

Coastal Resiliency Advisory Committee

Tuesday, July 23, 2024

Via Zoom

*Meetings are audio- and video-recorded

Members present: Peter Brace, Tim Braine, John Kitchner, Gary Beller, Doug Rose, Rachael Freeman, Joanna Roche, Matt Fee

Members Absent: Christy Kickham, Dr. Sarah Bois, Dr. Jennifer Karberg

Staff present: Leah Hill, Vince Murphy

Others: Trevor Johnson, Allison Kopicki, Kelly Van Baalen, Julie Conroy, Michelle MacDonald, Mark Willet, D. Anne Atherton, Bruce Mandel, Rick Atherton, Glennie LeBaron, Sash Bischoff, Gerry Connick, Claire Martin, Jessica Cashdan, Shelly Lockwood, William Casey, Virna Gonzalez

Packet here: https://www.nantucket-ma.gov/AgendaCenter/ViewFile/Agenda/_07232024-14079

Recording here: <https://www.youtube.com/watch?v=X0fqwy7Hcoo&t=4439s>

1. Call to Order
10:00 a.m.

2. Meeting announcements

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

3. Public Comment

D. Anne Atherton spoke on behalf of the Coastal Conservancy and expressed concerns about the impacts of the Sconset Bluff project.

4. Approval of Minutes: May 14, 2024, May 28, 2024, June 25, 2024 approved (8-0)

5. Introduction to the new Planning Board representative, John Kitchner

6. Appointments of officers: Chair, Vice-Chair and Secretary

- Chair: Peter Brace approved (8-0)
- Vice-Chair: Dr. Sarah Bois approved (8-0)
- Secretary: Tim Braine and Rachael Freeman (8-0)

7. Conversation with Mark Willett, Director of Water Company, about the impacts of sea level rise on Nantucket's aquifer

Mr. Willet began by explaining how sea level rise will have a significant impact on groundwater levels, that groundwater breakthrough could result in new wetlands and groundwater flow could change. These changes could impact wells even though they are in the middle of the island. In addition, he explained that changes in localized groundwater flow may result in contaminants such as PFAS moving and effecting drinking water wells. He went on to note that localized groundwater flow direction is the biggest concern with sea level rise.

Mr. Willet explained that he is working on a 3D groundwater model and the data that is being used as inputs for the model. Furthermore, Mr. Willet emphasized the importance of CRAC's feedback on this model and indicated he will set up a meeting time with the Committee once the model is complete.

Mr. Rose discussed the importance of groundwater and asked Mr. Willet whether he felt that all Town regulatory commissions could work together to ensure that their regulations are not in conflict. Mr. Willet responded that communication within the Town is improving, and he is working closely with various Town entities. He continued by considering whether a quarterly meeting of all parties that have the potential to impact groundwater could be worthwhile. Mr. Kitchner followed by asking whether Mr. Willet would consider attending a planning meeting to educate the board on the aquifer. Mr. Willet explained that he always feels it is worthwhile to educate people on the aquifer, and how important it is to protect. Ms. Hill asked whether it would be possible to input different sea level rise scenarios into the 3D model and calculate the resulting groundwater levels. Mr. Willet said that this will be possible.

Mr. Brace asked for public comment. Mr. Mandel asked Mr. Willet to comment on the impact of the unlined landfill cell on the aquifer. In addition, he asked why there hadn't been any consideration of how to access Madaket, if there was significant enough risk to Madaket Road to move the DPW. Mr. Willet said that the 3D model would assist with determining the direction of groundwater flow, which would help to understand where the pollutants related to the landfill are likely to end up. He also added that Madaket is an area where sea level rise could create new wetlands that may compromise access.

8. Presentation and discussion on "New Tools for Visualizing, Communicating, and Assessing Sea Level Rise and Coastal Flood Risk" by Climate Central's Allison Kopicki, Coordinator for Outreach and Communications, Floodvision at Climate Central, and Kelly Van Baalen, Project Manager, Sea Level Rise Team at Climate Central – see packet.

Ms. Kopicki presented a slide show that reviewed a tool developed by Climate Central to depict the impacts of storms associated with climate change on important infrastructure. The goal of the model is to raise awareness and is a science-based, outreach and communication tool. She reviewed several tools developed by Climate Central for the purposes of informing the public. Programs such as Climate Shift Index and Climate Matters were discussed. She continued by describing the Edge of America tour, in which the Floodvision truck is driving from Maine to Texas with lidar and GPS to create very precise images of the areas that they pass through. These images are then used to create visualizations of flood risk. Floodvision came to Nantucket and generated images of flooding in the downtown area in a variety of storm scenarios.

