

From: [conn](#)
To: [Leah Hill](#)
Subject: Art. 69
Date: Thursday, May 16, 2024 8:26:50 AM

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Good morning, Ms, Hill.

Thank you again for keeping in touch. We are very concerned about the selection by a member of your group to build a prototype plan without first having the Select Board move to have Article 69 amend the Nantucket Code and then follow Article 69 instruction to map the entire district and break it down into so called sub-districts. After this is done maybe you might be able to pick a sub-district to prototype. We will be very closely following this as we are sure you will put your efforts into establishing a coastal resilience district and not just another recreational area with no parking.

Please read this at the opening of your next meeting.

Regards
Gerry Connick
Washington Street (for 40 years)
561-310-0076

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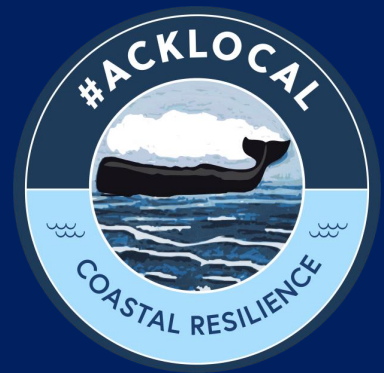
Coastal
Resilience
Advisory
Committee
(CRAC)

2ND QUARTER
REPORT TO
SELECT BOARD
FOR APRIL-JUNE
2024

**COASTAL
RESILIENCE
ADVISORY
COMMITTEE**

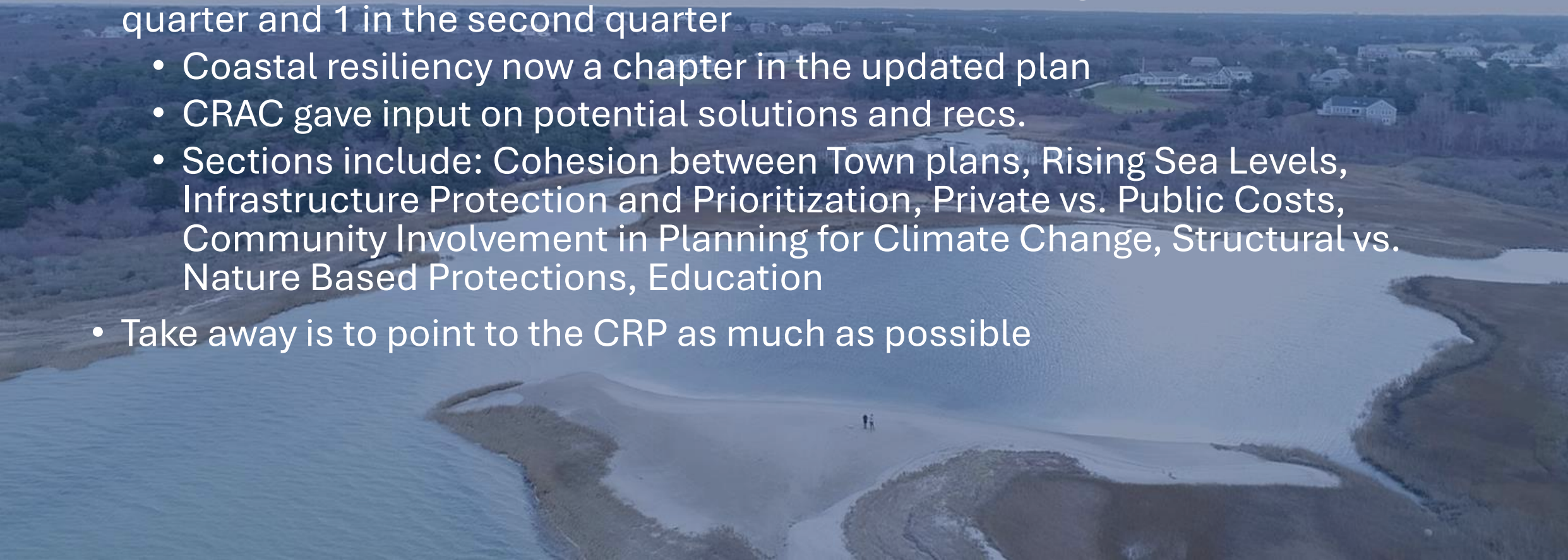
HIGHLIGHTS FROM THE QUARTER

- Input into the Harbor Action Plan Update
- Completed homeowner's survey
- Created an informational brochure
- Downtown site visit
- Recap on Coastal Resilience Districts
- Discussions with local regulatory boards and commissions



