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MEETING POSTING

TOWN OF NANTUCKET
Pursuant to MGL Chapter 30A, § 18-25
All meeting notices and agenda must be filed and time stamped with the Town Clerk's Office and posted at least 48 hours prior to the meeting (excluding Saturdays, Sundays and Holidays)

Committee/Board/s	Coastal Resilience Advisory Committee
Day, Date, and Time	Tuesday, August 23rd, 2022, at 10am
Location / Address	REMOTE PARTICIPATION VIA ZOOM The meeting will be aired at a later time on the Town's Government TV YouTube Channel https://www.youtube.com/channel/UC-sgxA1fdoxteLNzRAUHIxA
Signature of Chair or Authorized Person	Mary Longacre, Chair Vincent Murphy, Coastal Resilience Coordinator
WARNING:	**IF THERE IS NO QUORUM OF MEMBERS PRESENT, OR IF MEETING POSTING IS NOT IN COMPLIANCE WITH THE OML STATUTE, NO MEETING MAY BE HELD!**

Coastal Resilience Advisory Committee

Agenda for Tuesday, August 23rd, 2022, at 10am

A. Convene in Open Session via Zoom

Join Zoom Meeting
https://us06web.zoom.us/j/86863383148?pwd=YkE0YUVNMlU1NnpwYTJ6clg4U241QT09

Meeting ID: 868 6338 3148
Passcode: 917271

1. Call to Order
2. Meeting announcements
   - Script for remotely conducting Open Meetings, read by the Chair
   - The meeting is being audio / visually recorded

3. Update on grants from Vince Murphy, discussion of potential grant opportunities.

4. Presentation from Rachael Freeman regarding the Nantucket Land Bank's Coastal Resilience efforts.

5. Recap from Vince Murphy from his meeting with Tuckernuck Land Trust on 8/14.

6. Discussion of checklist for evaluating coastal projects for resilience – continued from prior discussion of shoreline access issues.

7. Review draft of CRAC annual report.

8. Public Comment

9. New business, Committee & Natural Resources Dept. reports from Planning Board, Conservation Commission, Harbor and Shellfish Advisory Board, Select Board, Advisory Committee of Non-Voting Tax Payers, and other committee members.

- Mary Longacre & Vince Murphy to recap presentation of second quarter report and climate change awareness proclamation to the Select Board on 8/17.
- Mary Longacre to report on Monomoy Area Plan draft discussed at NP&EDC meeting on 8/22/22. The draft plan includes a section on coastal resilience

10. Discussion of upcoming meeting dates and topics

- September meeting dates – 13th and 27th.

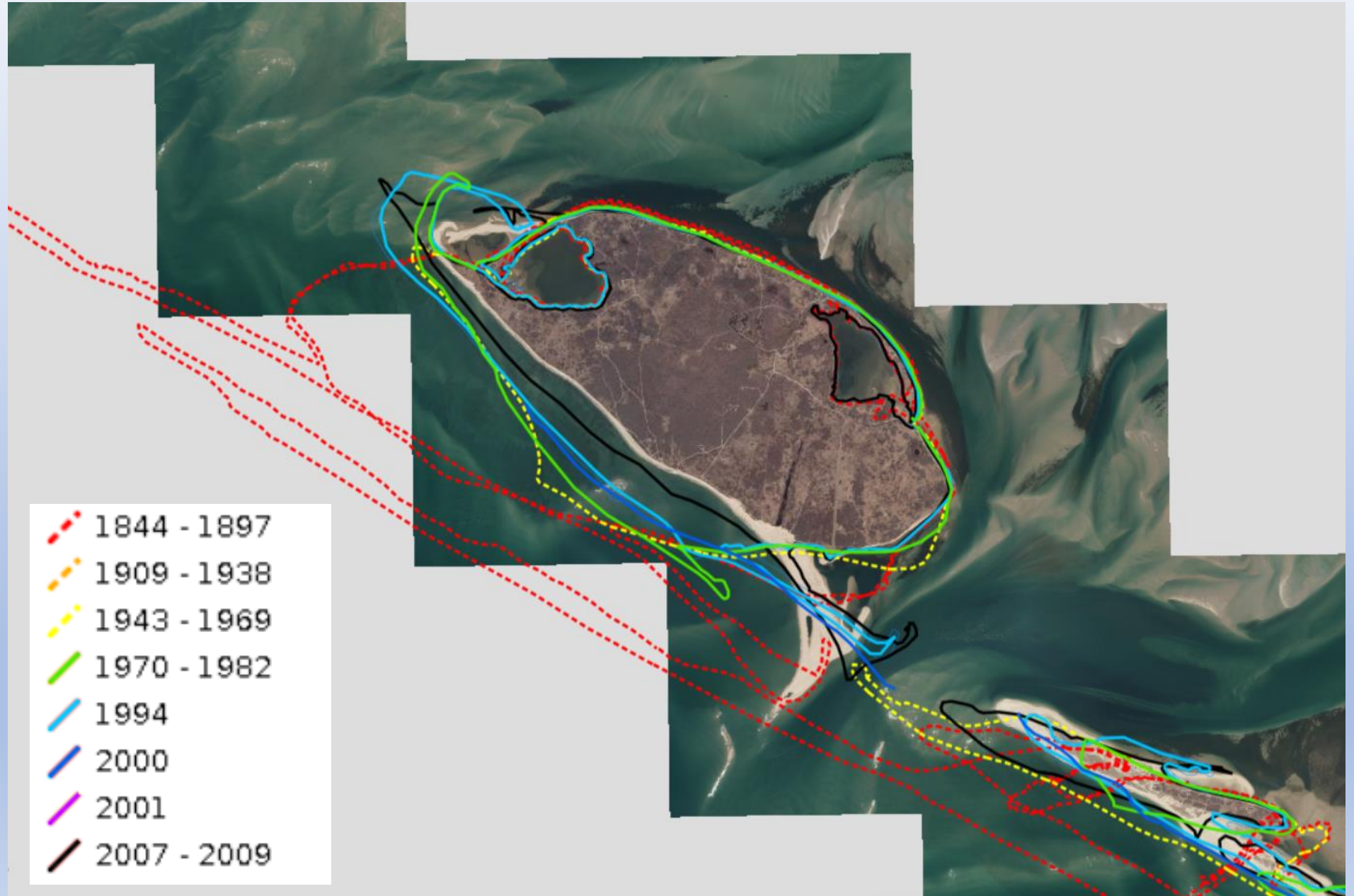
11. Motion to adjourn

Coastal Resilience on Tuckernuck Island

Presentation & information to Tuckernuck Land Trust

August 14, 2022 at 9am

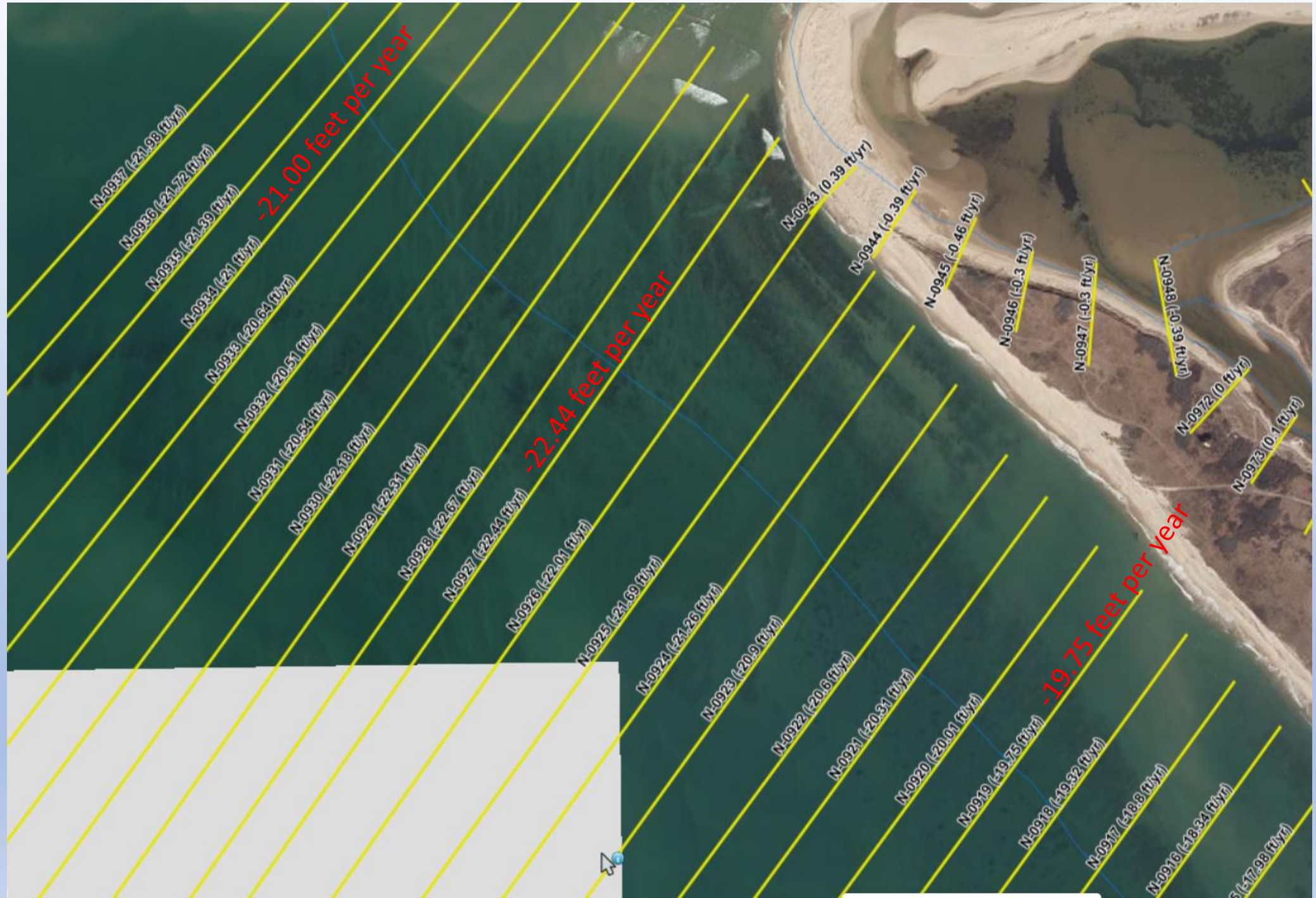
Know your risk - Erosion



Massachusetts Ocean Research Information System (MORIS) coastline mapping from 1844 to 2009.

Tuckernuck is about half the size it was about 150 years ago

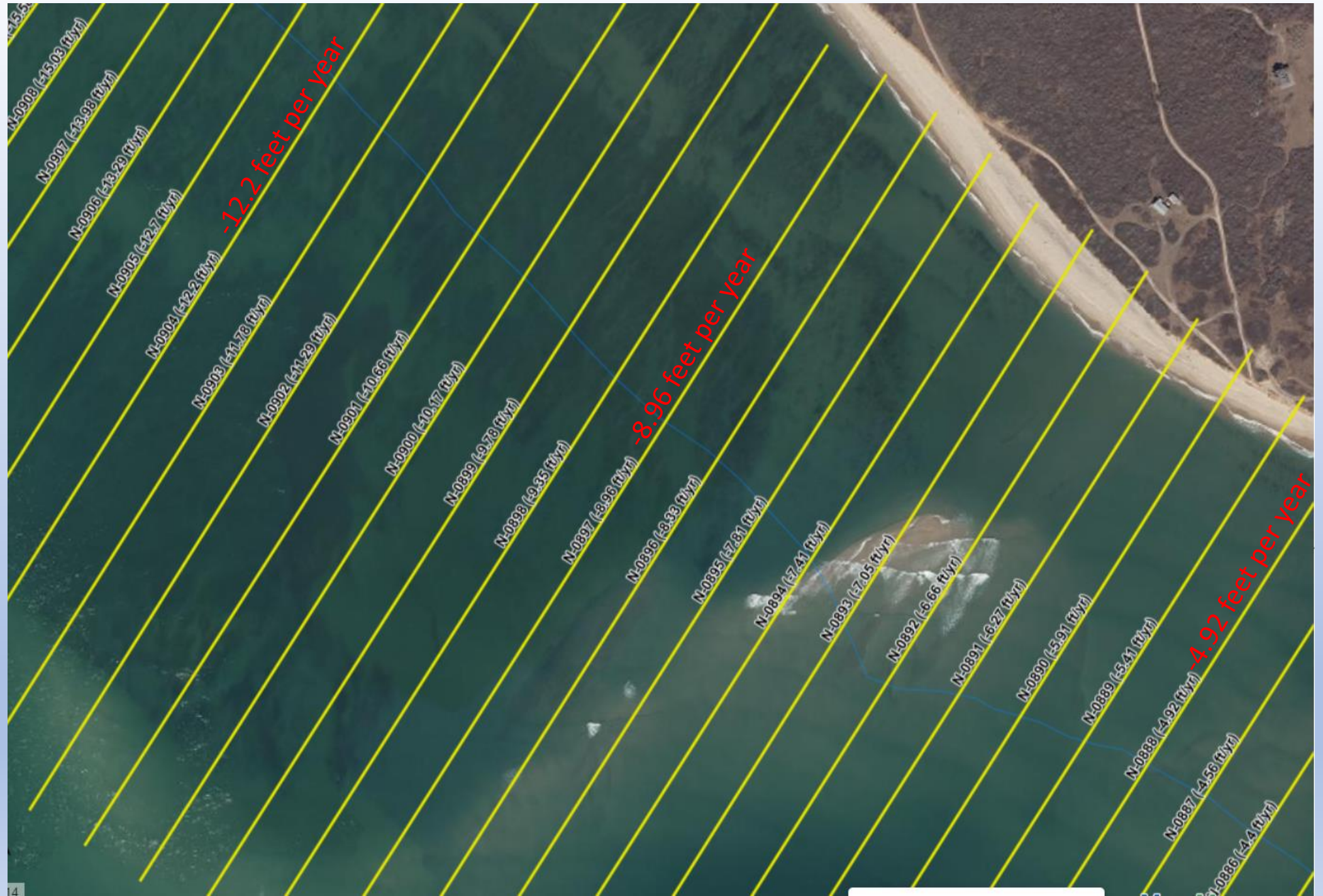
The aerial photograph is from 2021 and the black line is from 2009. Shows the erosion over about 12 years.



Shoreline change transects from MORIS. Each line is spaced about 160 feet apart.

All the numbers are negative, so all mean erosion.

Hard to read so some numbers in red for examples.



Central – mid



East by Whale Point

FEMA Erosion Hazard Mapping



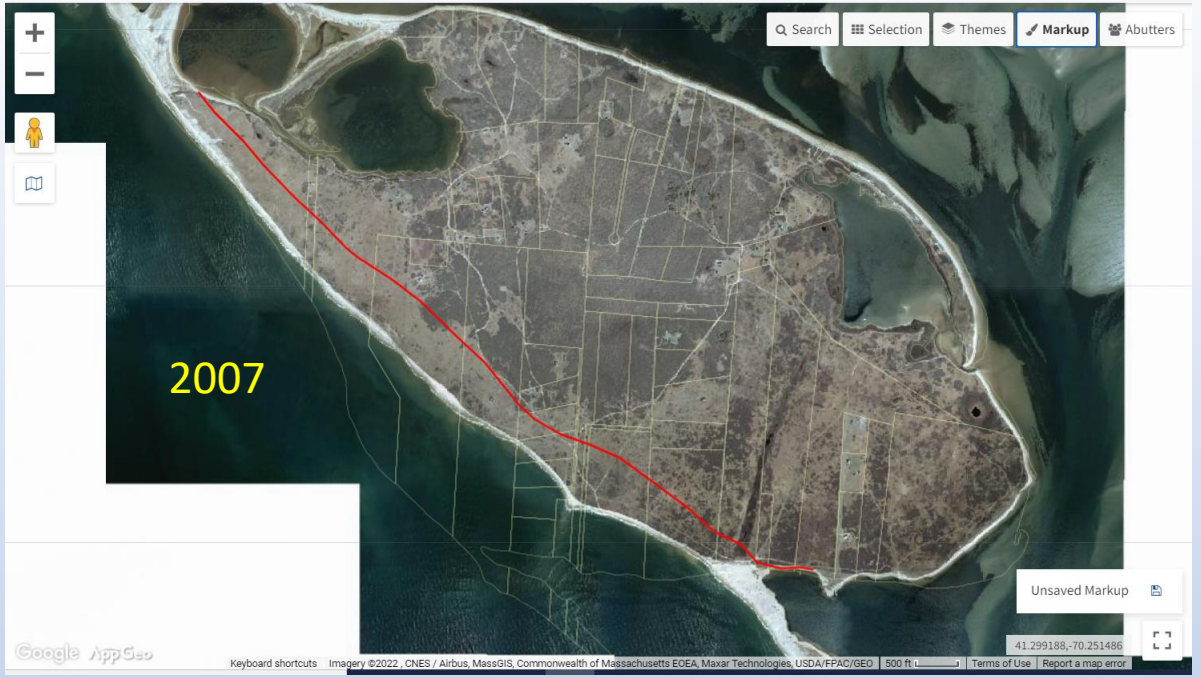
Sadly, FEMA chose not to include Tuckernuck in the Erosion Hazard Mapping. Tuckernuck has a similar erosion rate to Smith's Point & parts of Madaket. Tuckernuck may have more severe erosion and could erode more than Smith's Point. A guess, not a fact.

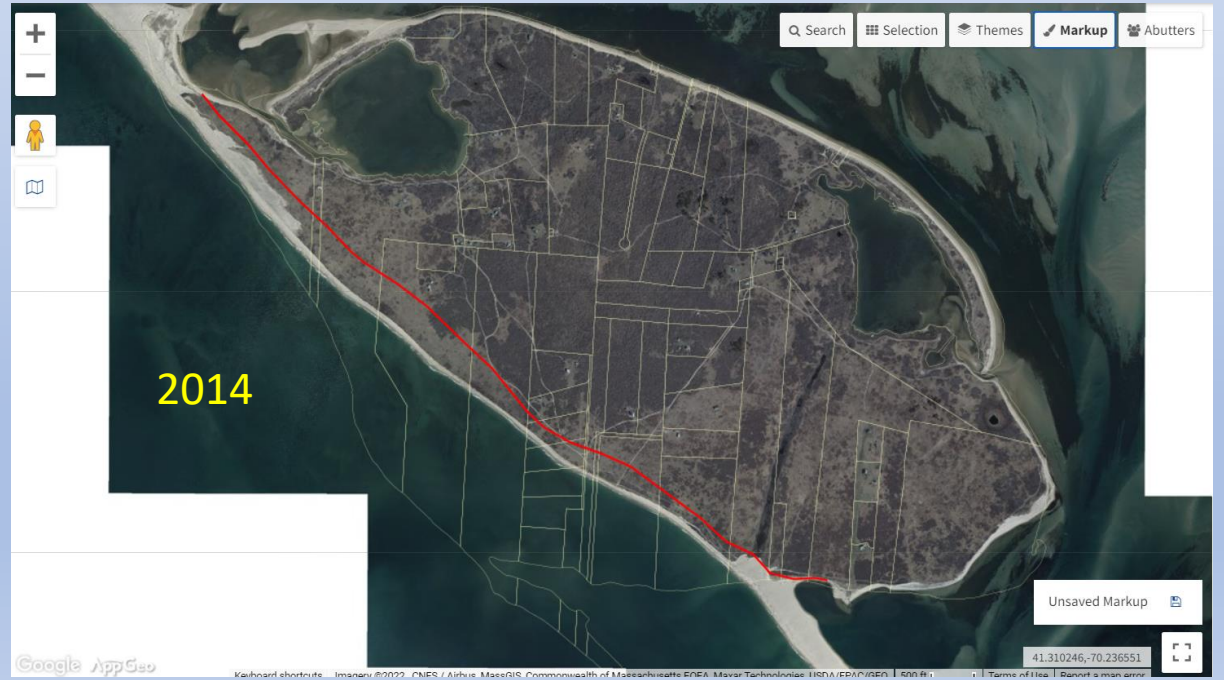
Purple line is erosion to 2100 using the NOAA high sea level rise scenario.



As of September 2021 about 10 buildings are less than 1000 feet from south shore. About 2 of which are less than 200 feet.



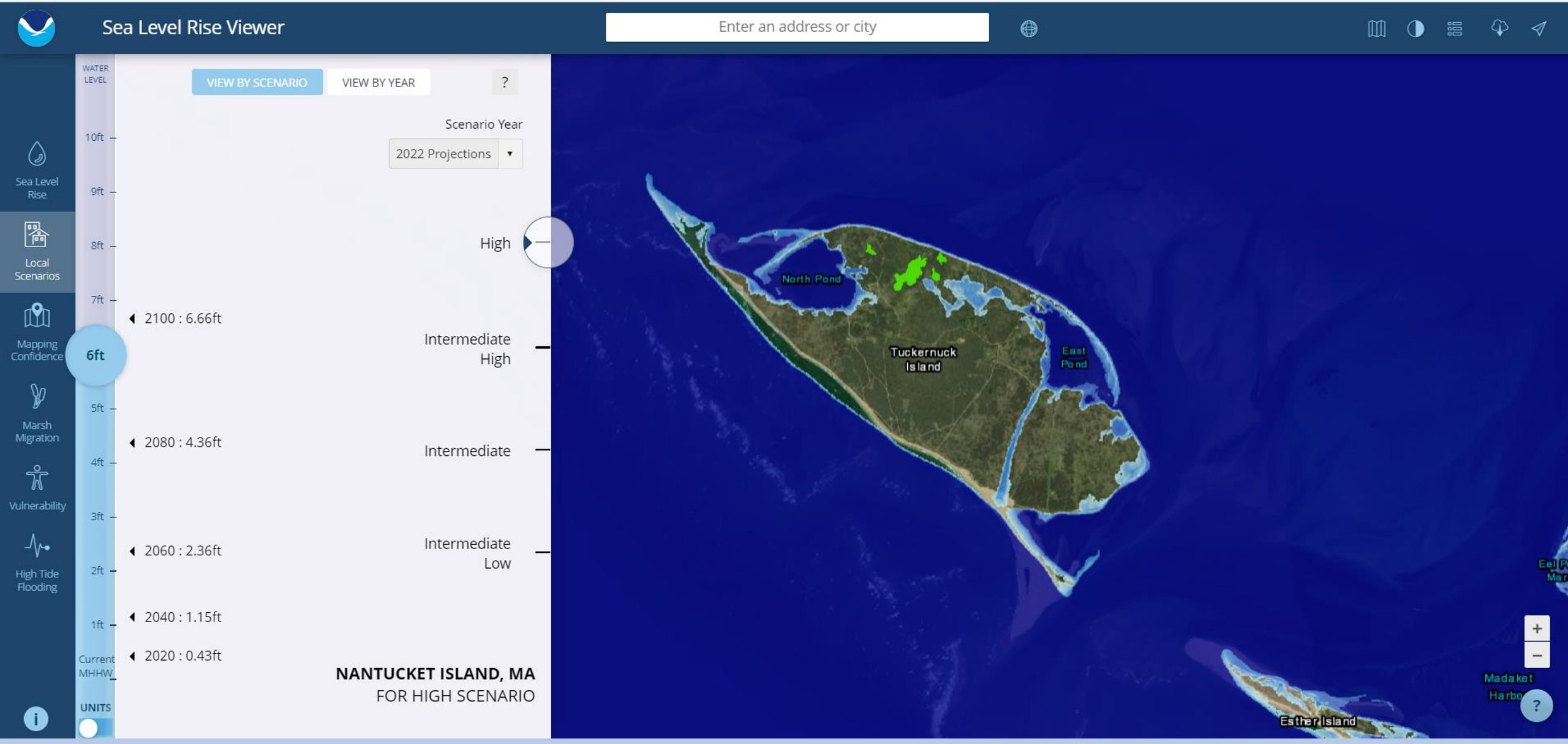


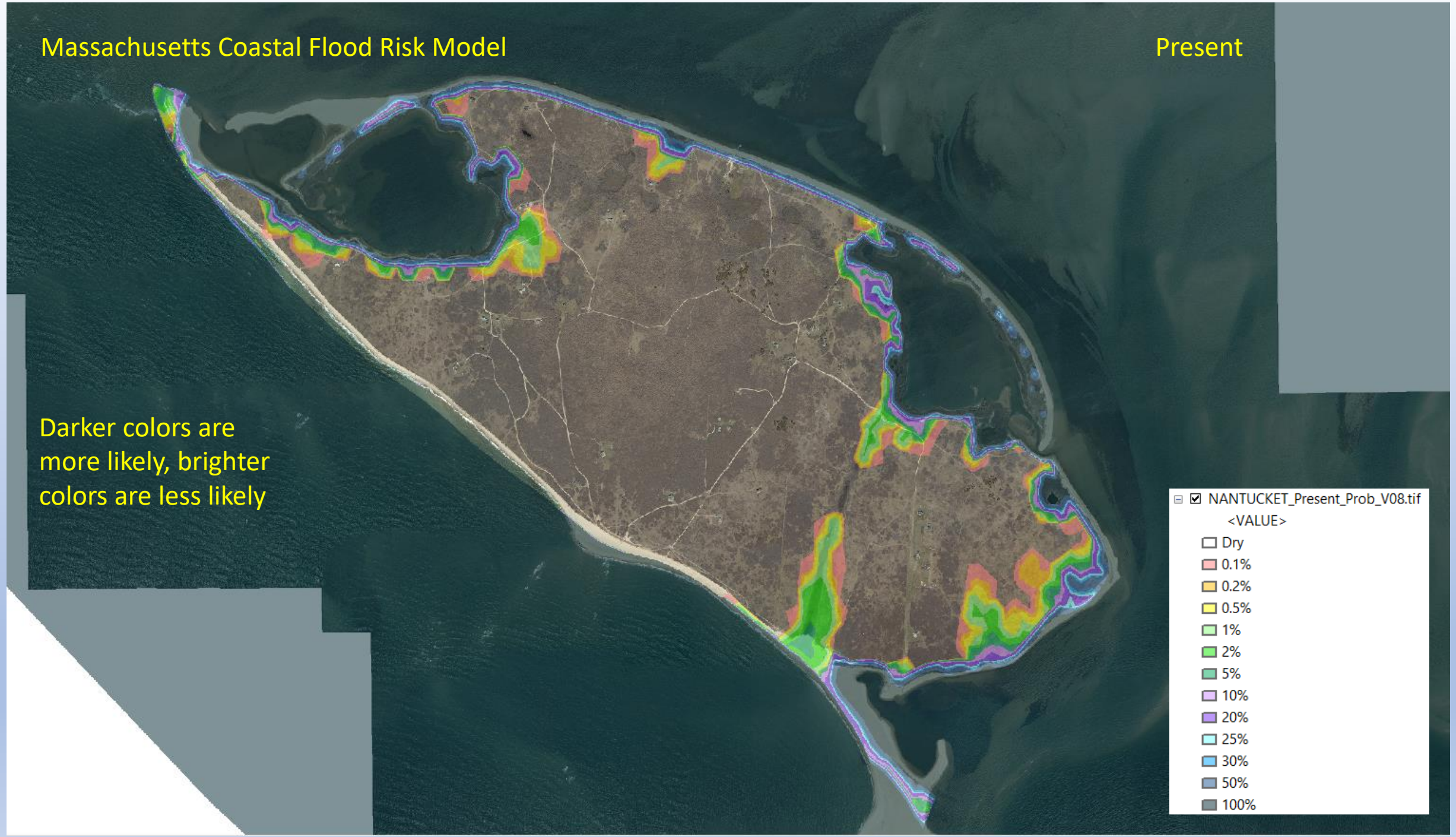


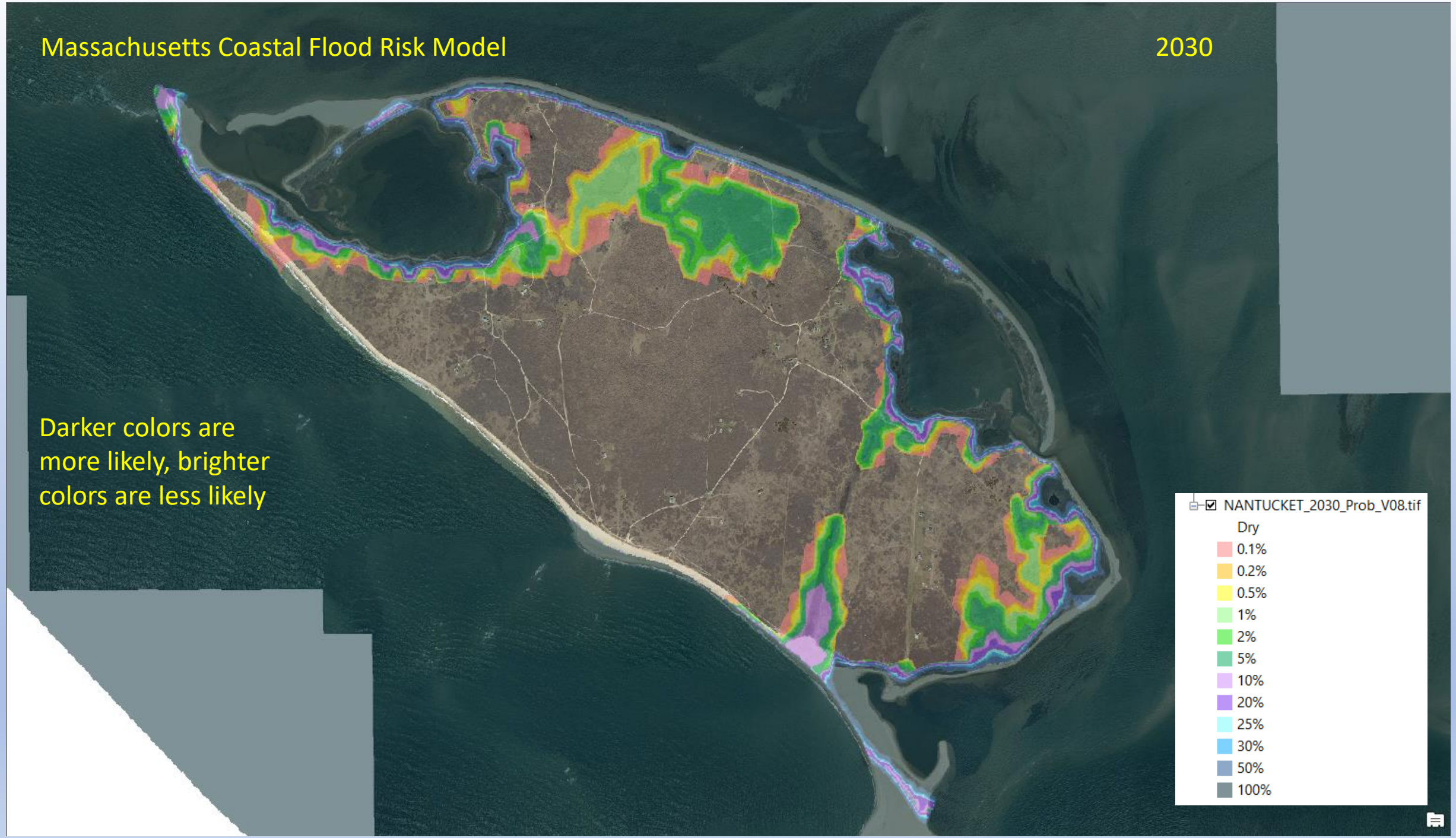


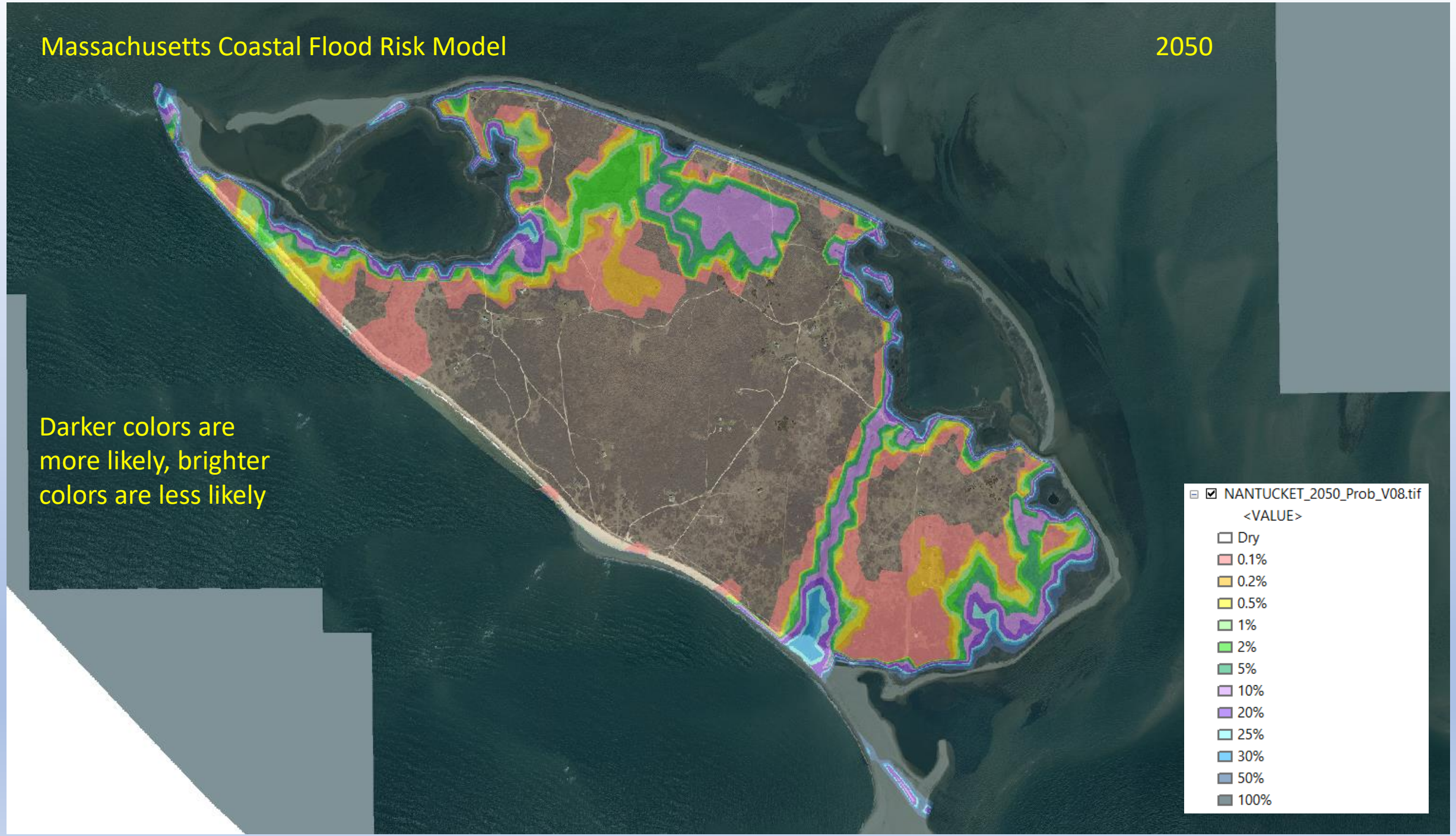
Red line is coastal bank line in September 2021 as compared to coastal bank line in 1998, 2007, 2014 and 2018

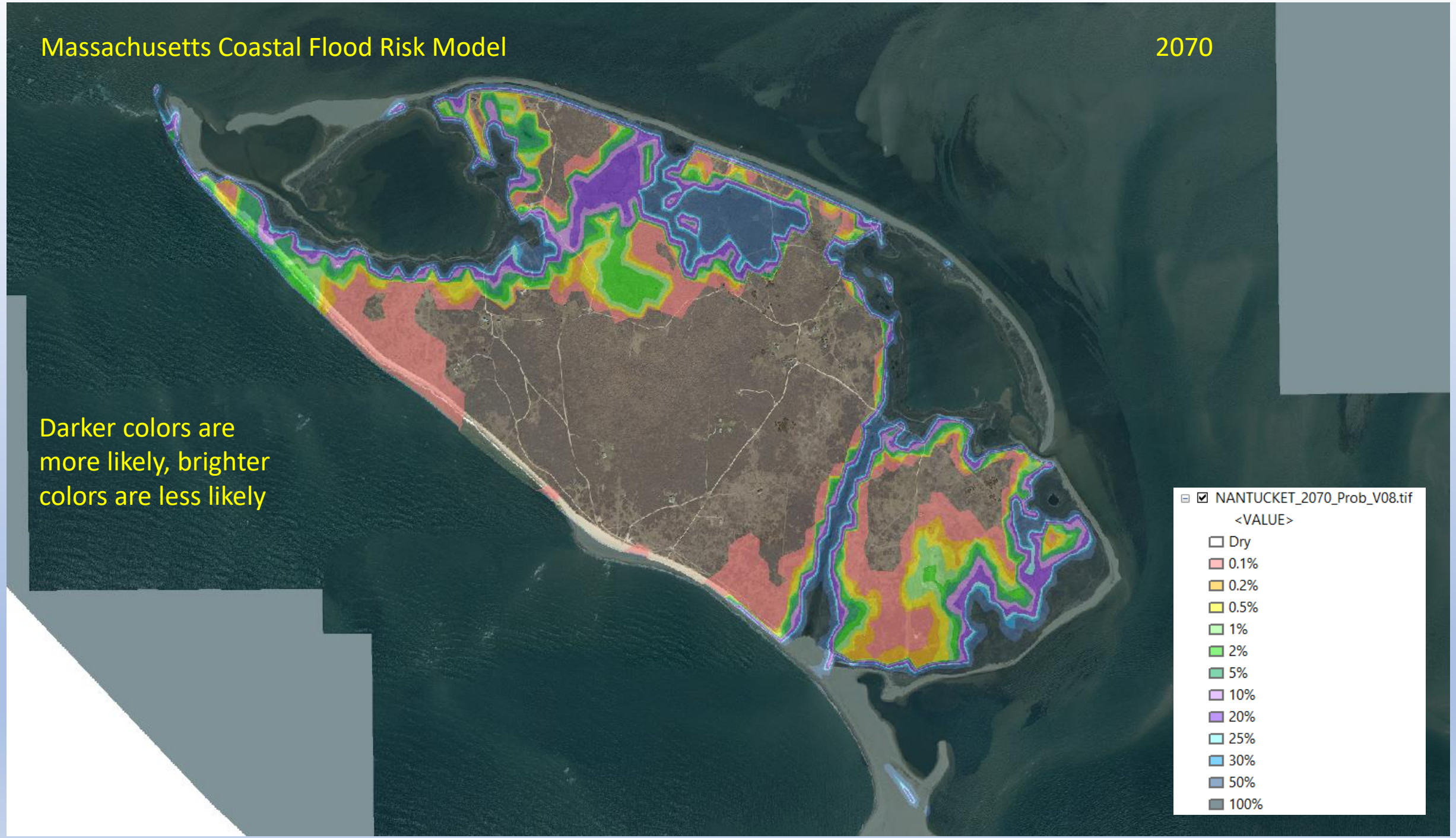
Know your risk – Flooding and sea level rise




Massachusetts Coastal Flood Risk Model
Present
Darker colors are more likely, brighter colors are less likely
NANTUCKET_Present_Prob_V08.tif
<VALUE>
Dry
0.1%
0.2%
0.5%
1%
2%
5%
10%
20%
25%
30%
50%
100%


Massachusetts Coastal Flood Risk Model
2030
Darker colors are more likely, brighter colors are less likely
NANTUCKET_2030_Prob_V08.tif
Dry
0.1%
0.2%
0.5%
1%
2%
5%
10%
20%
25%
30%
50%
100%


Massachusetts Coastal Flood Risk Model
2050
Darker colors are more likely, brighter colors are less likely
NANTUCKET_2050_Prob_V08.tif
<VALUE>
Dry
0.1%
0.2%
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5%
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Massachusetts Coastal Flood Risk Model
2070
Darker colors are more likely, brighter colors are less likely
NANTUCKET_2070_Prob_V08.tif
<VALUE>
Dry
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20%
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100%

What Can homeowners on Tuckernuck do for themselves?

