
Coastal Hazards Adaptation Team (CHAT) Work Session #15

Tuesday, April 21, 2020

2 PM – 4 PM

VIRTUAL MEETING

GoToMeeting (Remotely)

<https://www.gotomeet.me/KirstenHoward/chat-work-sessions>
or by dial-in @ (669) 224-3412

NOTES

Participants: Jay Diener, Rayann Dionne, Jason Bachand, Jennifer Hale, Stephen LaBranche, Debra Bourbeau, Mark Olson, Tom Bassett, Bob Ladd, Barbara Kravitz (by phone)

Absent: Bryan Provenchal, June Black, Steve Belgiorno, James Waddell

Staff: Kirsten Howard, and Natalie Morison, NHDES, Liz Durfee

Ms. Durfee began the meeting at 2:05 PM and introduced the visitor, Alyson Eberhardt, Coastal Ecosystems Specialist, NH Sea Grant/UNH Extension

1. Remote meeting logistics

Ms. Durfee asked everyone how the remote virtual meeting format was working out. Everyone but Ms. Kravitz who had phoned in were able to view the documents and everyone was able to hear the speakers okay.

2. Introductions

The members introduced themselves and indicated whether they were affiliated with the Town, a group or were residents.

3. Guest speaker: Alyson Eberhardt, PhD – Adaptation Strategy: Dune and Marsh Restoration

Ms. Eberhardt indicated she works with a lot of other towns to restore, enhance, and manage their coastal resources. Ms. Eberhardt identified the Hampton-Seabrook Estuary on the map. It is located behind the barrier beaches and contains 5,000+ acres of salt marsh, which is the most significant in the state, and dunes and clam flats. Historically the area was important to hay and mills. Ms. Eberhardt displayed a comparative map of the Atlantic seaboard showing a decline in the area in sand dunes from 724 acres in 1776 to 118 in 2005.

Ms. Eberhardt explained that dunes are important storm protection assets. They protect against flooding, erosion, provide habitat and plant structure and are a self-sustaining part of the ecosystem. Ms. Eberhardt explained the difference between beaches, which are water driven and dunes, which are wind driven. Dunes protect the landward property and infrastructure during storms. Ms. Eberhardt showed pictures of what you would see in the

summer with a gentle slope to the beach versus a winter nor'easter which would erode the slope and move it offshore to be stored in the sandbar where waves break. Even then it serves to slow the energy of the wave and rebuilds the dune system. Ms. Eberhardt showed pictures of Hurricane Sandy in another area where houses were leveled and the sand pushed back. Narrower dunes need our help.

NH Seagrant engages schools, works to promote a common garden for native sand dune plants, primarily beach grass and works with Hampton and Seabrook in dune restoration. The plants can be harvested. Twenty residents participate by planting their properties.

The UNH Center for Coastal Motion Monitoring monitors 13 locations on a monthly basis, two of which are in Hampton, using the stick and string method.

Ms. Eberhardt showed a graph of dunes during Storm Riley in 2018 which was one of three nor'easters that year. It made a ramp allowing surge to come up onto the road. By June it recovered to its original profile in just a couple of months.

Ms. Eberhardt explained that salt marshes are also an important part of the coastal ecosystem. They are home to fish, food, plants, providing habitats, filtering water as well as for beauty and recreation. Salt marshes are sponges that soak up waters, the peat which is an integral part is the powerhouse full of undecomposed vegetation packed down. Studies show that softer shorelines fare better.

Ms. Eberhardt reviewed some negative impacts to marshes such as invasive species and tidal restrictions such as undersized culverts and ditches. Two historical events concerning development of ditches to promote hay production and to deal with mosquitos that impacted the marsh.

Ms. Eberhardt explained accretion is when the sediment builds up causing the marshes to build up. A "coastal squeeze" can occur when marshes cannot migrate inland due to structures resulting in marsh loss. Developments in uplands prevent migration. The community can rebuild dunes and give space for marshes to migrate, removing barriers to hydrology, sediment.

Mr. Bassett asked the percentage of salt marsh lost? Ms. Eberhardt will get that information to him.

Mr. LaBranche noted there is a complex nearby which built a parking lot in the 80s in the marsh and he has not seen the marsh plants rebound and wondered what the chances are that it would rebuild itself? Ms. Eberhardt indicated it was difficult to know what the drivers are without taking a look at it. Something is preventing that or it would have regrown by now.

