

The Coastal Resiliency Action Committee
MEETING MINUTES - TUESDAY, MARCH 26, 2019
Old Water Department, Falmouth Town Hall, 4:00 p.m.

Present: Charles McCaffrey, Chair
Melissa Freitag, Vice-Chair
Jamie Mathews
Andrew Ashton
Paul Dreyer
Ed Schmitt
Jennifer McKay, Conservation Commission Administrator

Also present: Elise LeDuc, Kirk Bozma (WHG), Betsy Gladfelter, Conservation Commission,
Julian Suso, Town Manager

Mr. McCaffrey opened the meeting at 4:04 p.m.

Discuss potential projects for MVP Action Grant & CZM Coastal Resiliency Grant

Elise LeDuc mentioned that Towns can ask for more than one grant and do it through different departments.

Kirk Bozma: The Vulnerability Assessment is not looking at wave and wind impacts on damaging structures. If a road is not passable until water recedes that is a problem, but if it is not damaged once the water recedes, life goes on. If it's actually damaged - sand covered or breached - more of an assessment is needed. We just finished doing some work for Hull. They needed a bunch of upgrades and design parameters. We used the same model that you will have to do that stuff that we will be using for your assessment. A retreat plan for coastal roadways is needed as well as information on buildings near the coast. That data will be available from the model. The Committee should go for an action grant. If a culvert gets flooded it's not a problem. If it's a combined event and not enough water is going out or in, you could target that in an action grant. We are really looking at infrastructure – that's the big idea. We could add culverts because they have a lot to do with ecology.

Mr. McCaffrey: Does the model indicate future water levels at different times?

Mr. Bozma: Yes.

Mr. McCaffrey: Are you also checking where there is permanent inundation?

Mr. Bozma: Yes.

Mr. McCaffrey: How do we maintain certain forms of wetlands?

Mr. Bozma: There is a statewide model for that and improved shoreline data from now to 2100. Where will the mean high water benchmark be throughout the Town? It's astounding to see on the USGS how the tidal ranges are. The shoreline data is out there.

Mr. McCaffrey: Will we have that?

Mr. Bozma: Probably through 2030. It will show whatever the landscape is now and geomorphic change. It's not part of the Vulnerability Assessment but will be available through public data. It should be done by July.

Mr. Ashton: Do you use USGS?

Mr. Bozma: We run tidal ranges and new benchmarks on deeper water. The geomorphic change piece is being done by others.

Mr. Dreyer: We know you are looking at Town assets. Can you look at private properties?

Mr. Bozma: You will be able to look at that yourself on a case by case basis.

Mr. McCaffrey: Is it similar to the Fema map for the future – a prediction of it?

Mr. Bozma: It's definitely more than FEMA does. This is more comprehensive than FEMA's.

Mr. McCaffrey: Will we know what houses are affected?

Ms. LeDuc: You'll be able to look at everything from 2030 through 2070. Also what areas that are going to get 1% inundation in 2030.

Mr. McCaffrey: That's permanently under water?

Mr. Bozma: Yes.

Ms. Gladfelter: We know that the tides on the south shore are 1-2-ft and on the west side 4-5-ft.

Mr. Bozma: Mean high water is going up 4-ft. The Model doesn't just add water. It's dynamic – deep water causes different effects. You can't use bathtub type features. Action grants would be good for road damage assessment and to plan how open space defines wetland migration. What's going to be under water?

Mr. McCaffrey: How do we know how a marsh will respond due to sedimentation? Can we begin to predict that?

Mr. Bozma: Yes that's been done through the State and we will use that information. There will be a plan for that. The marsh will want to move into a parking lot or a house. What type of approach will the Town want? Some communities are planning to deal with that. These are things you can think about for an action grant.

Ms. McKay: I was contacted by Amy Lowell about relocating a Park Road sewer through an action grant. I haven't had a discussion about it with her yet. Should this be a feasibility study or engineering and design? CZM or Action grant?

Mr. Bozma: An action grant.

Mr. McCaffrey: Can you spit out any result about that?

Mr. Bozma: Things like that get done a lot. What water conditions will be there? It completely fits.

Mr. McCaffrey: I'm supportive of doing that. Do we want a more holistic assessment of that? Do we want to create a picture of it?

Mr. Bozma: This will do that for you. You could jump ahead on that.

Mr. Dreyer: The grant is due at the end of April?

Ms. LeDuc: April 19th.

