Point--(Area #4)**

<b>Common Threat</b>	<b>Issue Perceived to Impact Eelgrass Area</b>	<b>Management: Current</b>	<b>Management: Needed</b>
<b>Structures &amp; Hardened Shorelines</b>	There are no bulkheads, docks, moorings or other measures which would result in the hardening of the shorelines in this area. Simply open beach areas with native plants, shrubs and grasses.	This relatively small eelgrass area lies just to the SW of Nicoll's Point and is on the northern most part of Gibson's Beach. The landmass is owned by The Nature Conservancy and is considered part of the Mashomack Preserve.	None needed.
<b>Boating Related Activities</b>	This is not considered a heavy boat traffic area near the coastline.	Signs on the beach state that this is private and designated for wildlife only.	Designate appropriate eelgrass habitat areas as "Shellfish Spawning Sanctuaries" w/ limited activity in and around said area. Alert the bay constables as well and enforce these measures.
<b>Dredging</b>	No dredging in this area.	N/A	None needed.
<b>Fishing-Harvest Gear</b>	Since this is an area with very limited eelgrass density and area, it is imperative to keep fishermen out of this area.	Currently, there has been very little done to protect this existing eelgrass bed.	Work with boating & fishing associations to promote less harmful practices to existing eelgrass habitats and incorporate educational materials with boating & fishing registrations, access permits, passes & licenses. Appropriate signage in the area would also be helpful to the overall protection of this fragile resource.
<b>Water Clarity and Quality</b>	Water quality in this area is very good because of ample flushing and slightly cooler water temperatures.	N/A	None needed.
<b>Other Considerations (monitoring meadows, educational initiatives)</b>			Have DEC &/or Cornell Cooperative accurately survey our seagrass meadows on an annual basis. Coordinate with other LI seagrass mapping initiatives to support improved monitoring of our seagrass. Important: Has this seagrass bed ever been larger and if so, what has contributed to its reduction in size?