Mr. LaBranche asked about restrictions to keep jet skis from speeding through the marsh canals. Ms. Eberhardt noted there are studies that show a negative impact from such activity.

Mr. Diener noted he believed the speed limit was set pretty low.

Mr. Olson noted upland expansion would be a good discussion to propose vulnerable areas not be developed and to acquire these properties. Ms. Eberhardt, who sits on Exeter's Conservation Commission, noted they are working on a program to identify property with such potential. The ARM fund can be a useful mitigation tool. Twice in the past year Exeter experienced large impacts and formed a subcommittee so that next time they will be ready to implement mitigation projects in the Town. Mr. Olson noted he was a big fan of mitigation, ie. if you disturb this over here, then the Town gets two times over there. Ms. Dionne noted if there is a big enough wetland impact a permit would be required with DES and Hampton has an approved plan with DES for funding to come to the town instead of waiting for the ARM fund and having to apply.

Ms. Howard asked Ms. Eberhardt to talk about her hometown of Woodbridge, New Jersey. Ms. Eberhardt noted it is across from Staten Island and has a historic salt marsh. The area is very developed, has a lot of infrastructure and destroyed wetlands. NJ has a program with FEMA to buyout repeat loss properties in one section of Woodbridge so they will revert back to greenspace in or around the floodplain. Hurricane Sandy devastated the area, oil refineries were lifted or moved and leaked showing one example of the vulnerability of infrastructure.

Mr. Diener noted SHEA received a grant from the Coastal Program and works with Hampton, Hampton Falls and Seabrook to identify privately owned or partially developed assets to prioritize acquisitions or easements for marsh expansion. Ms. Eberhardt noted the Blue Acres Program used the pre-Hurricane Sandy appraised values.

Ms. Durfee asked if there was dune mapping and tracking information online and whether or not the information was available from individual property owners who were doing monitoring? Ms. Eberhardt indicated she did not have information from individual owner monitoring but does have a quarterly report concerning dune restoration which is publicly available and she can share that.

Ms. Howard asked Ms. Eberhardt to explain the LTAP program or Landowner Technical Assistance Program. Ms. Eberhardt noted there are a lot of workshops concerning dune restoration but LTAP works one on one at the parcel level with homeowners to understand the characteristics of their property and is open to any coastal property owner who submits the completed survey. The assistance includes two site visits. While they can't make recommendations, they provide information, SLR scenarios and FEMA mapping. Ms. Kravitz asked what the response was to the program and Ms. Eberhardt indicated the program is voluntary and participants are often surprised by the SLR risk being more imminent than they expect. So far 20 landowners have participated.

Ms. Durfee thanked Ms. Eberhardt, who indicated the group could reach out to her by email with any questions.

4. Approve meeting notes from March 17, 2020

Mr. Bassett recommended edits to Page 3 concerning the type of adaptation strategy. Ms. Durfee will add the overlay information.

Ms. Bourbeau motioned to approve the March 17, 2020 meeting minutes as amended. Mr. Olson seconded the motion. A vote was taken. Ms. Hale, Mr. Ladd and Ms. Kravitz abstained. Approved 7-0-3.

5. Brief Flood Updates

Mr. Bassett sent pictures of Greene Street off Kings Highway in North Beach between Ocean Blvd and Meadow Pond. On April 4, 2020 there was storm surge flooding and on April 9, 2020 flooding linked to a combined super moon and 10' tide. The area borders Meadow Pond.

Ms. Hale noted on May 4th they are meeting to authorize acceptance of the grant funding. The paperwork has been received and the first project meeting will be a kickoff meeting. A lot of calls concerning flooding were received with one of the largest floods seen without lots of rain. Consultants are getting together the second round of data from Woods Hole.

Ms. Morison indicated NH Coastal Summary released information the end of March and held a couple of virtual trainings on March 30 and March 31st. She will circulate links and send the link to Pt. 1 Science and Pt. 2 Guidance.

Ms. Durfee noted there is a webinar tomorrow from 3-4 PM concerning neighborhood level resilience and will send a link after the meeting.

6. Follow-up discussion about flood overlay presentations

Ms. Durfee asked if the group wanted to explore further the regulatory mechanisms such as overlays?