Basic Adaption Strategies

Accommodate



This raised house is not a Nantucket example. On Nantucket the stilts / base would need to be covered by suitable breakaway panels.

Protect



Dionis examples of protect. West is a bulkhead and east is a rock revetment

Retreat



Retreating a house at the end of Hummock Pond Road. Picture from Toscana Inc.

Evaluate your property now to see what you may need to do

What can Town projects do for Tuckernuck?

The Nantucket Coastal Resilience Plan has 40 recommendations

Several could have benefits for Tuckernuck – and there are two main recommendations for Tuckernuck

Strategy ID	Strategy or Project Title	Near-Term Strategy Project Description	Type	Estimated Cost	Estimated Benefits	Target Implementation Date
1-9	Sediment Sourcing and Transport Study	Island-wide data collection and planning approach to identify sediment sources and define sediment movement across the island at various spatial and temporal scales in order to inform the design and planning of future sediment management projects.	Non-structural	High: $1M Low: $800K O&M: NA	N/A	2024
3-3	F Street Boat Ramp	Prolong service life of public boat ramp by elevating the top of the boat ramp, surrounding infrastructure, and access from F Street. Consolidate Madaket boat ramps in this location once loss of service is experienced at Jackson Point boat ramp.	Structural	High: $5.1M Low: $4.5M O&M: $57K	Not quantified; qualitative benefits include prolonging public boating access to Hither Creek and Madaket Harbor	2050

F Street Boat Ramp

Description	*Prolong service life of public boat ramp providing access to Madaket Harbor and Tuckernuck and Muskeget Islands by elevating the top of the boat ramp, surrounding infrastructure, and access from F Street. Consolidate Madaket boat ramps in this location once loss of service is experienced at Jackson Point boat ramp.*
Resilience Objective & Level of Protection	*Prolonging service life of the boat ramp for public use to elevation of mean monthly high water in 2070 (7.5 feet NAVD88)*
Duration of Performance	*40-50 years*
Priority	*Third*
Estimated Cost	*Capital Costs: $3.7M Capital Costs with Contingencies: $4.5M - $5.1M* *Annual Operations and Maintenance: $57K*
Estimated Benefits	*Not quantified for this study. Qualitative benefits include prolonging public boating access from Madaket to Hither Creek, Madaket Harbor, and Tuckernuck and Muskeget Islands*
Cobenefit Opportunities	*Opportunities to increase boat ramp capacity and include additional facilities and amenities as part of adaptive design, such as vehicle parking or fish cleaning stations*

Maintain connection to Tuckernuck!

Plans to develop

- Keep F Street boat ramp and pier serviceable for access to Tuckernuck
- Study the sandbar, undertake dredging to keep access open in Madaket Harbor and Tuckernuck Harbor
  - Could the dredged sand be used on Tuckernuck?

Unknowns

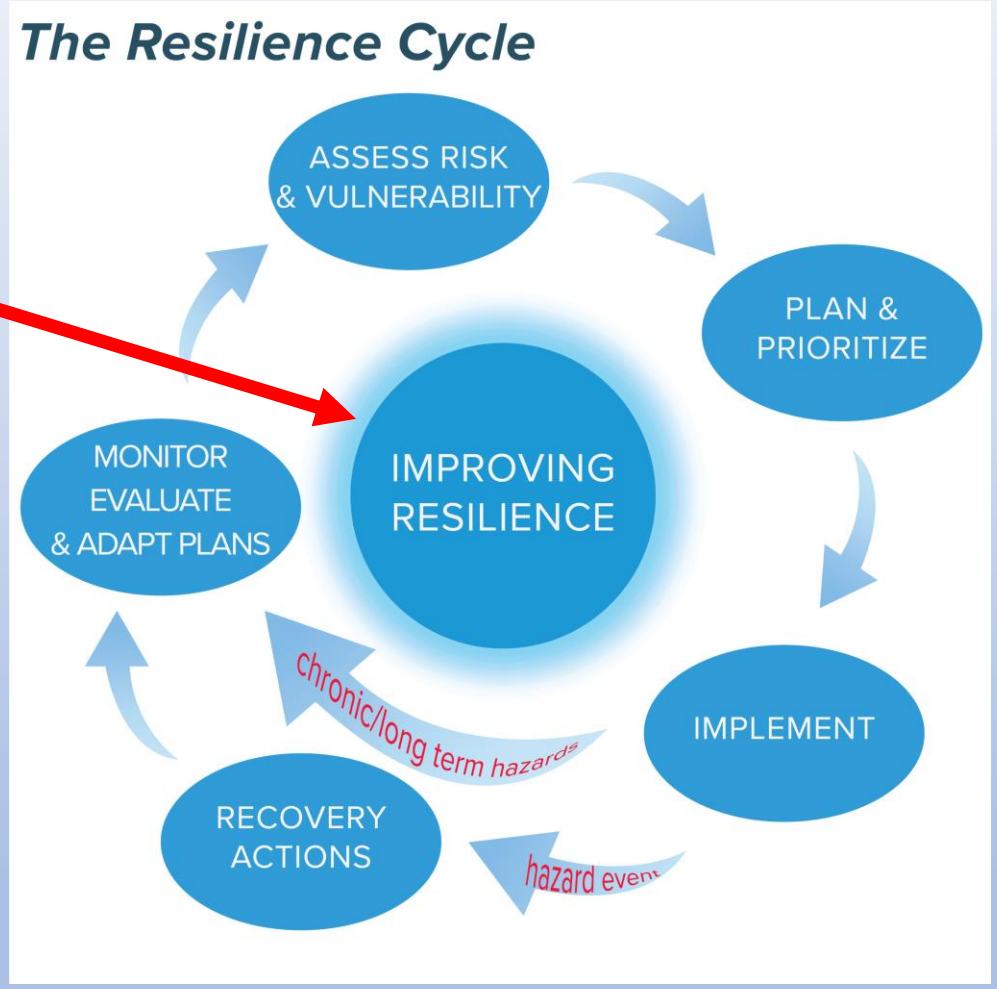
- Who oversees and operates the Tuckernuck pier?
  - Tuckernuck Land Trust or others?
- Can the Tuckernuck pier be adapted over time, and are there funds available to do so; as sea levels rise?
- Most buildings have space on their properties to retreat. Are homeowners willing to do that?

Open question

- What else can the Town do to assist Tuckernuck with erosion, flooding and sea level rise planning?

Resilience is a process

Always planning to improve resilience



Thank you for the opportunity to visit Tuckernuck and speak about coastal resilience

Post presentation notes, questions follow up and other information



Post presentation notes, questions follow up and other information



Tuckernuck south shore looking west

Post presentation notes, questions follow up and other information



Tuckernuck south shore looking est

Post presentation notes, questions follow up and other information

- The house that was 250 feet in September 2021 is now about 70 feet from the bluff about 11 months later.

- Some concerns about the mapping as there was a lot of dense information and it was the first time people had seen it.
  - Left contact info for follow-up questions.

- If a storm ever damaged or the current landing area inaccessible, could the Town help?
  - Discussion about possible development of a back-up plan for access points, should it ever be needed
  - Possible improvements to airfield
  - Possible improvements to boat landing sites & access
    - Emphasis was less on landing sites, rather navigable water as the area may fill in with sand

- If dredging occurred, could the spoils be used for beach nourishment or other resilience works on Tuckernuck?

Coastal Resilience Advisory Committee report from July 1, 2021 to June 30, 2022.

The Coastal Resilience Advisory Committee (CRAC) was established by the Select Board in 2019. Contact Vince Murphy, the Town's Coastal Resilience Coordinator (CRC) & staff member assigned to the CRAC with any questions about CRAC's activities. Contact information and links to the documents and presentations mentioned in this annual report may be found on the CRAC's page on the Town's website: https://nantucket-ma.gov/1391/Coastal-Resiliency-Advisory-Committee

The CRAC met entirely remotely via Zoom due to the pandemic in 2020-2021.

Coastal Resilience Advisory Committee members in this term were Mary Longacre, Chair, (At-Large), Peter Brace, Vice-chair (Harbor & Shellfish Advisory Board), Fritz McClure* Secretary (Planning Board) Gary (Beller, Advisory Committee of Non-Voting Tax Payers), Sarah Bois, Ph.D. (At-Large), Matt Fee, (Select Board), Ian Golding, (Conservation Commission), Jennifer M. Karberg, Ph.D, (Nantucket Conservation Foundation) & Joanna Roche, At-Large.

*Fritz McClure resigned from Planning Board and his representative seat on CRAC in April 2022. Peter Brace volunteered and was duly appointed the Pro-tem Secretary until the end of the term.

COASTAL RESILIENCE PLAN:

The CRAC completed and unanimously voted to accept the Nantucket Coastal Resilient Plan in November 2021. The committee recommended to the Select Board to approve this plan and in January 2022 the Select Board unanimously endorsed the Nantucket Coastal Resilience Plan. The now finalized plan is publicly available. https://www.nantucket-ma.gov/DocumentCenter/View/40278/Nantucket-Coastal-Resilience-Plan-PDF

The CRAC developed the Coastal Resilience Plan with a Project Team consisting of Arcadis as the primary consulting group, and sub-consultants Stoss; One Architecture; and The Craig Group.

Completion of the CRP was a key goal of the committee as outlined in the Committee Charter. The CRP contains a total of 40 recommendations for the Town and CRAC to implement. Implementation is now a key focus for the CRAC.

PARTICIPATION IS OTHER RESILIENCE EFFORTS

The CRAC was a stakeholder in the Baxter Road Engineering Feasibility Assessment that was completed in October 2021. CRAC participated in stakeholder group meetings together with Select Board and Town Staff on this coastal resilience project. Final report https://www.nantucket-ma.gov/DocumentCenter/View/40516/Baxter-Road-Long-Term-Planning-Final-Memo-October-20-2021-PDF

COMMITTEE REPORTS PRODUCED:

Updating Sea Level Rise recommendation supping material

In Spring 2022 CRAC began the process of updating the supporting information for the Town Policy on sea level rise planning. the wording of the recommendation will remain the same, which is: "The CRAC recommends all Town Departments, Boards, Commissions and Committees and any service providers, contracted engineers and consultants need to be aware of and need to use the NOAA "High" scenario to accommodate current storm surge as well as Sea Level Rise in their decisions, deliberations and planning. These data are periodically updated by NOAA and will be posted on the CRAC page on the Town's website."

Quarterly reports

In order to provide a regular platform to keep the Select Board and community informed of Committee actions, and also provide regular recommendations and requests to the Select Board, the Committee is

undertaking quarterly reports that are presented to the Board. Quarter 1 of January to March 2022 was presented to the Select Board in June 2022 and this quarterly reporting will continue.

CRAC BECAME A PERMANENT AND EXPANDED COMMITTEE.
CRAC was established in 2019 with 2-year terms for all members. This was extended by 1 year for all members in spring 2021 due to the Covid-19 pandemic and the impending completion of the Coastal Resilience Plan. In May 2022, the CRAC requested that the Select Board make the committee permanent and expand the membership. Both were unanimously approved by the Select Board and the committee became permanent. Two new seats were created to include a seat for a representative from Nantucket Land Bank and a seat for a representative from Capital Programs Committee. The three reappointed At Large members were also assigned varying terms lengths of one, two and three years. These terms begin on July 1, 2022 with 11 CRAC members.

GRANT APPLICATIONS
In January 2022 the CRAC voted unanimously to make the Downtown Flood Barrier project (CRP Projects 2-2 and 2-6) priority projects to move forward for implementation and grant applications. To that end, in June 2022 the CRAC and Coastal Resilience Coordinator, with assistance from Arcadis, submitted a grant application to the Massachusetts Office of Coastal Zone Management (CZM) aimed to begin the 2-6 Downtown Neighborhood Flood Barrier Phase 1 project.

PUBLIC OUTREACH:
Through summer and fall 2021, the CRAC had a number of presentation on the content of the CRP, though which both the committee and the public provided feedback. In April 2022 CRAC had a special meeting to have a presentation from Woods Whole Group on a project developed by The Trustees of Reservation and Nantucket Conservation Foundation related to the implementation of a CRP project on Coatue, Great Point & the Haulover. Special guest speaker through the term included Robert Davis, General Manager of the Steamship Authority, Courtney Rocha, Southeast Regional Coordinator, Municipal Vulnerability Preparedness (MVP) Program, and Stephen McKenna, Cape Cod and Islands Regional Coordinator, from Coastal Zone Management (CZM)

OTHER EVENTS:
Arcadis further assisted the Town by providing a Design Thinking Workshop for Town Departments, Board, Committee & Commission chairs and large landowning organizations such as Land Bank and NCF. This two-day event on March 7 & 8 resulted in broader understanding of the Coastal Resilience Plan and generated number and innovative ideas on implementation of the CRP.
https://sway.office.com/xzgM7zsrpWKGmGD1?ref=Link

The CRAC together with ACKlimate successfully petitioned the Select Board to declare September 2021 Climate Change Awareness Month on Nantucket, with an associated calendar of events from ACKlmate partners to mark the month.

GOALS:
Implementation of the CRP is now a main goal of the committee. Continued public outreach and education is also a committee goal. Funding CRP projects over the coming years is an ongoing discussion and a point the CRAC would like find solutions for.

CRAC will continue to review, discuss and report on research, new publications, and local projects regarding climate change, sea level rise, erosion, and the threats these pose to the islands.

Follow CRP announcements and coastal resilience posts on social media by searching the hashtags #ACKlocal #nantucketCRPand #resilientACK
ANY IMAGE OR MAP OR PICTURE TO ADD TO DEMONSTRATE THE CRP?

MONOMOY

AREA PLAN

A VISION FOR OUR FUTURE

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VIII Services and Facilities
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X Climate Adaptation & Resilience
XI Implementation

APPENDICES

Monomoy Civic Association
Monomoy Area Plan Work Group Members
Monomoy Boundary Map
Monomoy's Historic Architectural Heritage
Additional Resources
Acknowledgments and Credits

Executive Summary

An island 14 miles long and 3 ½ miles wide, Nantucket is located in the Atlantic Ocean, 30 miles south of Cape Cod, Massachusetts. The Monomoy neighborhood is one of nine communities on the island that has undertaken a local area planning exercise to serve as a contribution to the pending update of the Town of Nantucket's Master Plan, which is slated for presentation at the 2023 Annual Town Meeting.

Under the auspices of the Monomoy Civic Association (MCA), a Monomoy Area Plan (MAP) Working Group was constituted to undertake a participatory and inclusive exercise, structured in a manner to ensure all stakeholder voices are heard and to develop a consensus among residents about the future of the Monomoy. Guided by direct input from the community through a Neighborhood Survey, the MAP identifies and promotes a common vision for the future of Monomoy, as well as the community's concern for the island as a whole.

The MAP has been designed with five considerations in mind, namely: (i) to serve as an advisory document, (ii) to reflect the aspirations of Monomoy residents, (iii) to be "actionable," (iv) to be implementable and (v) to serve as a "living document" that can be reviewed and refined over time.

From this consultative and participatory planning process, a vision for our Monomoy has been developed, anchored on pillars that frame the neighborhood as an engaged and proactive community committed to resilient and sustainable pathways, both locally and island wide. This vision puts Monomoy forward as a sanctuary for protected wetlands and wildlife, with its residents committed to act as responsible stewards of the environment. Survey results confirm that the community strongly wishes to preserve Monomoy's low-density, low-impact residential community character, while working closely with the Town and the surrounding island community to address the shared challenges. In doing so, Monomoy hopes to contribute to the overall sustainability of our fragile island environment and maintain and improve the quality of life for all residents across Nantucket.

The MAP exercise tackled community topics and issues in the form of six elements, which align with the outline of the Town Master Plan update. The MAP proposes recommendations for each respective element, guided by the Neighborhood Survey, which can be summarized as follows:



Land Use

- Preserve and protect the exclusively residential character of Monomoy
- Explore opportunities to preserve and expand conservation land within Monomoy
- Resolve non-conforming commercial uses if and when opportunities arise to do so
- Oppose purely commercial short-term rentals



Natural and Cultural Resources

- Undertake a biological field survey of endangered flora and fauna in Monomoy
- Support reduction / elimination of fertilizers used for residential landscaping
- Support community-wide efforts to reduce runoff and erosion
- Provide education and outreach on the value of the Dark Skies Initiative



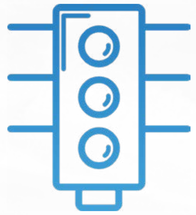
Open Space and Recreation

- Manage trash on Monomoy's beaches
- Explore opportunities to Increase access to kayak and dinghy storage
- Support efforts to improve water quality in the harbor through community advocacy and awareness
- Support the prohibition of private piers and docks
- Support efforts to better manage unattended vehicles on Cathcart Beach
- Propose the imposition of a "no wake" zone for vessels at The Creeks
- Continue efforts to protect Wyer's Valley open space



Services and Facilities

- Explore options for better maintenance of unpaved roads
- Support water conservation
- Support electricity conservation
- Engage on island-wide solid waste solutions
- Enhance fire protection infrastructure, as needed
- Explore burying overhead utility lines



Circulation

- Promote better safety and slower travel speeds on Monomoy Road



Climate Adaptation and Resilience

- Support Nantucket's Coastal Resilience Plan, including recommendations that address The Creeks and nature-based approaches to improve flood resilience and stormwater management
- Strive to achieve Net Zero status for Monomoy

An Implementation Plan in Chapter XI outlines the proposed strategies, responsibilities and time frames for the above recommendations. Appendices offer supplemental information on the local area plan exercise, the Neighborhood Survey, Monomoy's historic architectural heritage and offers links for additional resources on the topics and issues addressed in the MAP.

MAP Working Group
July 15, 2022
Final Draft for NP&EDC Review

Introduction

The Town of Nantucket, through the Nantucket Planning and Economic Development Commission (NP&EDC) is in the process of updating its 2009 Master Plan, as required by Massachusetts State Law.

The Master Plan, in its simplest terms, is a vital long-term roadmap that serves to guide the overall character, physical form, growth and development of Nantucket. With a planning horizon of 20 years, the Master Plan reflects an overall vision for the future of Nantucket based on a comprehensive planning process that involves taking a long-term view of issues and opportunities facing the island, evaluating alternative directions and approaches, and recommending strategies to make Nantucket an even better place in the future.



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Neighborhood-level Area Plans developed by communities around the island, including Monomoy, are key to this process. Under the auspices of the Monomoy Civic Association (MCA), a Monomoy Area Plan (MAP) Working Group was constituted and unanimously approved, along with a Monomoy boundary map, by NP&EDC on November 8, 2021, and tasked to work with the Town to develop Monomoy's first-ever Area Plan as an input the Town Master Plan.

Preparation of the MAP has been participatory and inclusive, structured to ensure all stakeholder voices are heard and to develop a consensus among residents about the future of the Monomoy. Community engagement involved formulating and distribution a detailed survey to gather input from residents and other stakeholders, with the Working Group, and six sub-group teams tackling data collection, research and formulation of elements, recommendations and an implementation plan for the MAP. The Monomoy boundary plan, as approved by NP&EDC, was determined in consultation with both the Nantucket Land Bank and the Shimmo Association.

The Working Group met monthly over a 7-month period, from December 2021 to July 2022. Additional meetings were held with key individuals in Town departments and non-profit organizations such as the Nantucket Land Bank and Nantucket Land Council. Review drafts of the MAP were presented at a special MCA community-wide meeting on July 9, 2022, prior to submission to NP&EDC for endorsement.

Guided by direct input from the community, the MAP identifies and promotes a common vision for the future of Monomoy. Designed to offer a compelling and actionable vision for Monomoy over the next decade, this plan aims to be relevant for the next 20 years and beyond.

This plan is crafted as a dynamic and informational guide that reflects integral components of the Monomoy community fabric. It also serves as a tool for the Town and community leaders to strengthen and preserve the Island culture, image, character, and unique sense of place.



This MAP was prepared with five key considerations in mind:

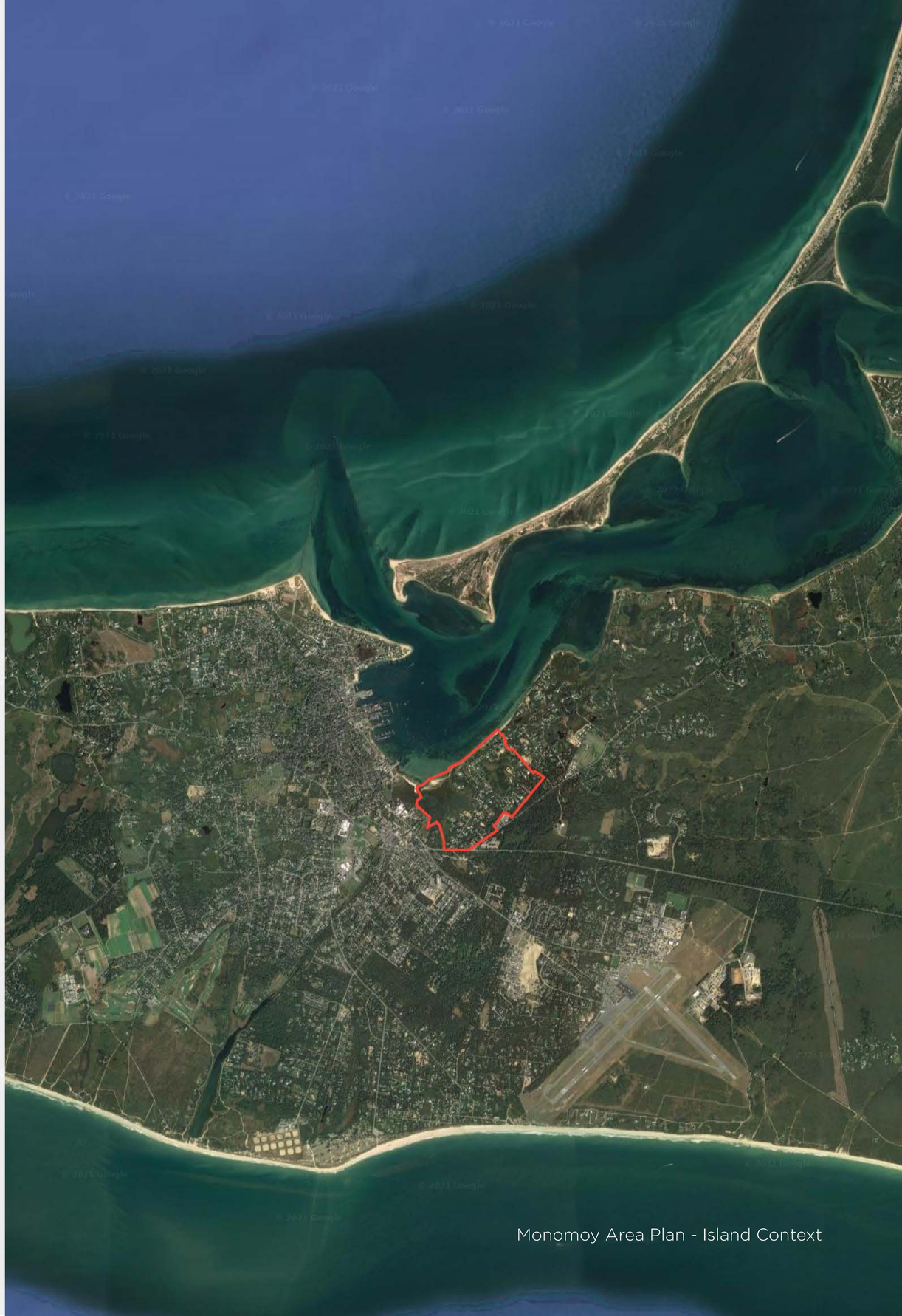
1. To serve as an advisory document.
The MAP is primarily intended to provide relevant input to the Town of Nantucket Master Plan, which in turn provides a framework for consistent decision-making. However, the real value of this Area Plan comes from identifying and promoting a common vision for the future of Monomoy based on input from the community.

2. To reflect the aspirations of Monomoy residents.
The MAP outlines an overall vision for the future of Monomoy. Since it is unlikely that all the elements of this overall vision can be accomplished quickly, parts of this overall vision can be thought of as aspirational for Monomoy, anchored on input from residents and property owners. The plan is intended to inform community discussions on key issues now and into the future.

3. To be "actionable".
Since implementation should be carried out as circumstances and resources (financial or otherwise) permit, the MAP is an "actionable" plan rather than an "action" plan. It will become an "action plan" when a policy decision is made and/or when the necessary resources (time and/or money) are committed to accomplishing an action step.

4. To be implementable.
Implementation is the whole reason behind preparation and adoption of this MAP, and its inclusion into the Nantucket Town Master Plan. Implementation is expected to occur gradually over time, with some recommendations taking ten to twenty years (or longer) to achieve. Staying the course and remaining true to our community vision will eventually produce the best results for Monomoy.

5. To be a "living document" that can be reviewed and refined.
The MAP is not intended to be a document fixed in time. Rather, it is a living document; the policies and action steps put forward can and should be regularly reviewed and refined as circumstances and financial considerations change, and as new information becomes available.



Monomoy Area Plan - Island Context

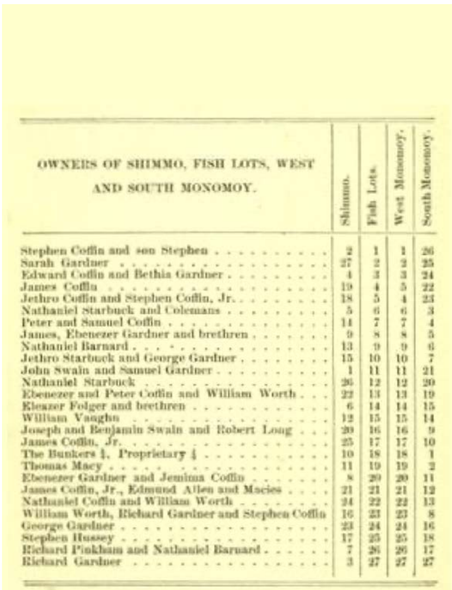
History

Historians are at odds on the origin of the word “Monomoy”: it is either a term used by the Wampanoag people, a loose confederation of several Native American tribes, that means “look out place,” or derived from the Algonquian word “munumuhkemoo,” meaning “there is a rushing of great water,” or a mix of Native American names meaning “deep black” or “black soil,” referring to the wet spongy soil in the region around The Creeks.[1]

1 The Native American Names of Cape Cod”, Cape Cod Times, 31 January 2022; “Indian Place Names on Nantucket Island”, Elizabeth A. Little, Nantucket Historical Association, 1983.



Whatever the origin, the first indigenous peoples, the Wampanoag, were careful and caring stewards of their natural environment for thousands of years, long before the arrival or European settlers, according to the Nantucket Historical Association. They fished, hunted, gathered and planted on the lands of Monomoy, and across Nantucket, instilled with cultural values that celebrated seasonal cycles and the power of creation.



OWNERS OF SHIMMO, FISH LOTS, WEST AND SOUTH MONOMOY.

	Shimmo.	Fish Lots.	West Monomoy.	South Monomoy.
Stephen Coffin and son Stephen	2	1	1	26
Sarah Gardner	27	2	2	25
Edward Coffin and Bethia Gardner	4	3	3	24
James Coffin	19	4	5	22
Jethro Coffin and Stephen Coffin, Jr.	18	5	4	23
Nathaniel Starbuck and Colemans	5	6	6	3
Peter and Samuel Coffin	14	7	7	4
James, Ebenezer Gardner and brethren	9	8	8	5
Nathaniel Barnard	13	9	9	6
Jethro Starbuck and George Gardner	15	10	10	7
John Swain and Samuel Gardner	1	11	11	21
Nathaniel Starbuck	26	12	12	20
Ebenezer and Peter Coffin and William Worth	22	13	13	19
Eleazer Folger and brethren	6	14	14	15
William Vaughn	12	15	15	14
Joseph and Benjamin Swain and Robert Long	20	16	16	9
James Coffin, Jr.	25	17	17	10
The Bunkers ½, Proprietary ½	10	18	18	1
Thomas Macy	11	19	19	2
Ebenezer Gardner and Jemima Coffin	8	20	20	11
James Coffin, Jr., Edmund Allen and Macies	21	21	21	12
Nathaniel Coffin and William Worth	24	22	22	13
William Worth, Richard Gardner and Stephen Coffin	16	23	23	8
George Gardner	23	24	24	16
Stephen Hussey	17	25	25	18
Richard Pinkham and Nathaniel Barnard	7	26	26	17
Richard Gardner	3	27	27	27

A list of early Monomoy landowners, circa 1726

In 1641, William, Earl of Sterling, deeded Nantucket to Thomas Mayhew, beginning the European settlement of the island, with a first community, Sherburne, located on the north shore at Capaum Pond.

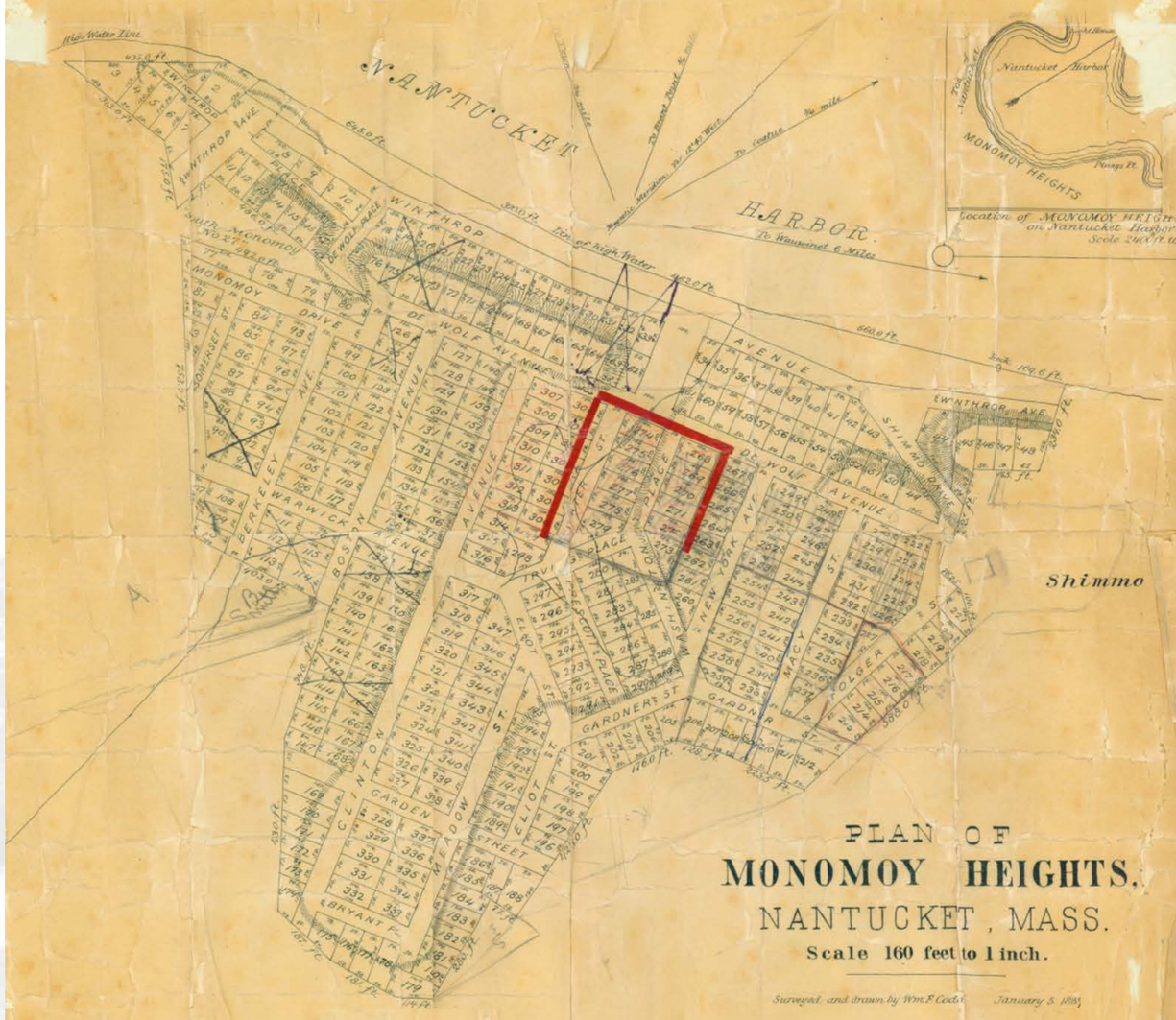
The first written records of Monomoy appeared in 1678, when the area was staked out by the Proprietors. To sort out haphazard land use, the parcels were recalled in 1726 and re-issued by the Proprietors as West and South Monomoy, the latter being what is known as the Monomoy of today. Largely meadow and pastureland, it comprised 27 parcels owned by many of the familiar early islander families: Coffin, Starbuck, Folger, Gardner, Swain and Macy, among others.[2]

The arrival of the whaling industry created a population boom, yet most development was limited to town, with shrinking lot sizes as more people subdivided their lots to create the historic, dense, rectangular lots as we find today in the town core. Fortunately, major wetland areas like those in Monomoy remained relatively untouched for centuries, with Nantucketers embracing the conservation of natural spaces. This mindset of stewardship minimized the spread of human interruption and interference

2 Nantucket Lands and Land Owners", Worth, Henry Barnard, Nantucket Historical Association, Vol. 2, Bulletin No.1, 1901.

Monomoy's shift to a summer residential community did not begin until more than 160 years later, in 1889, with a new speculative development called Monomoy Heights, following in the wake of similar residential developments in Brant Point, 'Sconset, Cliff and Wauwinet.

Monomoy remained sparsely populated with only a few houses until the late 1920s, when efforts to drain swamplands and eradicate mosquitoes ushered in a new era of growth.[3] Today, a few homes built in the 1930s still stand in some manner, designated local historic structures.



