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## Coastal Hazards Adaptation Team (CHAT) Work Session #6

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Tuesday, June 18, 2019  
3-5PM  
Masonic Lodge, 77 Tide Mill Road

### NOTES

**Participants:** Jay, Bryan, Stephen, Bob, Deb, Rayann, Jason, Jim

**Absent:** Tom, Mark, Jennifer, Nancy

**Staff:** Kirsten, Liz (Nathalie absent)

1. Approve meeting notes from May
  - May minutes were approved as written. Bryan abstained.
  
2. Relevant Flood Updates
  - Rayann passed
  - Jay – two grants for SHEA, Coastal Program and NH Charitable Foundation for a Hampton Seabrook Master Plan, will allow to continue to fund CHAT
  - Steve – Reported to the Budget Committee with the bullets given, there was a question about the purpose of the group and why we aren't doing it with Seabrook to collaborate regionally
  - Bob – Why isn't Hampton connecting with all the Seacoast towns to make it a bigger project with more input?
  - Kirsten – The Coastal Program will be kicking off a project with the Rockingham Planning Commission in October 2019 to conduct a Seacoast Transportation Corridor Vulnerability Assessment; this project will involve NHDOT and all the seven coastal Atlantic communities. Hampton tide gauge is undergoing maintenance so not working well at the moment.
  - Deb – July 4<sup>th</sup> floods are coming; that's the next significant high tide cycle and there will be a lot of people on the beach; not a lot of parking area. That's what people are talking about at the moment.
  - Jason – Planning Board is starting master plan initiation session tomorrow; talk about goals and objectives for the process; work toward ultimate goal of a new updated master plan. RPC will probably do a master plan 101 presentation in July.
  - Bryan – Are folks aware about the Shoreland urban exemption that communities can get in the buffer? Zoning Board looked at it and there are quite a few properties in that area.
    - o Rayann – That is a NHDES Shoreland permitting process. Towns can put forth proposal to exempt portions or properties from shoreland rules and

regulations. Some proposed projects have mentioned that as an option. Understanding is that none of the projects are pursuing the exemption. Conversation with Eben concluded that rebuild in existing footprint is allowed under current rules. Recommend that Building Inspector talk with NHDES Wetlands Bureau.

- Bryan – Town hasn't adopted it. State is allowing towns to adopt the urban exemption.
- Liz – Newmarket, Portsmouth, and number of communities have adopted the urban exemption.

### 3. Mapping Case Studies

- Liz gave presentation about other places working on mapping for vulnerability assessments and planning for coastal hazards purposes.
- Can use case studies to look at timing, flood characteristics, location, ultimately framework for providing guidance to Hampton.
- Louisiana Coastal Master Plan
  - What's already been done, what's ongoing, and what is planned
  - Focused on non-structural project types; floodproofing (non-residential); elevation (residential); voluntary acquisition (residential) based on future flood depths
  - Correspond to adaptation strategies: keep water out, live with water, get out of water's way
    - Jay: Is there a way to back out their projections to normal high tides? For Hampton's use, if we can equate the proposed actions to more frequent flooding occurrences, people will have an easier time relating to that.
      - Deb agreed
    - Liz: This is the broad brush effort to prescribe a different type of adaptation strategy that might be more appropriate based on the projected flood depth. Once you develop the dataset that gives you the flood depths, then it's simple to generally identify areas that may be more suitable for flood proofing vs. elevations. They're tackling this at a statewide level. It could be done fairly easily at a municipal level.
      - Jay: We might use different criteria.
      - Deb: Different audiences too
    - Bob: Where does the funding come from?
      - Liz: For Louisiana's process, they are funded by a lot of sources, including oil spill funds, state funds, and foundations

