

Coastal Resiliency Advisory Committee
Tuesday, Sept. 14, 2021 at 10 a.m.
Via Zoom

Members present: Mary Longacre, Peter Brace, Matt Fee, Jen Karberg, Joanna Roche

Members absent: Sarah Bois, Ian Golding, Gary Beller, Fritz McClure

Staff present: Vincent Murphy, Holly Backus

Others: Rachel Freeman, Sage Hardesty, Keith Mikolinski, Emily Molden

1. Call to Order

10 a.m.

2. Meeting announcements

- Script for remotely conducting Open Meetings, read by the Chair
- The meeting is being audio / visually recorded

3. Announcement of new comments page to collect feedback on Coastal Resilience.

Ms. Longacre made this announcement to alert the public to Arcadis not collecting public comments after the completion of the CRP. She stressed that the new comments page would serve to collect public comments going forward.

4. The Envision Resilience Nantucket Challenge is launching

a “Climate, Coffee and Conversation” in-person roundtable series at the Thomas Macy Warehouse on Monday, September 27th at 10:00 am. The first topic is “Resilience in the Landscape” and speakers include CRAC members Dr Sarah Bois & Dr Jennifer Karburg, along with Emily Molden. This conversation will explore how these three local experts see the impacts of climate change on the island of Nantucket, from our coastlines and harbor to freshwater ponds and wetlands, to our grasslands and forests.

Ms. Longacre noted this series would continue through the fall.

5. Approval of CRAC minutes from August 17th and August 24th.

Aug. 17 –

Unanimously approved, 5-0.

Aug. 24 –

Unanimously approved, 5-0

6. Presentation on Children’s Beach Pump Station Watershed - Stormwater Management Plan from Fuss & O’Neill

Mr. Hardesty explained the proposed management plan for the

Children's Beach Pump Station watershed.

Ms. Longacre stated that replacing the pump isn't the right solution because the pump can handle the load, but the infrastructure isn't getting the water to the pump well enough before the upstream flooding happens, so the pump isn't being overloaded because it's not even operating close to capacity yet, so it doesn't need replacing. Mr. Hardesty responded that during storms, the pump isn't compromised by the water flowing to it during storm events.

Mr. Hardesty recommended that the pump station be relocated by 2070 because it is forecast to be partially inundated by then. He added that upstream improvements include larger stormwater collection pipes, changing the pitch of the pipes, more frequent cleaning of pipes and catch basins, installation of deeper sump pumps in shallow catch basins, use of more natural surface storage in upstream, low-lying and undeveloped areas, subsurface storage in denser island areas, installation of infiltrators and redirection of water to nearby drainage systems and outfall pipes.

Ms. Karberg what would the most effective first step for the Town to take. Mr. Hardesty said, from his perspective, installing a new outfall pipe is his best guess.

Mr. Mikolinski recommended that first-step be moving the

pump station further inland in combination with improvements to infrastructure and the Lily Pond area.

Ms. Longacre asked Mr. Mikolinski for potential pump station locations. Mr. Mikolinski suggested the Centre Street area.

Mr. Murphy asked how Mr. Mikolinski might route pipes from this location. Mr. Mikolinski said this question is beyond his scope of services.

Ms. Karberg asked how far a pump station could be moved from an outfall for it to be effective. Mr. Mikolinski explained that models supplied by Fuss & O'Neill could answer this question.

7. Presentation from Rachel Freeman on the Land Bank's plans for the Lily Pond property, including stormwater management and how their plans affect the downstream watershed.

Ms. Freeman explained that the Lily Pond restoration project had been championed by former Land Bank Executive Director Eric Savetsky. Ms. Freeman touted the ecological and filtration benefits of this park. Ms. Freeman said a lot of the abutters complain about their basements flooding. She added that the Sewer Department recently cleaned out some of the major inlets to the area. Ms. Freeman agreed with Fuss & O'Neill's assertion

that the upstream pipes need to be working to carry water down to the pump station.