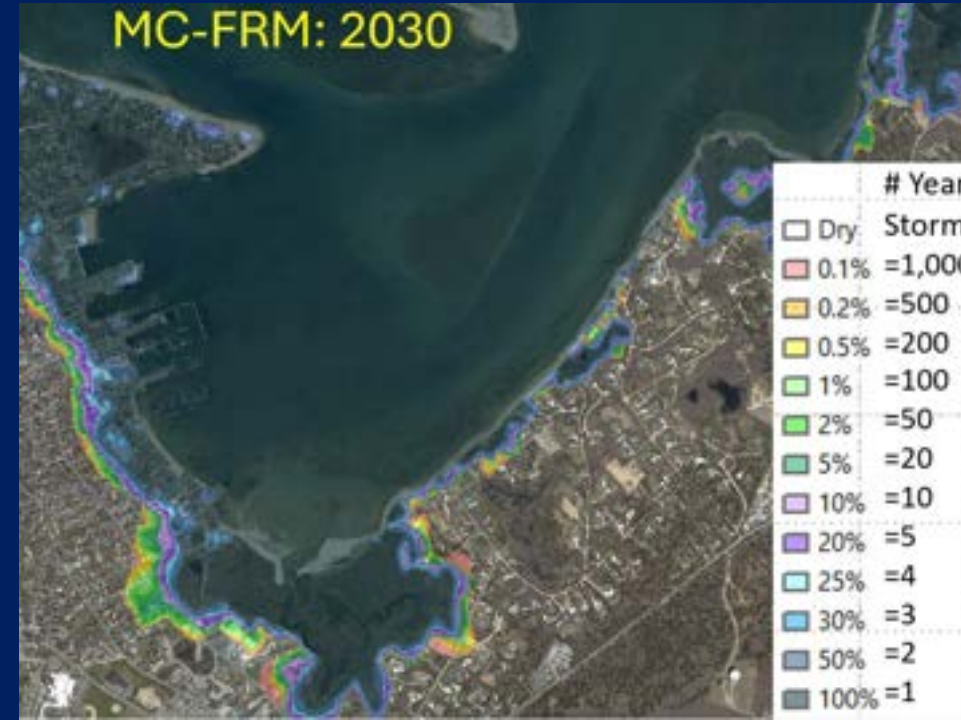
Input to the Nantucket Harbor's Action Plan Update

- Urban Harbors Institute attended multiple CRAC meetings
- CRAC members attended 2 Harbor Plan update meetings- 1 in the first quarter and 1 in the second quarter
 - Coastal resiliency now a chapter in the updated plan
 - CRAC gave input on potential solutions and recs.
 - Sections include: Cohesion between Town plans, Rising Sea Levels, Infrastructure Protection and Prioritization, Private vs. Public Costs, Community Involvement in Planning for Climate Change, Structural vs. Nature Based Protections, Education
- Take away is to point to the CRP as much as possible



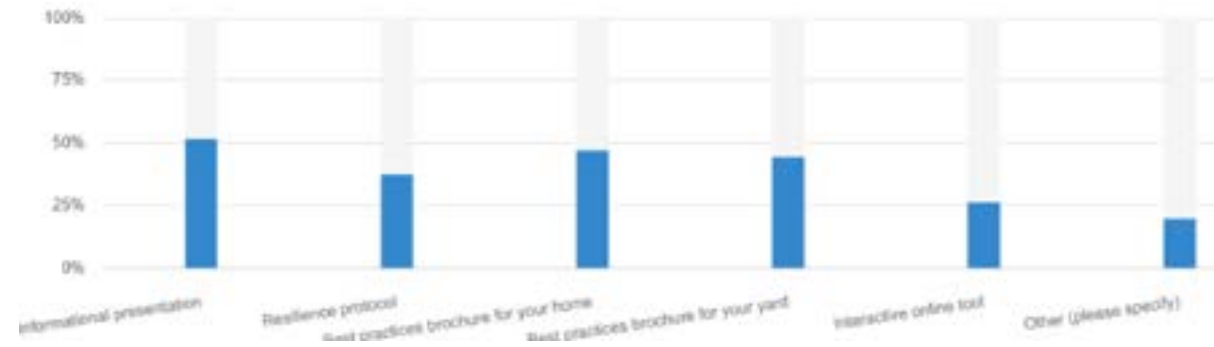
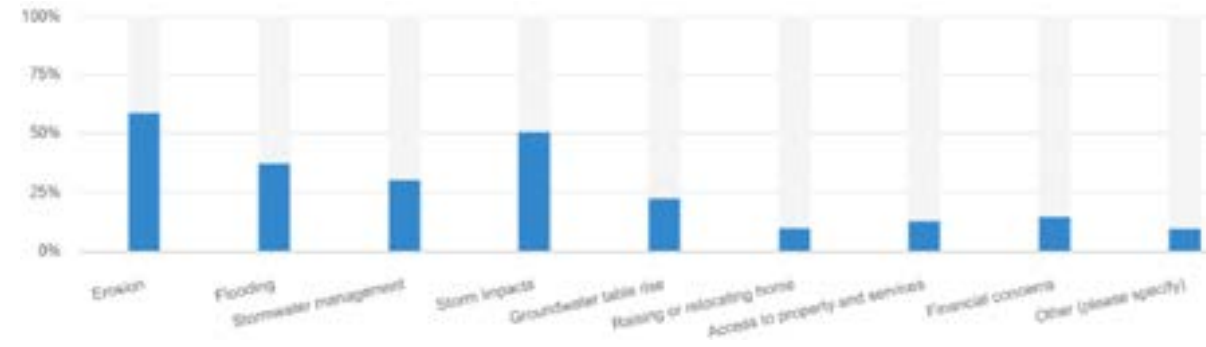
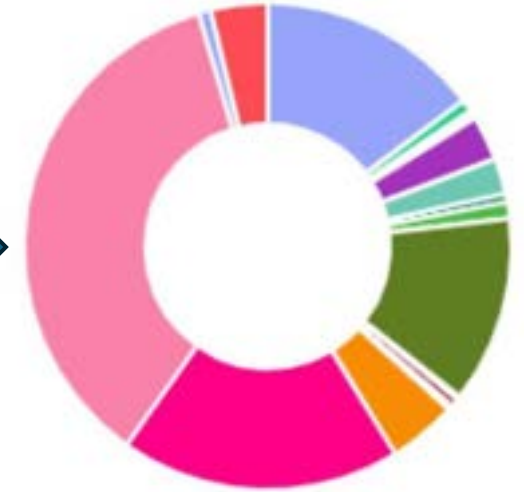
Presentation on the Massachusetts Coastal Flood Risk Model by Kirk Bosma