- Rayann: Interesting that they call elevating non-structural. I don't see that as non-structural.
      - Liz: Under their definition, I think structural is more "walls" and other infrastructure to keep the water out.
    - Liz: Louisiana's mapping is interesting because it helps you understand how to recommend different strategies based on spatial data. They use different criteria when selecting projects. They prioritized marsh creation. They include a lot of phasing.
      - Jay: What kind of buy in did they get?
      - Liz: The recommended projects are recommended from the local level.
- Norfolk, VA Vision 2100 Plan
  - Four colors correspond with visions for the city. Based on sea-level rise, assets, and other visioning exercises.
  - Lots of outreach, mapping, visioning (sea level rise, physical assets, building trends)
    - Red: enhancing economic engines
    - Yellow: adapting to rising waters
    - Green: designing new urban centers
    - Purple: establishing neighborhoods for the future
  - Prioritizes different areas of the city based on future risk. Steer future investments from more vulnerable areas. Easy to understand. Most people can figure out a zoning map. Each area has a set of goals and action items.
    - Rayann: I really like this approach. Not too busy. I like the sense of how the areas are being prioritized. Very intuitive. Like the fact that each one has actionable items.
    - Jay: I like the concept of adding flood vulnerability to look at when people are developing or redeveloping properties. There isn't a lot of consideration to how those properties will be impacted down the road.
    - Kirsten: I like that they emphasize the positive angle of emphasizing a vision for safe areas, development/investment in safe areas. Where are those? What should they look like?
    - Deb: Like the slide with action items on it, simple
    - Bob: Do they have an advantage because of shipyard presence? Federal government will help save it.
      - Group agreed probably.
  - Liz: Looking at who is vulnerable to the 1% annual chance event is an important aspect. Does seem to be consistently used in each example.

- Stephen: Interesting that in the first one there are areas focused on retreat. This one doesn't include retreat, it seems. Nothing in this plan says to let the water take over. Everything focuses on dealing with it somehow. Very different.
  - Jim: Great to be positive. But at some point maybe you have to say it isn't going to work.
  - Liz: It's a completely different type of plan. This is more similar to what you would see in a typical land use planning document. It's not a plan geared toward reducing vulnerability. It's integrating elements of adaptation and resilience into a more conventional planning document. It doesn't go as far.
  - Rayann: Maybe another color could include open space, creation of parks (that's the area where we move away from slowly)
  - Bryan: This is more applicable to what we are dealing with here. It's because of fill in these areas that we are sinking.
  - Jay: I remember them dealing with sinking on the naval base
  - Bryan: Build up route 1 a foot, that would help. What have they done about sinking issues? Do they have a way to identify that that is the issue? Do they have strategies to deal with it?
    - Group didn't have an answer to these questions. Agreed they could investigate further.
- Climate Ready Boston – Resilient Harbor Initiative
- Note, there are well-developed websites for the Louisiana and the Boston case studies
  - Mapping included 40 inches of SLR in an annual chance storm event shaded in blue
  - Mapped elevated landscapes and green space as well as connectivity (in pink)
  - Blue map: shading indicates the time when the area is projected to be flooded in a 1% annual chance storm event, not depth of water
  - Selected medium SLR scenario and mapped the 1% chance storm event and two sea level rise areas; includes a time component; shows how flooding might change over time; arrows show flood pathways
    - Jim: That whole area flooded last March; they have buildings with underground parking
    - Everyone liked seeing the flood pathways, shows how the water moves.
    - Jim: Boston is all on fill. Good website that shows Boston in 1600s to see how much has been filled in.
    - Participants like the timing elements. Kirsten pointed out that copying that would involve picking SLR scenarios for certain points

in time. Limits the amount you can talk about uncertainty. Would be a decision point for the town or CHAT at some point.

- Includes recommended resilience actions.
  - Rayann: What does constructed ground mean?
    - Liz: Maybe in-fill?
    - Deb: Weave together the built and natural world
  - Jay: I like the pathways. I like being able to show short and long term extent of vulnerability.
  - Rayann: Like the idea of identifying areas where projects could take place. Maybe if we continue for many years we could get to that, but for our purposes a zoning approach might make sense for now.
  - Bob: Like that whatever they do is designed to be able to change if circumstances change.

4. Liz: For a next conversation we could start learning about brainstorming strategies within the categories of adaptation strategies? Are folks interested in learning more about that?
  - Deb and Jay agreed that talking about strategies probably makes sense very soon.
  - Rayann: Keep water out, live with water, get out of water's way are nice and easy to understand broader categories. It plays nicely into whatever someone's personal preference is.
  - Jim: I agree that identifying strategies is a good idea. Can the road be raised?
  - Deb: Residents are anxious to see something happen. Marsh properties want to see something happen.
  - Jay: We need to engage stakeholders.
  - Jim: We have to figure out what we can do. What is realistic.
  - Liz: This group can become well versed in what the options are. We have to make sure we all know what the risk is and what some of the options are. That goes for town level decisions too. What's most relevant to this area, to the conditions, and the political climate. Look at some examples of where these strategies have been implemented as close to home as possible. What does elevating entail?
  - Next meeting? Dive into three strategies.
    - Stephen: If you apply the Norfolk Plan to Hampton Beach, they're identifying assets. On Auburn Ave or looking at elevation of 30,000 feet, you say this asset is an engine to the state for tourism; etc. We haven't started talking about any of that stuff. We're just identifying that now.
    - Liz: We do have high level assets mapped on CHAT's maps. We have a collection of some assets. Identifying additional assets is important to better understand what the community wants to protect. Quite a few