3 A Nantucket Enclave: Monomoy Heights, 1852-2005, C. S. Lovelace, 1985. Mill Hill Press.

Monomoy remains a unique community in the Nantucket Island landscape, situated along the inner harbor with sweeping views across precious salt marshes, to town and harbor, while offering majestic views of sunsets and sunrises. Accessible by one main paved road, and without an outlet for through traffic, Monomoy is an oasis of quiet and solitude while offering proximity to town and mid-island shopping and services.

Monomoy also hosts two popular family-oriented, calm-water public beaches, Monomoy Beach and Cathcart Beach. The waters immediately adjacent to the properties along the upper reaches of Monomoy Road provide a large anchorage used by boaters, and the beach access points are used by canoe and kayak enthusiasts to access the wildlife rich Monomoy Creeks, surfcasters, scallopers, birders and those who simply enjoy a relaxing walk on the beach.

Monomoy residents and those who visit the area value the feeling of peace and serenity they find in the neighborhood, with its quiet residential character, open green spaces, the proximity to calm inner harbor beaches and the downtown area, as well as magnificent vistas across the Harbor to Town and Coatue.

Sustainable stewardship of this priceless and irreplaceable environment in Monomoy has never been more pressing or important than it is today. This Monomoy Area Plan seeks to preserve these very qualities through the vision, recommendations and implementation plan presented here.





A view from Monomoy to Town, circa 1950s

Community Engagement

To capture the views of the Monomoy community, the MAP Working Group designed and administered a detailed online survey, followed by an additional effort to reach others by mail. These community responses are the foundation to the MAP, and frame the issues and concerns presented, as well as the recommendations proposed.



Photo: Cindy Jones

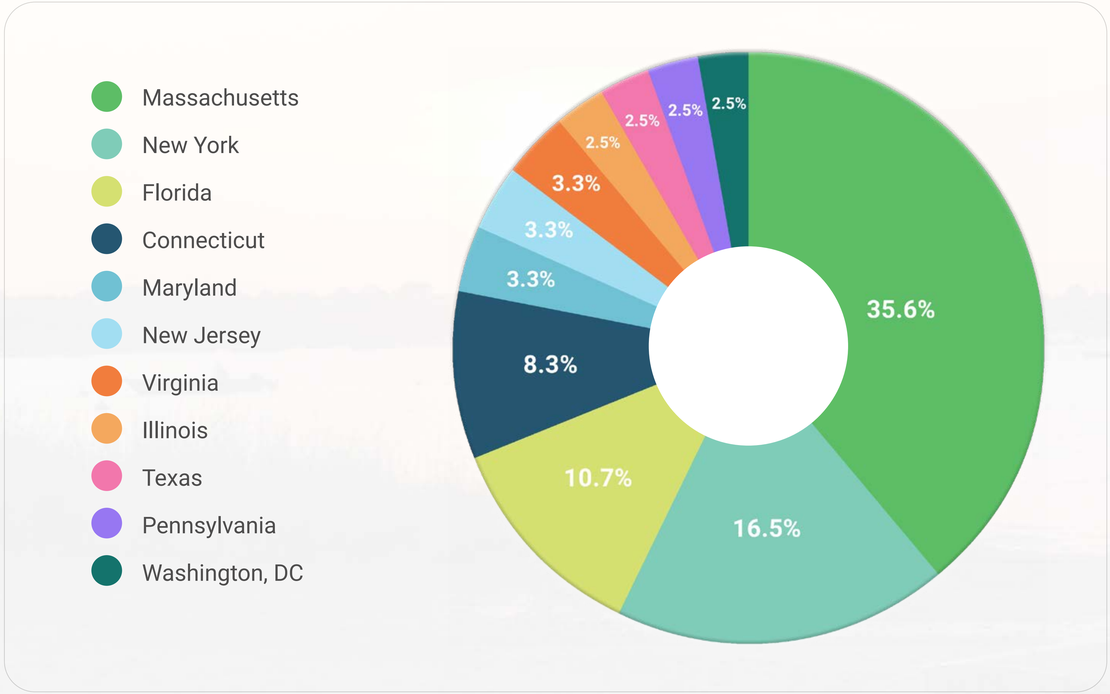
Monomoy, as defined in the boundaries approved by NP&EDC, consists of 131 residential lots belonging to 116 owners/households (less 15 addresses which are owned by households with more than one address).

Using the Monomoy Civic Association email database, the neighborhood survey was sent to 79 households (67% of Monomoy households), with a follow-on effort to mail the survey to the remaining 37 households (33%) where no email address was on file.

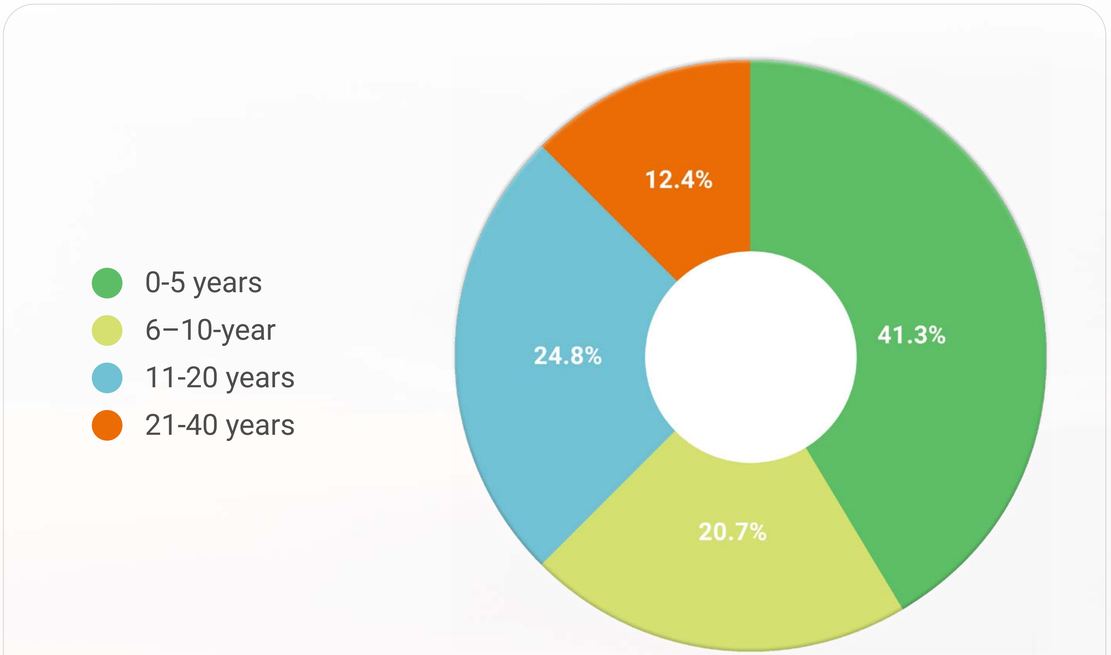
At the close of the survey deadline on 30 April 2022, a total of 143 responses from approximately 64 households were received, constituting a healthy 55.2% completion rate.

Core demographic and community perception results are summarized below, while issue-based responses are presented in their respective element section later in this report.

Basic Demographics[4]



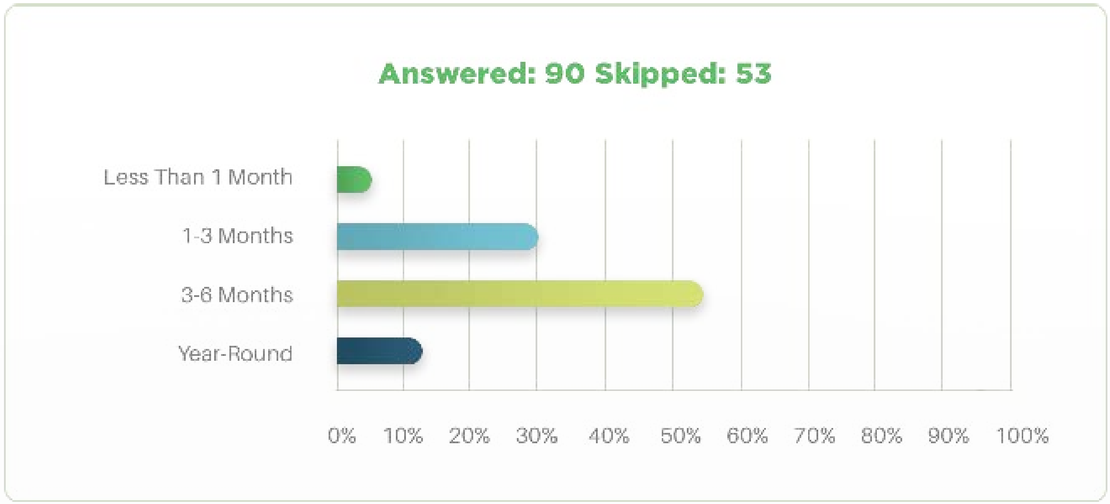
Homeowners in Monomoy are predominately drawn from two primary locales: the state of Massachusetts, including Nantucket (35.6%) and New York (16.5%), followed by Florida (10.7%) and Connecticut (8.3%). The balance of the Monomoy community is drawn from a roster of 16 other states that includes Maryland (3.3%), New Jersey (3.3%), Virginia (3.3%), Illinois (2.5%), Texas (2.5%), Pennsylvania (2.5%) and Washington, DC (2.5%), among others.



The length of homeownership in Monomoy is led by the newcomer bracket of 0-5 years, which comprises 41.3% of all residents (50 in total). The 6–10-year bracket (25 homeowners) dips to 20.7%, the 11-20 year bracket is 24.8% (30 homeowners), and the 21-40 year bracket is 12.4% (15 homeowners). Several homeowners have been in Monomoy for over 60 years, with multigenerational linkages.

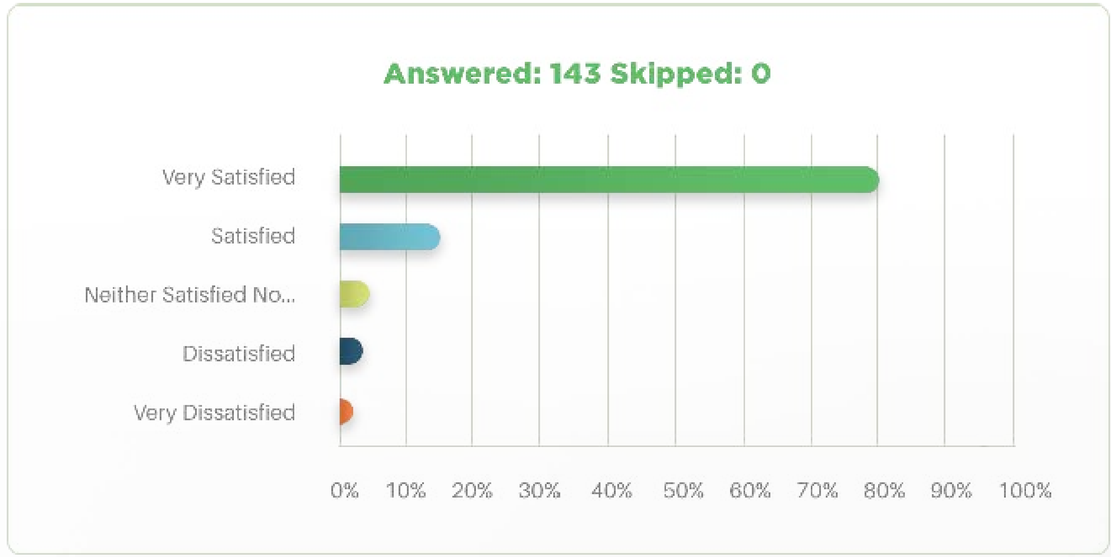
4 This data is drawn from public property records available on the Nantucket Town GIS system, as of February 2022.

Time Spent in Monomoy



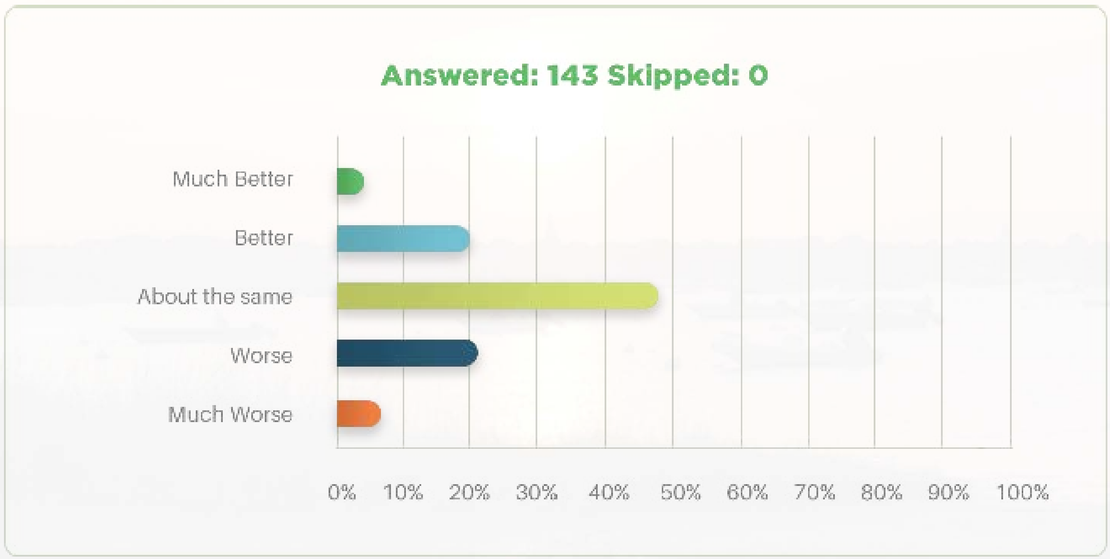
The majority of respondents (53%) report spending 3-6 months in Monomoy, followed by 30% who spend 1-3 months in the neighborhood. 12% of respondents report being year-round residents.

Change Over the Past 5 Years



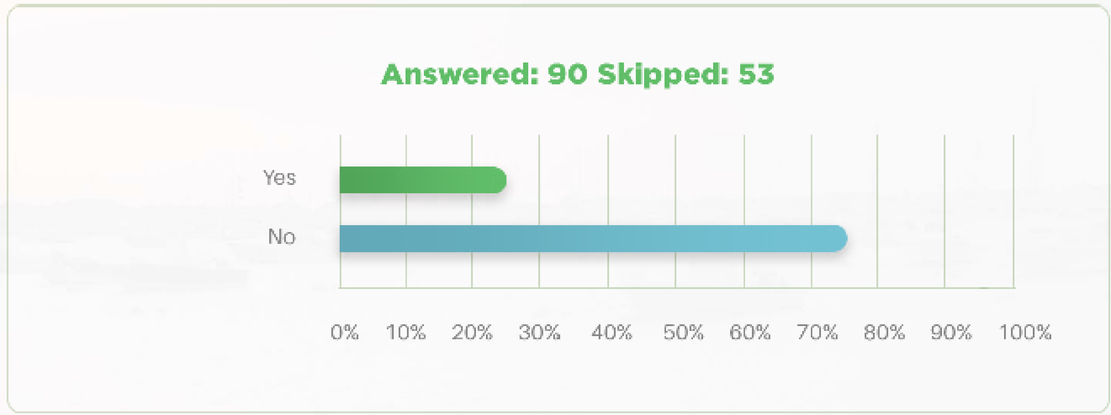
Respondents feel that Monomoy has remained largely the same over the past 5 years (48%), with roughly 25% feeling things have improved, and 27% feeling things are worse.

Satisfaction with Living in Monomoy



Respondents living in Monomoy are either very satisfied (80%) or satisfied (15%), with both groups totaling a 95% satisfaction rate.

Voter Registration



76% of respondents are not registered to vote on Nantucket, while over 24% are registered.



PEACEFUL

happy place
summer fun
snooty
serene
bucolic
soul
friendly
suburban
sophisticated
privacy
key
tranquil
magical
beautiful
amazing
ideal
big home
neighborhood
residential
happiness

One word that describes Monomoy now

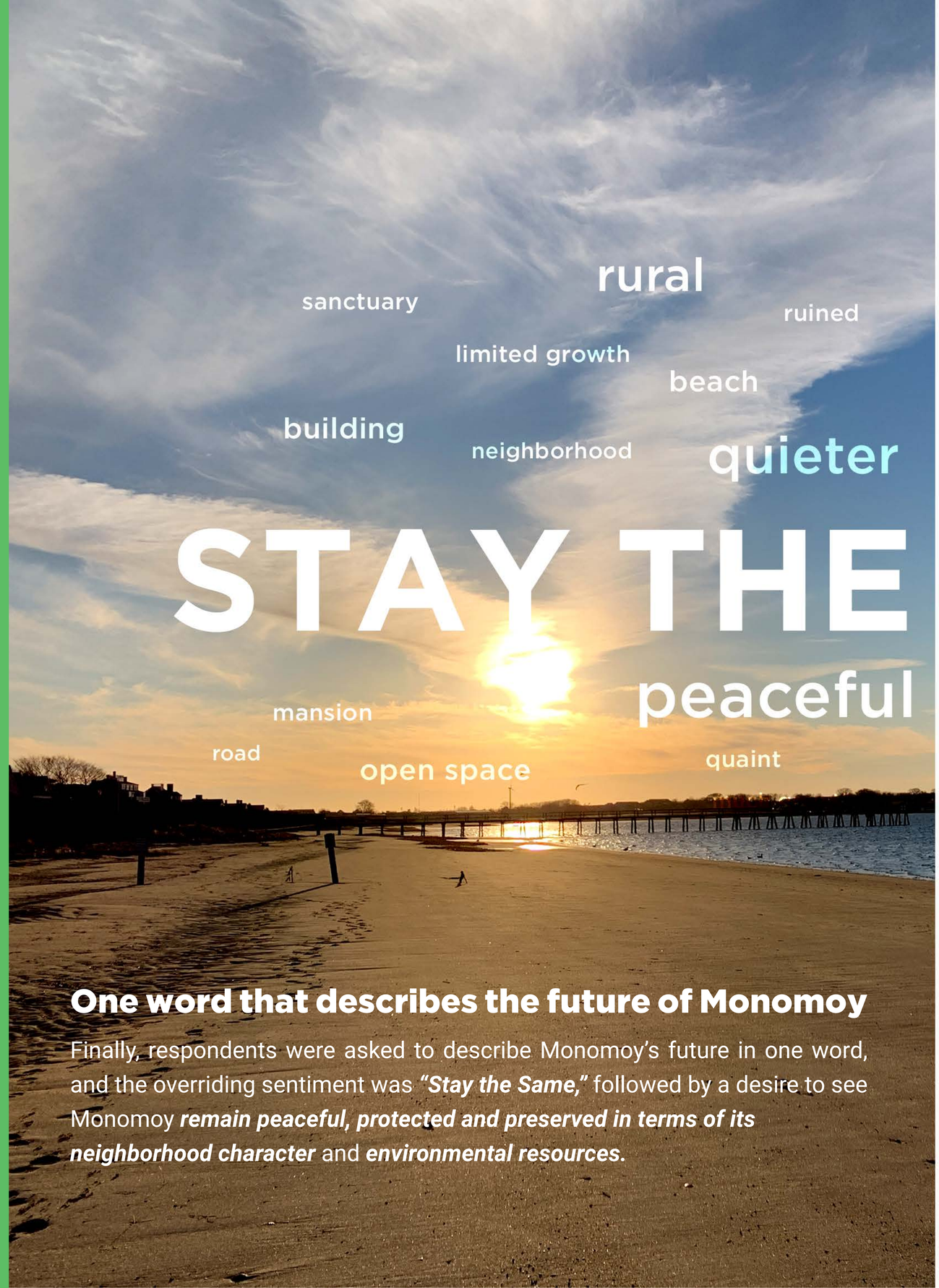
"What one word (or phrase) best describes Monomoy to you?" was posed as a neutral question. Nearly all responses were positive, with the top response being ***"Peaceful."***





One word that captures your top concern in Monomoy

Respondents were also asked to provide one word or phrase that captures a concern they have about Monomoy. The top response was concern regarding ***overdevelopment***, followed by ***traffic and speeding on local roads.***





One word that describes the future of Monomoy

Finally, respondents were asked to describe Monomoy's future in one word, and the overriding sentiment was ***"Stay the Same,"*** followed by a desire to see Monomoy ***remain peaceful, protected and preserved in terms of its neighborhood character*** and ***environmental resources.***

Vision

A data-driven visioning process helped the Monomoy community discover clear ‘points of consensus’ regarding its future vision. This engagement process was designed to provide an open, inclusive and transparent platform for community members to help create a long-term strategy and actionable plan centered around the community’s shared vision.



Our vision for Monomoy is anchored on the following 5 pillars that underpin our shared values and goals to guide future decisions for the island and our community.

1 An Engaged and Proactive Neighborhood Community

According to the community, Monomoy is a unique and beautiful place that is worth protecting. Monomoy is and shall remain a residential community whose residents choose to live in harmony with one another and with nature, creating a human settlement distinguished by its beauty, unique character and sense of identity.

2 Committed to Resilient and Sustainable Pathways

The Monomoy community is committed to supporting both local and island-wide initiatives to address coastal resilience, habitat and wildlife protection, land conservation, energy efficiency and the continual improvement and enhancement of the quality of life on the island for all.

3 A Sanctuary for Protected Wetlands and Wildlife

The community of Monomoy lives in harmony with the Island's wildlife and sensitive natural habitats and aquatic ecosystems and will remain vigilant in the protection and enhancement of the area's unique characteristics. Monomoy will resist pressures to accommodate increased development and redevelopment that are inconsistent with the MAP.







4 Responsible Stewards of the Environment

Monomoy affirms a land ethic that recognizes landholding—both public and private—as a form of stewardship, involving responsibilities to the human and natural communities of the Island and its surroundings, and to future generations. Monomoy chooses to remain unique through a development pattern which reflects the predominance of natural conditions and characteristics over human intrusion.



5 Preserving our low-density, low-impact Residential community character

Monomoy chooses to preserve the low-density residential character of its community amid an island that continues to grow and develop at a rapid pace. Monomoy will explore further how to reduce its density further over time through land conservation practices and address non-conforming land uses that violate zoning and other ordinances.



In this Vision, the goals of the MAP are to preserve the low-density residential character of the neighborhood, protect its rich natural environment, and ensure a sustainable, resilient future for Monomoy.

The MAP Working Group's recommendations, developed in a participatory and inclusive manner, support these goals.

The objectives laid out in the six elements, as specified in the current Town Master Plan, were considered when developing the MAP, along with other publicly-available planning studies, documents, reports and databases.

As an update and in line with current best practice, and in alignment with the ongoing development of the Nantucket Coastal Resilience Plan, the MAP Working Group has added an additional element: Climate Adaptation and Resilience.

Land Use

- The Monomoy Area Plan Boundary
- Zoning
- Residential Development
- Conservation Land
- Monomoy Neighborhood Survey Highlights: Land Use



THE MONOMOY AREA PLAN BOUNDARY

Monomoy comprises about 217 acres as delineated by the Monomoy Area Plan B oundary. Within the boundary, 131 residential lots are owned by approximately 116 homeowners, 2 are used for traditional commercial purposes and 1 is an off-island-owned commercial short-term rental.

The vast majority of lots are zoned LUG-1 (40,000 square feet) with an average size of 1.34 acres. A 13-parcel subset of lots are zoned Village Residential (VR 20,000 square feet) with an average size of 0.43 acres. Also included in the boundary are 7 condominiums at Monomoy Village.



Monomoy Area Plan Boundary Map
Nantucket GIS, October 28, 2021

ZONING

Nantucket enacted the Subdivision Control Law in 1955, expanded the local historic district in 1970, and enacted Zoning in 1972. The entire island is listed as a National Historic Landmark by the National Park Service, and both the downtown core and the 'Sconset' neighborhoods are designated Local Historic Districts regulated by the Historic District Commission.

In 1972, when zoning was passed into law for Nantucket, Monomoy was primarily zoned Limited Use General-1 (LUG-1), which requires a minimum lot size of 40,000 square feet, or approximately 0.92 acres, along with a smaller number of parcels closer to Milestone Road and Polpis Road zoned Village Residential (VR), which requires a minimum lot size of 20,000 square feet, or 0.46 acres.

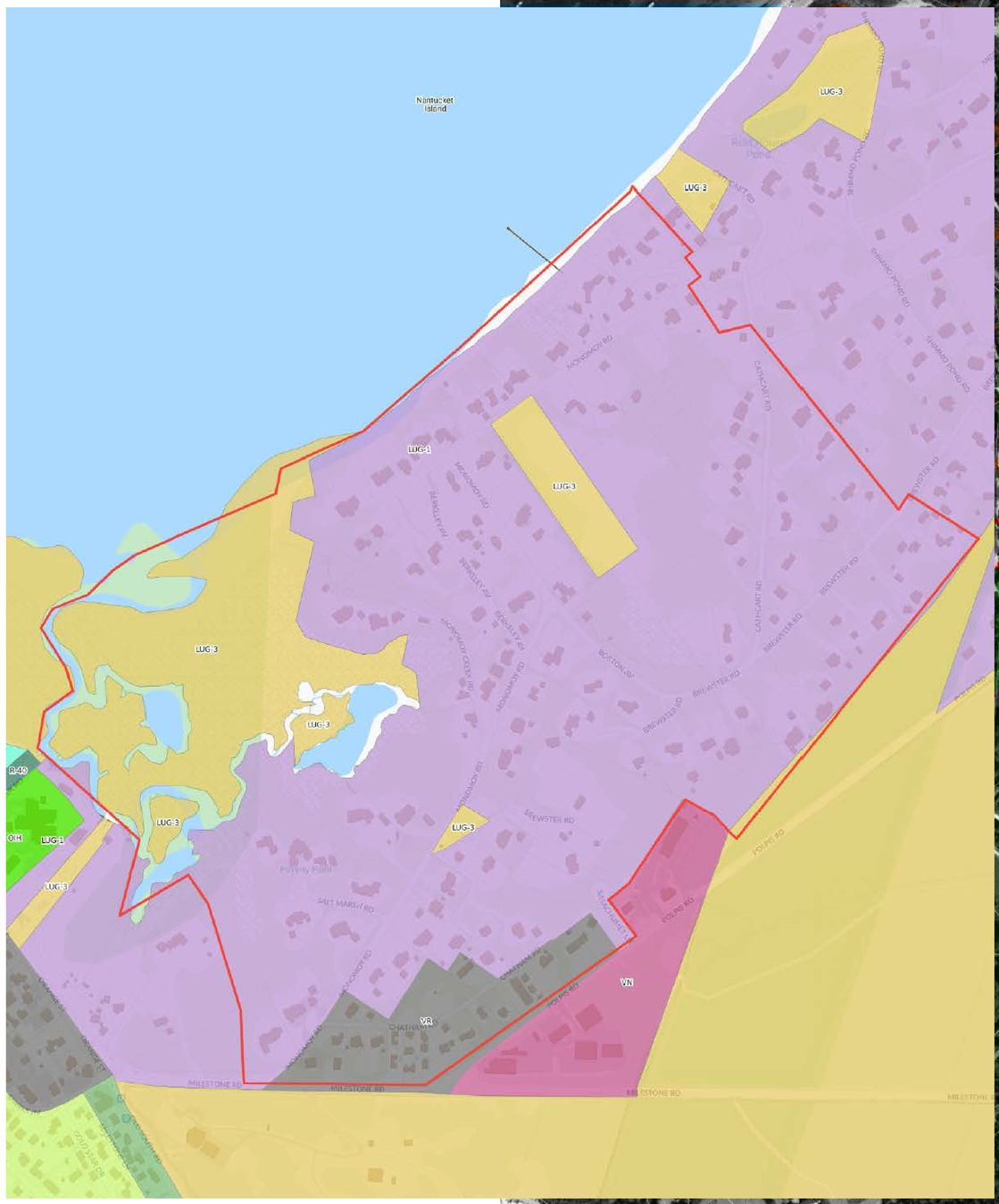
At the time this zoning was implemented, Monomoy had a number of smaller non-conforming lots in the LUG-1 zone, along with other non-conforming VR lots, presumably the result of earlier efforts to subdivide. These lots were "grandfathered" and allowed to remain.

Non-conforming Residential Lots (undersized with respect to LUG-1 and VR zoning)

Some acreage was subdivided before the zoning bylaws were enacted, creating a number of non-conforming lots which do not meet the minimum lot size. These lots are "grandfathered" under Massachusetts General Law with respect to size but must conform to all other zoning requirements. For LUG-1 zoning in Monomoy, 24 lots, or approximately 18%, are non-conforming. For VR zoning, 6 out of 13 lots, or 46%, are non-conforming.

Non-conforming Commercial Uses (operating in a residential zone)

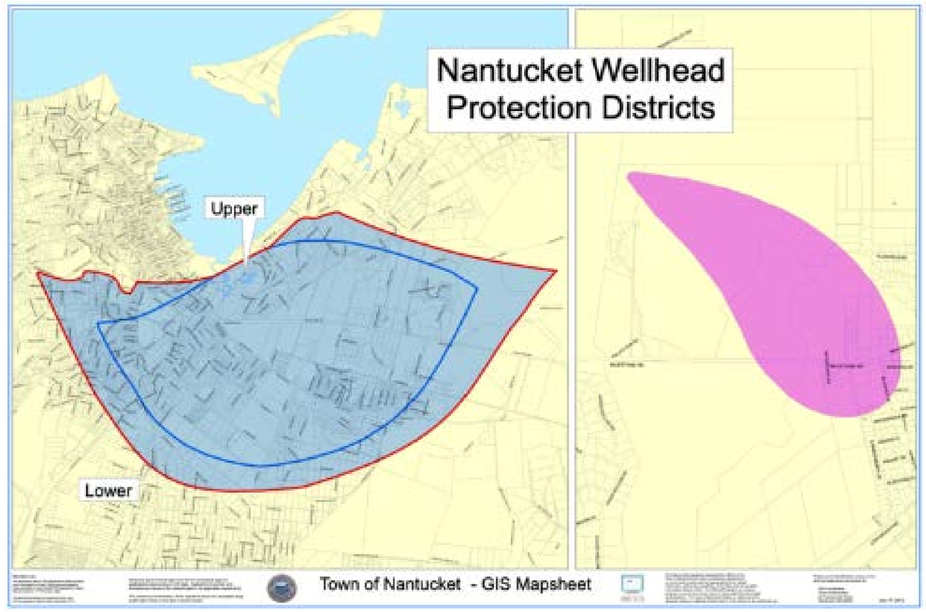
The MAP boundary includes two traditional commercial businesses: Philadelphia-based Comcast/Media One and Nantucket-based Don Allen Inspection and Jeep Sales Center, both of which provide valuable services to the island community. Additionally the Boston-based Copley Group operates a commercial short-term rental property at 32 Monomoy Road.



Monomoy Area Plan - Zoning
Nantucket GIS, December 11, 2021

Public Wellhead Recharge District

Monomoy sits within the Town's The Public Wellhead Recharge District overlay. Regulations surrounding the types of land use within the wellhead zone are designed to preserve the quality and quantity of the Town's groundwater resources to ensure a safe and healthy public water supply.



RESIDENTIAL DEVELOPMENT

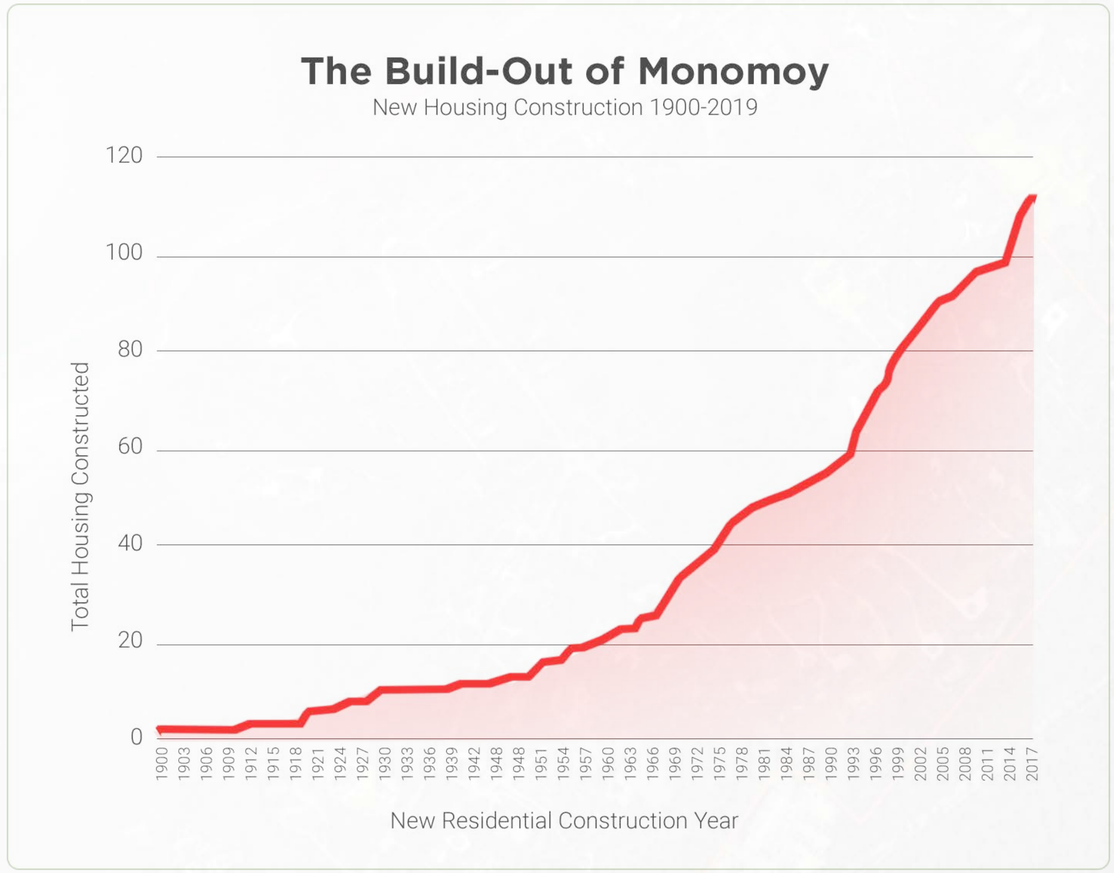
While the written record of Monomoy dates to 1678, the earliest home still standing in Monomoy was built in 1900. Monomoy has a number of historic homes built in the first half of the 1900s, and 46 structures located along Monomoy Road and Berkeley Avenue are deemed historically significant architectural structures registered and listed on the Massachusetts Cultural Resources Inventory System of the Massachusetts Historical Commission.[5]

The housing stock in Monomoy ranges from modest vacation cottages nestled along Milestone Road to grand oceanfront summer homes that enjoy views of the Harbor and Town. Between a range of 1 to 11 bedrooms, approximately 49% are 4-5 bedroom family homes, with the overall average being 4 bedrooms. Approximately 41% of the developed residential properties have secondary dwelling units, the majority being garages that provide additional living space or guest cottages.

5 Please see Appendix X for a detailed inventory of these historic cultural resources.

The total assessed value of these residential properties is $768.5 million on which real property taxes of about $2.8 million are collected annually.

From 1900, residential development within Monomoy up into the 1980s moved at a leisurely pace, after which development accelerated. Modest ranch homes were overtaken by much larger developments, often with second and third outbuildings utilized as cottages and garage guesthouses.



Today, Monomoy is near maximum build-out.

