

**Coastal Resilience Advisory Committee
Tuesday, March 23, 2021
Via Video Conference and Recorded**

MEMBERS: Mary Longacre, Peter Brace, Matt Fee, Sarah Bois, Jen Karberg, Gary Beller, Ian Golding, Graeme Durovich

MEMBERS ABSENT: Fritz McClure

STAFF: Vincent Murphy, Holly Backus

CONSULTANTS:

SPEAKERS: Cecil Barron Jensen, Kimberly Rose, Julia Knisel, Claire Martin

OTHERS: RJ Turcotte, D. Anne Atherton, Rick Atherton, Scott Middleton, Rebecca Haney, Liz Trillos, Margot Mansfield, Guthrie Diamond, Art Gasbarro, Steve McKenna

CALL TO ORDER

10:06 a.m.

APPROVAL OF THE AGENDA

Unanimously approved, 8-0.

APPROVAL OF THE MINUTES

Draft minutes of March 9, 2021

Mr. Murphy noted the March 9, 2021 minutes were posted to the Town's website without the CRAC approving them first and that there were meeting minutes from 2020 that were also posted without corrections being made. Mr. Murphy said he would address this issue promptly.

Ms. Bois clarified that under new business, she was passing on the Land Bank's recommendation that the CRAC produce a one-page list of scientific citations for the science and references used by the CRAC. The CRAC voted 8-0 to approve this modification to the minutes of March 9, 2021.

ANNOUNCEMENTS

Coastal Resilience Plan

Ms. Longacre informed the CRAC of the CRP Visual Presentation Toolkit, FAQs and storytelling cards being on the March 24, 2021 Select Board Agenda.

Natural Resources Department

Ms. Longacre told the CRAC about the Natural Resource Department's beach grass planting day at the dunes immediately south of Millie's Bridge scheduled for March 24, 2021

Nantucket Civic League

Ms. Longacre announced the Nantucket Civic League's forum on March 24, 2021 entitled "Chapter 91: The Public Waterfront Act".

Resilient Nantucket: Designs for Adaptation

Ms. Longacre told the CRAC about this forum planned for April 23 and 24, 2021. Ms. Backus added that there would be sea level rise experts from around the world presenting at this virtual forum. She urged the CRAC members to register for both days to attend this forum.

ACKclimate

Ms. Longacre mentioned ACKclimate's event calendar at <http://ackclimate.org/events/>.

AGENDA ITEMS

Massachusetts Climate Change Projections – Julia Knisel, Shoreline and Coastal Floodplain Manager for the Massachusetts Office of Coastal Zone Management

Ms. Knisel explained that, based on the tide gauge at Steamboat Wharf maintained by the National Oceanographic & Atmospheric Administration (NOAA) since 1965 and extrapolated out over 100 years, sea level around Nantucket has risen 1.2 feet. She explained how major processes along the coast are sensitive to climate change including air and water temperature, and their impacts on regional sea levels. Ms. Knisel clarified how ice sheet and shelf loss impacts sea level rise and stressed the big “wild card” is how ice loss is going to contribute to regional sea level rise in Massachusetts. She added that that significant ice loss in Greenland and the Arctic translates into Nantucket, Massachusetts and the Northeast in general experiencing greater impacts than the rest of the coastal U.S. She urged the CRAC and the Town to be flexible in planning and design of sea level adaptation projects.

Ms. Knisel informed the CRAC about two climate scientists in New England, Robert Kopp of Rutgers University and Robert DeConto of UMass Amherst, who produced a report entitled “Massachusetts State Hazard Mitigation and Climate Adaptation Plan” in September 2018, which forecasts a rise in sea level of 4 to 10.5 feet by 2100 dependent on human use of fossil fuels and carbon capture within a timeframe of 2070 to 2100. In a chart produced by Resilient MA, Ms. Knisel explained four emissions scenarios and the resulting sea level rise in feet for each. She told the CRAC that Massachusetts chose the “High” scenario of 7.9 feet to use as its model for flooding vulnerability, planning and design projects. She advised the CRAC to use this data for planning Nantucket’s sea level rise adaptation.