tools available we could use, including heat mapping. Identify clusters or groups of assets. Help shape vision areas.

- Bryan: Hampton Beach is an asset as a whole. We've lost almost all hotels to condos. Might not have cottages in the future.
- Bob: Without the economic engine of Hampton beach there wouldn't be a town. If we start out by dividing some sections of the community is so divisive. We have to bring the community together. We need to be collegial rather than a pocket of subsets.

5. On the topic of soliciting public input/starting public engagement

- Bryan: Need to bring something to people first. We need to have something to show them.
- Stephen: When you talk about an asset, everyone considers their homes assets.
- Liz: Important to have a well developed process before getting the public involved. Putting together a workshop would take some energy. Would help to get the public involved in thinking about vulnerability.
  - Rayann: Maybe Louisiana's approach is better in that case. Depth of flooding would be more objective way of recommending strategies for different areas/assets. Agree that Hampton Beach is all one big asset.
- Jay: Strategy session to talk about what the options are. That's probably what we want to have a discussion with residents about.
- Bryan: You protect the houses and all that. You know your car will get wrecked.
- Deb: Appreciate what the town did to create safe parking areas and fund flood studies.
- Kirsten: One component of the strategy discussion is also what the town will do to make sure those options are viable in the future. Can't leave the roads and other infrastructure maintenance out of the conversation. If you're going to recommend that certain homes at certain elevations raise up, the town probably has to be ready to continue serving those areas for a defined period of time.
- Bryan: people deal with water down there. These areas used to be camps. I've ridden my kayak to my door.
- Bob: Could run a focus group of people who are not coming here every month. Uninformed and have low information and run things by them to help figure out what they will understand. The Louisiana example is simple. Have a focus group session.
- Liz: Looking at town wide recommendations. CHAT should keep in mind that we're talking about recommendations for property owners; what aspects of this work will be addressed in the master plan chapter and how CHAT and the master plan can work together to address things in a cohesive manner. Helps look at city-wide scale. They aren't considering private homes to be assets. Public infrastructure and those assets are identified by multiple stakeholders as critical components of the community. Help inform the town of Hampton. Look at

vulnerable roadways. All part of the puzzle. We want to think about adaptation strategies for property owners and town as a whole system.

- Stephen: Heard that in Salisbury they worked with the Army Corps of Engineers to build a wall.
  - o Deb said she would send photos of the wall. Available here:  
<https://drive.google.com/open?id=1ehNZEM06xhbdT-utB2E3aDsJ3Ar7owNB>
- Liz: Homework assignment; come back to the group with at least one adaptation strategy you'd like to investigate further. The Salisbury wall is one example.

## 6. Review CHAT maps

- Review areas identified by CHAT
  - o Liz: 30 new polygons were added to the maps. Presented some slides showing data about the vulnerable areas that flood now.
  - o Steve: 14.5-15.5 ft; projected 2050; add dates?
    - Kirsten: Will have to choose a scenario that you'd like to use if you want to add dates.
    - Group agreed they'd like to try to do that, maybe next time.
  - o Steve: Part of the master plan for Hampton better plan for this future. Fire ambulance boat?
    - Jason: Good points.
- Liz: Can have strong recommendations on what type of climate information needs to be incorporated.
- Bryan: Can't get an ambulance there. That's when the authorities will have to leave and if you don't you're on your own.
  - o Bob: New Academy as an evacuation center.
- Liz: Does CHAT want to choose a projection? Wait for master plan?
  - Jay: Could recommend to master plan process.
  - Kirsten: Use CRHC as a starting point.
  - Rayann: 13.2 tide height from last storm
  - Kirsten agreed to present CRHC recommendations at the next meeting.

## 7. Next meeting – attendance poll for July 16 and August 20

Liz will send a Doodle poll

## 8. Adjourn