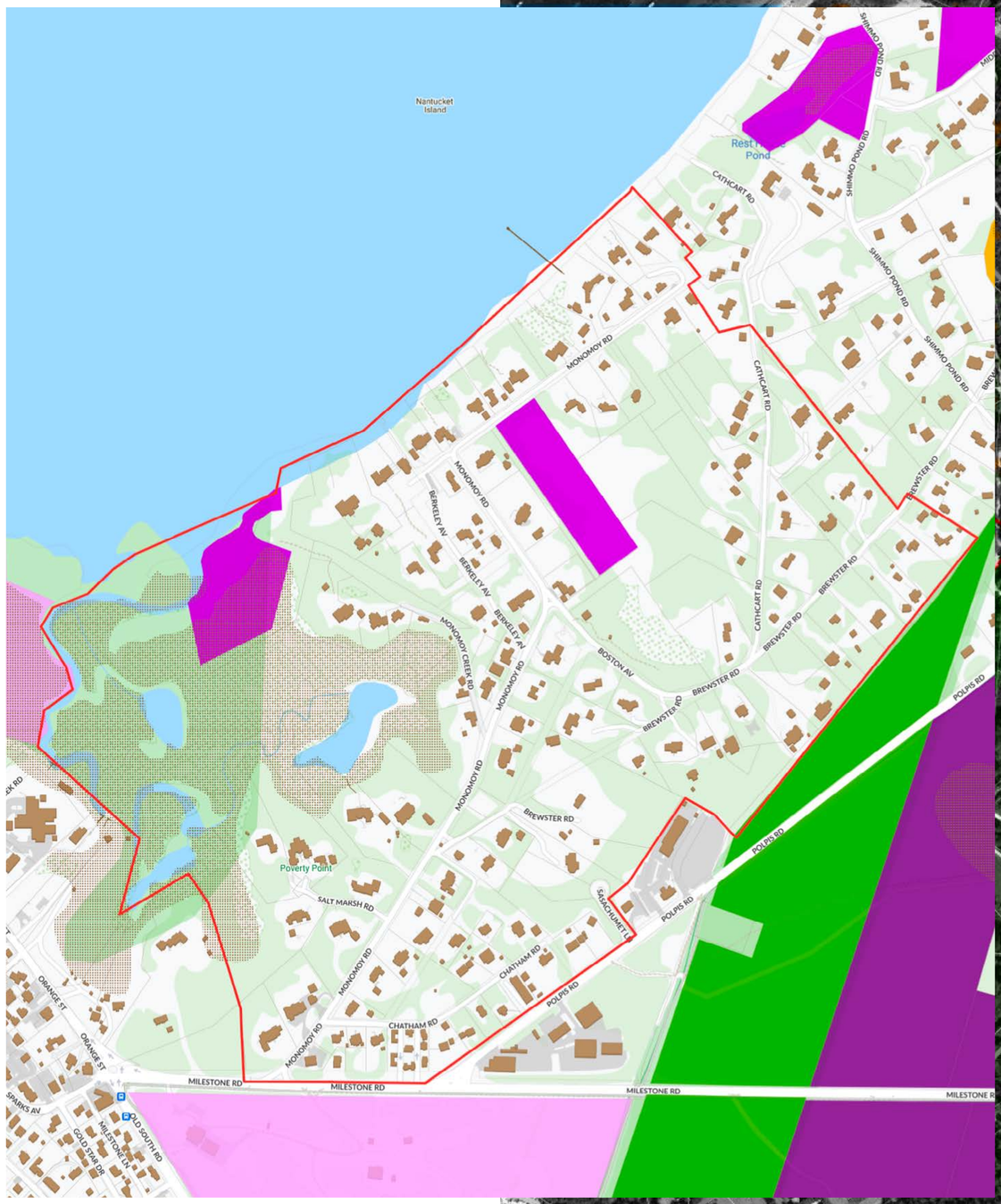
The most serious densification issue facing our community is not the build out of the small number of remaining vacant lots, but rather incremental redevelopment and expansion of existing homes. This is now seen frequently: existing smaller homes, some historic in character, are demolished and replaced with much larger homes that utilize existing zoning laws to fully maximize ground coverage and add secondary and tertiary structures.

CONSERVATION LAND

Conserved open space in Monomoy is made up of 6 parcels, owned by Nantucket Conservation Foundation (NCF), Land Bank and the Town, comprising 31 acres, or 14.2% of the total area. These land parcels have an assessed value of $21,046,000.[6]

Four of the conservation parcels are related to The Creeks, a fragile salt marsh ecosystem that provides extensive benefits to the island's wildlife and natural environment. Two of the open space parcels under conservation are within the built-up area of Monomoy. A large 4.39-acre rectangular parcel at 49 Monomoy Road under the management of NCF and a smaller triangular sliver of land at 21 Monomoy Road, contiguous to the South Monomoy Sewer Pump Station, owned by Land Bank.





Monomoy Area Plan - Conservation Land
Nantucket GIS, December 11, 2021

6 The Land Bank's recent purchase of an additional property on Cathcart Road is not included in these figures.

The NCF property was a generous gift made in the 1960s by Boston-based attorney and conservationist John L. Lyman, a long-time summer resident and founder of NCF, in support of their mission to assist in the preservation of Nantucket's character by permanently conserving, maintaining, and managing natural areas and habitats and to encourage an appreciation of the Island's natural resources.

The NCF property is precious open space dominated by vegetated wetlands comprised of shrub swamp and shallow marsh. Proximate to the nearby Creeks, this natural habitat provides sanctuary to an abundance of wildlife, including deer that can be seen on the streets and in yards during the low season once the tempo of human activity recedes.

While a biodiversity inventory has not yet been undertaken for these protected wetlands, numerous species of birds can be seen flying and nesting in the area, with migratory species finding refuge in the area.





MONOMOY NEIGHBORHOOD SURVEY HIGHLIGHTS: LAND USE

1. Top Three Concerns

A majority of respondents are either extremely or very concerned about these three issues related to Land Use and Zoning:

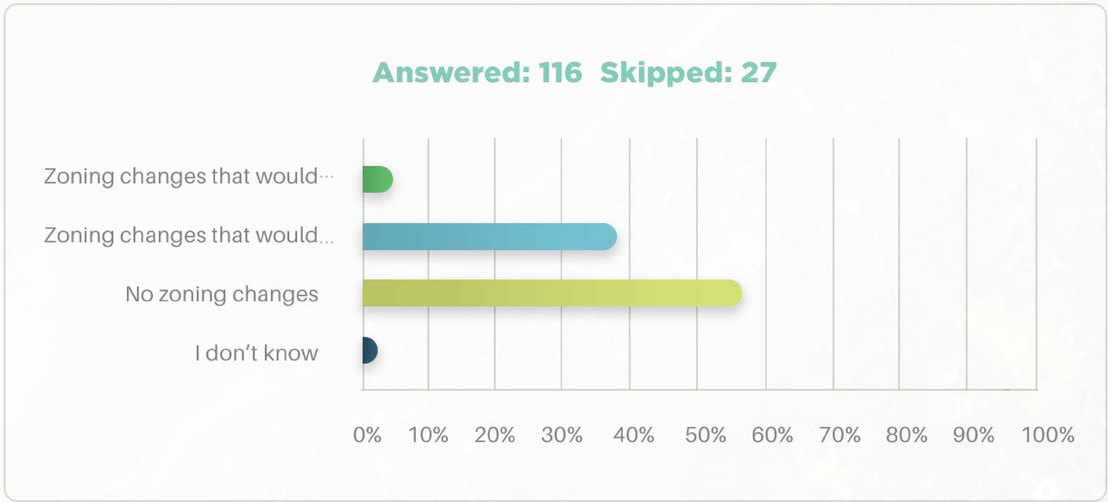
1. **Preserving open space: 78% (91 respondents)**
2. **The presence of purely commercial short-term rentals: 67% (78 respondents)**
3. **The presence or commercial businesses: 59% (68 respondents)**

And then in the sentence below this, change the % and respondent numbers for 'development and new construction" to "(56%, 66 respondents)" and for "noise due to traffic, construction and landscaping," change to "(53%, 61 respondents).

	EXTREMELY CONCERNED	VERY CONCERNED	SOMEWHAT CONCERNED	NOT VERY CONCERNED	NOT AT ALL CONCERNED	TOTAL	WEIGHTED AVERAGE
Development & new construction	32.76% 38	24.14% 28	24.14% 28	13.79% 16	5.17% 6	116	2.34
Preserving open spaces	48.28% 56	30.17% 35	12.07% 14	6.00% 7	3.45% 4	116	1.86
Preserving the ability for homeowners to rent on a short-term basis	24.14% 28	12.07% 14	24.14% 28	23.28% 27	16.38% 19	116	2.96
The presence of commercial short-term rental properties	43.10% 50	24.14% 28	11.21% 13	12.90% 15	8.62% 10	116	2.20
The presence of commercial businesses	41.38% 48	17.24% 20	16.38% 19	16.38% 19	8.62% 10	116	2.34
Noise due to homeowners, guests, renters	23.28% 27	23.28% 27	27.59% 32	19.83% 23	6.03% 7	116	2.62
Noise due to traffic, construction, landscaping etc.	23.28% 27	29.31% 34	30.17% 35	11.21% 13	6.03% 7	116	2.47

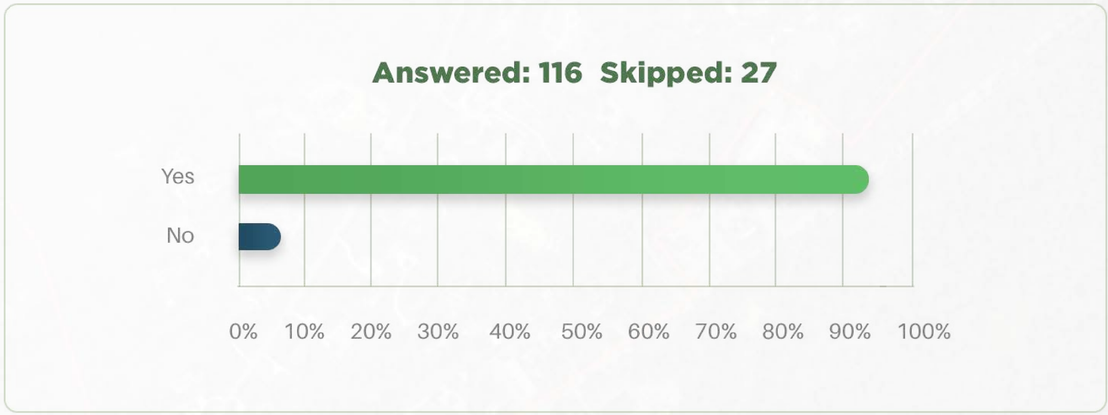
Answered: 116 Skipped: 27

2. Zoning and Density



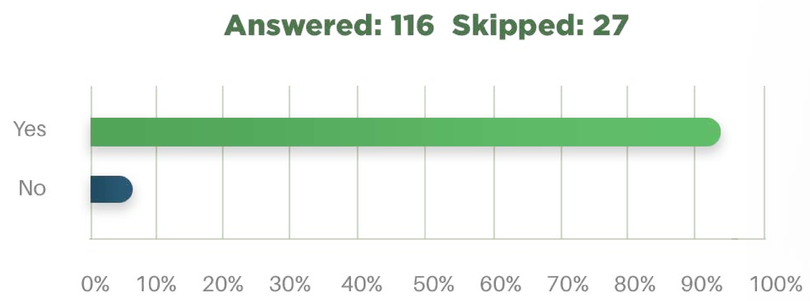
On the question of potential zoning changes to allow for greater or less density, 56% (65 respondents) are in favor of no zoning changes, while 37% (43 respondents) are in favor of changes that would allow lower density building. On balance, 93% (108 respondents) oppose any changes that would enable higher density in Monomoy.

3. Zoning and Residential-only Status



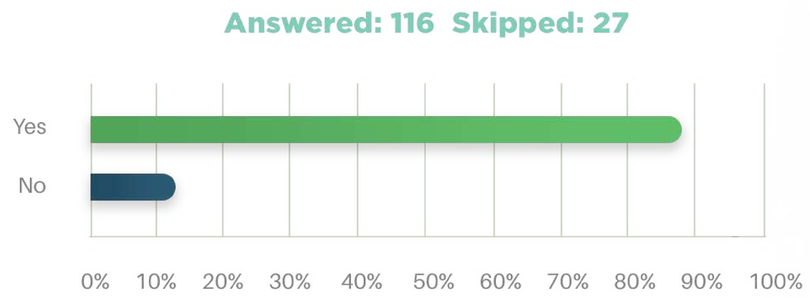
Respondents are strongly of the view (94%, 109 respondents) that Monomoy must retain its residential-only zoning and ensure new commercial businesses do not enter the community.

4. Conservation and Habitat Preservation



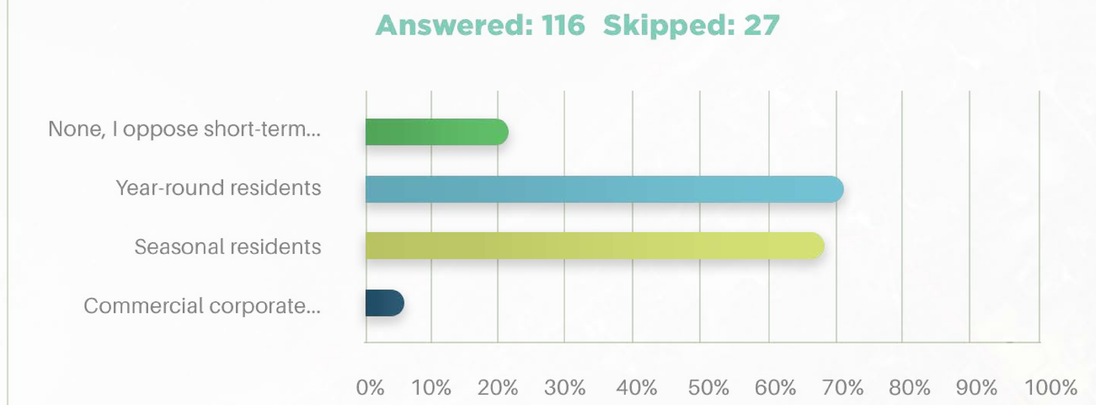
94% (109 respondents) would like our community to work with the Town and local conservation groups to explore opportunities for conservation and habitat preservation (such as identifying land for possible acquisition).

5. Non-conforming Land Uses



As part of the community's long-term vision, residents stated that if any of the traditional non-conforming commercial businesses ever decided to voluntarily vacate their property, 87% (101 respondents) would like to see such land protected through conservation. This would address concerns that these properties are located in the public watershed for the island's sole-source aquifer and help forestall the introduction of any new commercial land uses in Monomoy.

6. Short-term Rentals



Almost 71% of respondents feel that both year-round and seasonal residents should be able to rent their Monomoy homes.

Nearly 95% of respondents oppose purely commercial short-term rentals in our Monomoy community. In defining "commercial" no distinction was made between individuals or business entities; seasonal or year-round residents. In short, a property being used solely for commercial short-term rental purposes should not be allowed in the Monomoy neighborhood.

ANSWER CHOICES	RESPONSES	
None, I oppose short-term rentals in Monomoy	21.55%	25
Year-round residents	70.69%	82
Seasonal residents	68.10%	79
Commercial corporate investment groups	5.17%	6
Total Respondents: 116		

RECOMMENDATIONS - LAND USE

1 Preserve and protect the exclusively residential character of Monomoy

Monomoy residents are keenly aware that the land area has nearly reached its full build-out, and the rate of growth experienced over recent years can no longer be sustained. Concerns are clear over increasing density, overdevelopment and maximization of land parcels.

Monomoy residents overwhelmingly endorse the view that Monomoy must retain its low-density and exclusively residential character. Monomoy does not want any portion of the community designated part of the Town Overlay District and does not want any properties that are part of the Country Overlay District rezoned to allow for more density.

2 Explore opportunities to preserve and expand conservation land within Monomoy

The community strongly supports the protection and expansion of open space in Monomoy. To that end, the community, Town and non-profit conservation organizations should explore parcels of land for possible acquisition in the future for the purposes of conservation and habitat protection in the neighborhood.

3 Resolve non-conforming commercial uses, if and when opportunities arise to do so

Non-conforming businesses should not be within the Monomoy neighborhood, which is exclusively zoned as residential. Further, the Monomoy community acknowledges and recognizes the importance of our land use practices as they relate to long-term protection of the Public Wellhead Protection District and our public water supply. At the same time, grandfathered traditional commercial uses provide valuable services to residents, both in Monomoy and island wide.

If any opportunities were to arise in the future, the community might explore with the Town and commercial property owners the scope for creative solutions that might include donation, acquisition, land swaps, or other arrangements, undertaken in a mutually beneficial, win-win manner that improves Monomoy, protects the environment and achieves residential zoning conformance.

4 Oppose purely commercial short-term rentals

Monomoy supports the ability of year-round and seasonal residents to rent their homes, however opposes the permitting of properties to be owned and operated solely for short-term rental purposes.



Natural & Cultural Resources

Monomoy enjoys an abundance of wildlife, a variety of wetland features, upland habitats, and important vegetation communities. These natural and cultural resources establish a sense of place that is of the utmost importance to the residents who serve as their stewards. It is a precious and irreplaceable environment that the Monomoy community is committed to defend and protect.

Photo: Neil Foley

THE CREEKS

The Creeks at Monomoy are protected wetlands and wildlife habitat that is owned and managed by a mosaic of entities consisting of the Nantucket Land Bank (19.11 acres), Town (18.03 acres) and the Nantucket Conservation Foundation (5.80 acres). This network of salt marshes is one of the most productive ecosystems on Earth.

Each day incoming tides deliver a wash of fresh nutrients and tiny marine organisms to feed the unique plants and animals inhabiting The Creeks, a salt marsh that serves as a buffer against coastal erosion.

The greatest threat posed to The Creeks, being bordered by residences both in Monomoy and on commercial properties closer to Town, include human-generated noise and harmful runoff from impervious surfaces, fertilized lawns and gardens.

The Creeks are also home to vulnerable populations of globally rare Saltmarsh Sparrows, which is currently under review by the US Fish and Wildlife Service for protection under the Endangered Species Act. Other Species of Greatest Conservation Need (SGCN) found at The Creeks in Monomoy include Willets, American Black Ducks, Egrets and Virginia Rails.





PROTECTED WETLANDS WITHIN MONOMOY

The Monomoy neighborhood is comprised of other vulnerable natural features that require our sensitivity and awareness to protect.

The Creeks and a majority of Monomoy's shoreline along the inner harbor present a mix of sensitive wetland features that include land under the ocean, land containing shellfish, coastal beach, coastal dunes, barrier beach systems, salt marsh, coastal banks, and shrub swamp. Vegetated wetlands can also be found among the undeveloped upland habitat and residences of Monomoy. These features are all protected under both state and local Wetland Protection Regulations.

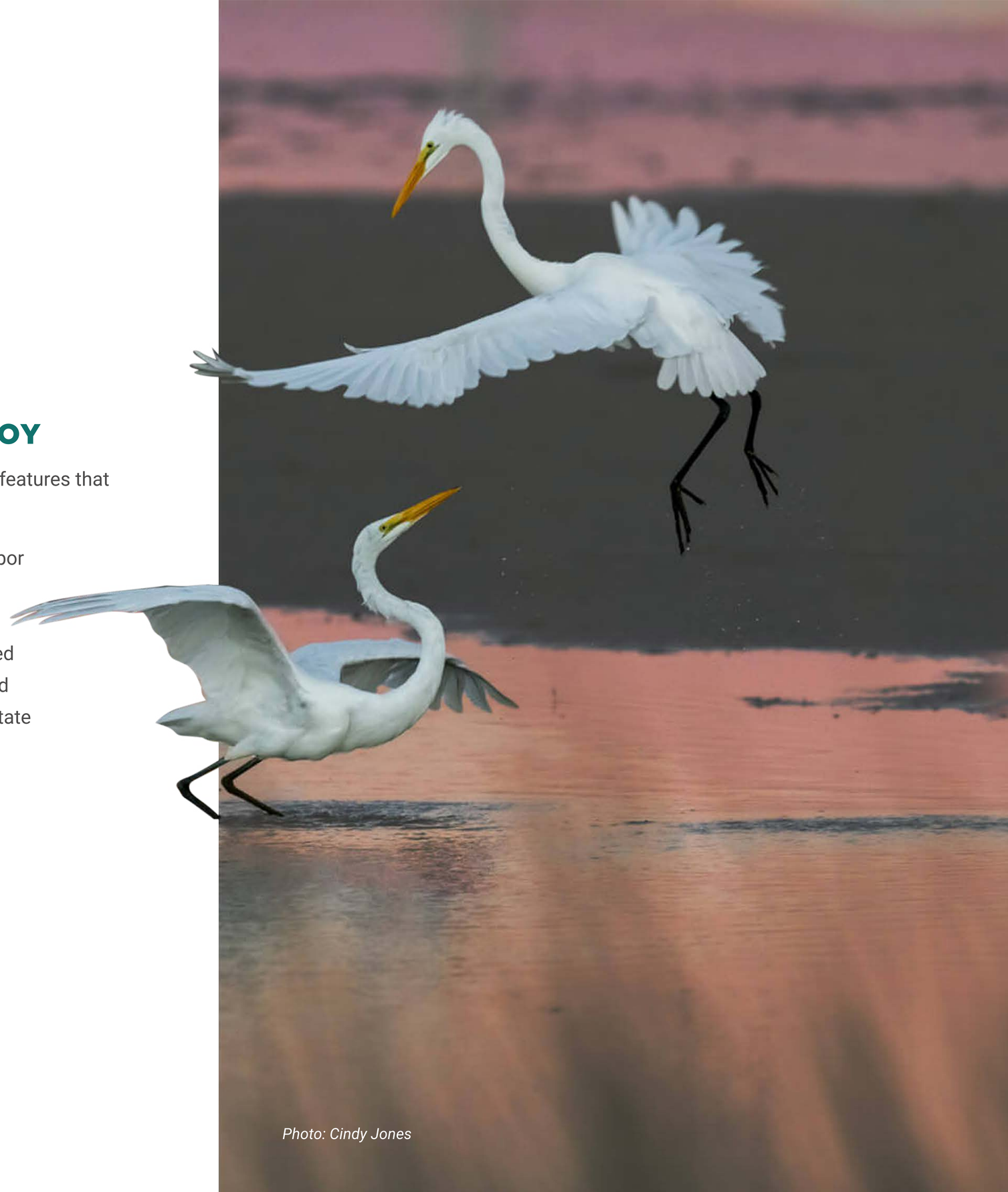
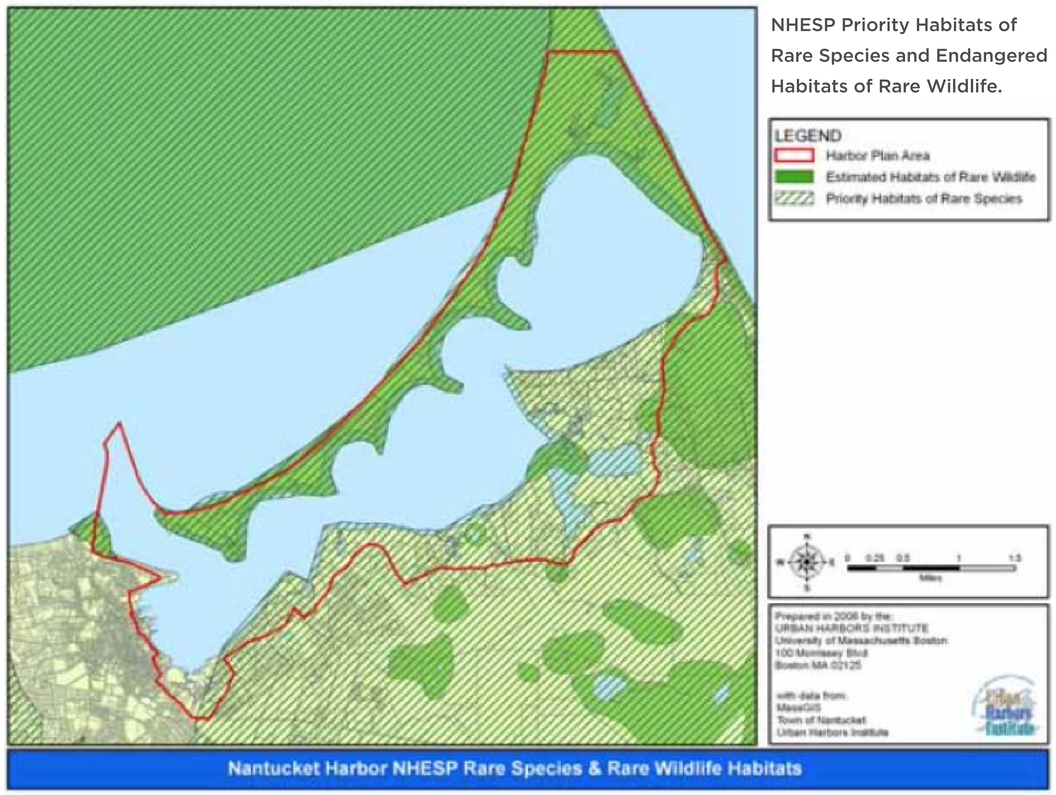


Photo: Cindy Jones

PRIORITY HABITAT FOR STATE LISTED RARE SPECIES

All land under the Monomoy Area Plan falls under the Natural Heritage Endangered Species Program's (NHESP) Priority Habitats of Rare Species and Endangered Habitats of Rare Wildlife.

The Massachusetts Division of Fisheries and Wildlife maintains a regularly-updated list of Endangered, Threatened and Special Concern species protected under the Massachusetts Endangered Species Act, and Monomoy is mapped due to confirmed habitat for some of these rare species.



NHESP Priority Habitats of Rare Species and Endangered Habitats of Rare Wildlife.

Nantucket Harbor NHESP Rare Species & Rare Wildlife Habitats

Portions of Monomoy are also mapped under the state's BioMap2 Program which serves as framework for the protection and stewardship of those areas prioritized as the most important for conserving biological diversity in the state of Massachusetts. Within the Monomoy Area are designated areas of: Core Habitat (including for Species of Conservation Concern), and Critical Natural Landscape (including for Coastal Adaptation and Tern Foraging).

To determine the extent of endangered flora and fauna within Monomoy, a full biological field study and assessment is required.



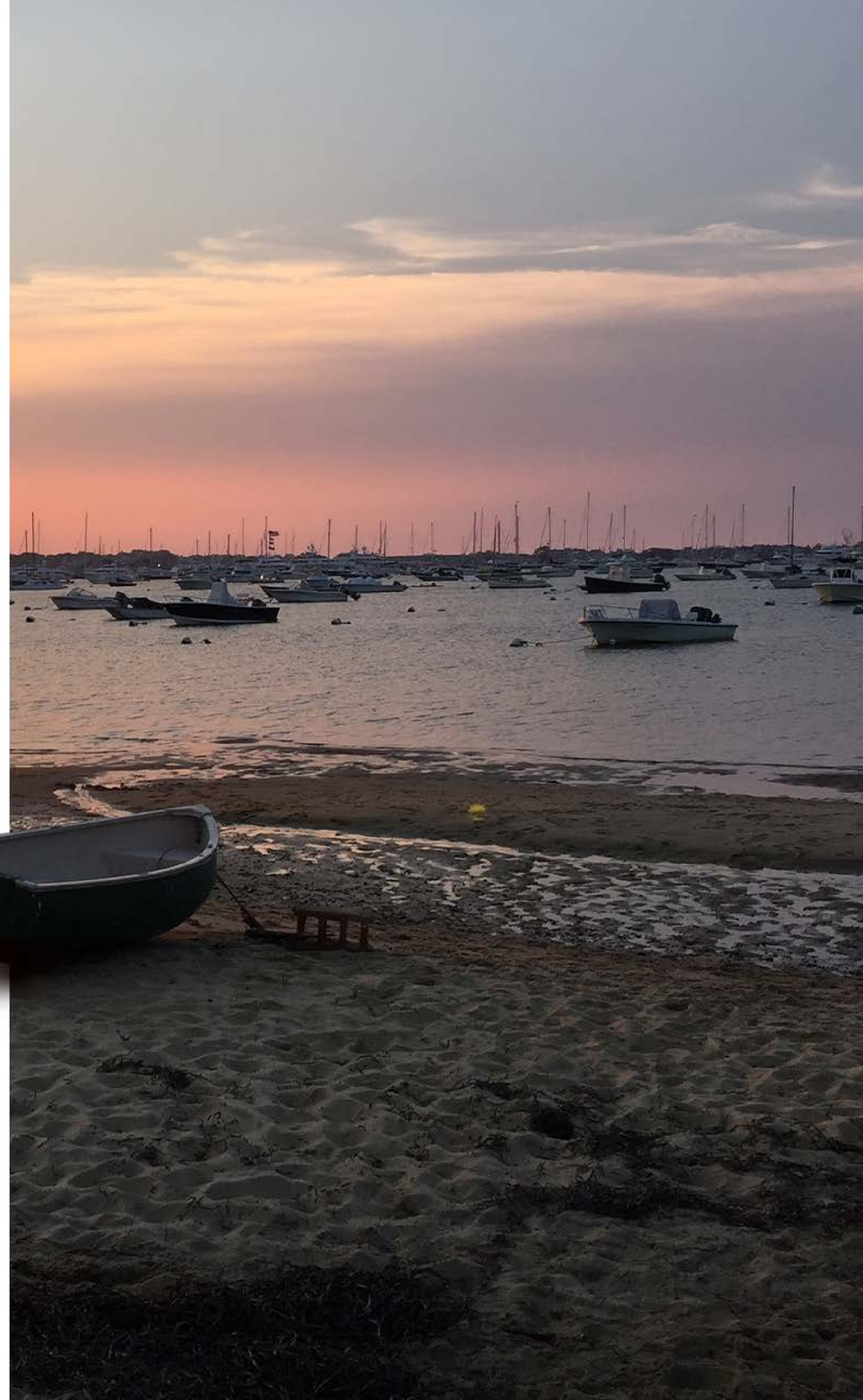
THE HARBOR

The sheltered environment and natural resources of Nantucket Harbor provides important habitat for many different fish and shellfish species. Recognizing the region's importance in this regard, the National Marine Fisheries Service has designated areas in and around Nantucket Harbor as essential fish habitat (EFH) for federally managed species.

One of the greatest threats to our Harbor resources is water quality. The primary concern is excessive nutrient concentrations, which can lead to algae blooms, reduction in photic depth, reduction in oxygen, influx of invasive aquatic plant species, and a reduction in eelgrass coverage.[7] The management and fate of stormwater, wastewater and fertilizer on the island greatly affect water quality by contributing contaminants and nutrients to the Harbor watershed. Areas such as The Creeks are especially susceptible to environmental impacts due to their natural resource value and fragility.

As a live plant, eelgrass provides a sheltered habitat for many organisms, including the bay scallop which attaches itself to the eelgrass leaves. Eelgrass also stabilizes sediment in the Harbor, helps to improve water clarity, and acts as an important carbon sink. The loss of eelgrass that Nantucket Harbor has seen in its eelgrass beds over the last decade is likely due to nutrient loading, or eutrophication.

Continued rapid growth on the island is seen to contribute to a declining water quality: Increased development, significantly additional moorings, increased use of fertilizers from lawns, and more vehicles and boats all generate pollution.



7 Nantucket & Madaket Harbors Action Plan, Town of Nantucket, May 2009.

SURFACE RUNOFF AND EROSION

Nantucket's soil structure is porous and loose, with only a thin layer of topsoil. Because of the relatively flat terrain of the island, only about 2 percent of annual precipitation becomes surface runoff. The rest runs quickly through our highly permeable soils down to the groundwater and aquifer, and into the various bodies of surface water around Monomoy, including The Creeks and Harbor.

Beneath the topsoil are varying layers of sand, gravel and clay, held tenuously in place by the roots of trees and other plants, which prevent erosion caused by rain, wind and waves.

Our natural, native vegetation in Monomoy is our best defense against rain runoff and coastal erosion. As more land is cleared for new buildings and hardscape, however, more rainwater is carried as run-off straight into the Harbor and The Creeks. These new impermeable surfaces prevent the natural percolation of water down into the ground.

Many native trees, shrubs, grasses and wildflowers growing in Monomoy play a key role in holding our island together and at the same time filtering out harmful pollutants. The Creeks serve as Nature's sponge, mopping up excess runoff flowing toward the Harbor, and cleansing it of its toxins, while serving as a buffer to storm surges and waves. Protection of these natural habitats is crucial to good environmental health in Monomoy.



DARK SKIES INITIATIVE

The dark skies movement is a campaign to reduce light pollution. The advantages of reducing light pollution include an increased number of stars visible at night, reducing the effects of electric lighting on the environment, improving the well-being, health and safety of both people and wildlife, and cutting down on energy usage.

Like all Monomoy's natural resources, the dark night skies of this piece of island paradise must be conserved and protected. The dark-sky movement encourages the use of full-cutoff fixtures that cast little or no light upward in public areas and generally to encourage communities to adopt lighting regulations.



Light Pollution on Nantucket, as seen from Space, 2021

MONOMOY'S HISTORIC ARCHITECTURAL HERITAGE

Monomoy has a rich architectural history, and 46 of its homes and out-buildings, some of which date to 1900, are registered and listed as significant historical assets by the Massachusetts Historical Commission. Many other historic structures can be found in Monomoy, which are not yet listed or registered. The MHC's Massachusetts Cultural Resource Information System has these structures listed as historically and architecturally significant, with the aim to protect this heritage for future generations. Many of these structures, however, have been significantly altered over time through redevelopment and expansion, as approved by the Historic District Commission (HDC). See Appendix IV for details.





MONOMOY NEIGHBORHOOD SURVEY HIGHLIGHTS: NATURAL AND CULTURAL RESOURCES

1. Top Three Concerns

A majority of respondents are either extremely or very concerned about these three top issues related to Natural & Coastal Resources:

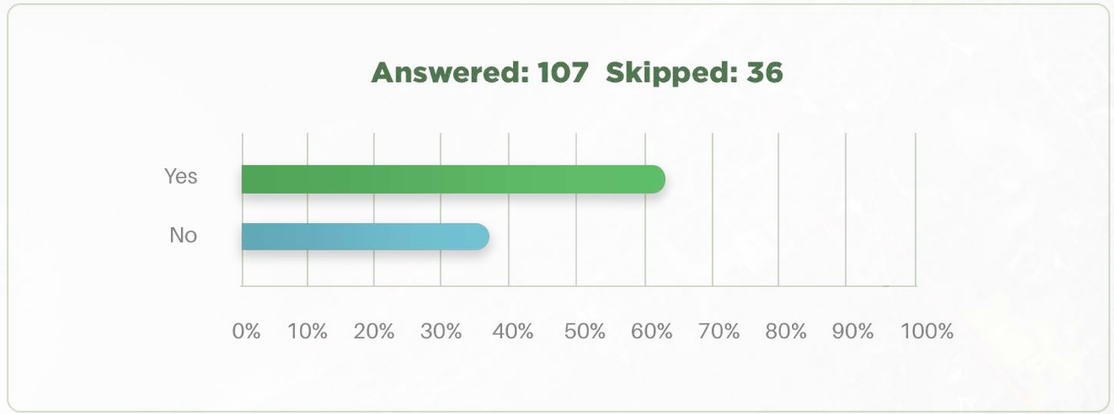
1. **Water quality in the Harbor: 78% (91 respondents)**
2. **Environmental impacts of fertilizer: 67% (71 respondents)**
3. **Invasive plant species: 58% (68 respondents)**

Following closely thereafter are similar concerns regarding the protection endangered species in The Creeks (47%, 54 respondents), and eelgrass health and restoration (6% (42 respondents).

	EXTREMELY CONCERNED	VERY CONCERNED	SOMEWHAT CONCERNED	NOT VERY CONCERNED	NOT AT ALL CONCERNED	TOTAL
Sea level rise & coastal erosion	32.76% 38	24.14% 28	24.14% 28	13.79% 16	5.17% 6	116
Water Quality in the harbor	48.28% 56	30.17% 35	12.07% 14	6.00% 7	3.45% 4	116
Eel grass health & restoration	24.14% 28	12.07% 14	24.14% 28	23.28% 27	16.38% 19	116
Environmental impacts of fertilizer	43.10% 50	24.14% 28	11.21% 13	12.90% 15	8.62% 10	116
Invasive plant species	41.38% 48	17.24% 20	16.38% 19	16.38% 19	8.62% 10	116
Protecting endagngered species in the Creeks	23.28% 27	23.28% 27	27.59% 32	19.83% 23	6.03% 7	116
Light Pollution	23.28% 27	29.31% 34	30.17% 35	11.21% 13	6.03% 7	116

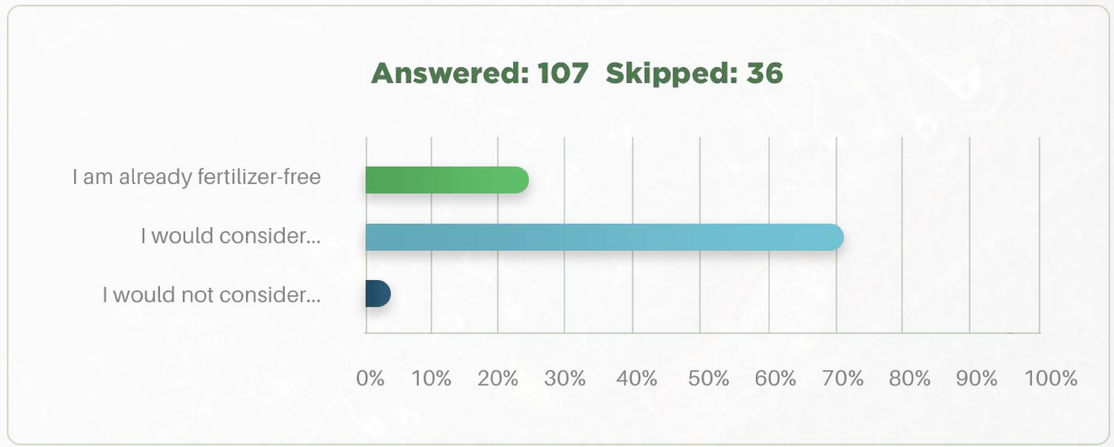
Answered: 107 Skipped: 36

2. Cataloging Endangered Species



Given the lack of data available, 63% of respondents are in support of a full biological field study to study and assess the extent of endangered flora and fauna in Monomoy, and particularly The Creeks.