Ms. Knisel gave the CRAC a breakdown on the “Town of Nantucket Coastal Risk Assessment and Resiliency Strategies” document released in January 2020 for the Town by Milone & McBroom, noting that the prediction for sea level rise in this report is four to six-plus feet by 2100. Ms. Knisel recommended not using this data and instead rely on the “Massachusetts State Hazard Mitigation and Climate Adaptation Plan” in September 2018 done by Drs. Kopp and DeConto for planning and

design of sea level adaptation projects. She added that all of this information is available on the Resilient MA – Climate Change Clearinghouse for the Commonwealth website.

Mr. Golding expressed his skepticism over using conservative sea level rise predictions and stressed the importance of using worst-case scenario predictions.

Ms. Longacre indicated that the Town's Coastal Resilience Plan (CRP) consultant, Arcadis, would be using the Massachusetts sea level rise data to help it create Nantucket's CRP.

Ms. Longacre asked for public comment on Ms. Knisel's presentation. There was no public comment on this presentation.

Ms. Knisel said that Nantucket should be ready to apply for more grants from CZM for sea level rise adaptation related projects because the window for applications is opening soon. She offered to be a sounding board for anyone with ideas for using grant money.

PDF of Ms. Knisel's presentation <https://www.nantucket.ma.gov/DocumentCenter/View/38844/Sea-Level-Rise-Projections-for-Nantucket-PDF>

Envision Resilience Nantucket Challenge: Speaker Series: Kimberly Rose of ACKclimate

Ms. Rose recapped the last two speakers' topics in the series, which included reimagining our relationship to the water around us including hybrid water management systems. Also, the geology and hydrology of the harbor, and the island in general. The speaker presentations are all available at <http://www.envisionresilience.org/speaker-series>.

Envision Resilience survey – ReMain Nantucket presentation – Cecil Barron Jensen and Claire Martin

Ms. Martin detailed the survey on sea level rise attitudes on Nantucket with the help of ACKclimate and Scott Middleton of the Boston consulting firm EBP to do conduct the survey. The results reaffirmed attitudes about sea level rise on Nantucket.

Mr. Middleton walked the CRAC through the results of the survey. He reported that more than half of the 171 survey respondents were year-

round residents and that a total 55.3 percent of the total respondents said they were interested in learning more about sea level rise adaptation. Mr. Middleton said that nationally 26 percent of Americans are “alarmed” about climate change with 88 percent of the 171 respondents in this survey. He added that, significantly, more than half of those survey chose to give their email addresses to ReMain Nantucket to receive more information on creation of CRP and sea level rise adaptation efforts.

Survey results are at

<https://www.envisionresilience.org/newsandstories/survey-measuring-attitudes-on-climate-change-finds-that-nantucketers-are-alarmed-prepared-to-take-individual-action>.

Mr. Beller noted the survey didn't reach enough seasonal property owners and when it comes to discussing how CRP projects would be funded — tax revenue — he said that these property owners pay 90 percent of the property taxes on Nantucket. He added that these property owner would probably be more likely to spend this money than year-round residents. Mr. Beller said a more informative survey response would be possible if the survey had been done during the summer.

Mr. Brace suggested sending the survey package to all of the seasonal property owners to broaden the results. Mr. Beller said he doesn't have the addresses of all 7,500 seasonal residents.

Mr. Fee said the disparity between seasonal residents' and year-round residents' willingness to spend tax funds on CRP projects is more tied to economic ability to do so. He added that he and the Town fear raising taxes would severely impact already strapped year-round residents.

Mr. Beller agreed with Mr. Fee, adding that the seasonal residents might be willing to spend their own money on CRP projects. Mr. Fee suggested using betterments for projects in targeted areas.

Ms. Jensen said that part of the reason for the survey was measuring change over time. She added that they will release the survey again in 2022 and said ReMain would welcome help from the seasonal residents.