- MC-FRM is a model that predicts salt water flooding by coastal storms for 2030, 2050, 2070
- Deep dive into MC-FRM because questions arose during local Wetland Regulation update hearings regarding issues with the model
 - Issues primarily with sea level rise projections and scenarios
 - MC-FRM is NOT a sea level rise model or predictor
- Hoping to get the updated layers on our GIS



Presentation on the Results from CRAC's Area Association Survey by Peter Morrison

- ~400 participants from 24 different areas
1. What are your biggest concerns today regarding coastal hazards related to sea level rise on your property or within your neighborhood?
 2. Do you have concerns about your property or your neighborhood for the future?
 3. Are you currently implementing coastal resilience measures?
 4. From your perspective how can CRAC help your neighborhood within our capacity?



Discussion on Next Steps for Survey

- Survey still open on CRAC's webpage
- Print card with QR code to pass out at forums this summer and fall
- Continue giving homeowner association presentations
- Create resilience roadmaps for neighborhoods?
- Create resilience guide for yards
- Created homebuyer's brochure



Real Estate and Homebuyers Brochure

- Public comments at CRAC meeting catalyst for this
 - A need to educate real estate agents and homebuyers on coastal hazards and risks
- CRAC gave input on what to include
- Thank you Communication Office!
- Coastal Resilience Coordinator co-taught a continuing education class for Nantucket Real Estate Agents on coastal resilience
 - Thank you NAREB!



FEMA FLOOD MAPS

FIND OUT IF A PROPERTY FALLS WITHIN A CURRENT FLOOD ZONE

Moderate- to low-risk flood areas are designated with the letters B, C, and X on FEMA flood maps. In these areas, the risk of being flooded is reduced, but not completely removed. **One in three insurance claims come from moderate- to low-risk flood areas.**

High-risk flood areas begin with the letters A or V on FEMA flood maps (warm colors on map above). **These areas face the highest risk of flooding.** If you own a property in a high-risk zone and have a federally backed mortgage, **you are required to purchase flood insurance as a condition of that loan.**



SCAN THE QR CODE

- Enter your address in the search bar (upper right hand corner).
- Colors are associated with specific flood zones.

OUR COASTAL RESILIENCE PLAN

The Coastal Resilience Plan for Nantucket presents a comprehensive island-wide strategy, outlining 40 key recommendations to be executed over the coming decade and a half. This proactive approach is designed to mitigate the risks associated with flooding and erosion in Nantucket, ensuring resilient infrastructure through 2070.



SCAN THE QR CODE

- Read the full CRP.
- Find ideas to make your property more resilient.

FOLLOW THESE TIPS TO PROTECT YOUR PROPERTY

-  ELEVATE APPLIANCES
-  PURCHASE AND MAINTAIN FLOOD INSURANCE
-  PLANT WITH NATIVE VEGETATION
-  KNOW YOUR RISKS!
-  STAY UP TO DATE WITH THE CURRENT CLIMATE CHANGE DATA
-  CONTACT US IF YOU HAVE QUESTIONS!

