

Nantucket Coastal Resilience Advisory Committee (CRAC)

Tuesday, September 24, 2024

Via Zoom

*Meetings are audio- and video-recorded

Members present: Gary Beller, Dr. Sarah Bois, Peter Brace, Matt Fee, Rachael Freeman, Dr. Jen Karberg, Christy Kickham, Joanna Roche, Doug Rose

Members Absent: Tim Braine, John Kitchener

Staff present: Leah Hill, Vince Murphy

Scheduled Speakers: Devon McKaye, Arcadis; Ava Rollins, ACKlimate

Members of the public: Gerry Connick, Shelly Lockwood

Recording available here: https://youtu.be/exxq_Bka6o8?si=NPZrzf5P9jwP24cg

Packet available here: <https://www.nantucket-ma.gov/AgendaCenter/ViewFile/Agenda/09242024-14304>

1. Call to Order – 10:00am
 - the meeting was called to order by chair Brace
2. Meeting announcements: Brace read abbreviated script on how the public can participate.
3. Public comment on topics not on the agenda: none.
4. Approval of Minutes: August 13, 2024.
 - motion (Beller), second (Fee), and approved 9-0.
5. Discussion of CRAC Co-Secretary Replacement
 - Roche asked if Town Administration could extend professional contractor support to provide CRAC minutes. Murphy indicated that this would be unlikely due to budget constraints.
 - After several members indicated they did not have the skills and/or bandwidth to take on co-secretary duties, Rose volunteered to provide minutes when Braine does not have capacity.
 - Motion (Rose), second (Fee), approved 9-0.
6. “Nantucket Harbors Sediment Transport Study & Dredge Plan” - presentation on plan development for committee feedback by Vince Murphy, Town of Nantucket Sustainable Programs Manager, and Devon McKaye, Senior Resilience Planner, Arcadis.
 - McKaye presented an overview of the study, which has included extensive data gathering as well as an animated model using that data to show how sediment has moved in Polpis harbor, Nantucket’s upper harbor, and Madaket harbor over certain time periods.
 - *Rose asked if the lower harbor was included in the model, how often it was dredged, and what was done with the sediment when dredged. McKaye explained that the sediment transport model includes the lower harbor, but that it is outside the scope*

- of the dredge plan because it is maintained by the US Army Corps of Engineers (USACE), not the Town. McKaye's and Murphy's anecdotal understanding is that historically, USACE has relocated dredged sediment from Nantucket's harbor channel to New Bedford, though that may be changing.*
- *Karberg asked for more information about sand sources. McKaye indicated that while some sand is entering the lower harbor from Nantucket Sound, the historical data suggests that relatively little sand has been entering the upper harbor from its interior shoreline. If accurate, this poses a risk that if sand were removed from the upper harbor, it could create a sand deficit. However, initial discussions with members of the public who are familiar with the upper harbor indicate that this dynamic may be changing: the study team has received several anecdotal stories of significant amounts of natural shore sediment, as well as anthropomorphic sediment like mulch and sacrificial sand entering the upper harbor from storm runoff.*
 - *Hill asked if episodes like the 2007-2009 breach at Esther's Island was included in the model. McKaye and Murphy clarified that the model was built using data from certain pre-defined time frames; does not include specific episodes like the Esther's Island breach.*
 - *Bois asked about next steps regarding recommendations. McKaye suggested that next steps will include the ongoing 'gut checks' with the users of these resource areas to better understand navigation issues, which in turn should inform the dredge plans. The project team anticipates completion of the plan by March 2025.*
 - *Brace shared recent experience with navigation issues at Tuckernuck; Murphy confirmed that Tuckernuck is outside the scope of this study, but that he is in discussions with the Tuckernuck Land Trust on if and how it might be included in future phases of the study.*
 - *Brace also shared concerns from scallopers regarding shoaling in an area near First Point known as the Horse Shed, potentially relating to fast ferries throttling up prematurely while still in the main channel. Murphy responded that this is on the project team's radar, and may involve either dredging, increased oversight from the Harbor Master regarding boat speeds, or both.*
 - *Roche advised the project team that the Maria Mitchell Association (MMA) has launched a buoy which has been gathering harbor water quality data since mid-August. Murphy acknowledged that he has looked at the data and that there may be an opportunity to gather additional types of data from that same buoy.*
 - *Beller expressed surprise that the main purpose of the study was driven by navigational needs, and asked if a cost/benefit analysis has been done on dredging. Murphy confirmed that the study has dual purposes, and that the costs and benefits of dredging – both economic and environmental - can best be determined with a disciplined study such as this.*

7. Initial thoughts on updating the zoning by-law and regulations with coastal resiliency.

- **Brace** teed up this agenda item by suggesting that CRAC members thoroughly review the current zoning by-law, with an eye toward introducing coastal resilience concepts like sea level rise, climate change, storm pathways, and retreat adaptation where

appropriate. In addition, he suggested looking closely at overlay districts, including the existing harbor, flood hazard and public wellhead recharge districts, as well as possible new overlay districts that identify storm pathways, the South Shore outwash ponds, and a potential sea level rise district(s).

- *Rose commented that in the 9/10/24 meeting, there was consensus that CRAC's first step should be to (re)acquaint itself with the measures recommended in the CRP (starting at p.96). Among the additional ideas of interest to the committee were a 'hold harmless' provision which would make new building permits in at-risk areas contingent on private property owners releasing the Town from future liability relating to those climate-related risks.*
- *Bois, Roche and Fee suggested that changes to zoning be staged, with emphasis on 'low-hanging fruit', 'bite-size chunks', and 'quick victories'.*
- *Hill, Rose and Brace each cautioned that this process will take time to complete.*
- *Beller expressed frustration over perceived lack of progress on the most fundamental of CRP recommendations, i.e., the adoption of provisions included in the 2020 Massachusetts model floodplain by-law. Hill advised that she has invited an expert on the subject of floodplain regulation, Shannon Hulst of Woods Hole Sea Grant, to an upcoming CRAC meeting, and will invite Leslie Snell, Planning Director to attend.*
- *Beller also reiterated support for the 'hold harmless' amendment proposed by the Select Board in 2015 and again by Rick Atherton in 2020.*

8. Discussion on potential funding mechanisms to implement the Town's Coastal Resilience Plan recommendations.

- Staff and committee members offered a range of ideas on this topic. No decisions were reached, and the topic was tabled.

9. Public outreach ideas/strategies from committee members – discussion on how ACKlimate can help CRAC's outreach and education campaign with Ava Rollins, ACKlimate's Director of Social Communications.

- Ava Rollins advised the committee that ACKlimate has approved funding that will allow her to devote time to supporting CRAC's messaging priorities through at least the end of 2024.

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

- Hill provided an update on the effects of the recent flooding of Easy Street.
- Karberg provided a recap of the second annual Climate Change Summit.

11. Discussion of upcoming meeting dates and topics: Next Meeting is October 8, 2024, on Zoom

12. Motion to adjourn:

- moved (Roche), seconded (Rose), approved (8-0).