Ms. Jensen asked for suggestions of speakers and presentations that would augment ReMain's community engagement. She announced the June presentation of the students' proposals for sea level adaptation and an exhibit of these proposals in the Macy Warehouse.

Mr. Longacre acknowledged the difficulty of community engagement. Mr. Golding expressed his surprise that Nantucket has one of the lowest tax rates in the state. Ms. Backus acknowledged the sensitivity of this issue. Mr. Fee said the rate is low but the average assessment is high. He added that the town is hesitant to raise property taxes and is looking for other ways to fund sea level rise adaptation projects.

Committee Review and comments on Arcadis January & February reports

No comments.

Update from Vince on CRAC participation in Baxter Road Alternative Access Option Study

Mr. Murphy had little information to report but did say he would be sending out a meeting notification in regard to this study in the coming weeks.

Public Comment –

No public comments.

Committee reports –

Mr. Golding reported that the Conservation Commission recently held a special meeting to review the Siasconset Beach Preservation Fund's (SBPF) 2019 annual report on its geotube installation in which was revealed that SBPF had shorted the placement of sand on the geotubes by 30,000.

Ms. Karberg updated the CRAC on a new coastal resiliency initiative by the Nantucket Conservation Foundation (NCF). She reported that NCF and the Trustees of Reservations are working on natural coastal resilience measures on the Coskata-Coatue Wildlife Refuge. They are working with the Woods Hole Group (WHG) for possible solutions.

Mr. Fee asked if the WHG would look at the "Dutch Sand Engine" and Ms. Karberg said they would look at all resources. Mr. Murphy asked that the NCF plan work with the CRP. Ms. Backus noted that the Land Bank is also working on its own plan with WHG.

Ms. Longacre reported that she and Mr. Murphy presented the meeting-in-a-box toolkit to the Commission on Disabilities recently.

Mr. Brace reported the Harbor & Shellfish Advisory Board (HSAB) that due to some commercial scallopers informing the board that they're finding excess sand in their scallop, the board is working on a pilot project to remove excess sand from eelgrass beds in the harbors.

Mr. Karberg asked why there is so much excess sand.

Mr. Brace responded that tidal flow velocity has increased as a result of the repair of the jetties.

Mr. Brace also reported that the HSAB wrote letters to the four ferry companies requesting that their fast ferry captains throttle back inbound before they reach the cut in the East Jetty and not throttle up outbound until they've passed the cut to keep their ferry wash from bury the Horse Shed in sand. He added that Harbormaster Sheila Lucey also reached out to the ferry companies about this issue.

Mr. Murphy asked if there any difference between the harbor in the excess sand issue and also how turbidity is affected.

Mr. Brace said turbidity issues would be a question for Town shellfish biologist Tara Riley. He added that Madaket Harbor probably has better circulation than Nantucket Harbor except that when Madaket Harbor was open to the ocean between April 2007 and October 2009, lots of sand washed into Madaket Harbor. Mr. Fee noted that people in sailboats have confirmed that the fast ferries have in the past been speeding past the Horse Shed.

Ms. Atherton stressed the need for an island-wide sand transport plan.

Mr. Murphy said such a plan and a dredging plan would be a recommendation within the CRP.

Ms. Longacre reported that the Planning Board is working on updates to island area plans and that a Town Area Plan is in currently in the works, but the waterfront and the commercial won't be included in the large residential area of this plan.

New Business –

Discussion of upcoming meeting dates and topics

Ms. Longacre detailed some of the items for the April 13, 2021 CRAC meeting including a report by Arcadis on the progress report on January and February.

Ms. Longacre said she would like to do a harbor focus and invite property owners from around the harbors for special meeting.

Reminders –

Dr. Bois asked how the Homeowner's Brochure would be distributed.

Mr. Murphy said he had recently presented it to the Select Board and it is now on the Town's website. Mr. Murphy said the brochure would be going out in the town's newsletter at the end of March and as part of a social media blast.

YOUTUBE MEETING LINK

<https://bit.ly/3wcztni>

ADJOURNMENT

Unanimously approved, 8-0, at 11:59 p.m.