STAY IN TOUCH

-  www.nantucket-ma.gov/crp
-  coastalresilience@nantucket-ma.gov
-  @nrduck
-  /nantucketnrd



Coastal Resilience Guide for Real Estate Agents and Homebuyers

Produced by the:

COASTAL RESILIENCE ADVISORY COMMITTEE

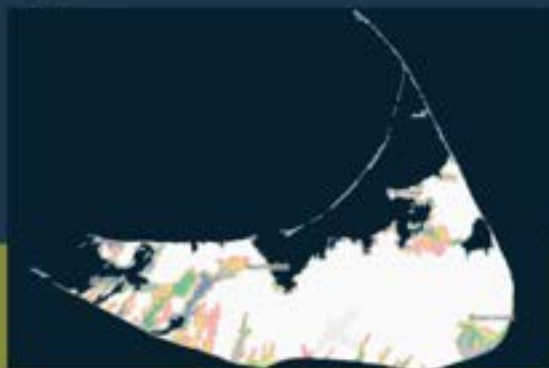
This brochure introduces the best available maps and models for erosion, flooding, and groundwater table rise for Nantucket.

Users can input specific addresses to learn about the current and future risks that properties may encounter.

MA COASTAL FLOOD RISK MODEL

FIND OUT WHAT THE FUTURE
FLOOD PROBABILITY IS FOR A
PROPERTY

This model uses sea level rise, winds, tides, storm surge, wave overtopping, and how hurricanes and winter storms will change with the changing climate to predict future flooding by storms.



SCAN THE QR CODE

- Pick a timeframe (present, 2030, 2050 or 2070).
- Search for an address using the search icon on the upper right corner of the map.
- Colors associate with the probability of a property being flooded with salt water during a coastal storm. Ex. 100% coastal flood exceedance probability zone (dark blue) has a 100% chance (1 year return period) of flooding. In other words there is a 100% chance that this location will get wet with salt water during a coastal storm event.



"Properties within the 1% annual chance storm event or 100-year storm have a 1 in 4 chance of flooding over the course of a 30 year mortgage"

GROUNDWATER TABLE RISE MAP

PREDICTIONS FOR
GROUNDWATER LEVEL CHANGE
ON A PROPERTY

The groundwater table is anticipated to rise as sea level rises, which may cause new wetlands in areas that are currently dry and expand current wetlands. This may affect properties by having frequently flooded basements and restrictions on building structures and pools. If you are interested in knowing more about groundwater on a property you will have to consult a professional hydrogeologist.



ASK THESE QUESTIONS:

- Where is the septic system located?
- How far away is the property from a wetland?
- Does the property have a flooding history?
- Have neighbors had to move or demo their homes because of erosion?
- Is there enough room on the property to retreat the home?
- Are there any ongoing or future coastal resilience projects in the neighborhood?

NON-REGULATORY FEMA EROSION PROJECTION MAP

FIND OUT IF A PROPERTY IS IN A
FUTURE EROSION AREA



SCAN THE QR CODE

- Enter an address in the upper left hand corner.
- The colors associate with the year yellow (2030), orange (2050), and purple (2100).
- There is a ruler (upper right hand corner) where you can measure how many feet are projected to be lost.

"Nantucket has one of the highest erosion rates in MA."



HISTORIC STRUCTURES

Visit www.nantucket-ma.gov/resilientack and learn about best practices to protect historic properties.

Site Visit



- Children's Beach
 - Segment of Downtown Neighborhood Flood Barrier
 - Concession resilience
- Easy Street
 - Segment of Downtown Neighborhood Flood Barrier
 - Updated risk assessment: now-2070 \$1.2 Billion in expected losses due to coastal flooding
 - Active project to bring resilience adaptation to 30% design
- Francis Street Beach Area
 - Explained Phase 1 of Washington St. Resilience Framework Plan
 - Current status: conceptual idea



Washington St.



Town Meeting Recap: Article 67 & 69 by Vince Murphy

- Committee consensus general confusion from public regarding these articles
- More education and outreach around coastal resiliency and especially Town Meeting Articles
- Suggested to host a forum for public