Ms. Freeman stated that their plan goals include increasing visibility, public recreational enjoyment, reduction of invasive species, promoting healthier wetland areas and increasing water filtration. She stressed that the park's greatest achievement is reducing the amount of nutrients leaving the Lily Pond property and entering the harbor. Wetlands have been increased wetlands on the property and have removed a concrete pipe leading northeast away from the pond toward the harbor with the goal of creating a stream to accommodate flooding. She added that the property could hold a lot of water but that getting it in and out of the property needs solving. Ms. Freeman said the Land Bank's next steps are presenting this conceptual design to neighbors and the Nantucket Land Council for feedback before working up a formal plan.

Ms. Karberg asked if outlets from the property currently exist.

Ms. Freeman said there is the one outlet, the concrete pipe in the northeast corner of the property that also drains a wetland on Gull Island Lane. This pipe joins the pipes on Centre Street near American Seasons.

Mr. Murphy asked the diameter of the concrete pipe. Ms.

Freeman said this project has to be a joint effort between the

town and the Land Bank.

Mr. Brace asked about the Land Bank's concerns on salt water backing up into the Lily Pond property. Ms. Freeman said the Land Bank realizes that by the time sea water does reach the Lily Pond, the island would be dealing with much more severe issues than wetland being burned by salt water.

8. Review and discuss a draft for the fiscal year 2021 (July 1, 2020 to June 30, 2021) annual report from the Coastal Resilience Advisory Committee to the Town. Due Nov. 1, but submission has been requested as soon as possible.

Ms. Longacre asked for CRAC members to add any information to this report.

Ms. Karberg and Mr. Fee said to leave in the paragraph about the stakeholders because the public needs to know who the CRAC sought information from to understand coastal resilience issues for the creation of the CRP.

Ms. Longacre requested that insertion of a graphic showing the main resilience issues the public felt were germane to the CRP. Hearing support for this idea, Ms. Longacre said she would get a final version of it produced for the report.

9. Update on CRP timeline from Vince including Arcadis'

involvement after delivery of the Coastal Resilience Plan

Mr. Murphy updated the CRAC on the agendas for the CRAC meetings scheduled for Sept. 21 and Sept. 28. He said he hoped to have a draft CRP for the committee members to review. Mr. Murphy said the final CRP delivery date would probably be Oct. 15, 2021.

10. Updates on other related and concurrent coastal resilience projects (if available):

- **Baxter Road Engineering Feasibility Assessment – by Vince Murphy**
- **Sheep Pond Road access for residents and future relocation – by Vince Murphy**
Mr. Murphy reported that he is looking to get the conversation going with property owners in the next few weeks to get this process started.
- **The Trustees of Reservations & Nantucket Conservation Foundation resilience plan – by Dr. Jennifer Karberg, NCF**
Ms. Longacre asked Ms. Karberg for a date of delivery of this plan. Ms. Karberg said that the Nantucket Conservation Foundation doesn't have that date yet. She did offer a brief update on the progress of this plan. Ms. Karberg said the main focus is on how to raise and maintain the elevation of Coatee. She added the problem spot for NCF's portion of Coatee is between First and Second points. One action might include the addition of sand in

First Bend.

Ms. Karberg reported that the beach grass planting project at the south end of Hither Creek is working out well with the grass and shrubs growing really well. And salt marsh plants are regrowing in the tidal zone.

- 11. Public comment NOTE: public comment can be submitted via email to vmurphy@nantucket-ma.gov to be read into the meeting records if you are unable to speak in person during the meetings.**

Emily Molden, Executive Director of the Nantucket Land Council said she had comments for Arcadis, but since no one from Arcadis was present at the meeting, Ms. Molden said she would submit her comments in writing.

Ms. Molden asked if the draft CRP would be available to the public. Mr. Murphy said he would try his best to make it available to the public the Friday before the meeting.

D. Anne Atherton of the Nantucket Coastal Conservancy asked if the CRP was reviewed by the staff. Mr. Murphy said yes.

- 12. Committee & Natural Resources Dept. reports from Planning Board, Conservation Commission, Harbor and**

Shellfish Advisory Board, Select Board, Advisory Committee of Non-Voting Tax Payers, other committee members)

- **Vince to brief on meeting with Madaket Erosion Group on August 31 & presentation at the Nantucket Civic League Annual Meeting on September 7th.**

Mr. Murphy reported that he had a great meeting with this group. He added the Joe Farrell proposal of sand modules and beach netting are unproven for this part of the U.S. Coast, but a notice of intent might filed with the Conservation Commission to if an order of conditions could be produced.