Mr. Brace commented that it may be hard to get people to accept that these images could be reality. Mr. Kitchner spoke about a lack of trust within the island community regarding the sea level rise predictions and considered whether less extreme images may be more successful in engaging people. Mr. Brace suggested that everyone should watch Inundation District; a documentary that illustrates potential issues that occur when climate change scenarios are ignored, and Ms. Hill agreed. Mr. Kitchner suggested that trusted island figures could be asked to educate and engage the local community. Ms. Roche stated that the role of CRAC is to tell the climate change story in a way that is compelling but not scary. She also asked how these scenarios and flood visualizations were received in other communities. Ms. Hill asked Ms. Kopicki, as a journalist, for input on ways to improve outreach and communication for CRAC. Ms. Kopicki responded that she sees disasters and flood events as an opportunity to teach people. Mr. Beller asked whether he could see what is going to happen to his house based on what information is in the system. Ms. Kopicki said yes, she could put together a package for the island.

9. Update and discussion on the flood risk assessment and alternatives evaluation for the Feasibility Study and Design for Flood Mitigation on Easy Street by Arcadis staff members, Bill Casey, Project Manager and Engineer, Julie Conroy, Senior Resilience Specialist, and Trevor Johnson, Senior Resilience Planner – see packet.

Ms. Conroy began by reviewing the flood risk models employed (MC-FRM) and that the recommendation for the Easy Street Flood Barrier project came directly from Nantucket's Coastal Resiliency Plan. Arcadis is approximately 7 months into an 18-month project and are entering into the community engagement phase of the project. Ms. Conroy described the project area, which includes Old North Wharf north to Steamboat Wharf and west to Oak Street, Chestnut Street and South Water Street. Ms. Conroy defined the goals of the project: to design flood protection for this area during current and future storm events. She then reviewed previous engagement of local and state organizations and provided dates for the upcoming community engagement event at the Whaling Museum. Ms. Conroy described concerns she had heard that included stormwater flooding, water quality issues, access to Steamboat Wharf, the importance of the historical downtown and others. Existing conditions were described and the results of the flood risk assessment, which helps to identify what would occur in this area with a "no action" scenario. Mr. Johnson reviewed the flood risk in a no action scenario, including physical, economic and social disruptions. Stormwater assessments are in progress and more information is necessary, but this is an important consideration for water quality and flooding. Design considerations included flood elevations, access and feasibility. Both 6.5 and 8.0 ft NAVD88 were used as design flood elevations (DFE). Mr. Johnson continued by reviewing the four alternatives. Alternative 1 has a DFE elevation of 6.5 ft, maintained the width of truck alley, raised broad street and includes a pedestrian gate for access to the neighboring property. Alternative 2 examines reducing the truck alley and increasing the pedestrian walkway, a DFE of 8 ft, and has a series of gate structures that could be used during storm events. Alternative 3 also has a DFE of 8.0 ft, a much larger pedestrian right of way on Broad Street, assumes the acquisition of 31 Easy Street for a potential stormwater pump station, a pedestrian gate for access

to the neighboring property, and raising Easy Street to tie into Old North Wharf. Alternative 4 includes elevating Steamboat Wharf and Broad Street, an enlarged pedestrian right of way on Broad Street, raising Easy Street and a pedestrian gate for access to the neighboring property. Mr. Johnson closed by promoting the public open house on August 7th.

Mr. Rose asked Mr. Johnson whether groundwater was a consideration in this area. Mr. Johnson stated that yes, this is an issue in this area but should be looked at a larger scale issue and includes raising infrastructure. Ms. Freeman asked about how public infrastructure and private infrastructure interface in a project such as this. Mr. Johnson noted that there will need to be significant coordination between the private and public stakeholders in the area. Mr. Braine asked whether the alternatives could be phased in over time or if one alternative needed to be selected. Mr. Johnson responded that some components could be phased and integrated over time but that it isn't possible to phase the linear bulkhead protection.

10. Next steps for coastal resilience updates to local regulations

Mr. Brace stated that the CRAC is going to begin working on integrating coastal resiliency into regulations and this would start with the Planning Board regulations. He recommended familiarizing yourself with these regulations. Mr. Rose added that committee members should re-read the CRP.

11. Public outreach ideas/strategies from committee members

- Volunteers for social media
- Inky update by Tim Braine

Ms. Hill requested assistance with ideas for social media posts. Mr. Braine spoke on how to engage the Inquirer Mirror in reporting on Coastal Resiliency.

12. Motion to adjourn at 12pm (due to loss of quorum)