3. Reducing Fertilizer Use



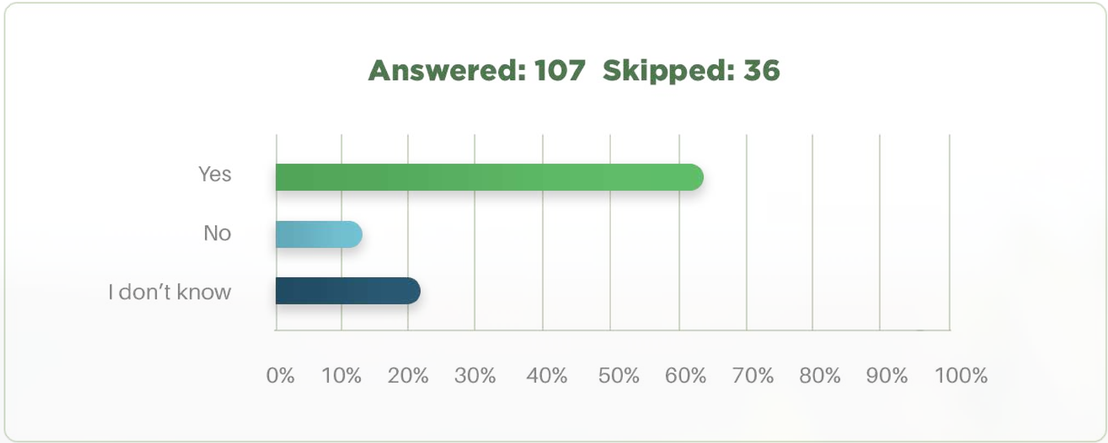
Monomoy residents are particularly concerned with water quality in the Harbor, eelgrass health and restoration, and the environmental impacts of fertilizer. Based on the survey results, 25% of respondents are already fertilizer free, while 75% would consider eliminating or reducing fertilizer use (and which may be mandated by the Town in the near future, if a recent home rule petition is approved by the State of Massachusetts).

4. Preventing Runoff and Erosion

ANSWER CHOICES	RESPONSES	
None of the above	9.35%	10
Decreasing lawn size in favor of natural landscape	32.71%	35
Decreasing asphalt/concrete in favor of natural landscape	42.99%	46
Planting more native species	71.96%	77
Removing invasive species	65.42%	70
Adding butterfly and bee-friendly species	58.88%	63
Installing vegetative swales, berms and basin to collect run-off	23.36%	25
Planting vegetative buffers adjacent to wetlands and other coastal resource areas	38.32%	41
Surrounding new construction with hay-bales and slit-fencing	36.45%	39
Total Respondents: 107		

The vast majority of respondents (91%) are in favor of taking measures to prevent runoff and erosion, primarily through an increase in native vegetation and a decrease in non-native species, lawn sizes, and concrete/asphalt coverage.

5. Supporting the Dark Skies Movement



64% of survey respondents support the Dark Skies initiative, while 22% don't know enough to have a view, which suggests a need for greater education and advocacy.

RECOMMENDATIONS
NATURAL & CULTURAL RESOURCES

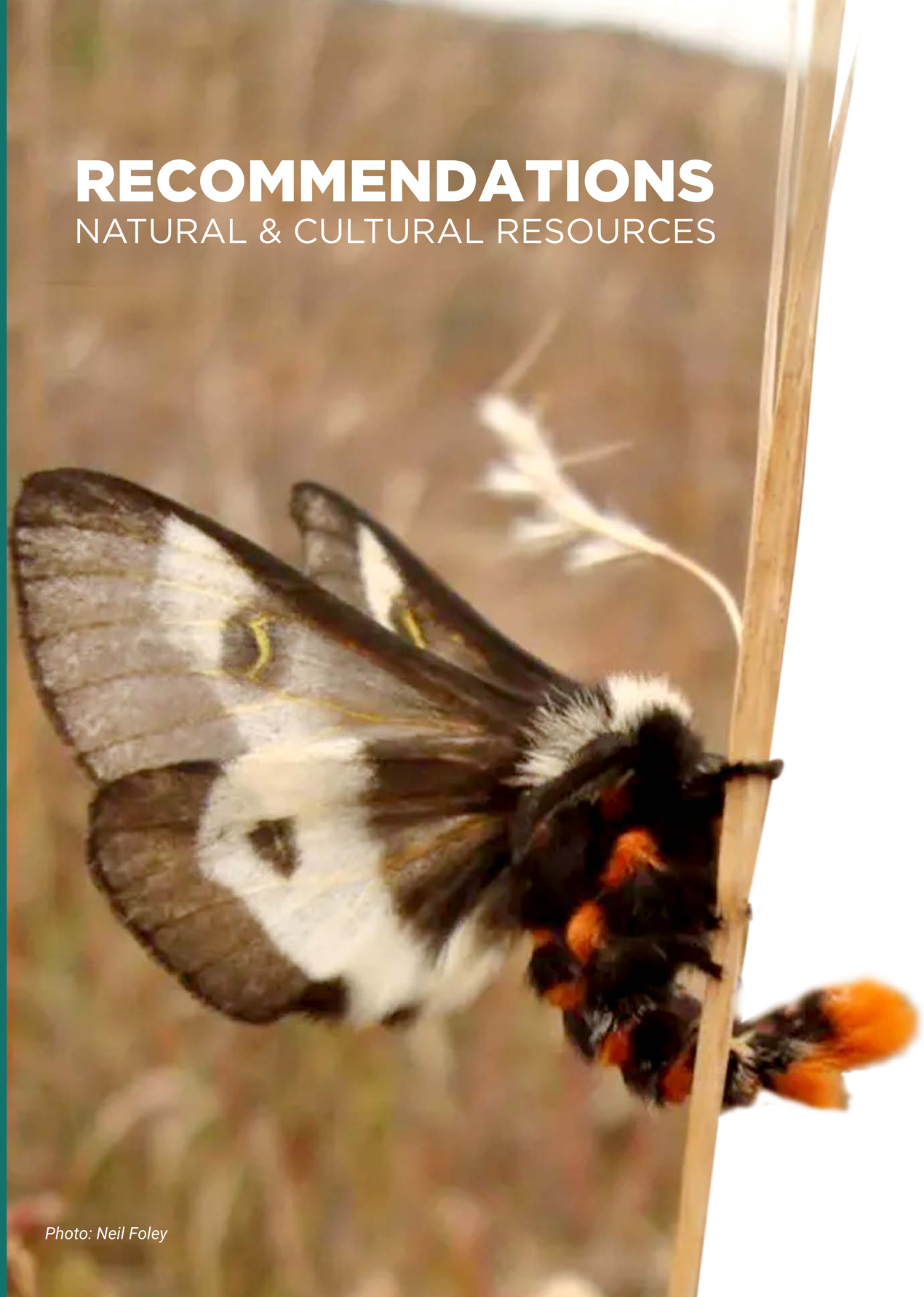


Photo: Neil Foley

1 Undertake a biological field survey of endangered flora and fauna in Monomoy

Work with the State, Town and non-profits to take steps to document and assess the extent of threatened and endangered wildlife within habitats in Monomoy, to ensure their protection and preservation of their fragile habitats.

2 Support reduction / elimination of fertilizers used for residential landscaping

Provide greater education and advocacy on fertilizer reduction to protect water quality and habitats, as well as preserve and protect critical eelgrass, in The Creeks and Harbor.

3 Support community-wide efforts to reduce runoff and erosion

Provide greater education and advocacy for a range of steps that can help reduce runoff and erosion, though an increase in native vegetation, a decrease in non-native species, lawn sizes, and concrete/asphalt coverage, and other measures.

4 Provide education and outreach on the value of the Dark Skies Initiative

Promote greater awareness of the impact of light pollution in the community through education, advocacy and outreach to encourage the community to adopt less-intensive lighting practices.

Open Space & Recreation

- Monomoy Beach
- Dinghy and Kayak Storage
- Recreational Shellfishing
- Boat Moorings
- Recreational Boating and a “No Wake” Zone for The Creeks
- Wyer’s Valley Solar Project
- Monomoy Neighborhood Survey Highlights: Open Space and Recreation



MONOMOY BEACH

The pristine and calm beaches, coupled with stunning views to Coatue and Town, are some of the most attractive aspects of the Monomoy community. Monomoy enjoys approximately 3,500 feet, or 0.66 of a mile, of coastal shoreline along the southern edge of Nantucket Harbor. With its proximity to wetlands, and the existence of salt marsh, beach barrier dunes, fragile eelgrass and an abundance of endangered, rare or otherwise common wildlife, it is an amenity that adds tremendous value to Monomoy.



Beach Access

The beaches at Monomoy are accessible at two points: the publicly-owned Monomoy Beach parking lot on Berkeley Road, and just outside the Monomoy Area Plan boundary, via Cathcart Road, where beach access is provided by the Land Bank, along with nearby public parking.

Beyond those two points, most of the beach frontage is privately owned, typically to the mean high water line, unbeknownst to many who visit. Pedestrian access is available to the visiting public without conditions.

As Monomoy's beaches become increasing popular, they are often overcrowded during peak summer months and operating at or beyond their capacity. Issues have come to the fore related to unattended vehicles, trash and littering, and the lack of public toilets. Residents are often relegated to cleaning up the beaches and nearby brush of discarded bottles, cans and other trash left behind by visitors. These emerging issues pose a series of growing challenges to the community, policy makers and conservation managers now and in the years ahead.

A popular party location, Cathcart Beach attracts boisterous crowds that party into the night, with speeding vehicles posing a risk to cyclists and pedestrians along an unpaved and winding single track road that offers limited visibility.

Efforts to limit vehicular traffic on the beach, as well as address unattended vehicles, would ensure better alignment with the carrying capacity of this natural resource. Importantly, Land Bank is addressing this issue through the prohibition of unattended vehicles on Cathcart Beach from June 15 to September 15 each year.



These ideas of carefully managing our fragile and vulnerable coastal resources are neither new nor controversial. Nantucket's 1993 Harbors Action Plan put forward a policy statement, which was reiterated and adopted in the May 2009 Nantucket and Madaket Harbors Action Plan, that "it shall be the policy of the town to pursue opportunities for improving existing and providing new areas for public access to the waters of both harbors consistent with a policy of wise stewardship."

Monomoy residents are strongly in favor of public beach access and encourage responsible, safe and sustainable use of our fragile beach resources under a policy of wise stewardship. To this end, greater public awareness would help through the installation of educational signage at key entry points to the beaches, and dissemination of similar information via other channels.

DINGHY AND KAYAK STORAGE

With the growing popularity of Monomoy Beach at two points, recent years have seen a dramatic increase in the storage of kayaks and dinghies, in excess of the existing storage racks available through the Land Bank at Cathcart Beach and on land generously provided by a homeowner on Monomoy Beach.

Recent efforts to create a dinghy and kayak registration system, under the auspices of the Nantucket Marine Department, and issue numbered permits, offers a viable solution going forward.

Many Monomoy residents do not have access to such storage, as dinghy and kayak storage has been historically related to those with permits for moorings, and thus related to boat ownership. Today, such watercraft—from kayaks to paddleboards to canoes—are often not related to boat ownership and moorings. Solutions to provide greater access should be explored.



RECREATIONAL SHELLFISHING

In addition to commercial shellfishing with the Harbor, recreational shellfishing has played an important role in shaping Nantucket's economic and cultural history, and Monomoy has been a key location for these activities. On average, across the island, approximately 1,700 family permits have been issued each year for the past ten years.[8] Recreational fishermen turn out each fall to uphold a long-held family tradition. Their visits help bolster the Island's shoulder season economy through the purchases of rakes, buckets, gear, and lodging. Recreationally harvested species include bay scallops, mussels, quahogs, soft-shell clams, and oysters. The Town maintains a program to enhance the shellfish population through propagation activities (public aquaculture) at its Brant Point Shellfish Hatchery.[9]

But to sustain this important source of recreation, maintaining high water quality and overall the health of the Harbor is paramount. While addressed under the Natural Resources element in this Area Plan, it is important to again emphasize the critical role eelgrass beds play in the health of the Harbor, providing sheltered habitat to many species, and the imperative to reduce nutrient loading and shading that negatively impacts eelgrass health. The decline of eelgrass meadows in the Harbor in recent years has been alarming, while shellfishing activities have resulted in historically low volumes.

The biggest addressable threats come from septic systems, fertilizers used in landscaping, runoff and "on the water" boat use waste (cleaning products and discharge from boats with no heads).

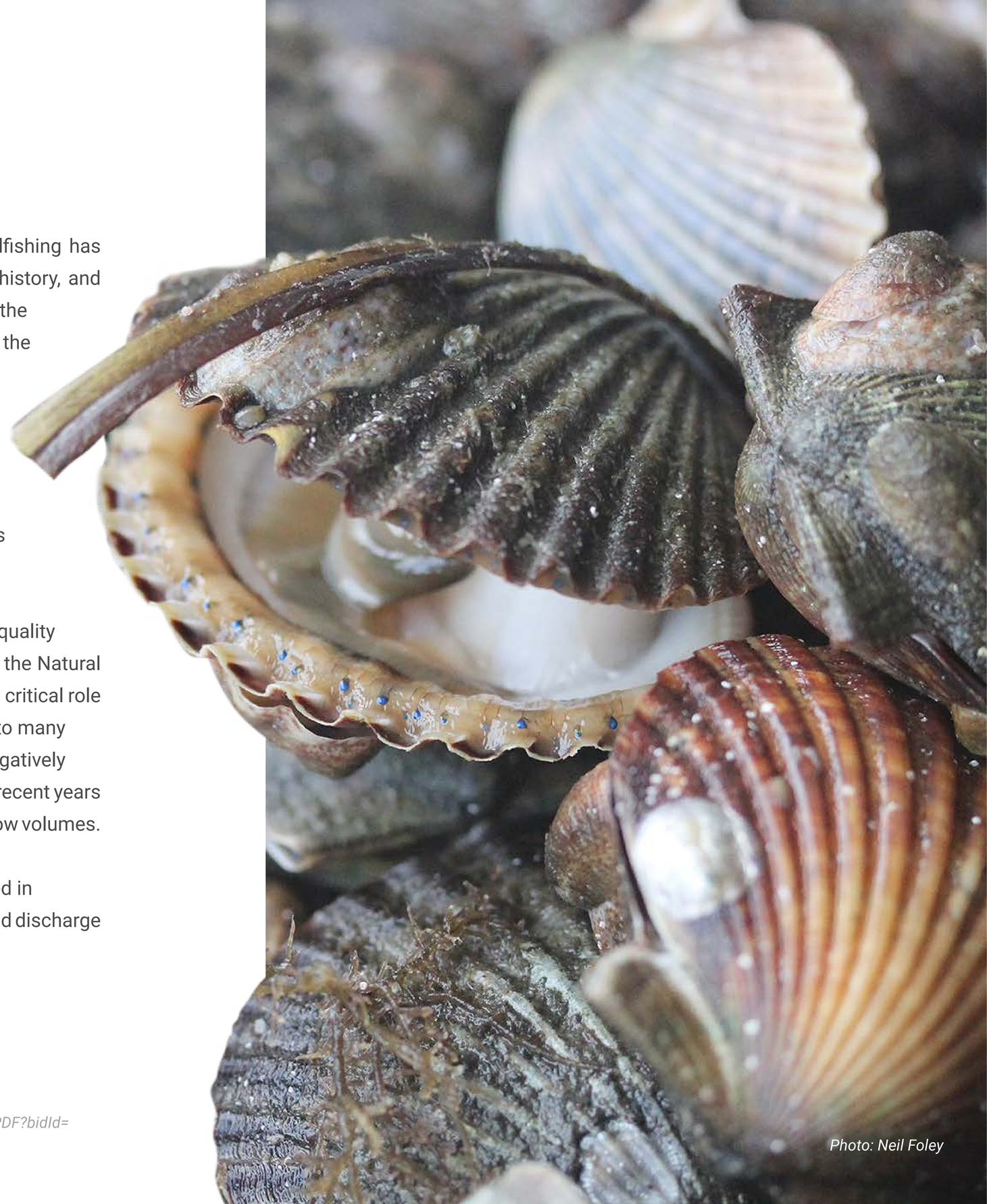


Photo: Neil Foley

8 https://www.nantucket-ma.gov/DocumentCenter/View/88/Final-Shellfish-Management-Plan-PDF?bidId=

9 https://www.nantucket-ma.gov/691/Brant-Point-Shellfish-Hatchery

BOAT MOORINGS

Moorings are the traditional vessel berthing arrangement on Nantucket. All moorings must be registered with the Harbor Master (Section 137-4.B of the Nantucket Town Code).[10] In 2020, approximately 1,706 mooring permits were issued within the Town's designated mooring areas, and approximately 220 moorings were off private waterfront residences. The number of mooring permits issued each year is capped to address potential impacts to water quality and eelgrass, minimize the potential for new user conflicts, and align with the service and infrastructure capacities of the waterfront.

As of 2022, there is a 5-year waitlist for a new mooring.

Moorings are located within eleven mooring fields: Hulbert Avenue; Children's Beach; Easy Street; Swain's Wharf; south of Town Pier; Monomoy; between the Piers; the General Anchorage Mooring Field; Polpis Harbor; Hither Creek; and Warren's Landing. Boats of 23 feet or less make up the vast majority of moored boats (approximately 1,360 boats, or more than 80%).

All private moorings are required to be removed from any shellfish areas prior to October 15. If the mooring is a Helix type mooring, it must be outfitted with an approved cap to avoid snagging scallop dredges.

Boat moorings, too, can have a direct and indirect impact on eelgrass, as chains can scour the sea floor and remove eelgrass, and can be addressed through the use of conservation moorings.



10 The Town's Division of Marine Safety, under the Police Department, is managed by the Harbor Master and oversees marine search and rescue, supervision of waterways operations and public beaches, moorings, Town Pier, aids to navigation and the lifeguard program.

PRIVATE DOCKS AND PIERS

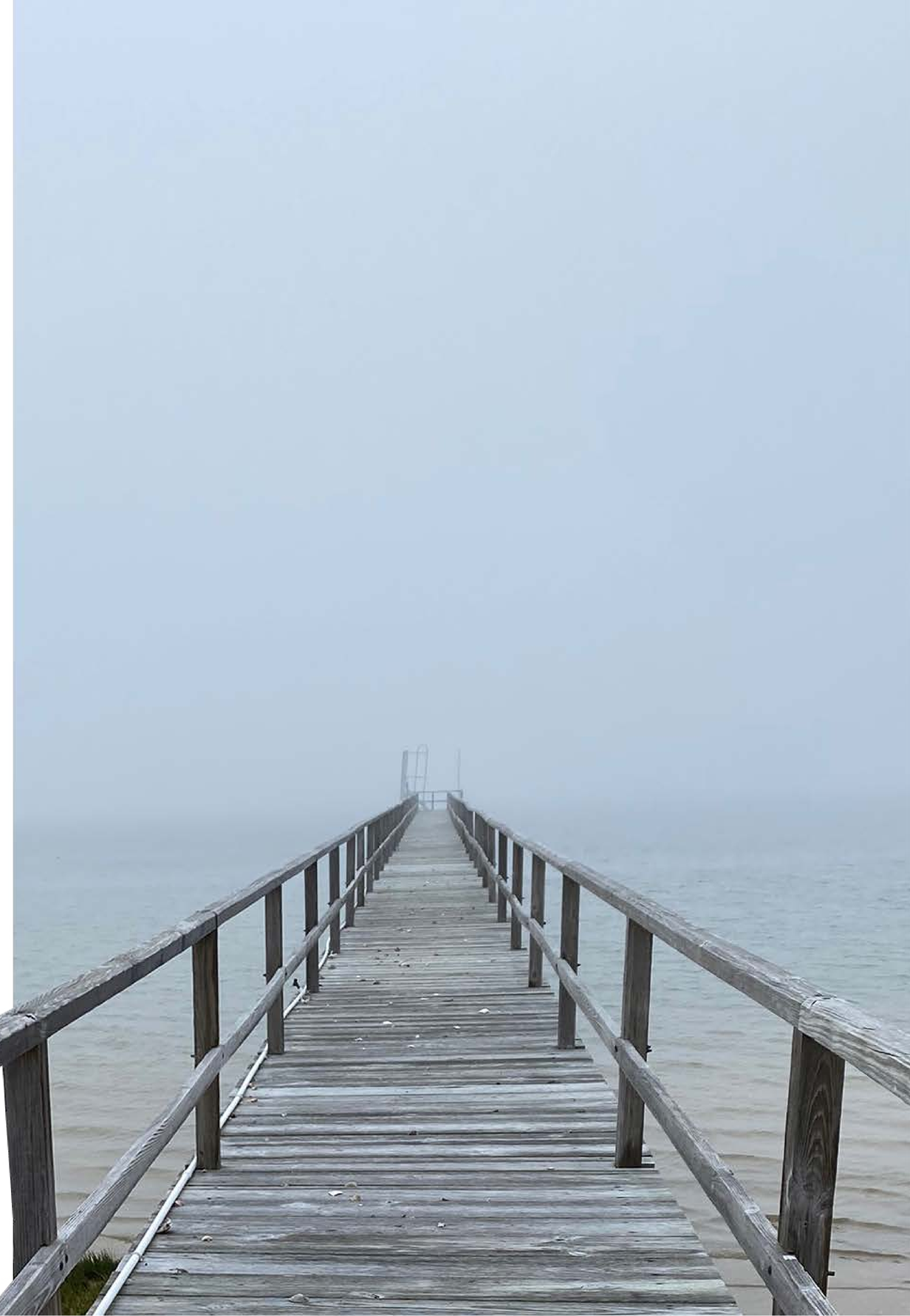
Chapter 139-22 of the Nantucket Zoning Bylaw contains a prohibition on all new private docks and piers or expansions of existing private docks except certain public or commercial water-dependent docks and piers within the Harbor Overlay District.

The prohibition of private docks was developed in part out of concern that the construction of these docks would interfere with and negatively affect commercial and residential shellfishing activities, and more importantly, damage the natural environment and accelerate erosion, in violation of Nantucket Wetland Protection Regulations. Piers and docks have a direct and irreversible impact on marine species such as bay scallops, which directly rely on eelgrass beds for survival.

As a keystone species, eelgrass provides vital habitat to a diverse group of species such as scallops, flounder, quahogs, and crabs. These underwater meadows also serve as nutrient sinks, taking up excess nitrogen from the water and sediment, improving overall water quality in Nantucket Harbor. Healthy eelgrass meadows also protect shorelines from flooding and erosion by stabilizing sediment and physically buffering wave action.

Through State approval of the 2009 Nantucket and Madaket Harbors Action Plan, this same prohibition on private docks outside the Harbor Overlay District is now also part of Massachusetts Department of Environmental Protection (DEP) Chapter 91 licensing criteria. Expansion of existing commercial docks and piers and those for governmental and public entity use are allowed within the Harbor Overlay District by both the local bylaw and Chapter 91.

Monomoy strongly supports the prohibition on new piers or docks.



RECREATIONAL BOATING AND A "NO WAKE" ZONE FOR THE CREEKS

Nantucket Harbor hosts a growing number of watercraft each year, which includes craft docked at the Town's 60-slip marina, seasonal transient slips, and anchored off the hundreds of private and rental moorings. Of concern to Monomoy is the fragile salt marsh ecosystem of The Creeks, and the risks these craft present in exacerbating erosion, stirring sediment and negatively impacting the health of eelgrass.

The imposition of a "No Wake" zone for The Creeks, including posted warnings on a floating buoy for boaters' information, would help address this problem by requiring all vessels to reduce to the slowest speed possible while still maintaining the ability to steer and make forward progress. When vessels move at these speeds, they produce a minimum wake and are far less disruptive to the surrounding environment. Such speed restrictions are common in crowded, narrow areas like channels or confined harbors, and would be appropriate for The Creeks.



WYER'S VALLEY SOLAR PROJECT

Contiguous to the Monomoy community is a proposal for the installation of a privately-owned and -operated solar array project on approximately 13.6 acres at the Town-owned Wannacomet Water Company property. In addition to clearing some undeveloped forested lands, it has been determined by the State's Natural Heritage and Endangered Species Program (NHESP) that the clear-cutting of over 10 acres will result in the take of habitat for six endangered species of moths and butterflies, thereby requiring mitigation at another site.

Monomoy strongly supports of the Town's efforts to promote energy conservation and renewable energy opportunities on the island and is a strong advocate of solar and renewable energy. It is also clear with additional growth and development the island is experiencing a significant increase in energy demand. However, questions remain whether Wyer's Valley is the most appropriate site for the project considering that Monomoy residents believe it is important to preserve, to the extent possible, the open spaces on this property.

An additional concern is the opening of this fragile, undeveloped area for future development once it has been cleared and diverted to revenue-generating uses. The island already faces extreme pressures due to overdevelopment, and every effort should be made to preserve these precious remaining parcels of mid-island open space.



MONOMOY NEIGHBORHOOD SURVEY HIGHLIGHTS: OPEN SPACE AND RECREATION

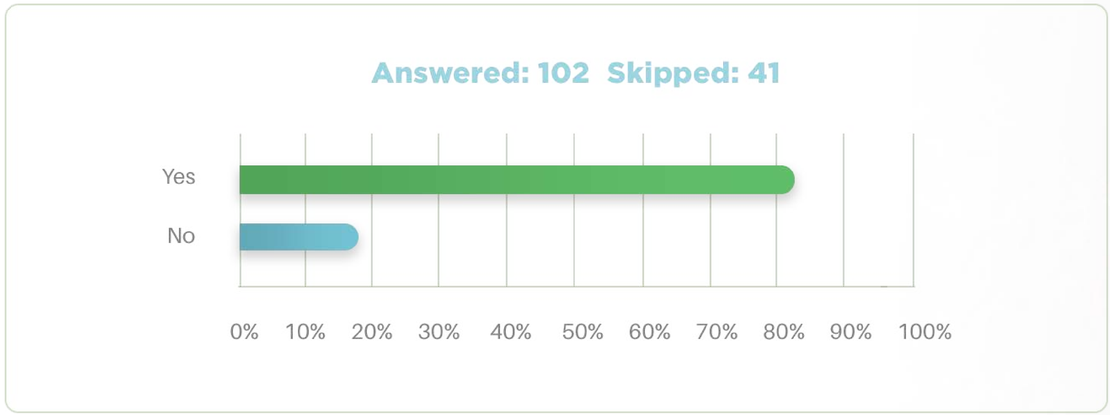
1. On Monomoy's Beaches

In relation to Monomoy's beaches, respondents were asked about their level of satisfaction on three topics. On cleanliness, 54% are somewhat or very satisfied, while 27% are not. On parking access, 44% are similarly satisfied, while 26% are not. On the point of access top dinghy and kayak storage, respondents are almost evenly split between satisfied, not satisfied and neutral.

	VERY SATISFIED	SOMEWHAT SATISFIED	NEUTRAL	SOMEWHAT DISSATISFIED	VERY DISSATISFIED	TOTAL	WEIGHTED AVERAGE
Cleanliness of the beaches	9.80% 10	44.12% 45	18.36% 19	16.67% 17	10.78% 6	102	2.75
Access to Parking	12.75% 13	31.37% 32	29.41% 30	16.67% 17	9.80% 10	102	2.79
Access to dinghy and kayak storage	10.78% 11	22.55% 23	33.33% 34	20.59% 21	12.75% 13	102	3.02

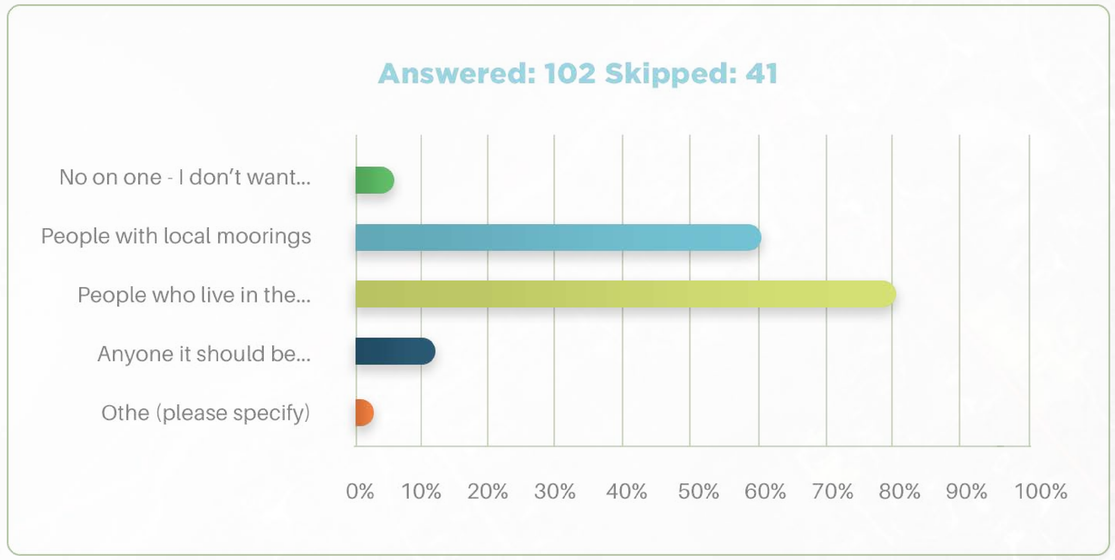
Answered: 102 Skipped: 41

2. Trash and Recycling Receptables at Monomoy's beaches



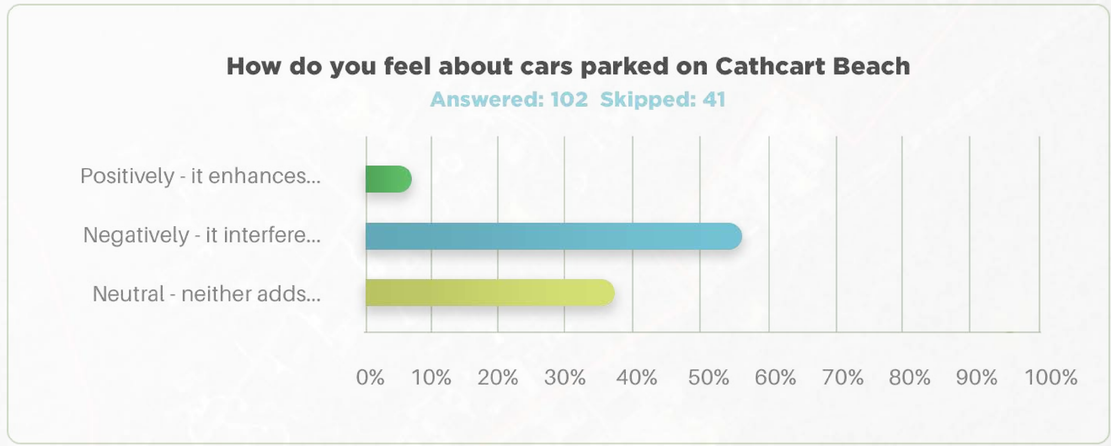
Respondents are in support (82%, 84 respondents) of providing trash and recycling receptables at both entrances to Monomoy's beaches, while 18% (18) are opposed.

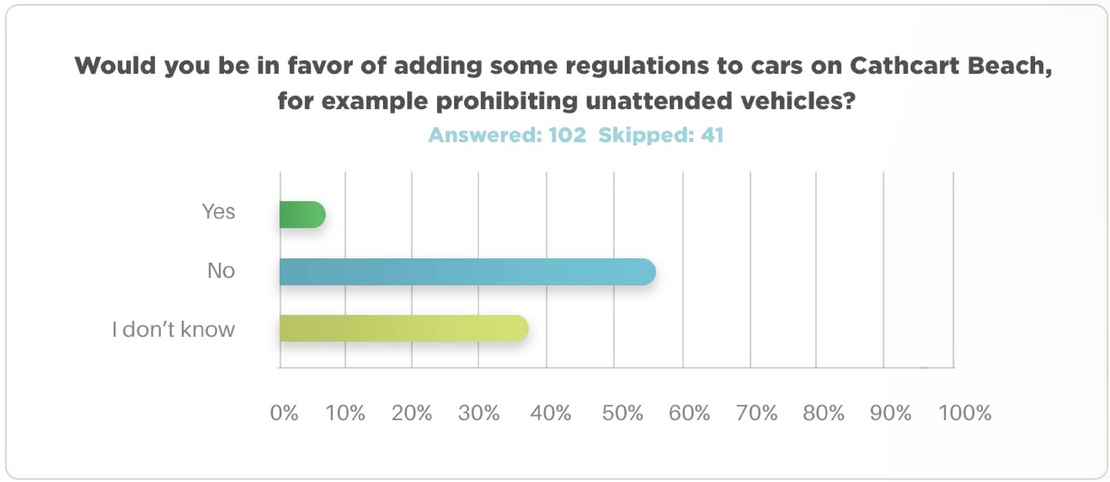
3. Access to dinghy and kayak storage racks



Respondents felt strongly that residents within Monomoy should have the ability to store their vessels on racks at the beach (80%, 82 respondents), while 12% (12) felt it should be open to all.

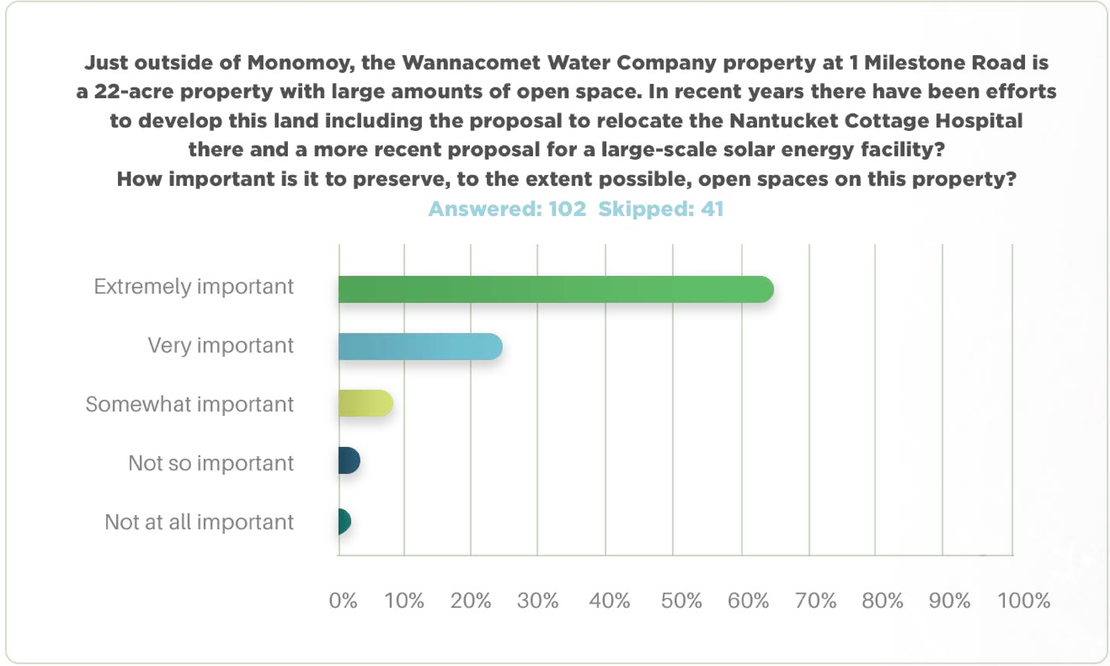
4. Vehicles on Cathcart Beach

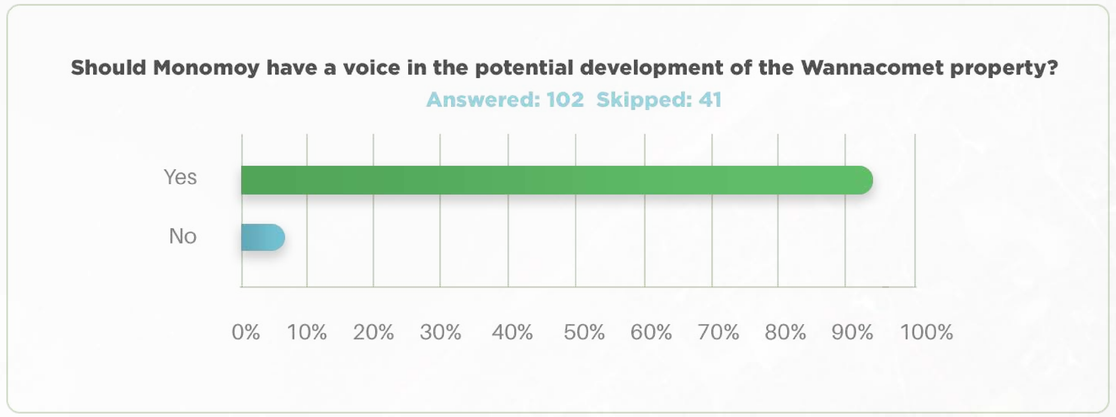


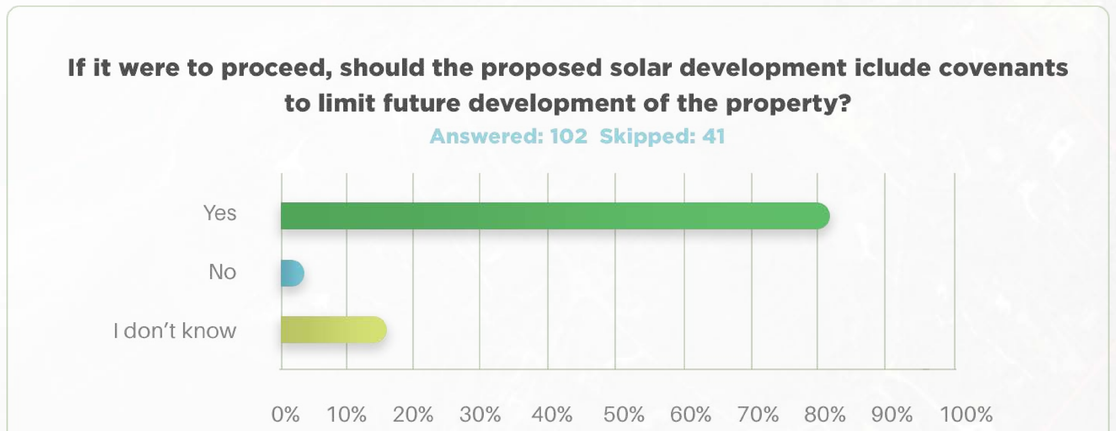


56% of respondents felt the presence of parked cars on Cathcart Beach interfered with their use and enjoyment of the beach, and 75% (76 respondents) are in favor of adding some regulations to control or prohibit specific actions, such as unattended vehicles.