13. New Business - discussion of upcoming meeting dates, frequency, and topics

Ms. Longacre said these are all topics that could be topics of discussion at future CRAC meetings.

- Potential topics
 - IPCC Sixth Assessment Report, “Climate Change 2021: The Physical Science Basis”:
<https://www.ipcc.ch/assessment-report/ar6/>
 - “Observation-based early-warning signals for a collapse

of the Atlantic Meridional Overturning Circulation” - original report:

<https://www.nature.com/articles/s41558-021-01097-4.epdf>

Article: <https://www.pik-potsdam.de/en/news/latest-news/gulf-stream-system-at-its-weakest-in-over-a-millennium>

○ NASA Sea Level Change Science Team from the University of Hawaii Study on the 18.6 year tidal cycle:

<https://www.nasa.gov/feature/jpl/study-projects-a-surge-in-coastal-flooding-starting-in-2030s>

○ Update on Comprehensive Plan & Area Plans progress (Sconset Area Plan, Madaket Area Plan, Town Area Plan) Draft of Sconset Area Plan available from:

<https://nantucket.ma.gov/AgendaCenter/ViewFile/Item/4167?fileID=32921>

○ Takeaways from Rescuing History: Nantucket in Response to Rising Seas online conference

<https://www.nantucketpreservation.org/events/nantucket-preservation-symposium>

○ Takeaways from Maria Mitchell Association lecture by Dr Jon Hare, NOAA Northeast Fisheries Science Center

<https://www.youtube.com/watch?v=IOLBFXpuPw4>

○ Takeaways from the Preservation Institute: Nantucket 2021 class presentations:

<https://www.youtube.com/watch?v=DC3oG0hU7zc>

○ Takeaways from the Envision Resilience Nantucket Challenge: <https://www.envisionresilience.org/meet-the-teams>

○ Alfred Sanford’s 2016 opinion piece “ Lamentation

Concerning Wilkes Garage OR A New Port for Nantucket”:

<https://www.envisionresilience.org/newsandstories/stories-from-ashore-lamentation-concerning-wilkes-garage>

○ Martha’s Vineyard Commission Carrying Capacity study with U.S. Army Corp of Engineers:

<https://vineyardgazette.com/news/2021/08/05/mvc-explores-idea-carrying-capacity-study-vineyard>

○ Discussion with the Steamship Authority about resilience planning for Nantucket & Hyannis

○ Public visual art installations to illustrate sea level rise

○ Climate Change Awareness Month activities

<https://www.acklimate.org/events/>

14. Reminders: The CRAC meeting recordings are available on the Town’s YouTube channel at

https://www.youtube.com/playlist?list=PL49sKqpy7VAiUk-g5h2jIuAn_2jqocI2L

- The recordings of the January 28th and June 24th Open House Events s are available on the Coastal Resilience Plan’s Public Presentations page at

<https://www.nantucket-ma.gov/2069/Public-Presentations>

- Recording of the April 13th Mid Project Report presentation:

<https://www.youtube.com/watch?v=GZkrBhXwxoA&t=15s>

- September 2021 is Climate Change Awareness Month
- In collaboration with Irys, the Nantucket Coastal Resilience Plan (CRP) Project Team is excited to announce the launch of the Irys App – a tool to help facilitate two-way engagement as we move forward with the development of the Coastal Resilience Plan.
IRYS app download (click on the images):



- Sign up for Coastal Resilience Plan email notifications at <https://www.nantucket-ma.gov/2033/Get-Involved>
- Sign up for meeting & agenda reminders using the ‘Notify Me’ service on the Town’s website at <https://www.nantucket-ma.gov/list.aspx#agendaCenter>

Youtube meeting link

https://www.youtube.com/watch?v=IglkVUFgA3c&list=PL49sKqpy7VAiUk-g5h2jIuAn_2jqocI2L&index=4

15. Motion to adjourn

Unanimously approved, 5-0, at 11:42 a.m.