Public Outreach Ideas

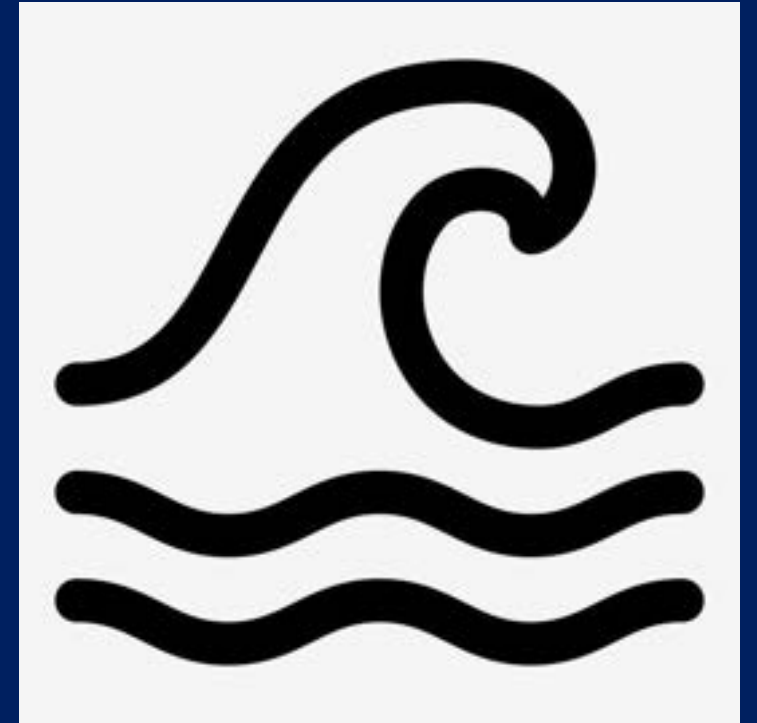
- Still posting every Thursday on NRD's social media
- Reach back out to aligned organizations about adding coastal resilience to their newsletters
- Contact local media to see if they will feature coastal resilience topics
- Hold a coastal resilience forum for the public to ask questions/speak about coastal resilience issues
- Speak at different forums this summer to inform the public about CRAC
 - Civic League's Presidents Breakfast
 - State of the Harbor
 - Climate Change Summit

Presentation on CRP Rec #4-3 “Coastal Erosion Management and Dune Resilience

Discussion with Mark Willet from Wannacommet Water

Discussion with Local Regulatory Boards & Commissions

- 2 meetings
- Chairs or vice-chairs from
 - Airport Commission
 - Nantucket Planning and Economic Development Commission
 - Zoning Board of Appeals
 - Planning Board
 - Conservation Commission
 - Board of Health
 - Historic District Commission
- General consensus from these boards and commissions is that their regulations need to be updated to incorporate coastal resiliency



REQUESTS AND RECOMMENDATIONS

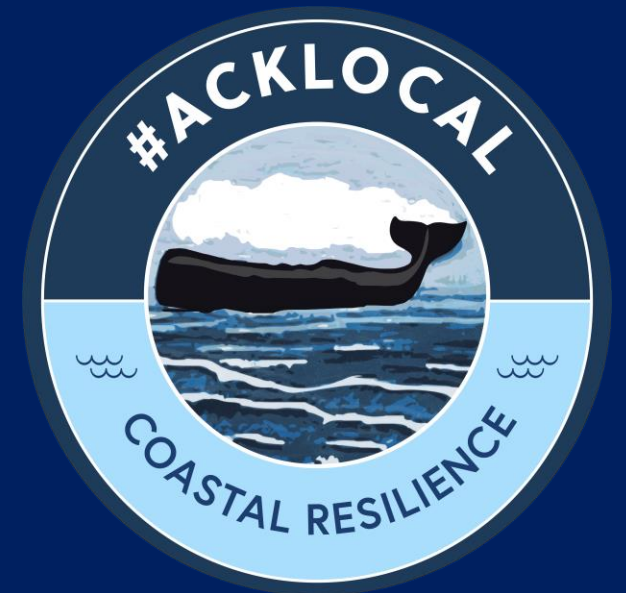
- Can CRAC offer comments/suggestions on how to incorporate coastal resiliency into local regulations?

Are there current or upcoming issues for which the Select Board would like the CRAC's advice?

The Coastal Resilience Advisory Committee generally meets on the **second** and **fourth Tuesday** of each month at 10 am via Zoom. Meeting notices and agendas are posted on the Town's website at:

<https://nantucket-ma.gov/1391/Coastal-Resiliency-Advisory-Committee>

Contact Leah Hill, Coastal Resilience Coordinator,
lhill@nantucket-ma.gov

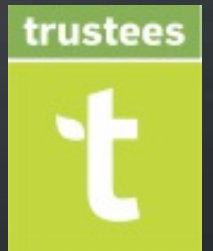


Coastal Resilience Planning: Coskata-Coatue Wildlife Refuge

Jen Karberg
Director of Research and Partnerships



Alejandra Narvaez
Coastal Projects Manager



“Assessment and Analysis of Adaptive Interventions for Coatae-Coskata Properties”

Report prepared by The Woods Hole Group for the Nantucket Conservation Foundation (NCF) and The Trustees of Reservations (TTOR)

Key Report Components:

- Existing conditions
- Historic, current and predicted shoreline change summary
- Coastal inundation assessment
- Detailed analyses of 4 highly vulnerable sites already experiencing sea level rise impacts identified by NCF and TTOR



General Findings

The Refuge is vulnerable to storm surge, present and future climate conditions.