5. Wyer's Valley Solar Energy Project







95% of all respondents (97) expressed the importance to preserve, to the extent possible, open space on the Wannacomet property, while 91% (93) felt Monomoy as a community should have a voice in the project. 81% (83) supported the inclusion in covenants to limit future development, while 16% (16) stated they did not know, suggesting a need to know more about the project.

RECOMMENDATIONS - OPEN SPACE & RECREATION

1 Support education and advocacy for better stewardship of public beaches

Explore options for education and advocacy to promote better stewardship of public beaches as a means to address challenges such as adherence to regulations, littering and damage to fragile beach ecosystems.

2 Explore ways to increase kayak and dinghy storage

To enhance the newly instituted permitting system to properly account for, and manage, the growing amount of recreational watercraft stored on Monomoy's beaches, explore opportunities for additional storage racks and greater access.

3 Support water quality initiatives in the harbor to preserve the environment and sustain recreational shellfishing

Greater education and advocacy efforts on the importance of higher water quality through addressing the use of fertilizers and hardscape runoff, and supporting eelgrass restoration projects in Nantucket Harbor, would increase community awareness and involvement.

4 Support the prohibition on private piers and docks

Respondents strongly supports the prohibition of any new piers or docks along the shoreline.

5 Support efforts to manage unattended vehicles on Cathcart Beach

Monomoy supports the Land Bank's prohibition of unattended vehicles on Cathcart Beach from June 15 to September 15 each year.

6 Propose the imposition of a "No Wake" zone for vessels at The Creeks

Imposition of a "no wake" zone for recreational vessels navigating the area of The Creeks would help protect the area's fragile salt marsh ecosystem.

7 Engage on siting and mitigation issues related to the Wyer's Valley Solar Energy Project

The Select Board should proactively communicate with the public about the planned solar project, and consider their views, including those of the Monomoy community. Every effort should be taken to mitigate its impacts (and explore alternative locations, such as the landfill's soon-to-be capped and closed cells, which were not studied as a potential site). If the project does move forward, future covenants limiting future development should be in place to protect the area from further development.



Services & Facilities

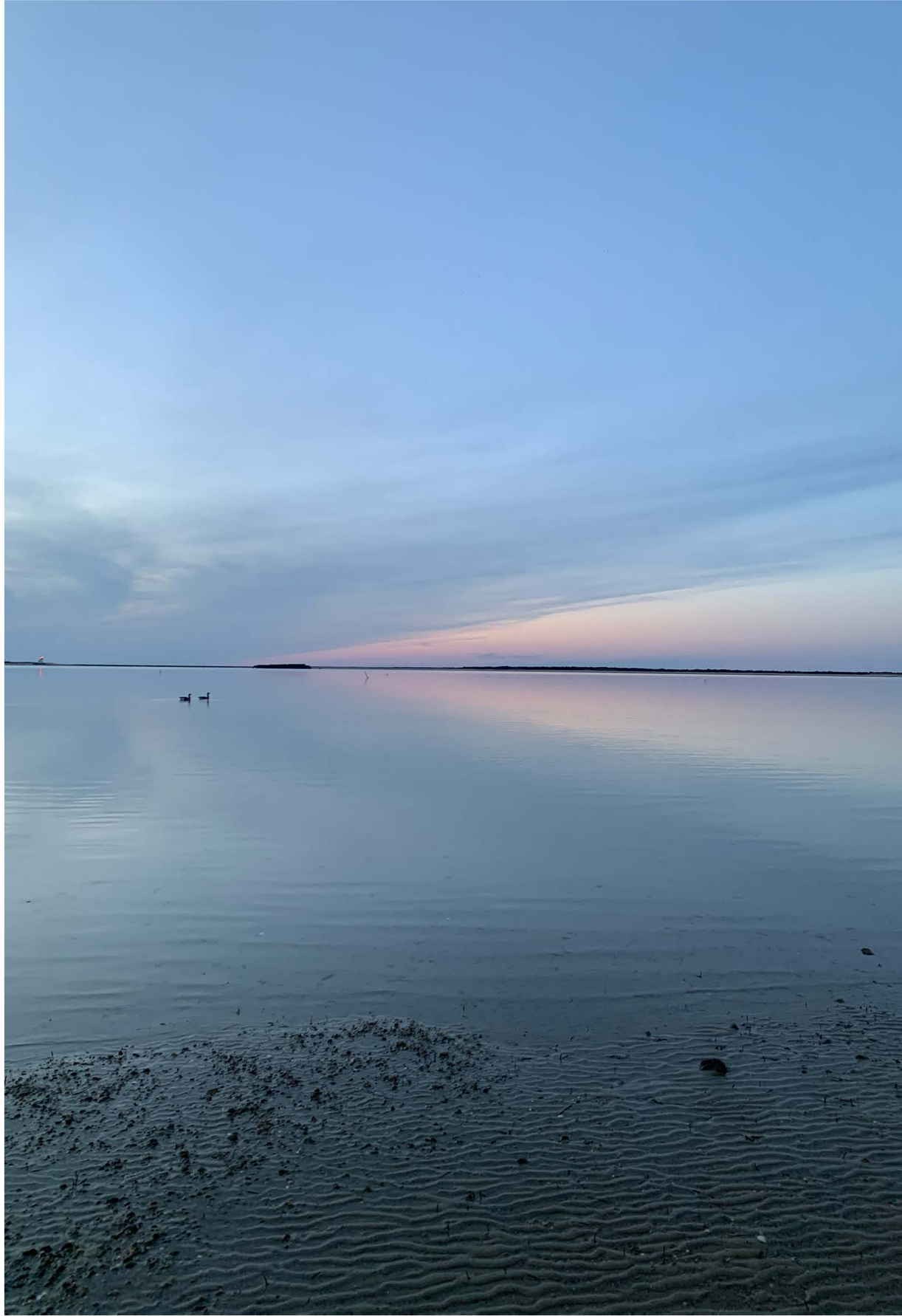
- Water Supply
- Sewer System and Wastewater
- Solid Waste
- Fire Protection
- Electricity
- Roads
- Overhead Utility Lines
- Monomoy Neighborhood Survey Highlights - Services & Utilities



WATER SUPPLY

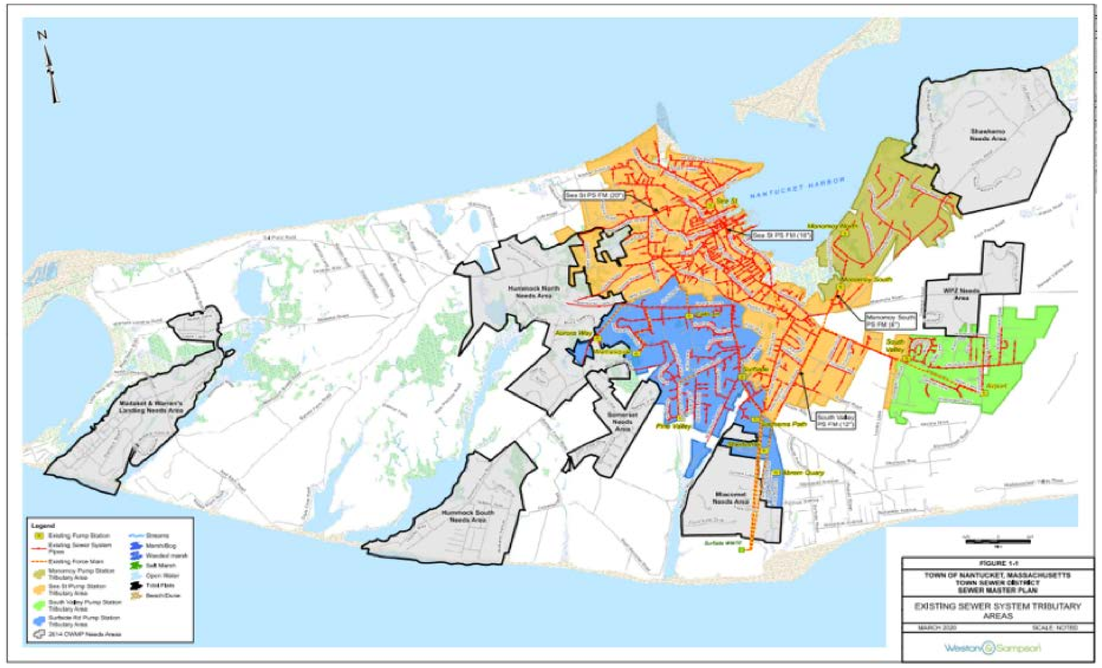
The Wannacomet Water Company, an Enterprise Fund of the Town, provides potable water and fire protection to the island. An Enterprise Fund is a fund to account for an operation for which the Town charges user fees to pay for delivery of services to the public. Wannacomet's water is drawn from a groundwater supply, pumped from four different water wells located mid-island in Nantucket's Sole Source Aquifer. The water is distributed through a network of water mains ranging from 2 inches to 16 inches in diameter.[11]

Given our reliance on a sole-source aquifer in proximity to the ocean, water conservation is vital. Saltwater is kept out of the aquifer because of the hydrostatic pressure of the fresh water against the salt. Likewise, the pressure of the salt water on the aquifer keeps it from leaking out into the sea. The more water we pump out of our aquifer, the more vulnerable it becomes to salt-water intrusion.



11 2020 Annual Drinking Water Quality Report, Wannacomet Water Department https://www.nantucket-ma.gov/DocumentCenter/View/39314/Water-Quality-Reports-2020-PDF?bidId=

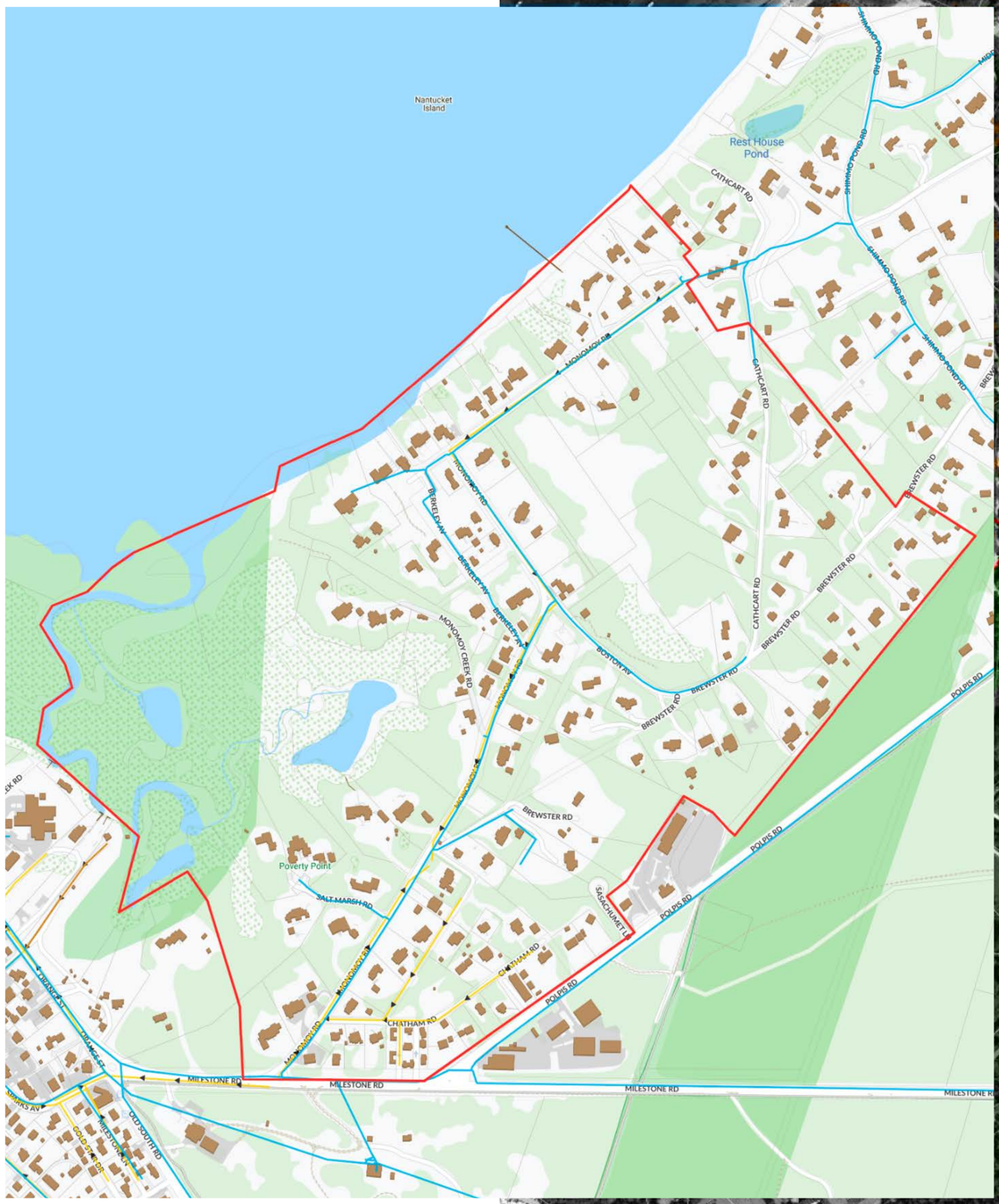
SEWER SYSTEM AND WASTEWATER



Nantucket has made progress over the last decade to provide a separated sewer system for wastewater (separate from storm water), with approximately 70 miles of sewer mains, 14 publicly-owned pumping stations, and two municipal wastewater treatment facilities.

A large portion of Monomoy properties were first connected during an expansion that started a decade ago. Monomoy is now fully connected to the Town Sewer District and served by two pump stations: Monomoy North at 61 Monomoy Road, installed in 2002, and Monomoy South at 21 Monomoy Road, installed in 2019.[12]

With Monomoy now fully connected to the sewer system the threat of deteriorating and leaking septic tank systems to the Nantucket watershed and wetlands has been eliminated and the neighborhood is now compliant with the Town's Comprehensive Wastewater Management Plan.



Monomoy Area Plan -
Utilities (Water & Sewer)
Nantucket GIS, 11 December 2021

12 https://www.nantucket-ma.gov/DocumentCenter/View/36750/Nantucket-Sewer-Master-Plan-Report-FINAL

SOLID WASTE

In 1994, the State of Massachusetts ordered the Town of Nantucket to close its landfill and begin shipping its solid waste off island to mainland landfills and processing sites because Nantucket had outgrown its current location.

Realizing that shipping its solid waste to the mainland by boat was a cost it couldn't afford, the Town completed the Materials Recovery Facility (MRF) at its landfill in 1996 and hired Waste Options, Inc. to run it.

The island's mandatory recycling program also began that year.

The MRF recycles and diverts nearly 80 percent of the solid waste brought to the landfill through recycling of paper, plastic, glass, metals and cardboard and wood, and composts household organic waste, yard waste and sludge from the Surfside Wastewater Treatment Plant. It also collects refrigerators, dishwashers, computers, televisions, mattresses, tires, stoves, sofas and computer monitors.

In 2020, the Madaket facility processed 11,197 tons of municipal solid waste (MSW) and other organics, about half of the daily solid waste stream generated in New York City. It also processed 1,820 tons of wastewater treatment plant bio-solids.[13]

The landfill is projected to achieve full capacity by 2030, after which a new waste management solution for the island will be required.





13 Waste Options Inc. 2020 Annual Report, https://records.nantucketma.gov/WebLink/ElectronicFile.aspx?docid=127616

FIRE PROTECTION

Monomoy has a total of 17 fire hydrants located at key locations within the boundary area, and another 9 situated within operational distance of the boundary perimeter. However, it does appear that there are an insufficient number of fire hydrants for the area around Cathcart and Brewster Road.

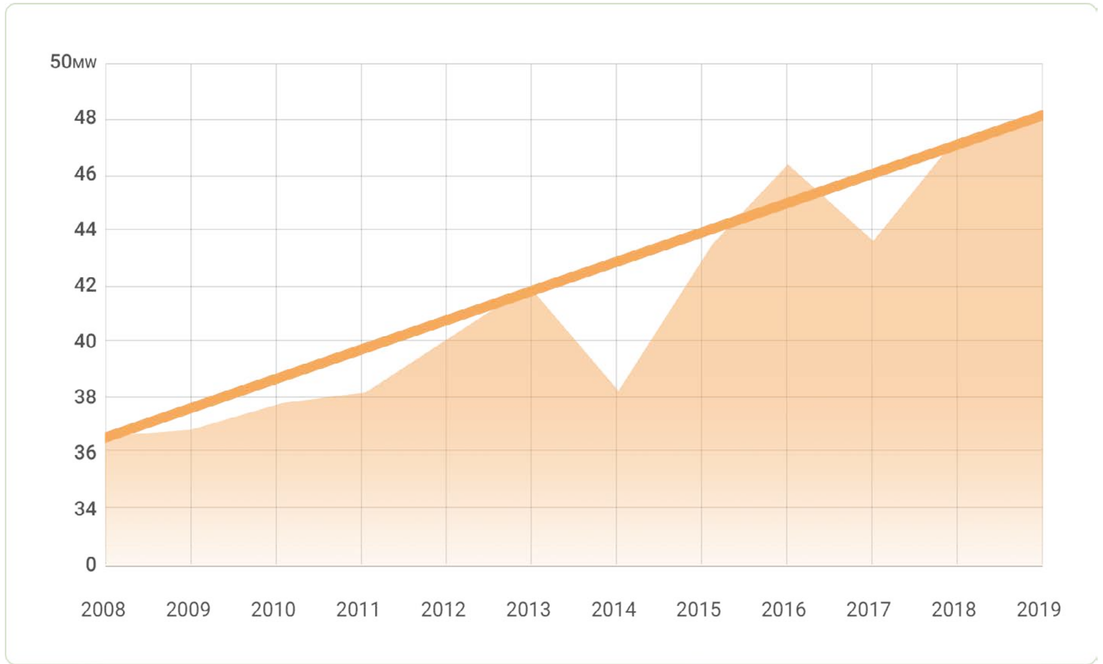


Monomoy Area Plan - Hydrants
Nantucket GIS, 11 December 2021

ELECTRICITY

Nantucket receives electricity through two submarine cables, one from Hyannis and the other from Harwich on Cape Cod, that enter the island in the Jetties area and then connect to the Candle Street National Grid substation. From the Candle Street substation, electricity is distributed to the rest of Town primarily through overhead powerlines. The two lines provide 36MW and 38MW respectively.





With unceasing growth in the island population, the demand for electricity on Nantucket has grown in the past 10 years, a jump of 25%, from 37 MW in 2008 to nearly 49 MW in 2019, and with forecasts suggesting an annual increase in the years ahead far above mainland comparators.[14]

A proposal for a third cable, at a cost of $200 million, has been put off by National Grid, which elected instead to install a state-of-the-art Tesla 6 MW, 48 MWh battery storage facility as a back-up to the submarine cables, at a cost of $81 million. The battery and back-up generation are vital components to the island's resilience during peak summer months, when the battery will be charged during the night and dispatched during the day.

While this hybrid solution resolves the power demand situation over the medium-term, continued strain on electricity supply for both year-round residents and summer visitors ensures this issue is far from resolved.

14 https://www.nationalgridus.com/media/pdfs/resi-ways-to-save/0317-ngrid-hes-708459nantucketfaqs_r2a_web.pdf

ROADS

The Monomoy Boundary Area has a road network with a total length of 2.8 miles, consisting of one main paved road, Monomoy Road, which is owned by the Town, and a patchwork of 12 smaller roads, all unpaved, the majority of which are privately owned."

See revised table of 13 roads via email, and slot in the one new road, "Monomoy Creek Road", with its details, and then revise the total at the bottom of the table to 2.80.

Name of Road (Town GIS & Google Earth)	Length (in miles)	Ownership	Condition
1. Monomoy Road	0.92	Public	Paved/Asphalt
2. Monomoy Creek Road	0.16	Private	Dirt
3. Boston Ave	0.12	Public	Dirt
4. Cathcart Road	0.32	Public	Dirt
5. Salt Marsh Road	0.08	Private	Shell
6. Berkeley Ave	0.18	Private	Dirt
7. DeWolf Ave (connector between Monomoy Rd & Berkeley	0.03	Private	Dirt
8. Brewster Rd (East)	0.43	Private	Dirt
9. Brewster Road (West)	0.14	Public	Dirt
10. Catham Road	0.22	Private	Dirt
11. Sandwich Road	0.08	Private	Dirt
12. Orleans Road	0.06	Private	Dirt
13. Oily Road	0.06	Private	Dirt
	2.80		



OVERHEAD UTILITY LINES

Monomoy Road and other parts of the community are blighted with overhead utility lines, which are not appropriate for the historic and natural character of the community.

Nantucket has had a long-standing goal of burying utilities underground, which is anchored on Town of Nantucket Bylaws that prohibit overhead utilities in both the "Core Districts" of the Town and Village of Siasconset.[15] While it appears the existing utility poles in Monomoy are grandfathered and exempt from a legal requirement for removal due to being outside these historic core districts, nearly 30 years of planning policy and guidelines, island sentiment and Town law make clear such utility poles violate the island's commitment to historic preservation, and the designation of the island as a national historic landmark.

Continuing past practice of allowing above-ground utilities undercuts the Island's historical character, and damages the natural sight lines within Monomoy, which is home to a number of historic structures. Further, the island's commitment to burying utilities is related to a growing awareness about the importance of resiliency and climate change, and the need to protect utilizes and services from increasingly severe weather events.

Given this history, Bylaws and growing threat of severe weather events, there appears to be strong legal and practical rationales for such utilities to be placed underground.



15 See Town of Nantucket Bylaws / Part II: General Legislation: Chapter 113 at https://ecode360.com/11471073#11471074.

MONOMOY NEIGHBORHOOD SURVEY HIGHLIGHTS - SERVICES & UTILITIES

1. Top Three Concerns

A majority of respondents are either extremely, very or somewhat concerned about these three issues related to Services & Utilities:

1. **The near-capacity Nantucket landfill: 95% (94 respondents)**
2. **The presence of above ground utility lines: 83% (84 respondents)**
3. **Access for emergency vehicles on unpaved roads: 76% (75 respondents)**

Following closely thereafter is concern regarding the condition and maintenance of unpaved roads (76%, 74 respondents) and water usage and supply (68%, 67 respondents).

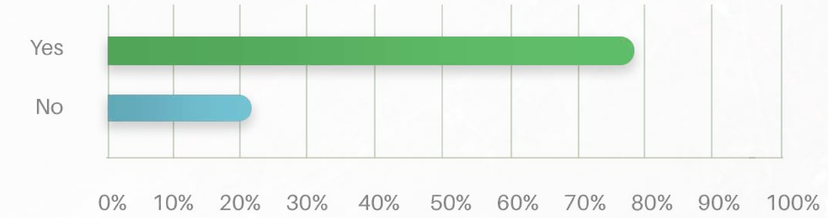
	EXTREMELY CONCERNED	VERY CONCERNED	SOMEWHAT CONCERNED	NOT VERY CONCERNED	NOT AT ALL CONCERNED	TOTAL	WEIGHTED AVERAGE
Water usage & supply	18.18% 18	20.20% 20	25.25% 25	13.79% 16	7.07% 7	99	2.83
Electricity usage & supply	9.09% 9	17.17% 17	31.31% 31	6.00% 7	7.07% 7	99	3.10
The near-capacity Nantucket landfill	18.18% 18	45.45% 45	3.03% 3	23.28% 27	2.02% 2	99	2.25
The Condition & maintenance of unpaved roads	24.24% 24	17.17% 17	17.17% 17	12.90% 15	8.08% 8	99	2.68
Access for emergency vehicles on unpaved roads	18.18% 18	12.12% 12	16.16% 16	16.38% 19	8.08% 8	99	2.84
The presence of above ground utility lines	20.20% 20	27.27% 27	10.10% 10	19.83% 23	7.07% 7	99	2.57

Answered: 99 Skipped: 44

2. Maintaining and Improving Unpaved Roads

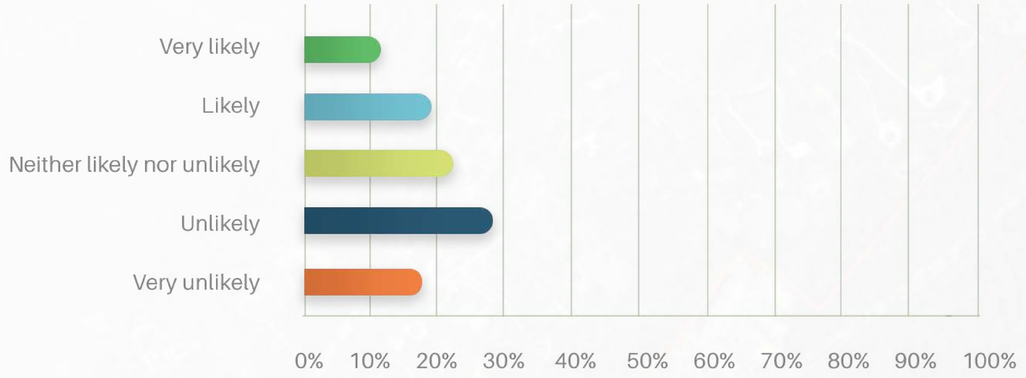
Are you in favor of increasing the frequency & quality of grading/maintaining our unpaved roads?

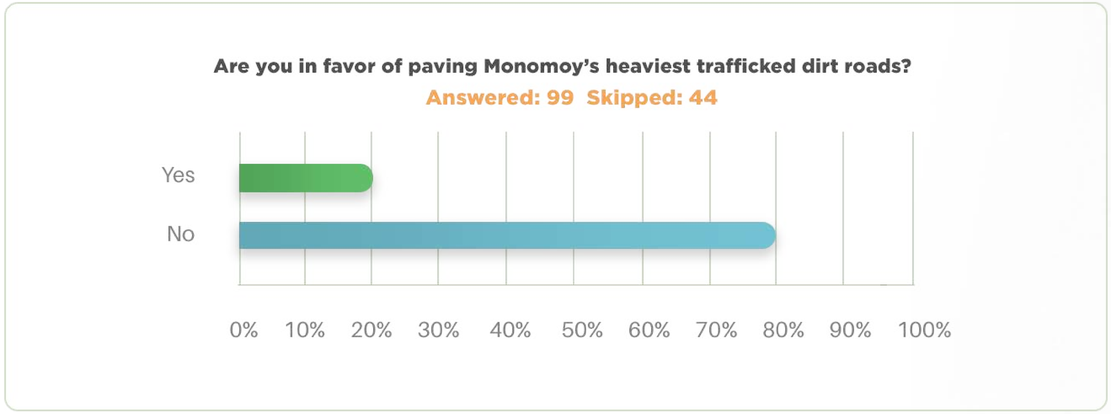
Answered: 99 Skipped: 44



About half of the road network in Monomoy is private. How likely would you be to contribute funds towards road maintenance, if necessary?

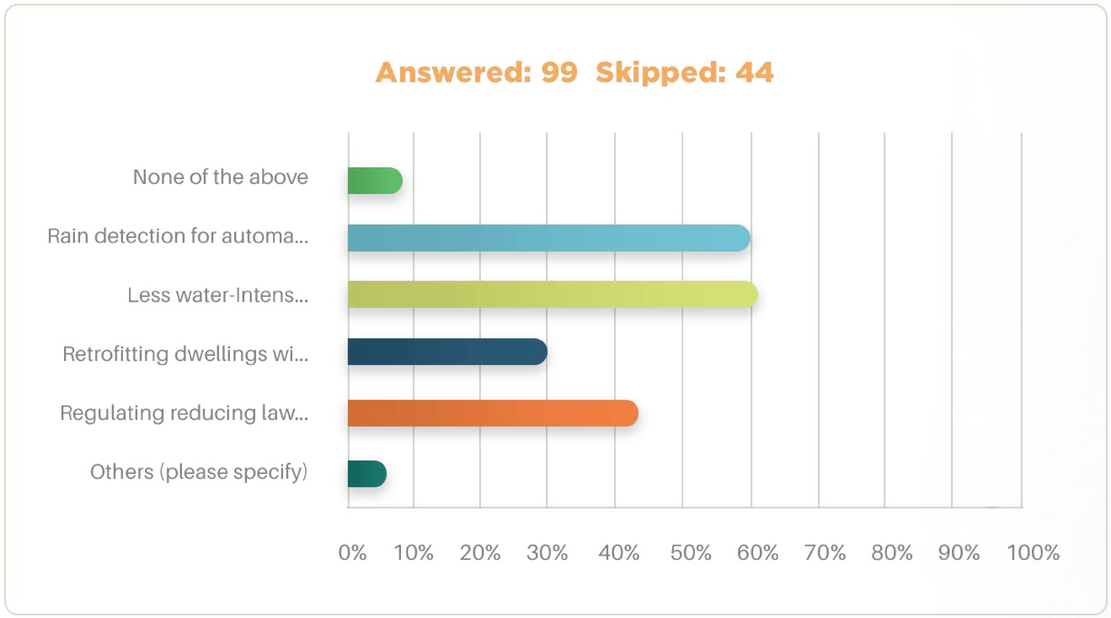
Answered: 99 Skipped: 44





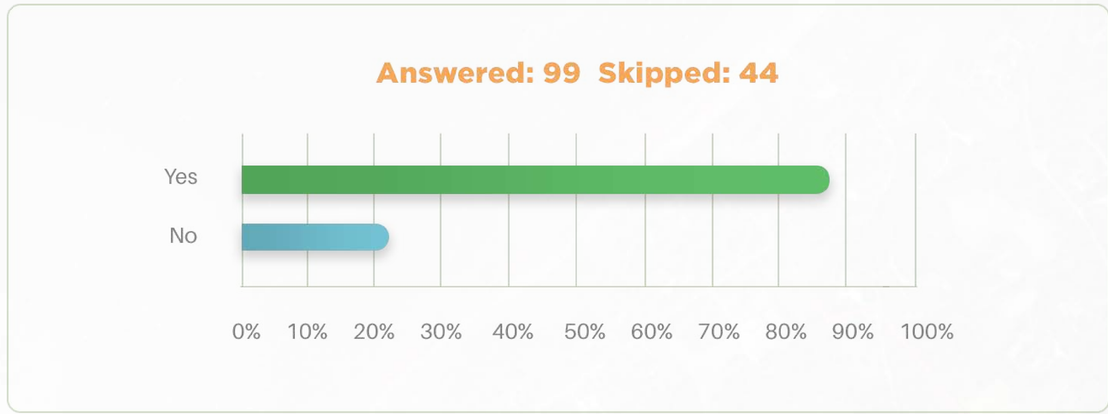
While 77% of respondents are in favor of better maintenance of Monomoy's unpaved roads (79%, 78 respondents), only 30% are likely or very likely to contribute funds for that purpose. There is little interest to see these roads paved (20% in favor, or 20 respondents), with 80% (79 respondents) against.

3. Water conservation



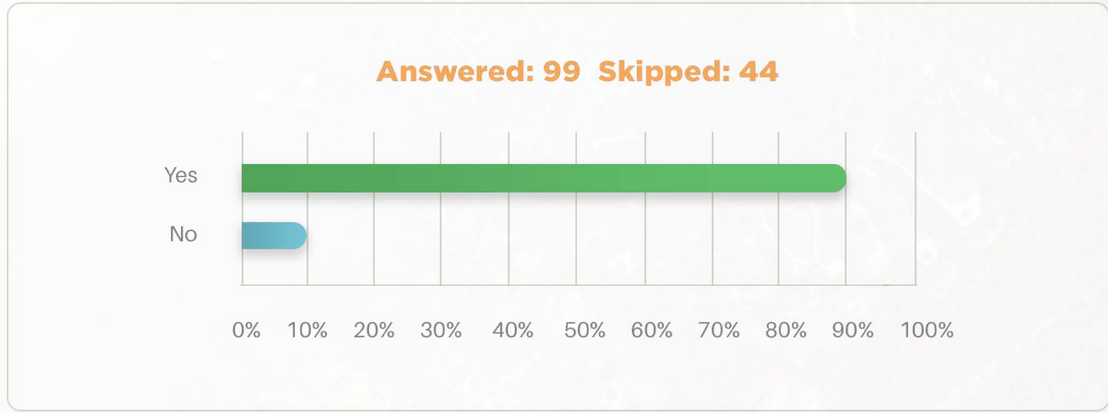
92% of respondents have implemented water conservation measures, ranging from rain detection systems on sprinkler systems (60%, 59 respondents), less intensive native landscaping (61%, 60 respondents) and regulating and reducing lawn watering (43%, 43 respondents). Four households report they have installed wells for irrigation.

4. Conserving electricity



78% of respondents stated they would be willing to consider steps to conserve electricity to avoid building additional infrastructure such as a 3rd underwater cable.

5. Burying utility lines underground



90% of respondents would like to see utility lines along Monomoy buried underground, as protection from severe weather and to preserve the historic character of the island.

RECOMMENDATIONS - SERVICES & FACILITIES

1 Explore options for better maintenance of unpaved roads

Residents are concerned over the maintenance and quality of the community's unpaved roads, which suggests a need to explore options to improve grading and seasonal maintenance with the Town, abutting property owners and the wider Monomoy community.

2 Support water conservation efforts

The Monomoy community is committed to water conservation measures that include installation of rain detection equipment on automatic sprinkler systems, introduction of less water-intensive native landscaping, and retrofitting of dwelling with low flow toilets, shower heads and faucet aerators.

3 Support electricity conservation efforts

The Monomoy community commits to work through the Town of Nantucket Energy Office to promote energy efficiency and conservation actions that include home energy assessments, improved lighting efficiency, energy-efficient equipment and appliances and improvements to heating and cooling systems, including geothermal exchange systems.

4 Engage on island-wide solid waste solutions

Monomoy is cognizant of the challenges solid waste brings to our island community and is keen to engage in discussions with the Town's policymakers and other stakeholders on long-term, integrated and sustainable solutions that include improved efforts at avoidance, reuse, repurpose, reduction and recycling, and exploration of innovative technologies for waste management.

5 Enhance fire protection infrastructure, as needed

The Town's Department of Public Works should assess the placement of fire hydrants and confirm sufficient coverage of the Monomoy community. If necessary, the network of fire hydrants in the neighborhood should be expanded.

6 Explore options to burying overhead utility lines

Monomoy will engage with the Town and utility companies to bury overhead utility lines. This is important for many reasons, including environmental aesthetics and as a means to reduce climate- and weather -related vulnerabilities through strengthened resiliency.

Circulation

Transportation networks both connect the island to the mainland and allow travel within the island. People travel to and from Nantucket by boat and by air. The Nantucket Memorial Airport is a critical transportation facility serving the community, providing access to the mainland for goods and services, as well as for residents and visitors that support the island economy.