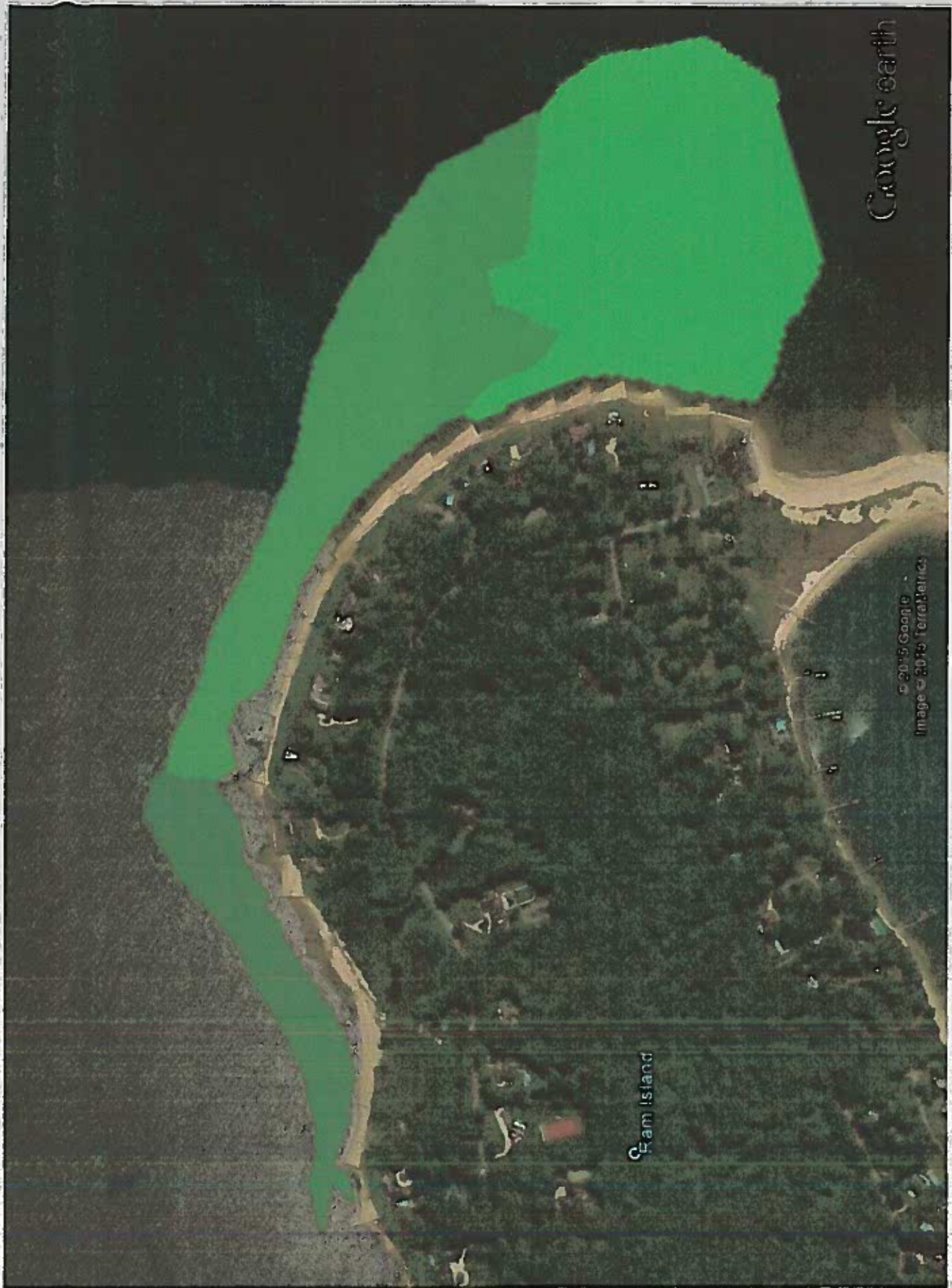


FIGURE 5: NE PART OF BIG RAM ISLAND — PAGE 16





Potential Impact Assessment and Management Issue Identification

**Eelgrass Area: Ram Head/ NE Part of Big Ram Island (Area 5)**

<b>Common Threat</b>	<b>Issue Perceived to Impact Eelgrass Area</b>	<b>Management: Current</b>	<b>Management: Needed</b>
<b>Structures &amp; Hardened Shorelines</b>	This area is quite exposed to heavy wave action from the NE. The entire area along Ram Head is protected by bulkheading and both low & medium sized groins. There is very little beach area in front of these bulkheads.	This is not an area that is conducive to docks and moorings, however there are just a few of each in this area.	The town needs to limit the construction of any new docks or riparian moorings (maximum of one per property). Limit dock size to a maximum of 100 feet.
<b>Boating Related Activities</b>	There is a lack of signage near seagrass beds warning boaters of exact location of these habitat assets.	Most boat traffic moves around Ram Head beyond the eelgrass beds in deeper water.	Need to post signage in area to help protect potential damage to eelgrass beds from power boats operating in that area.
<b>Dredging</b>		Both the CAC & the WMAC Committees need to continue their efforts to protect these eelgrass habitats.	Any reconstruction or repairs to existing bulkheads or docks should avoid eelgrass habitat if possible.
<b>Fishing-Harvest Gear</b>	Boaters can cause significant damage to eelgrass areas if they abuse anchoring practices in eelgrass bed areas. Currently, there are no signs that would alert fisherman or boaters to these areas.		Once again, coordinate efforts with both boating and fishing associations to promote less harmful practices to eelgrass habitats. Educational materials should be made available to boaters and fisherman as well.
<b>Water Clarity and Quality</b>	Water quality in this area is also very good because of ample flushing and slightly lower water temperatures on the east end.	Water quality has been monitored to some extent by Cornell Cooperative.	Continue to monitor.
<b>Other Considerations (monitoring meadows, educational initiatives)</b>	This eelgrass habitat is fairly large in area, with the more dense eelgrass beds lying at the northern portions of Ram Head.		As stated before, continue to accurately survey and monitor our eelgrass meadows on an annual basis. Develop & distribute up-to-date educational materials that will improve public understanding of the value & trends of eelgrass—utilizing SJ Reporter, Channel 22 & other forms of media. Eelgrass is a great habitat for sea horses and should be part of an educational strategy.

# Shelter Island's Seagrass Management Plan

Developed by the Town's Conservation Advisory Council (CAC) and Water Management Advisory Council (WMAC) and with the Assistance of Soren Dahl (NYS Seagrass Coordinator)

The following six (6) action items have been recommended as important components in our Seagrass Management Plan:

- 1- To promote natural shorelines and vegetated coastal buffers, when feasible, in areas near seagrass meadows. It is imperative that those individuals, committees, and governmental agencies responsible for granting permits, especially in designated sensitive seagrass areas, develop criteria that can be legislated and enforced. The Shelter Island Town Board is committed to promoting natural shorelines and vegetative coastal buffers in these specific areas. This would be especially important when building bulkheads or docks in future construction. The town needs to develop specific guidelines for both the CAC and WMAC as it pertains to new construction and renovation of existing structures, in order to protect and preserve existing seagrass areas in and around Shelter Island.  
Note: (from Soren Dahl). "Just to let you know, in some places where docks already exist in seagrass areas, a mitigation was to raise the dock higher above the water to reduce shading and extending the dock into deeper water so that the boat at the end would impact the bottom less when it was tying up and leaving deeper water".
- 2- To mark selected areas on the perimeter of seagrass beds with signs to designate a 'Town Seagrass Management Area'. It may not be necessary to mark the whole perimeter, just key access areas with high user visibility. This helps reinforce the more critical concerns expressed in the 2011 NYS Seagrass Protection Act.
- 3- Along with the Town's MS4 Committee, precautionary measures will be taken to prevent sediment entering the waterways. This has been an ongoing strategy of our Highway Department for several years and will continue. Storm water management planning to mitigate deluge impact on salinity is important. Efforts to support coastal resiliency through such efforts as natural shorelines and habitat (ie: wetlands) will be integrated into our Seagrass Management Plan. Storm water management needs additional emphasis and support by the town in order to improve water quality. The new WQIP/AB should embrace these initiatives as well.



**Note: In terms of supporting the findings of our Phase 1 Study of Reel Point, conducted by 1<sup>st</sup> Coastal Consulting and under the careful eye of LKB (Lockwood, Kessler and Barlett, Inc) Shelter Island will be carefully examining its options in seeking an interim, as well as a long-term sustainable stabilization of Reel Point. The PLT (Peconic Land Trust) will also play a key role in the adoption of this plan. The plan most suited to provide protection and stabilization to this property recommends the following:**

- a) an 'Adaptive Living Shoreline',**
- b) inlet backpassing beach nourishment, and**
- c) dune restoration with native vegetation.**

**The use of cobble stones along the eastern portion of the beach, will help stabilize the spit beach. The goal is to restore Reel Point to its historic size and configuration and to increase flood and erosion protection. Therefore, the adaptive living shoreline project was recommended by our consultants to the town because it is designed to provide protection to the RPP (Reel Point Preserve) and address the stakeholders concerns in a cost effective and constructible project. If the town adopts this plan, it can provide valuable feedback as to the future use of adaptive living shorelines in other areas, especially near seagrasses.**

- 4- To help educate boaters, especially those who are unfamiliar with Shelter Island waters, utilizing our new "Boating Brochure", concerning measures that help protect seagrass beds. This would include identifying shallow areas that support seagrasses from possible damage due to contact with the boat's hull, keel, motors and props. Speed restrictions need to be posted in and around seagrass areas in order to reduce wake action near sites with finer sediments and that are sensitive to erosion. This would restrict anchoring in seagrass meadows and be enforced by our bay constables.**

**This item is can be further developed by our WMAC and serve as part of our Action Plan. (eg: the use of seagrass mapping for siting of moorings and the possible installation of conservation moorings with established criteria for their required use in selected areas).**

**5- To better educate the public, utilizing the SI Town website, town newspaper, and channel 22, concerning the importance of seagrass meadows and other aquatic plants that are essential to fish and shellfish habitat. Those having fishing licenses and/or shellfish permits, should receive written notice, with possible judicial consequences, of the rules pertaining to the protection of seagrasses in Shelter Island waters. The town will work closely with the commercial shellfish community, to examine the procedures used to harvest shellfish in ways that do not cause harm to the habitat itself. (eg: disallowing the use of mechanized gear and hand rakes and tongs in seagrass areas themselves). These joint meetings of town officials & CAC members, with commercial fishermen, should produce a better educated and more willing participant that will exercise good judgement in the harvesting of shellfish. Once again, the bay constables will play a key role in enforcement of these practices.**

**Note: the type frequently used for bay scallops is not meant to dig into the bottom and if used properly should only flatten blades temporarily. There will be some level of disturbance by scallop dredge since seagrass is recognized for bay scallop habitat and it will be targeted for harvest activities. A healthy meadow should have more resilience to this activity but a "stressed meadow" will be more susceptible to damage.**

**6- Shelter Island will continue to support efforts by Suffolk County, as well as other state and federal agencies in helping to incorporate water quality management measures that help improve water clarity. The leading contribution of nitrogen pollution in Suffolk County has been identified from wastewater sources. The Long Island Nitrogen Action Plan (LINAP) developed collaboratively by NYS Department of Environmental Conservation (DEC), the Long Island Regional Council (Suffolk and Nassau County), should identify actions that can be taken to reduce nitrogen and related impacts in local waters. Participating in LINAP should have many benefits for Shelter Island, not only for seagrass health but for the coastal environmental quality of the Island community as a whole. Other Plans that the Town already has regarding Watershed Management and Water Quality Improvement will also be examined closely for use in our overall Seagrass Management Plan. Specific recommendations for the Action Plan need to be developed and adopted by the Town Board.**