Ms. McKay: The Town does have an internal process that we need to follow in order to apply for a grant. We have to apply to the Board of Selectmen for their approval and then apply to the Finance Committee for approval. But I believe we can give a concept idea? It doesn't have to be the entire grant.

Julian Suso (Town Manager) Right.

Ms. McKay: The Selectmen can bless it and then we can go to FinCom.

Mr. Suso: A reasonably written concept admission is needed.

Ms. LeDuc: Having a basic scope will do.

Mr. Bozma: For the CZM grant an implementation plan is a decent next step following your vulnerability assessment. The vulnerability assessment will identify this asset and its vulnerability. It should be a site specific asset review. It will also look at bigger solutions. It brings it back to a holistic review of the Town. What actions are most cost effective in looking at

the vulnerability? You should identify an approach or action that leaves you with flexibility. When you reach a point where you have trouble you will be able to pick different pathways. For instance if you pick action B and build a wall around the problem, it puts you in a box if it only lasts for 10 years. You may want action C and projections could be higher or lower. This way you can see what's happening with the climate as you go along and map out a plan for your community to keep life and ecology the way you want it to be. It's the most cost effective way – not doing everything today.

Mr. McCaffrey: Sea level rise may get to an area and relocating it is expensive. It may be more economic to elevate it for a time and then relocate it when necessary.

Mr. Bozman: And you may elevate it to a certain height that may last for 40 years. For example: we are working on a park in Braintree that has Little League fields that eventually will flood every day (2070). The city could abandon this area and let it become a wetland but ball fields are needed. They will focus on the abutting marsh and build a low elevation berm that keeps the flood water out. The area will flood in a storm but recover. They can watch sea level rise and when it will promote a salt marsh you've had 40 years to plan where the new park will be. The berm can be taken out and relocated at the back side to protect the road and homes. It's the adaptive pathway scale.

Mr. McCaffrey: How do we manage homes that will be inundated in 2070? New development is not allowed in this area now. The existing development has to be amortized until permanent inundation is projected within 5 years.

Ms. Freitag: We will get a lot of that information from the Vulnerability Assessment in June.

Mr. McCaffrey: What type of planning concepts do we need to explore?

Mr. Bozma: An implementation plan would be a good next step. You can use it to apply for a CZM grant.

Mr. McCaffrey: I went to the workshop on the two grants. There are ridiculous time constraints, but they did emphasize that they can be broken up into phases.

Mr. Bozma: We did this with Duxbury Beach. We looked at the entire system and found prioritized solutions. The next grant was for a design for dune repair. The next grant was for the construction and planting of the dune.

Ms. LeDuc: CZM wants to see things built. When they see a feasibility study they know there will be a project built.

Mr. Dreyer: Where are you on the Model development?

Mr. Bozma: All the 2070 simulations are done and then it has to go through GIS.

Ms. LeDuc: It is not on schedule as projected because the Town is getting more details re elevations, etc. We're looking at finishing in August.

Mr. Dreyer: Have you looked at the critical areas that can be addressed now?

Ms. LeDuc: I haven't pulled that information yet because I don't have all the elevations.

Mr. Dreyer: The information should be helpful in going forward now.

Mr. McCaffrey: MVP is going to do another round of action grants in August.

Mr. Dreyer: We can apply now and in August.

Ms. LeDuc: We are looking at the end of May for results.

Mr. McCaffrey: As we look at the longer term we need a different version of what the Town wants to be. It's hard to make judgments if we don't know how we're going to develop in the future.

Ms. Gladfelter: There are still specific actions you can take.

Mr. McCaffrey: Yes there is so much that is clear but we need to have the consequences of what is coming. Making the suggestions on how the Town should approach is not due until next May.

Ms. Freitag: We are asking the difficult questions about behavioral changes.

Mr. McCaffrey: We will be making recommendations and we need some criteria that is sound. How do we know the role of that asset? How will we value it in the future?

Mr. Bozma: What is the service life of the asset? If a building is falling apart because it's old, it may need to be replaced in the 2050 time frame. You could rebuild the building so it is resilient or move it.

Mr. McCaffrey: The State has criteria re hazards – are these being applied on how we will protect a given asset? I thought it would include some recommended strategies on a local basis that are consistent with State policy?

Mr. Bozma: National Grid says to look at FEMA and add 2-ft and we're good. This is not good. They are going above and beyond State codes. Identify where your priorities need to be in the 2030 to 2050 time frame and do things that are not tying you into a box.