Present Day: ~ 91% of the Refuge has a 100% chance of inundation each year.

By 2070, 98% of the total study area that will have a 100% chance of inundation each year.”

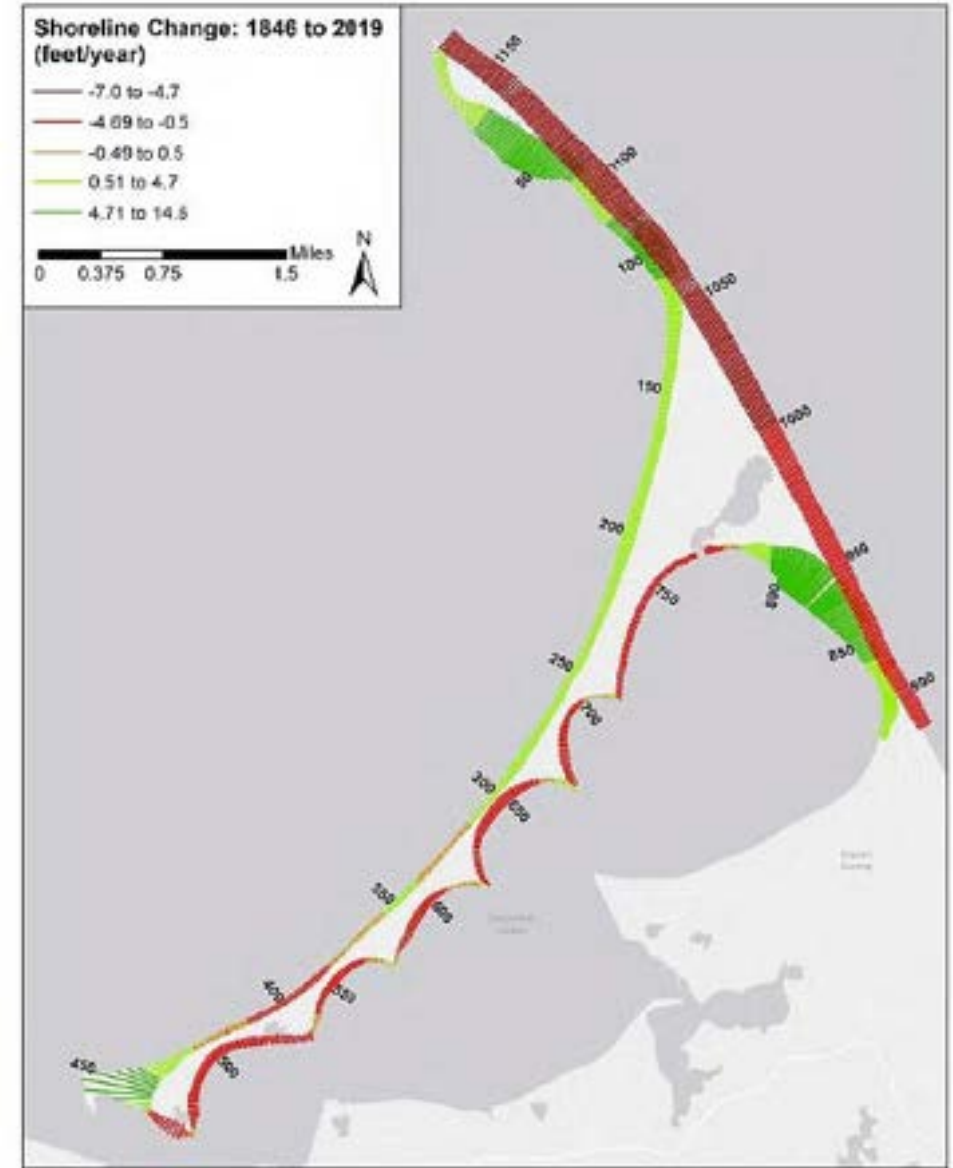
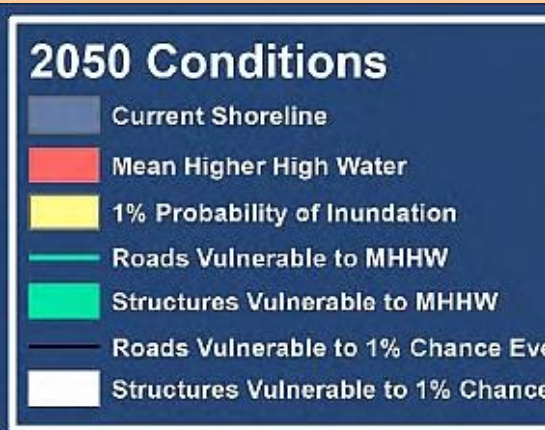


Figure 4. Long-term shoreline change rates for the western (1846-2019) and eastern (1887-2019) study areas. Negative values indicate erosion, while positive values indicate accretion.