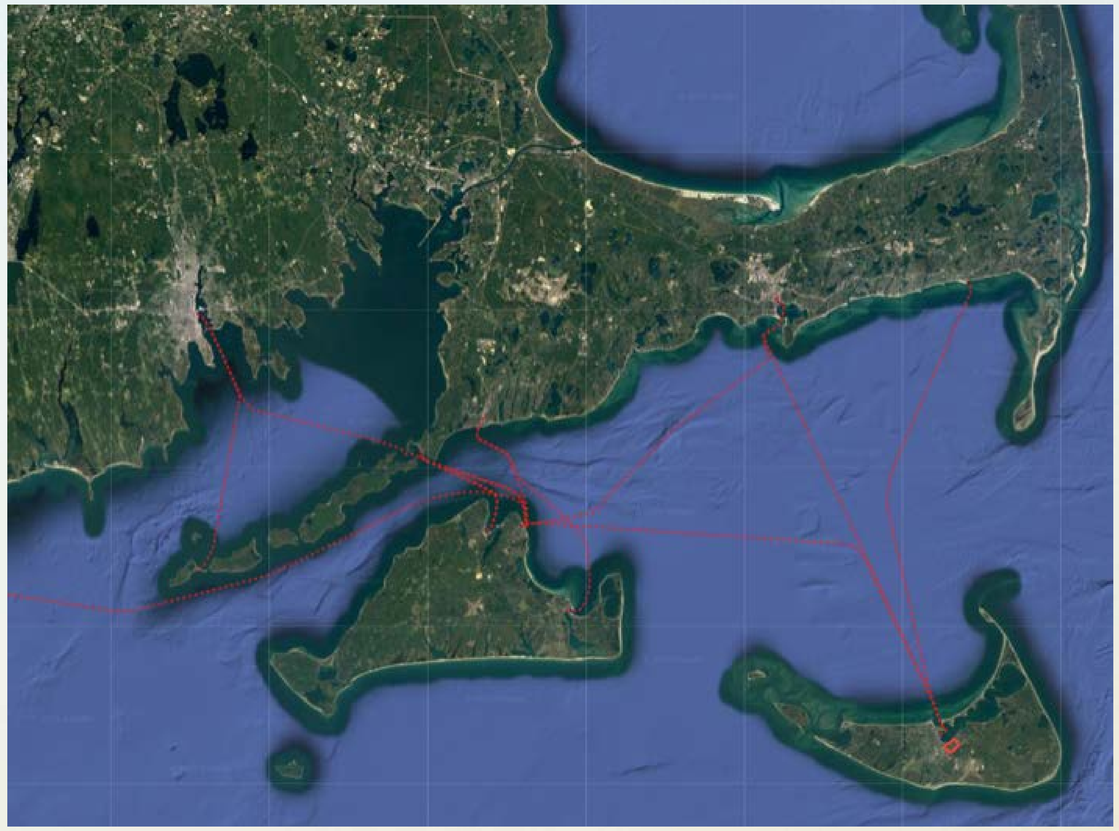
OVERVIEW

There are also four ferry lines that provide year-round mainland access. The Steamship Authority operates a vehicle and passenger ferry that transports much of the island's supplies. The Steamship Authority Dock, also known as Steamboat Wharf, is the main entry point for most of the food, supplies, and other resources that are utilized on the island.

Although the Hy-Line ferry service transports minimal freight and supplies, the ferry service is responsible for transporting numerous passengers to and from the mainland. Freedom Cruise Line also offers service between Nantucket and Harwich Port, MA. Seasonal ferry service from New York City, Highlands, NJ and New Bedford, MA to Nantucket is provided by Seastreak.

Nantucket is served by a network of public and private roadways. All public roadways are under local jurisdiction, except for Milestone Road which is under the jurisdiction of the Commonwealth of Massachusetts.

The WAVE shuttle buses, administered by the Nantucket Regional Transit Authority, provides public transportation services along these roadways, with an inbound-only stop at Monomoy Road.





MONOMOY ROAD ACCESS

One cannot speak to Monomoy's road network and accessibility without first discussing Milestone Road. At just about 6.5 miles long, Milestone Road connects Nantucket's two historic cores: the bustling harbor front of downtown and the quiet village of 'Sconset. First paved with crushed stones in the 1890s, Milestone welcomed its first bike path in 1896.





In 2018, the Massachusetts Department of Transportation undertook an $3.2 million improvement project for Milestone Road to address a range of deficiencies, including non-compliant wheelchair ramps, intersection safety issues, lack of connectivity between bus stops and shared use paths.[16] Included in this project was the redesign of the intersection of Milestone Road and Monomoy Road, the primary entrance to our community, impacting the rural character of the neighborhood.

16 https://www.nantucket-ma.gov/1226/Milestone-Road-Safety-Accessibility-Impr

MONOMOY ROAD

A key concern for the neighborhood over the years has been the safety of pedestrians and bicyclists who walk or bike along Monomoy Road, which has increased with a perceptible increase in traffic volume, particularly commercial trucks related to construction, landscaping and deliveries. While hard data is not available, many vehicles routinely ignore the posted speed limits, while landscape trucks, often with trailers, use the roadside for parking while service their client's properties.

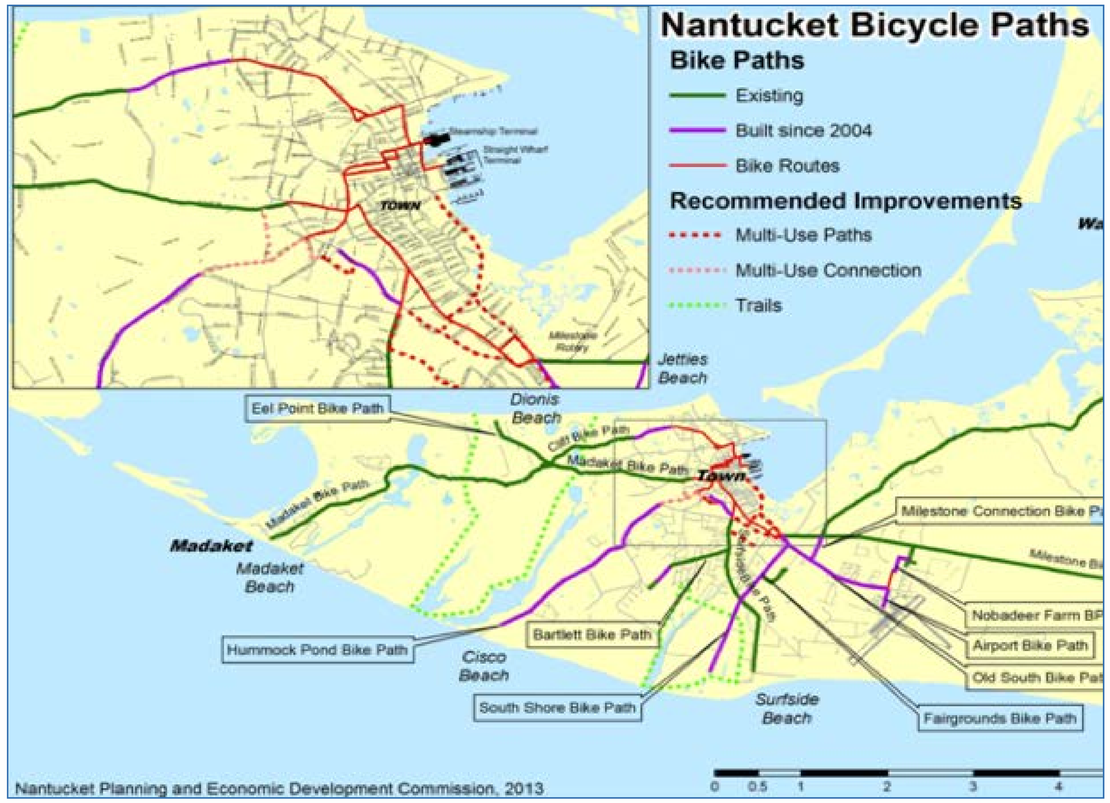
With the recent designation of the Monomoy neighborhood as "Thickly Settled," and the installation of signage to that effect, the vehicular speed limit along Monomoy Road has been reduced from 30 miles per hour to 25 miles per hour. While this is a step in the right direction, greater signage, such as those referring to "Children at Play" or "Drive Slow Please, Monomoy Road is our Sidewalk" and greater education would increase safety and reduce the risk of serious accidents.





BIKE PATHS

Nantucket has an extensive network of bike paths, totaling a length of 35 miles. Monomoy has always been disconnected from the main arteries of this network—main bike paths along Polpis Road and Milestone Road.



There is no sidewalk or segregated multi-purpose bike and pedestrian path along Monomoy Road.

Over the past year, a major effort has been made to create an in-town link from the Milestone rotary to town.

MONOMOY NEIGHBORHOOD SURVEY HIGHLIGHTS - CIRCULATION

1. Top Three Concerns

A majority of respondents are either extremely, very or somewhat concerned about these three issues related to Circulation:

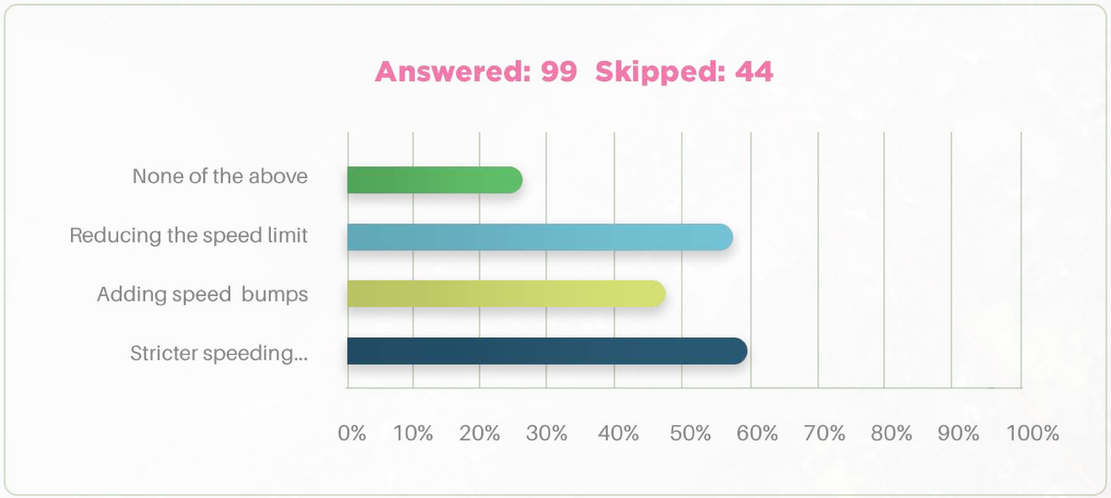
1. **Safety for bikes and pedestrians: 88% (87 respondents)**
2. **Traffic volume and speed on Monomoy roads: 85% (84 respondents)**
3. **Traffic management at the intersection of Monomoy and Milestone Roads: 80% (79 respondents)**

Following thereafter is concern regarding the lack of bike paths in Monomoy: 54% (53 respondents).

	EXTREMELY CONCERNED	VERY CONCERNED	SOMEWHAT CONCERNED	NOT VERY CONCERNED	NOT AT ALL CONCERNED	TOTAL	WEIGHTED AVERAGE
Traffic volume & speed on Monomoy roads	35.35% 35	23.23% 23	26.26% 26	12.12% 12	3.03% 3	99	2.24
Safety for & bikes & pedestrians	39.39% 39	24.24% 24	24.24% 24	11.11% 11	1.01% 1	99	2.10
The lack of bike paths in Monomoy	16.16% 16	11.11% 11	26.26% 26	26.26% 26	20.20% 20	99	3.23
Traffic management at the intersection of Monomoy & Milestone roads	24.24% 24	20.20% 20	35.35% 35	15.15% 15	5.05% 5	99	2.57

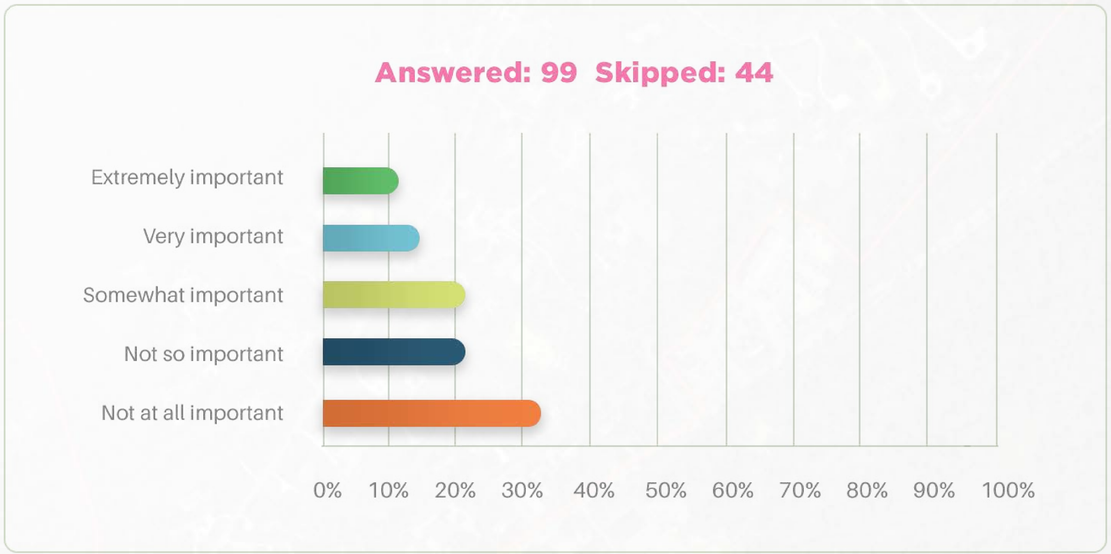
Answered: 99 Skipped: 44

2. Managing vehicular speeding in and around Monomoy



49% of respondents would like to see stricter speeding enforcement within Monomoy (49 respondents), and 47% in favor of reducing the speed limit (47 respondents).

3. A bike path along Monomoy Road



54% of respondents (53 respondents) do not view a bike path as important, while 46% (46 respondents) feel its addition is somewhat, very or extremely important.

RECOMMENDATIONS
CIRCULATION

Promote better safety and slower travel speeds on Monomoy Road

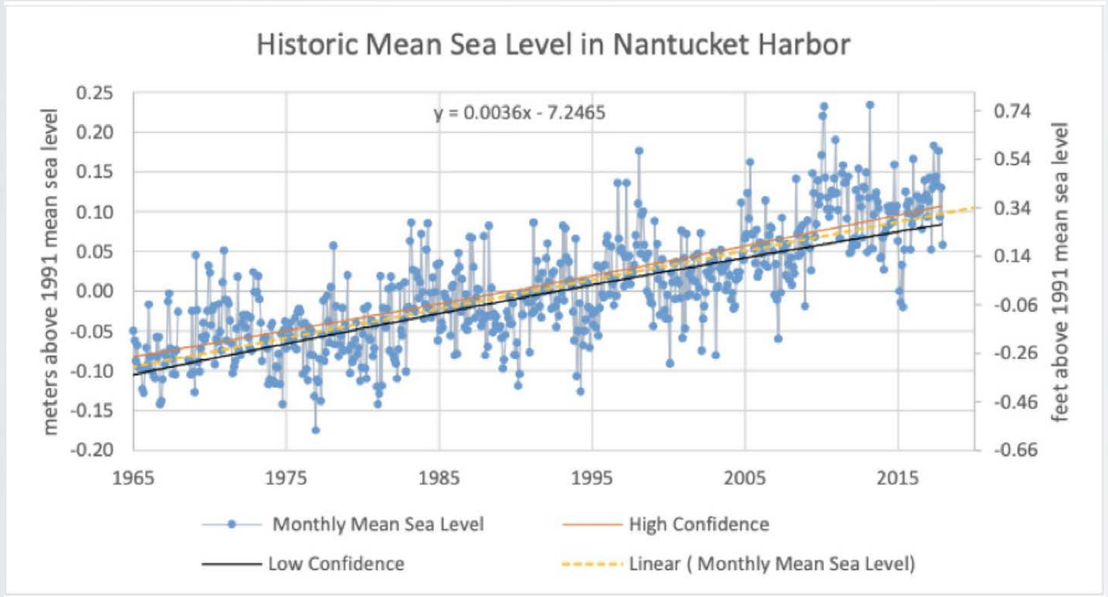
The Town should take steps to enforce posted speed limits, while increased signage that highlights the presence of pedestrians and tools such as a radar speed warning sign, would serve to reduce speeding and increase road safety.

Climate Adaptation & Resilience

Nantucket has always faced high exposure to a range of coastal hazards such as flooding and erosion. By the end of this century and beyond, climate change will increase the frequency and severity of coastal hazards impacting the island, including Monomoy, with continuing sea level rise, high tide flooding and coastal flooding and coastal erosion.[17]



Photo: Neil Foley



Observed Sea Level Data from the Nantucket Harbor Tide Gauge

Beyond the impact on homes and infrastructure, climate change also poses tremendous risk to coastal habitats on Nantucket, including The Creeks in Monomoy, which provide extraordinary ecological and economic value and support many rare and threatened species. These effects—compounded by pollution, disease, contamination, tidal restrictions, nutrient loading, and sedimentation—threaten to significantly degrade and destroy estuaries, including mudflats, eelgrass, shorebird nesting sites, and shellfish beds.

The Town is now working on its Coastal Resilience Plan (CRP), with a Final Report issued in November 2021 to create a roadmap to implementation for a series of layered flood control and adaptation approaches.

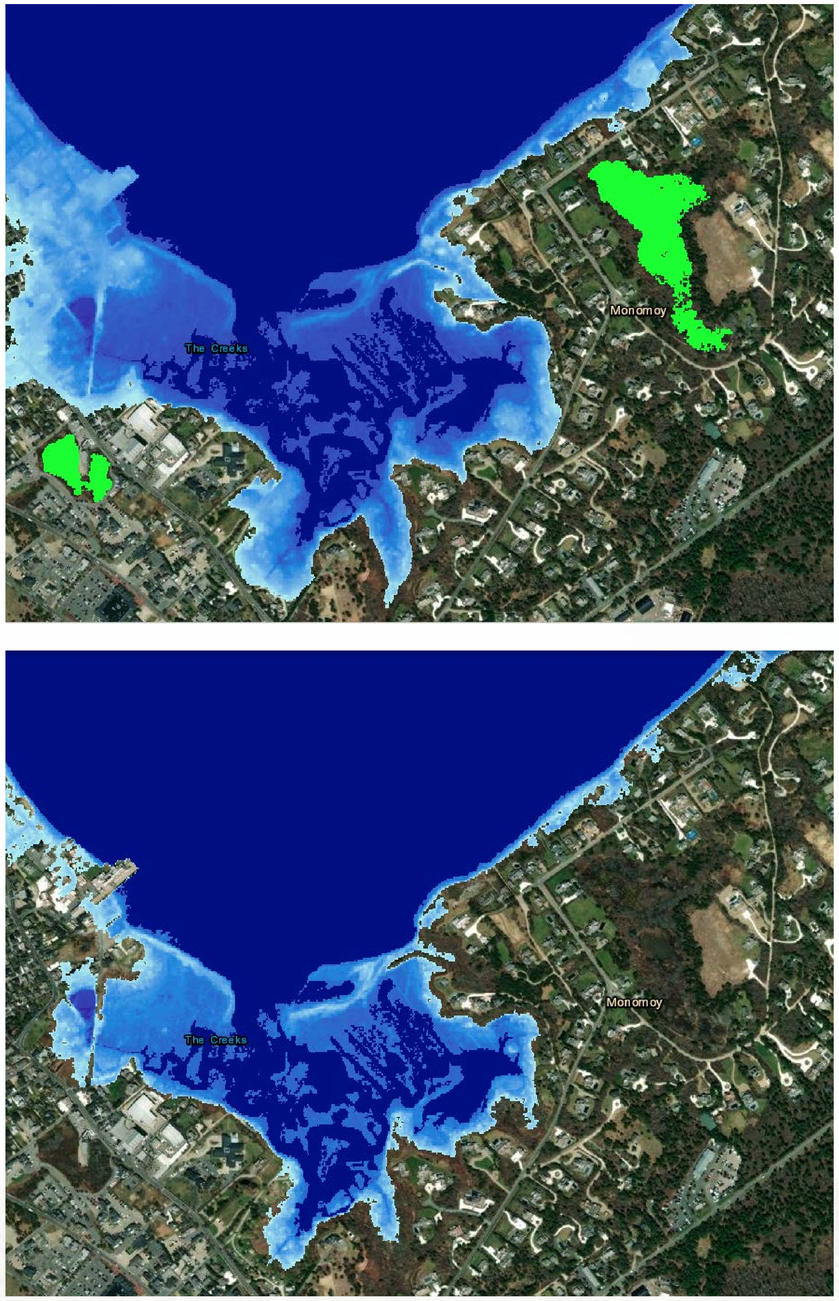
The benefits to the island, and the community of Monomoy, include lessening the loss from storm surges, protecting fragile wildlife habitats and aquatic ecosystems, and helping Monomoy adapt to rising seas and eroding coastlines, while respecting the unique characteristics of our neighborhood.



17 Since the tide gauge was installed in Nantucket Harbor in 1965, the mean sea level i has risen by approximately 8 inches [CIT. 20]. Seas may rise 2.62 feet around Nantucket by 2050, and 4.42 feet by 2070 [CIT. 1]. The highest point of the island is a mere 111 feet above sea level, just south of Sankaty Head Light.

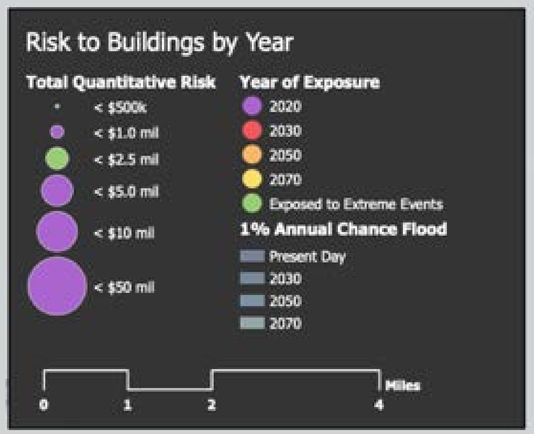


Updated NOAA projections on sea level rise for 2050 and 2100 illustrate significant impacts on the Monomoy community.



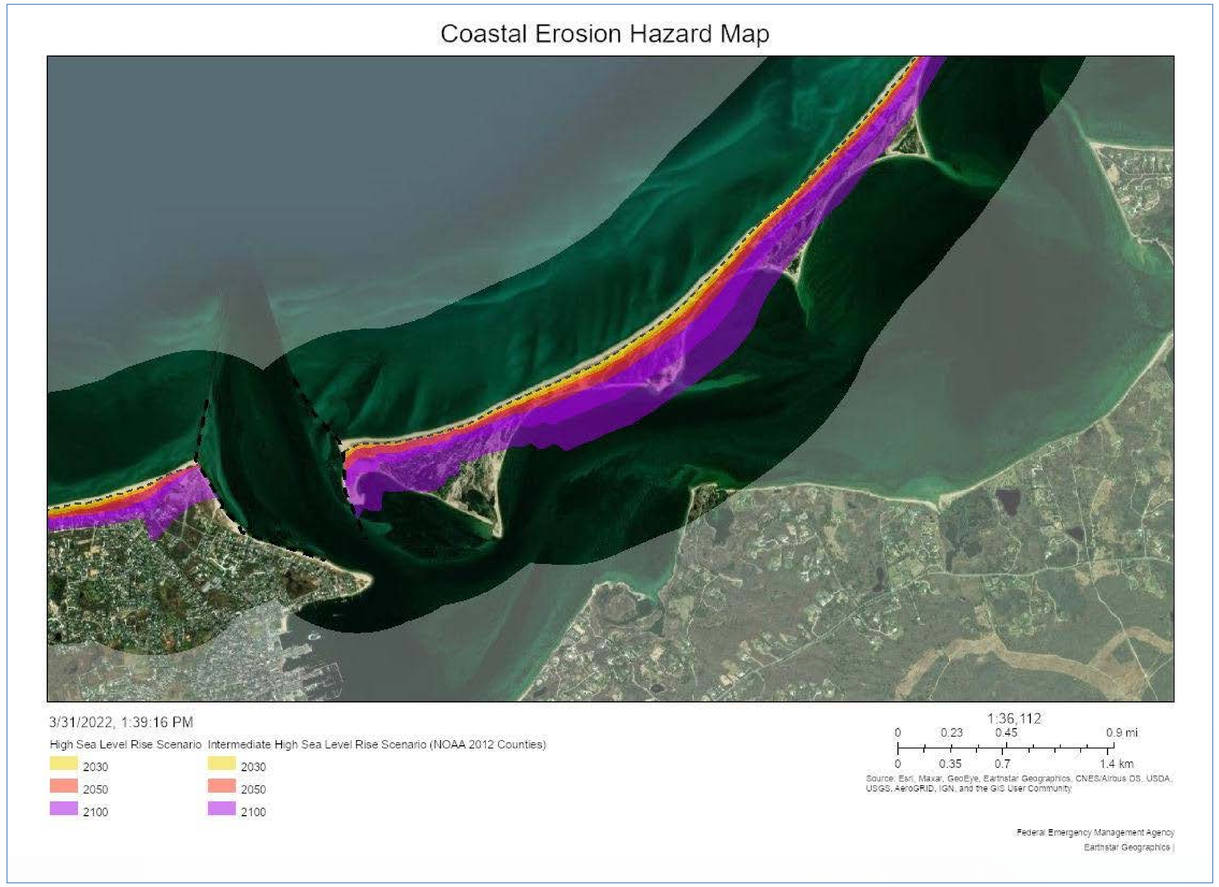
Impacts of projected 3-foot sea level rise by 2050 and 7-foot sea level rise in 2100. (2022 projections, NOAA sea level rise viewer)

Impacts of sea level rise, storm surges and coastal flooding and erosion in Monomoy result in economic impacts as well, which the CRP has begun to quantify in its projections.





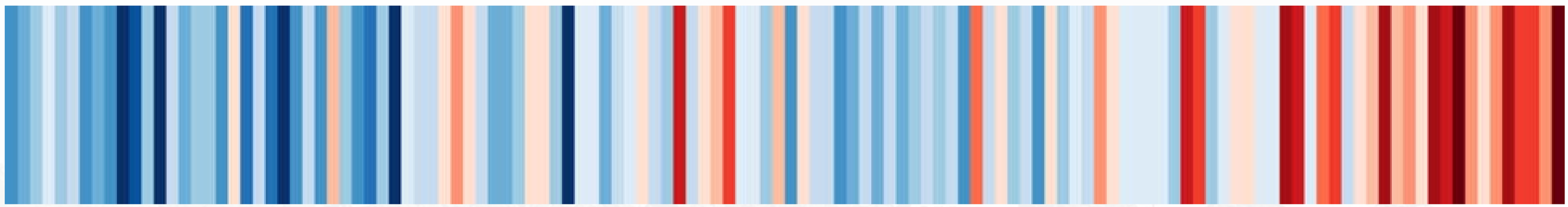
The 2021 Nantucket Coastal Resilience Plan projects risks to homes in Monomoy.



Also of great concern is the updated 2022 projections by National Oceanic and Atmospheric Administration (NOAA) of sea level rise and erosion on Coatue, an important barrier beach that protects the Harbor and Monomoy coastline from heavy seas and storm surges. If the barrier beach of Coatue erodes so much as to disappear, as projected in even intermediate scenarios by 2050, it will have major consequences for the island overall, the bay-scallop fishery in the Harbor and Monomoy.

Through the MCA, Monomoy residents participated in a meeting with CRP project staff to discuss its impact on the island and on Monomoy, and the vulnerabilities to be addressed in Monomoy.

We will continue to participate as the plan is formulated, and future iterations of this MAP will benefit from the risk analysis to our homes, public infrastructure, and historic and natural resources, as well as discussion on proposals for location-specific interventions to reduce long-term risks and increase resilience.



Warming Stripes of Massachusetts from 1895-2020. Annual average temperatures for Massachusetts from 1901-2020 using date from Berkeley Earth, NOAA

Taking Monomoy to Net Zero

The Nantucket Coastal Resilience Plan of November 2021 outlines a series of threats and risks to the island that are potentially devastating and addresses these with a package of mitigation and adaptation efforts that are projected to cost $840-$900 million over the next 15 years.

A suite of proposed solutions for consideration includes investments in infrastructure to protect the town core, raising roads and installing underground drainage systems, building bridges across ponds and marshes, elevating roads and bike paths, and introducing a host of interventions to tackle erosion and protect vital utility and transport infrastructure.

Considering these threats, Monomoy is aims to take steps to move to ‘Net Zero’ and to reduce our overall community footprint to one that is carbon neutral.

Our efforts are aligned with the State of Massachusetts’ decarbonization strategy, which strives to achieve neutral emissions and be net zero by 2050, and with National Grid, which similarly aims to achieve the same.

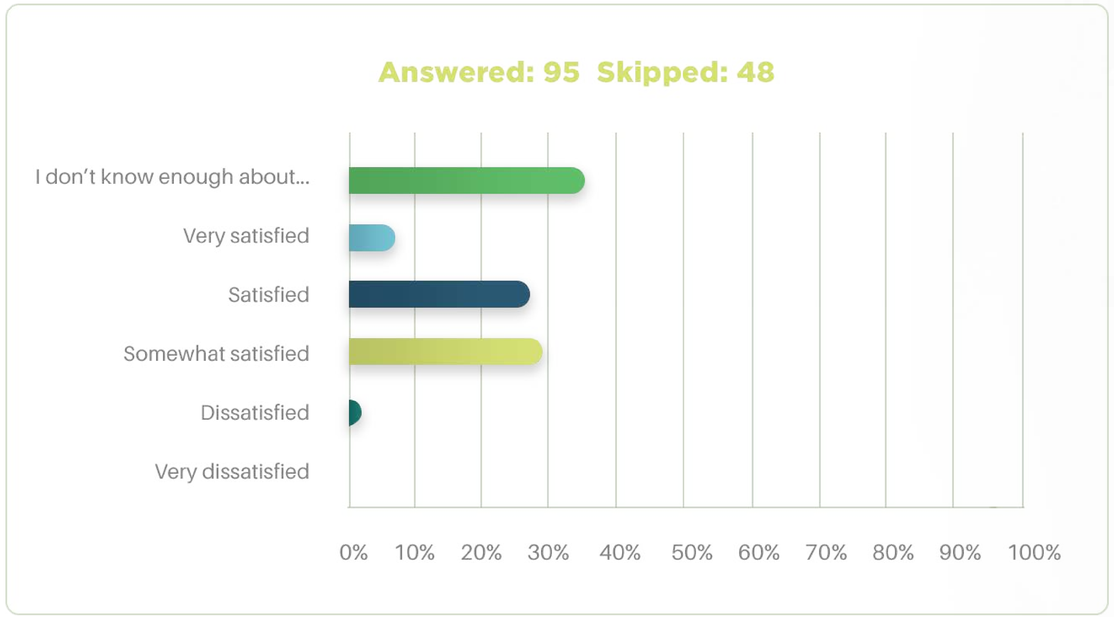
To be Net Zero, Monomoy will strive to generate less emissions that we contribute. Steps will include promoting—on a voluntary basis to homeowners—home energy audits offered by national Grid and the Town’s Energy Office, the value of high-efficiency HVAC systems, high quality energy-efficient windows, improved insulation, and where possible, moving from propane to electricity or geothermal for things like home heating and cooling and pool heating.

Our goal: For Monomoy to the first independently certified Net Zero community on Nantucket.



MONOMOY NEIGHBORHOOD SURVEY HIGHLIGHTS - CLIMATE ADAPTATION AND RESILIENCE

1. Support for Nantucket's Coastal Resilience Plan

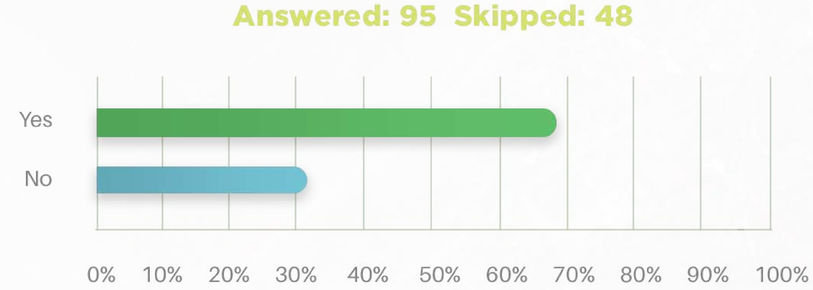


64% of respondents (61) are very, fully or somewhat satisfied with the near-term recommendations of Nantucket's Coastal Resilience Plan, however 35% feel they do not know enough about it to answer this question.

While more education and outreach are required for our community to better understand the CRP, we support the views of the CRP Team notes that Nantucket's one-of-a-kind character that must be preserved. While it is essential to protect the island from coastal hazards and climate risk, we agree it must not be at the expense of the elements which contribute to this unique sense of place, which include Nantucket's ecological resources and habitats, the coastal viewshed and access to the water, the historic built environment and cultural landscapes.

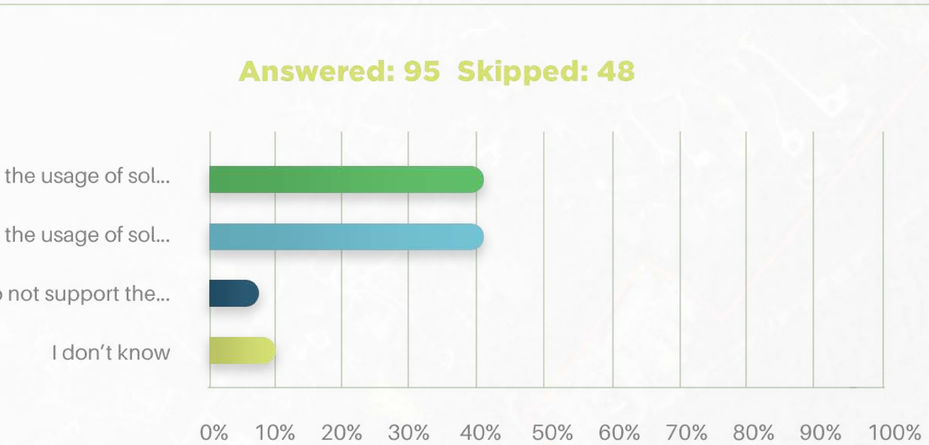
In response to the CRP's proposed ecological restoration efforts for The Creeks in Monomoy, we support nature-based strategies that minimize ecological impacts and maximize ecological and public access benefits. Preserving Nantucket's beaches and coastline into the future for as long as possible should be primary goal.

2. Achieving Net Zero status for Monomoy

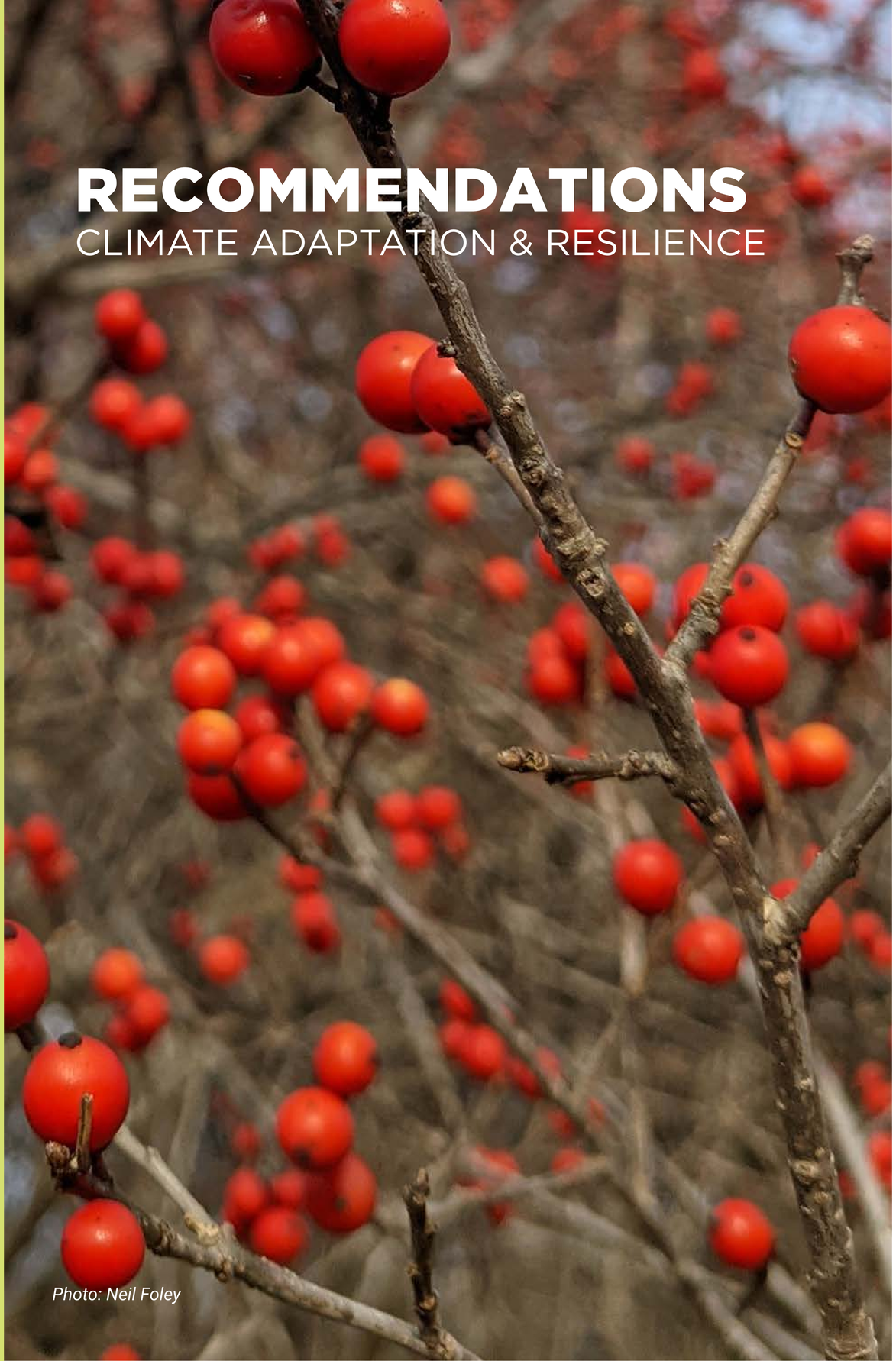


68% of respondents support efforts to achieve Net Zero status in Monomoy, which offers a potential way forward for our community to become part of the solution to coping with climate adaptation and resilience.