Ms. Hale didn't recall that portion of the meeting in March but asked about whether the overlay would give authority to not allow redevelopment. Ms. Durfee indicated it would depend on how the overlays were written.

Ms. Durfee noted that the overlay could be a recommendation of the Master Plan and that CHAT could provide the Master Plan committee with a recommendation of what the boundary of the overlay district should be. Mr. Bachand agreed the Master Plan process is tied to it and would be the right place for it.

Ms. Dionne indicated coming back into compliance with the National Flood Insurance Program would equal a better rate and policy reduction.

Ms. Durfee urged the members to look through the adaptation strategy table passed out at the last meeting which was discussed in depth during the fall. Ms. Durfee asked if anyone wanted to change or modify any of the information after reviewing Portsmouth and Durham's experience. Ms. Kravitz asked to resend it.

. Ms. Durfee indicated that social equity, which Mr. Bassett had asked about at the last meeting, could be added to the adaptation strategy characterization worksheet.

Ms. Durfee urged the members to consider the strategies after hearing Ms. Eberhardt's presentation on dunes and marshes.

7. King Tide Photo Contest & Discussion

- a. Link to map with photos: <https://bit.ly/2RBnBJ7>

Ms. Durfee displayed the photos which were entered in the King Tide Photo Contest last October and mapped out the approximate locations on the Hampton map together with a GIS overlay of the SLR and surge. There were 160 submissions. Ms. Morison indicated the tide was at 11.86.' Ms. Morison noted these photos would be added to a database of over 500 photos.

Ms. Durfee asked the group if they would like to display the photos at a public meeting as part of an outreach statement. The light blue is 1'7" SLR (10 ft tide proxy) and the darker blue is the 2' SLR layer.

Ms. Durfee viewed each of the photos which were submitted for Lafayette Road, Landing Road, Gentian Road at Greene Street. Mr. Bassett noted that the picture of water coming out of a storm drain on Gentian Rd illustrates the combination of water from coming both the pond and from Kings Highway where there are no storm drains. There were photos showing debris on Ocean Boulevard which is a hazard for travel and causes more work for Public Works. There were dramatic waves shown at the Rocky Bend portion south of Boar's Head. Photos of Church Street showed water around the fire hydrant. Brown Ave at 101 showed a Tide Gate. There were photos of Glade Path, Brown Ave, Island Path which was one house that has since been elevated. Someone took aerial photos with a drone and it looked like a hurricane had gone through. There were more photos of Brown Ave at Jo Ann Lane, Susan Lane, Hobson Ave, Ashworth at Manchester, Keefe, Mooring, Auburn, Perkins, Johnson, Riverview Terrace, and Bagg Avenue. Some showed vehicles driving through the flood waters which Mr. LaBranche indicated was bad for the vehicles because of the salt water and bad for their computer components. Mr. LaBranche noted the photos did not capture the wind pushing the water around. You could see the white caps on the marsh during the event and waves on the streets lapping against houses.

Ms. Durfee indicated it would be helpful to know the specific weather conditions and have measurements of the flooding shown in the photos. Some of the photos were stamped but some were submitted through social media and did not have that information although dates were part of the submission.

Mr. Bassett asked if the 1.7 SLR overlay made sense on the presentation. It would help to prioritize areas. Ms. Durfee indicated the 100 year and 500 year floodplain could be displayed and may be more appropriate but because there is no key on the map, displaying too many layers is confusing. Ms. Durfee will explore putting depths on the map. Mr. Diener indicated the 10' tides should be a benchmark. National Weather Service can track how many 10' tides in a given year but does not include storm surge. Perhaps talk more about tide height than SLR.

Mr. LaBranche noted he was seeing a lot of water and a lot of real estate and asked if the values of real estate affected should be included. Ms. Morison indicated the NH Coastal Commission had done a cursory analysis which probably portrays an over estimate using layers that assume every parcel is touched by flooding even though every parcel may not incur damages. Ms. Morison will send that.

Ms. Hale and Mr. Diener disagreed that placing the value of real estate would be appropriate as it only tells one piece of the story.

Ms. Durfee noted the COVID-19 event is certainly a lesson on the economic loss to the area with the beaches shut down right now.

8. Next Meeting: May 19, 2020, format TBD

9. Adjourn

The meeting ended at 4:21 PM.

Respectfully submitted,

Nancy J. Hoijer
Recording Secretary