The Haulover



Benefits to increasing Resilience

- Protect Nantucket Harbor
- Salt marsh migration on harbor side
- Enhance wildlife habitat
- Maintain public access

Coskata Pond



Benefits:

- Protect salt marsh and Coskata Pond from ocean overwash
- Maintain/enhance rare shorebird nesting habitat
- Maintain public access



National Fish and Wildlife Grant: NCF and Trustees

Deliverables:

1. Site Assessment
2. Design of Alternatives for both sites
3. Final Design to 30%



PROPOSAL

Building Beach and Salt Marsh Resilience to Protect Island Communities in Massachusetts:

Coskata-Coatue Wildlife Refuge on Nantucket Island, MA





Prepared for
The Trustees of Reservations & Nantucket Conservation Foundation



Submitted by:
GZA GeoEnvironmental, Inc.
118 Valley Street, Third Floor Providence, RI 02909

May 3, 2024

Nature-based Coastal Resiliency Alternatives

- **Goal:** identify and evaluate several feasible alternatives to minimize short and long-term ecological and public access impacts at each site
- Beach grass/native species planting
- Beach and dune nourishment
- Sand fence
- Vegetation management
- Patron management
- Asset relocation (i.e. roads)
- Managed retreat
- Innovative Protection solutions using nature



Photos: Woods Hole Group



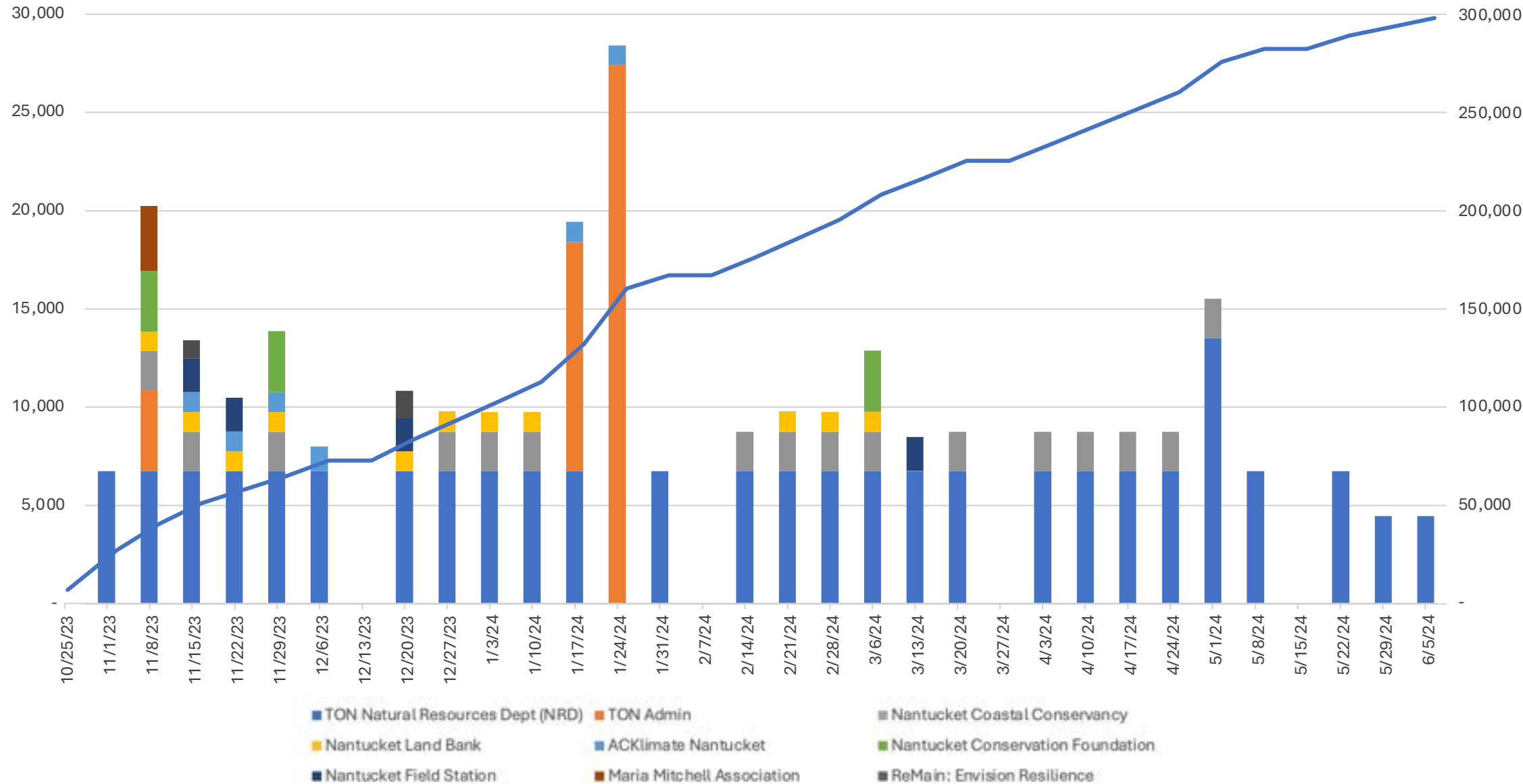
CRAC CRP AWARENESS CAMPAIGN - MEDIA SCORECARD