3. Support for Renewable Energy



Over 82% (78 respondents) support the greater use of solar technology for homes in Monomoy, with a majority caveat by 41% of respondents (39) that any such installations should not be seen or impact the visual character of the neighborhood. 11% responded with "don't know", which suggests a need for greater education and advocacy on the possibilities of renewable energy solutions such as solar.



RECOMMENDATIONS
CLIMATE ADAPTATION & RESILIENCE

Photo: Neil Foley

1 Support the Coastal Resilience Plan in relation to Monomoy

The Monomoy community supports that CRP recommendation that for the wetland area known as The Creeks, a long-term resource management plan should be undertaken to determine the best course of action, including accretion and salinity modeling to determine if long-term wetland enhancements may be necessary or appropriate.

Monomoy also supports the following CRP recommendations:

- Consider adopting stricter buffer requirements for setbacks to wetlands such as The Creeks that include consideration of climate change to allows coastal habitats and populations to adapt to changing conditions.
- Identify and implement green infrastructure and nature-based approaches to improve flood resilience and stormwater management.
- Integrate climate adaptation measures into all future master plan updates.

2 Strive to Achieve Net Zero Status for Monomoy

Our community supports a range of measures to achieve Net Zero status, starting with an independent carbon audit of the Monomoy community, and increased education and outreach through the MCA.

VI

Implementation: Strategy, Responsibility & Time Frame



LAND USE

1. Preserve and protect the exclusively residential character of Monomoy.

Implementation Strategy	Responsibility	Time Frame
I. Monitor and assess impacts of zoning regulatory framework on residential density.	MCA, NP&EDC	Continuous
II. Avoid any changes to zoning that would impact the exclusively residential character of Monomoy, including any effort to designate any portion of Monomoy to be under the Town Overlay District.	MCA, NP&EDC	Continuous

2. Explore opportunities to preserve and expand conservation land within Monomoy

Implementation Strategy	Responsibility	Time Frame
I. Undertake a land inventory assessment of possible land parcels within Monomoy that may be available for conversion to protected open space.	MCA, NP&EDC, LB, NCF; PO	Continuous
II. Once any parcel is identified, explore options for funding and support increased conserved open space in the community.	MCA, NP&EDC, LB, NCF; PO	Continuous

3. Consider resolution of non-conforming commercial uses when opportunities arise to do so

Implementation Strategy	Responsibility	Time Frame
I. Over time, and when opportunities arise, explore with the Town and commercial property owners the scope for creative solutions that might include donation, acquisition, land swaps, or other arrangements.	MCA, NP&EDC, LB, NCF; PO	Continuous

4. Oppose purely commercial short-term rental properties within Monomoy

Implementation Strategy	Responsibility	Time Frame
I. Strengthen zoning enforcement and the Town's overall regulatory framework to prohibit purely commercial short-term rentals in Monomoy.	SB, ZBA, NP&EDC	Continuous, until resolved

NATURAL AND CULTURAL RESOURCES

1. Undertake a biological field survey of endangered flora and fauna in Monomoy

Implementation Strategy	Responsibility	Time Frame
I. Document and assess the extent of threatened and endangered wildlife within habitats in Monomoy.	MCA, MassDEP, NHESP, NPO	2023-2024

2. Support reduction / elimination of fertilizers used for residential landscaping

Implementation Strategy	Responsibility	Time Frame
I. Provide greater education and advocacy on fertilizer reduction to homeowners to protect water quality and habitats in Monomoy.	MCA, NPO, PO	Continuous

3. Support community-wide efforts to reduce runoff and erosion

Implementation Strategy	Responsibility	Time Frame
I. Provide greater education and advocacy for a range of steps that can help reduce runoff and erosion, though an increase in native vegetation, a decrease in non-native species, lawn sizes, and concrete/asphalt coverage, and other measures.	MCA, NPO, PO	Continuous

4. Provide education and outreach on the value of the Dark Skies Initiative

Implementation Strategy	Responsibility	Time Frame
I. Achieve greater awareness of the impact of light pollution in the community through education, advocacy and outreach will serve to encourage the community to adopt less-intensive lighting practices.	MCA, NPO, PO	Continuous

OPEN SPACE AND RECREATION

1. Support education and advocacy for better stewardship of public beaches

Implementation Strategy	Responsibility	Time Frame
I. Explore options for education and advocacy to promote better stewardship of public beaches as a means to address challenges such as adherence to existing regulations, littering and damage to fragile beach ecosystems.	LB, NCF, MCA, DPW	2022-2023

2. Support reduction / elimination of fertilizers used for residential landscaping

Implementation Strategy	Responsibility	Time Frame
I. Explore ways to increase access to storage racks at the access point of Monomoy Beach.	MCA, NPO, PO	2022-2023

3. Support efforts to improve water quality in the harbor to protect the environment and sustain recreational shellfishing

Implementation Strategy	Responsibility	Time Frame
I. Provide greater education and advocacy to increase community support for higher water quality through addressing the use of fertilizers and hardscape runoff, and the importance of supporting eelgrass restoration projects in Nantucket Harbor.	MCA, NRD, NPOs	Continuous

4. Support the prohibition on Private Piers and Docks

Implementation Strategy	Responsibility	Time Frame
I. Provide community support to maintain the prohibition of any new private piers or docks along the shoreline.	HM, SB	Continuous

OPEN SPACE AND RECREATION

5. Better manage vehicle access and use on Cathcart Beach

Implementation Strategy	Responsibility	Time Frame
I. Encourage better management of vehicles use on Cathcart Beach, to address unattended vehicles and parking, hours of use, to minimize impacts in the surrounding neighborhood, environment and public safety.	LB	Starting 2022

6. Impose a “No Wake” zone at The Creeks

Implementation Strategy	Responsibility	Time Frame
I. Impose a “no wake” zone, with appropriate signage, to reduce the risk of damage to the area’s fragile ecosystem caused to the impacts of recreational vessels.	HM	2023

7. Explore siting alternatives and ensure impacts related to Wyer’s Valley Solar Energy Project are mitigated

Implementation Strategy	Responsibility	Time Frame
I. Review alternative options to conserve irreplaceable open space; impose development covenants to control and limit future development.	SB, ZBA, NP&EDC, EO, WC	Before finalization of project

SERVICES AND FACILITIES

1. Explore options for better maintenance of Monomoy's unpaved roads

Implementation Strategy	Responsibility	Time Frame
I. Explore options to improve grading and seasonal maintenance with the Town, abutting property owners and the wider Monomoy community.	MCA, DPW	2022, until resolved.

2. Support water conservation

Implementation Strategy	Responsibility	Time Frame
I. Increase homeowner adoption of rain detection equipment on automatic sprinkler systems, introduction of less water-intensive native landscaping, and retrofitting of dwelling with low flow toilets, shower heads and faucet aerators .	MCA, NPO, PO	2022-2024

3. Support electricity conservation

Implementation Strategy	Responsibility	Time Frame
I. Promote energy efficiency and conservation through home energy assessments, improved lighting efficiency, energy-efficient equipment and appliances and improvements to heating and cooling systems, including geothermal exchange systems.	MCA, EO, PO	2022-2024

4. Engage on island-wide solid waste solutions

Implementation Strategy	Responsibility	Time Frame
I. Engage in discussions with the Town's policymakers and other stakeholders on long-term, integrated and sustainable solutions that include improved efforts at avoidance, reuse, repurpose, reduction and recycling, and exploration of innovative technologies for waste management.	MCA, SB, DPW, PO	Continuous, until resolved.

SERVICES AND FACILITIES

5. Enhance fire protection infrastructure, as needed

Implementation Strategy	Responsibility	Time Frame
I. Nantucket Department of Public Works to assess the placement of fire hydrants and confirm sufficient coverage of the Monomoy community. If necessary, expand the network of fire hydrants.	MCA, DPW, NFD	Continuous until resolved.

6. Explore burying overhead utility lines

Implementation Strategy	Responsibility	Time Frame
I. For purposes of environmental aesthetics and climate change resiliency, the community will work with the Town and utility companies to move overhead utilities underground.	MCA, DPW Nat Grid	2022, until resolved.

CIRCULATION

1. Promote better safety and slower travel speeds on Monomoy Road

Implementation Strategy	Responsibility	Time Frame
I. The Town should explore providing better enforcement; MCA should consider educational outreach and increased signage to improve pedestrian safety.	MCA, DPW, NPD	2022, until resolved.

CLIMATE ADAPTATION AND RESILIENCE

1. Support the Coastal Resilience Plan in relation to Monomoy

Implementation Strategy	Responsibility	Time Frame
I. Undertake a long-term resource management planning exercise for The Creeks, to determine the best course of action for ecological restoration, if appropriate.	NRD, MassDEP, NPO	2023, until resolved.
II. Adopt stricter buffer requirements for setbacks to wetlands such as The Creeks to allow coastal habitats and populations to adapt to changing conditions.	NRD, ConCom	2023, until resolved.
III. Identify and implement green infrastructure and nature-based approaches to improve flood resilience and stormwater management.	NRD, MassDEP, NPO	2023, until resolved.
IV. Integrate climate adaptation measures into all future master plan updates.	NP&EDC	Starting with Master Plan exercise

2. Achieve Net Zero Status for Monomoy

Implementation Strategy	Responsibility	Time Frame
I. Undertake an independent carbon audit of the Monomoy community.	MCA, EO, Nat Grid, consultants	2023
I. Offer education and outreach to Monomoy homeowners on optional steps to help achieve Net Zero status	MCA, EO, Nat Grid	Continuous

IMPLEMENTATION MATRIX LEGEND

Responsible Entity	Acronym
Conservation Commission	ConCom
Energy Office	EO
Fire Department	NFD
Harbor Master	HB
Land Bank	LB
Massachusetts Department of Environmental Protection	MassDEP
Monomoy Civic Association	MCA
Nantucket Conservation Foundation	NCF
National Grid	Nat Grid
Natural Heritage & Endangered Species Program (MassWildlife)	NHESP
Natural Resources Department	NRD
Non-profit organizations	NPO
Planning Board	PB
Planning & Economic Development Commission	NP&EDC
Police Department	NPD
Property Owners	PO
Department of Public Works	DPW
Select Board	SB
Water Commission	WC
Zoning Board of Appeals	ZBA



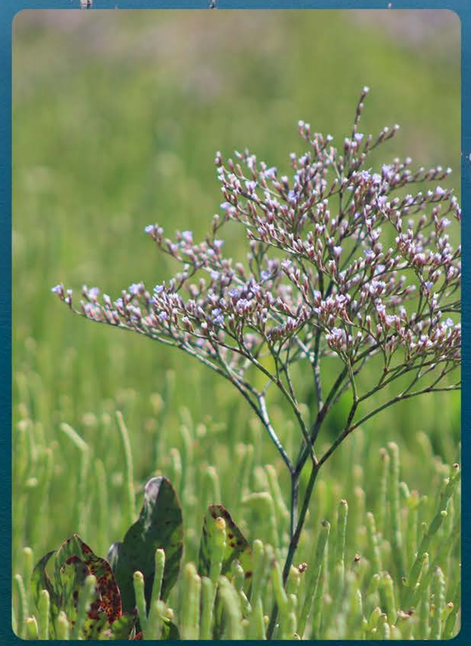


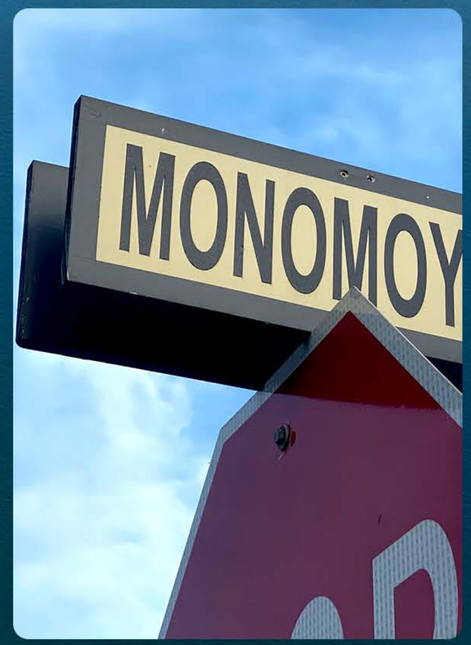
A VISION FOR OUR FUTURE













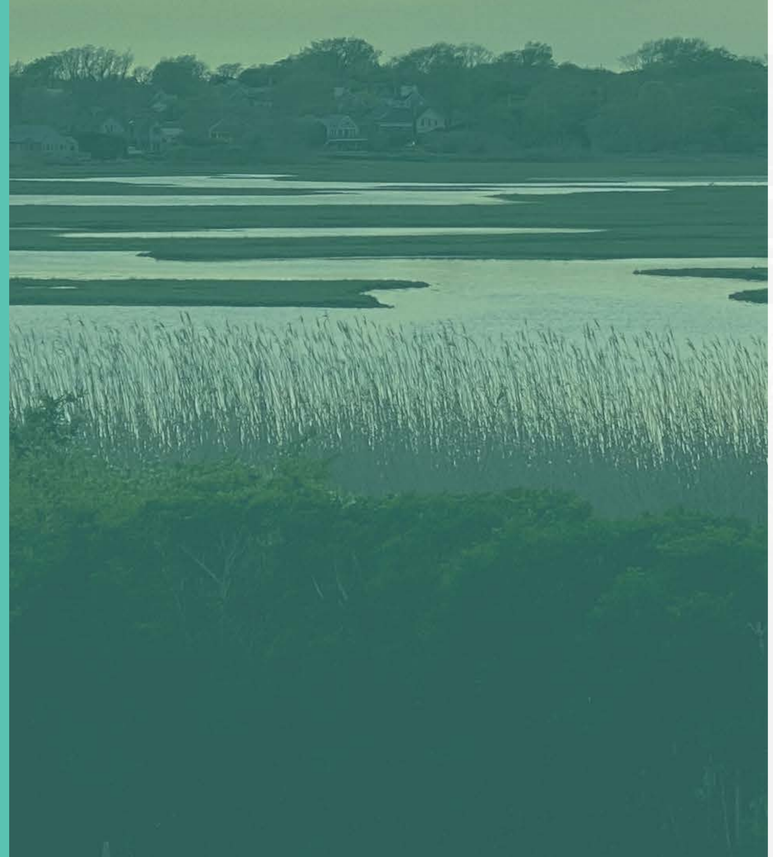






APPENDICES

I Monomoy Civic Association
II Monomoy Area Plan Working Group
III Monomoy Area Plan Boundary Map
IV Monomoy's Historic Architectural Heritage
V Additional Resources
VI Acknowledgments and Credits



Appendix I: Monomoy Civic Association

The MCA was established in 2012 by residents of the Monomoy community to protect and promote the mutual interests of property owners and residents in the part of Nantucket commonly called Monomoy. Monomoy includes large amounts of open space, access to the Harbor and The Creeks, and offers a quiet spacious feel with numerous unpaved roads, wetlands and scenic views.

The MCA seeks to preserve this landscape and to support area-appropriate improvements therein. The MCA is a forum through which the Monomoy community gathers to discuss matters of common interest. It strives to maintain and enhance the quality of life and quiet enjoyment of this residential neighborhood for its residents and members.

BOARD OF DIRECTORS

Evan Jones, Co-President
Franci Neely, Co-President
Laura Foley Choma
Meg and Matt Dwyer
John Kitchener
Steve Leinbach
Leo Mullen
Debbe Nicholson
Jeffrey Parker
Ken Roman
Matthew Westfall

PAST PRESIDENTS

Ted Taylor, Founding President, 2012
Peter Campanella, 2013-2018
Ken Roman, 2019-2021

To learn more about MCA, visit us on at www.mcanantucket.com and on Instagram @monomoyneighbors

Appendix II: Monomoy Area Plan Working Group

Franci Neely	5 Salt Marsh Road	Co-Chair, Working Group
Matthew Westfall	30 Monomoy Road	Co-Chair, Working Group Chair, Services & Facilities and Climate Resilience & Adaptation Subgroups
Laura Choma	29 Monomoy Road	Chair, Circulation Subgroup
John Kitchener	27 Monomoy Road	Chair, Land Use Subgroup
Steve Leinbach	52 Monomoy Road	Chair, Open Space & Recreation Subgroup
Emily Molden	Nantucket Land Council	Chair, Natural & Cultural Resources Subgroup
Caroline Mullen	19 Brewster Road	Chair, Neighborhood Survey
John Greene	12 Chatham Road	Member
Dawn Holdgate	26 Monomoy Road	Member
Debbe Nicholson	26 Brewster Road	Member
Ed Orenstein	54 Monomoy Road	Member
Karl and Sue Ottison	170 Orange Street	Member

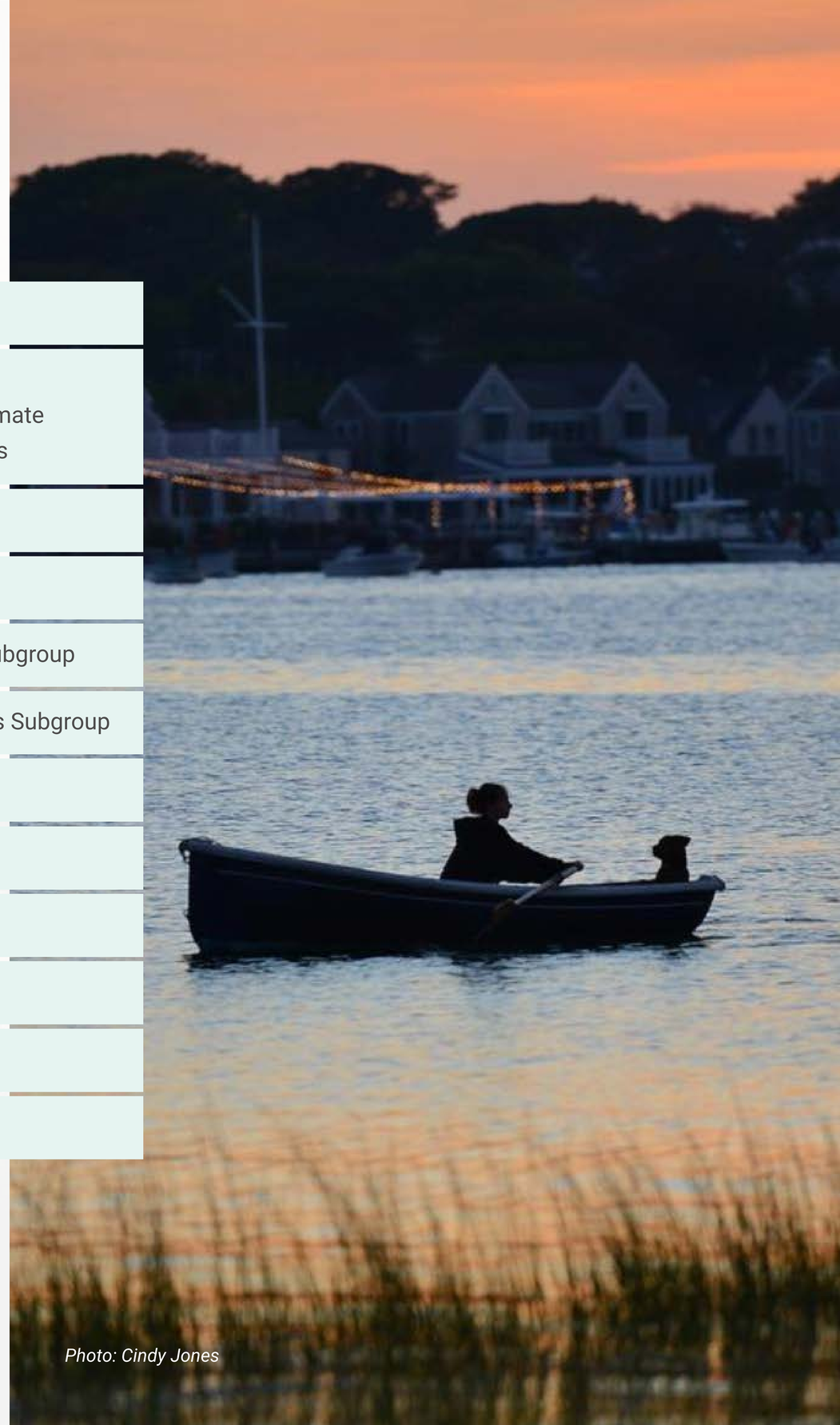
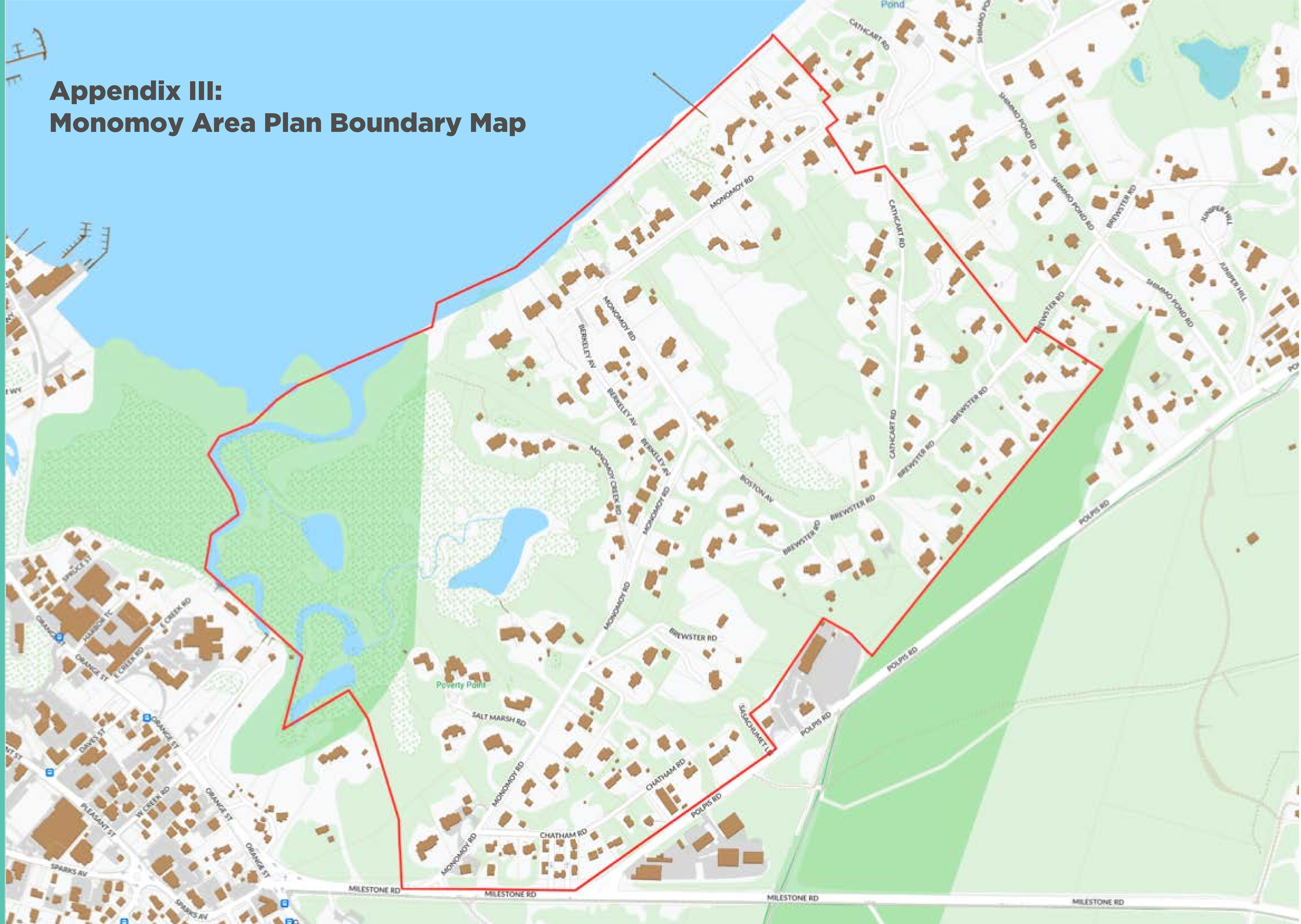


Photo: Cindy Jones

Appendix III:
Monomoy Area Plan Boundary Map



Appendix IV: Monomoy's Historic Architectural Heritage

In 1955, Nantucket became one of the first two local historic districts in Massachusetts and one of the earliest local historic districts in the nation through special legislation initiated by the town and passed by the Commonwealth of Massachusetts. Originally encompassing only the Old Town and the Village of Siasconset, this local historic district was expanded in 1971 to include the entirety of the Town of Nantucket. In 1966, the Nantucket Historic District was designated a National Historic Landmark and later expanded to cover the entire island of Nantucket.[18]

Located within these historic preservation districts, Monomoy offers significant historical architectural heritage, with many homes dating to the early 20th century. Some 46 structures are listed with the Massachusetts Historical Commission, on the Massachusetts Cultural Resource Information System (MACRIS),[19] though many have gone through permutations of renovation over the years as approved by the Town's Historic District Commission (HDC). Many others have been demolished over time. There are also a number of other historic structures in Monomoy dating to as early as 1909 that have not been registered and captured in the MACRIS database.



Photo: Nantucket Historical Association

18 19 https://www.nantucket-ma.gov/DocumentCenter/View/37711/National-Historic-Landmark-Registration-Report-PDF

Notable highlights of the MACRIS database for Monomoy include:

Monomoy Cultural Resource



"Mid Pasture" 4 Berkeley Ave
1920



"Windyway" 9 Berkeley Ave
1920



"Shawkemo" 10 Berkeley Ave
1920



"Kindertucket" 39 Monomoy Rd
1920



"Cross Creek" 42 Monomoy Rd
1928



45 Monomoy Rd
1938



"Mistover" 46 Monomoy Rd
1913



"Amanda" 50 Monomoy Rd
1913



"Morris Ernst House" 64 Monomoy Rd
1928



"The Knoll" 74 Monomoy Rd
1920

Appendix V: Additional Resources

Master Planning

Nantucket Master Plan - 2009
https://records.nantucket-ma.gov/WebLink/ElectronicFile.aspx?docid=122938&dbid=0&repo=TownofNantucket

Nantucket GIS Maps
https://www.nantucket-ma.gov/151/GIS-Maps

Nantucket Online GIS
https://nantucketma.mapgeo.io

Other Local Area Plans for Nantucket
https://records.nantucket-ma.gov/WebLink/Browse.aspx?id=122939&dbid=0&repo=TownofNantucket

Land Use

Nantucket Build-out Analysis
https://cpb-us-w2.wpmucdn.com/wp.wpi.edu/dist/e/127/files/2018/11/TMO_Final-Report-228ur7r.pdf

Natural and Cultural Resources

The Creeks

List of MA state listed endangered, threatened and species of special concern:
https://www.mass.gov/info-details/list-of-endangered-threatened-and-special-concern-species

Interactive Rare Species Viewer for more specific Nantucket information:
https://www.mass.gov/info-details/rare-species-viewer

Protected Wetlands Within Monomoy

Town of Nantucket Wetland Protection Regulations:
https://www.nantucket-ma.gov/DocumentCenter/View/1008/Conservation-Commission-Wetland-Regulations-2013-PDF

Priority Habitat for State Listed Rare Species

MA Natural Heritage Endangered Species Program Regulatory Maps:
https://www.mass.gov/service-details/regulatory-maps-priority-estimated-habitats

MA Natural Heritage and Endangered Species Program BioMap2
http://maps.massgis.state.ma.us/dfg/biomap2.htm

BioMap2 - Species of Conservation Concern:
https://www.mass.gov/doc/species-of-conservation-concern/download

BioMap2 - Coastal Adaptation:
https://www.mass.gov/doc/upland-habitat-to-support-coastal-adaptation/download

BioMap2 - Foraging Habitat for Tern Species:
Foraging Habitat for Tern Species - identifies the offshore habitat used by MESA-listed Roseate, Arctic, Common, and Least Terns when foraging for food
(see Species of Conservation Concern)

The Harbor

Nantucket and Madaket Harbors Action Plan:
https://www.nantucket-ma.gov/DocumentCenter/View/10269/Nantucket-and-Madaket-Harbors-Action-Plan-PDF

MA Division of Marine Fisheries:
https://www.mass.gov/orgs/division-of-marine-fisheries

Nantucket's Best Management Practices for Fertilizer Use on Nantucket:
https://www.nantucket-ma.gov/DocumentCenter/View/955/Best-Management-Practices-for-Landscape-Fertilizer-Use-on-Nantucket-Island?bidId=

2015 Nantucket Eelgrass Mapping Project:
https://www.nantucketlandcouncil.org/wp-content/uploads/2016/02/2015-Nantucket-Eelgrass-Mapping-Final-Report.pdf

Nantucket Landscaping with Native Species Brochure:
https://www.nantucketlandcouncil.org/wp-content/uploads/Biodiversity-Broch-Pages-In-order.pdf

Dark Skies Initiative

Nantucket Lights:
https://nantucketlights.org/

Monomoy's Historic Architectural Heritage

Massachusetts Historical Commission - Massachusetts Cultural Resource Information System (MACRIS)
https://mhc-macris.net/#!/

Open Space and Recreation

Nantucket Open Space and Recreation Plan - 2007
https://records.nantucket-ma.gov/WebLink/ElectronicFile.aspx?docid=122963&dbid=0&repo=TownofNantucket

Nantucket Shellfish Management Plan - 2012
https://www.nantucket-ma.gov/DocumentCenter/View/88/Final-Shellfish-Management-Plan-PDF?bidId=

Recreational Shellfishing

https://www.nantucketshellfish.org/recreational-shellfishing

Services and Facilities

Wannacomet Annual Drinking Water Quality Report - 2019
http://www.wannacomet.org/documents/2019_WaterCompany_Report_Web.pdf

Sewer District Master Plan
https://www.nantucket-ma.gov/1536/Sewer-District-Master-Plan

Waste Streams Guide and Map
https://www.nantucket-ma.gov/DocumentCenter/View/27503/Waste-streams-Guide--Map-PDF

History of Energy on Nantucket - Nantucket Energy Office
http://www.ackenergy.org/brief-history-of-energy-on-nantucket.html

Circulation

Nantucket Traffic Improvement Plan - 2022-2026 (draft)
https://www.nantucket-ma.gov/DocumentCenter/View/36294/Notice-of-Public-Review-Period-Transportation-Improvement-Program-PDF

Long-Range Transportation Plan - 2020-2040
https://www.nantucket-ma.gov/DocumentCenter/View/24593/Long-Range-Transportation-Plan-FFY-2020-2040-PDF

Bike Path Network
https://www.nantucket-ma.gov/DocumentCenter/View/1223/Bike-Path-Maps?bidId=

Climate Adaptation and Resilience

Coastal Resilience Plan
https://www.nantucket-ma.gov/2030/Coastal-Resilience-Plan

NOAA Sea Level Rise Viewer
https://coast.noaa.gov/slr/
https://coast.noaa.gov/slr/#/layer/sce/2/-7802012.036114372/5053439.277331307/16/satellite/104/0.8/2050/inter/midAccretion

Erosion Hazard Maps
https://www.nantucket-ma.gov/1977/FEMA-Coastal-Erosion-Hazard-Map
https://fema.maps.arcgis.com/apps/webappviewer/index.html?id=a4aa86031a3a40be9d453d781ff210b3

Net Zero

Massachusetts Climate Action
Net Zero Planning for Communities

Metropolitan Area Planning Council (regional planning agency serving 101 cities and towns of Metropolitan Boston)
Net Zero Playbook

Cape Light Compact
How You Can help you Community Become Net Zero

Best Practice: Cambridge, MA
Net Zero Task Force

Best Practice: Arlington, MA
Net Zero Action Plan

National Grid
Net Zero by 2050

Appendix VI: Acknowledgments and Credits

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All ownership and copyright of all photography remain with the individual contributors and /or their organizations.

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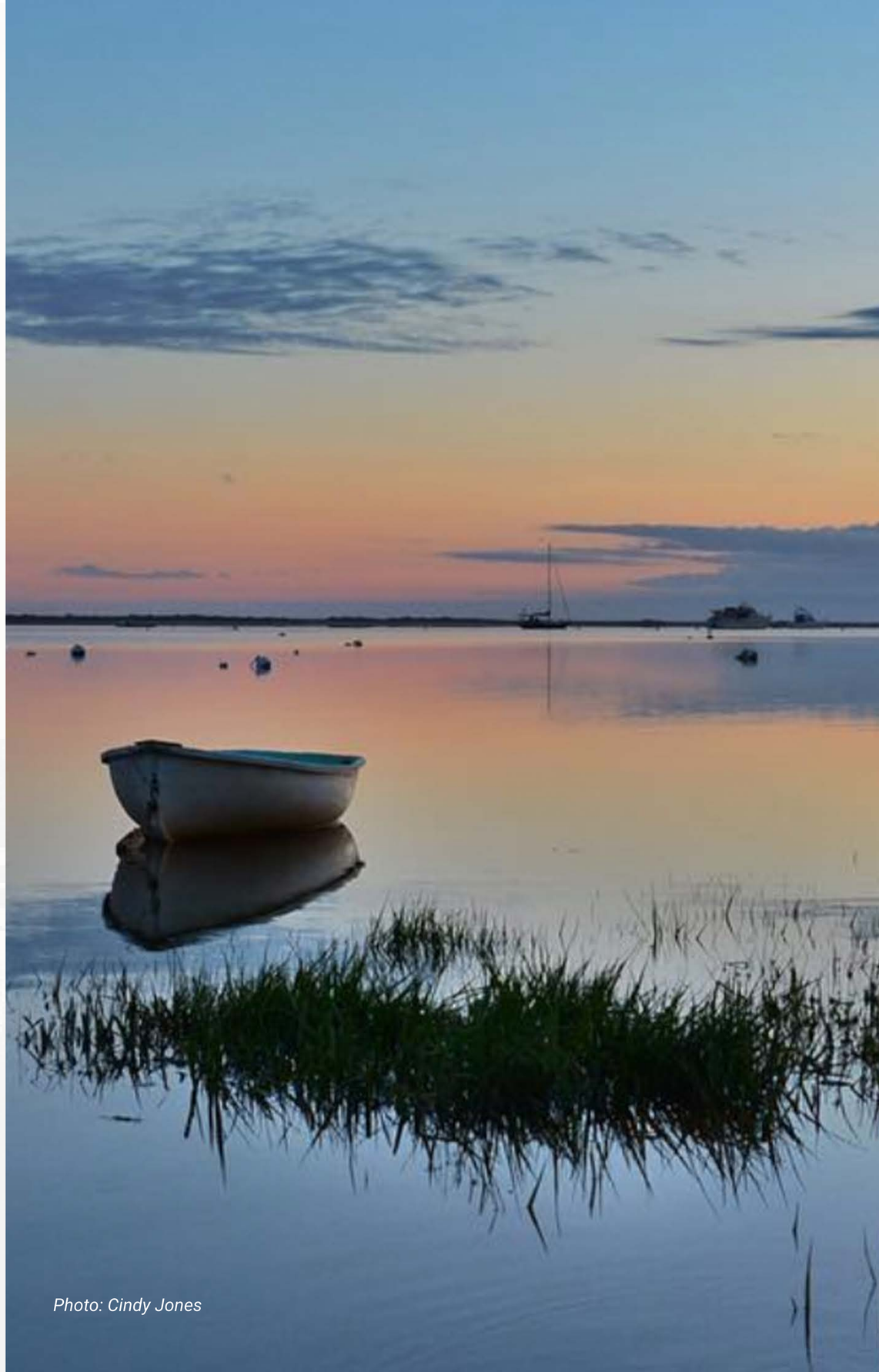


Photo: Cindy Jones