WEEKS 1-32: 10/25/23 - 6/6/24

299,058 TOTAL IMPRESSIONS

WEEKLY

CUMULATIVE





Oct. 24, 2023

Ian Golding
Seth Engelbourg
Linda Williams
Michael Misurelli
Joseph W. Plandowski
Mark Beale
Tim Braine

Mr. Golding,

Aware of the Conservation Commission's current ongoing efforts in revising the Nantucket Wetlands Bylaw, specifically as it pertains to Nantucket's Coastal Resilience Plan (CRP), the Coastal Resilience Advisory Committee (CRAC) voted unanimously, 9-0, at its Oct. 24, 2023 meeting to support the Conservation Commission's revision process. We very much appreciate the addition of coastal resilience-related definitions and the word "resilience" prudently placed throughout these proposed bylaw revisions in the ConCom's latest version of its revised bylaw.

As much as we support your efforts to update and enhance existing rules and regulations that relate to Coastal Resiliency – an important priority as indicated in the CRP- we understand that you may make changes and modifications to the current proposal following additional public discussion and hearings. Accordingly, we will reserve our final comments until after we see that the final proposed changes reflect our concerns and/or recommendations regarding coastal resiliency on Nantucket. We request through your representative on the CRAC, Tim Braine, that the ConCom



keep our committee up to date on the evolution of your bylaw revisions.

The CRAC feels strongly that regular updates on the ConCom's bylaw revision progress by Mr. Braine would greatly improve our eventual final letter of support and foster constructive criticism that we hope the ConCom would find invaluable to it revising its bylaw. We look forward to your continued updates through Mr. Braine.

Thank you for your time and patience.

Sincerely,

Peter B. Brace,
Chairman of the Coastal Resilience Advisory Committee

TOWN OF NANTUCKET COASTAL RESILIENCE ADVISORY COMMITTEE

PETER BRACE - CHAIR
NATURAL RESOURCES DEPARTMENT
131 PLEASANT STREET
NANTUCKET, MA 02554

LEAH HILL, COMMITTEE LIAISON
LHILL@NANTUCKET-MA.GOV
508-228-7230 EXT.7603



Feb. 14, 2024

Ian Golding
Seth Englebourg
Linda Williams
Michael Misurelli
Joseph W. Plandowski
Mark Beale
Tim Braine

Mr. Golding,

With this letter, the Coastal Resilience Advisory Committee (CRAC) is informing the Conservation Commission of its unanimous support for the Commission's proposed amendment to the Nantucket Wetlands Bylaw (NWB) with regards to expanding the no impact buffer zones around wetlands from 25 to 50 feet. This expansion recognizes the changes to coastal resource areas anticipated to be impacted by climate change. Coastal resources including salt marshes, coastal ponds and dunes will be impacted by sea level rise and erosion, increased buffer areas will help these coastal areas adapt to change. Additionally, expanding this protection to inland resource areas will allow protection for wetland areas that may expand through rising groundwater and increased precipitation anticipated through climate change.

The CRAC is well aware of how salt marshes lining the shores of Nantucket's harbors, tidal creeks and salt ponds as well as freshwater wetlands along the edges of coastal or outwash ponds that have been identified as storm pathways on the island's south shore are being and will continue to be inundated by sea level rise. These areas, governed locally by the NWB as vegetated wetlands are expected to be impacted by sea level rise and other climate change impacts and in many cases the vegetated wetland edge may expand. Because Nantucket is at a critical point in the era of climate change-driven sea level rise, we believe that doubling the current no impact wetlands buffer zone is a prudent and necessary amendment to the NWB.

Further, the CRAC recommends that the Conservation Commission be aware that these buffer zones are likely to require shifting inland much sooner than the Conservation Commission may be anticipating as the ocean continues to rise. In light of this, we recommend that the Conservation Commission continue to rely on its current procedures of updated wetland delineations that will help identify these changes in buffer zones to adapt, as needed, to rising water levels along the shores of our island coastline and great ponds where applicable.

Our committee thanks the Conservation Commission for allowing the CRAC the time needed to get our comments to you before your final continuation meeting of this public hearing.

Sincerely,

Peter B. Brace,
Chairman