Ms. Gladfelter: On the south coast of Chappaquiddick Island there was a breach and a multi-million dollar house wanted a seawall but they had to retreat. Then the breach came back and now they have a ½ mile beach in front.

Mr. Ashton: Does the Town have depreciation insurance?

Mr. Suso: Yes.

Ms. McKay: I like the implementation plan pathway. The next step is a vulnerability assessment.

Mr. Bozma: Prioritize all the assets.

Ms. McKay: And phase 2 is the vulnerability assessment.

Mr. Bozma: And it will tell you how to push forward. It's good information – how do I build resiliency for the future? Maybe a buyout strategy comes into play.

Ms. LeDuc: You can build in regulatory changes and zoning changes into the implementation plan.

Ms. McKay: I'd like to show the Town that the Vulnerability Assessment was self-funded and forces us to move forward. The action grants will come out in mid to late April. I'd like to caution everyone that there will be a second round in the fall.

Mr. Bozma: Kudos to you for all the data you're getting.

Ms. McKay: Elise said we'd get a massive amount of data which is great.

Mr. Bozma: You have a real good shot at some of these grants.

Mr. McCaffrey: One area listed in the workshop plan was about sediment. We have been thinking of doing a sediment project pertaining to beaches.

Mr. Bozma: We did one for Duxbury.

Mr. McCaffrey: Did you look at how the shore structures are affecting sediment?

Mr. Bozma: Yes and we did include all their harbor shorelines.

Mr. Ashton: Is that report available?

Ms. McKay: Can you send it to me?

Mr. Bozma: Yes.

Mr. McCaffrey: We have talked about connecting Falmouth Harbor to Morse Pond and changing Walmart to a wetland as it was before.

Mr. Dreyer: What is the deadline for the grant applications?

Ms. LeDuc: If you want help putting together either of those grants – let us know as soon as possible. Our study will be to you in time for the CZM grant.

Mr. McCaffrey: We will need to do some marsh planning for sea level rise.

Ms. LeDuc: Take some of the data from our vulnerability assessment, but I don't know if we get to the point of changing areas. Looking at what you have for recommended actions I strongly recommend you apply for only one thing. They really like to see that.

Mr. McCaffrey: And then we can apply for another.

Ms. LeDuc: I would suggest that you have a different point person for each grant.

Ms. Freitag: I have written up a quick sketch of a resiliency plan for a stretch of Surf Drive to test the waters. Can I take the number 1 from the action grant proposal and overlay it with marsh resiliency?

Ms. LeDuc: Yes by targeting actions through the workshop and matching areas that go together. Focus on Surf Drive, add Trunk River and the bike path to it.

Ms. Freitag: I covered west of Trunk River to Fresh River where the Quisset pathway comes to the bike path.

Mr. Ashton: Just go to the bike path.

Ms. Freitag: There's a no name wetland in the area and I wanted to include it.

Mr. McCaffrey: Do an analysis using a snapper.

Ms. McKay: We can tie in the relocation of the sewer main but are we trying to put 4 different projects into one grant? That's what we did last time.

Ms. Freitag read information from the grant. Information and roadways are together with infrastructure.

Ms. McKay: A tricky piece is that the Trunk River sewer main is going to need the buy in of the wastewater Superintendent and the head of the DPW.

Ms. Freitag: We'd like to have a study about this, not do it.

Mr. McCaffrey: We may need different strategies for different times.

Mr. Ashton: Sewer mains would justify a feasibility study.

Mr. McCaffrey: In the near term we may elevate it 2 or 3 ft.

Ms. Gladfelter: We may need to have someone examine the options so we know what to do. We need to get the options.

Ms. McKay: The Town can do more than one grant.

Mr. McCaffrey: Just don't have the same project manager. Maybe we can be involved in writing one, but not be the project manager.

Discuss Vulnerability Assessment – additional tasks with Woods Hole Group

Ms. McKay: Would this Committee support/endorse the Wastewater Superintendent's proposal for a grant to the Selectmen? Will the Committee get behind this? It is clearly a need – it's in a wetland. Can I tell her yes?

Mr. Ashton: If anyone in Town wants to prepare for climate change, I'm for it.

Mr. Mathews: Move to endorse the Wastewater Superintendent's proposed grant.

Ms. Freitag: Second.

Mr. McCaffrey: I'd like to see the language that ties it into the MVP report.

Mr. Dreyer: The lead would be DPW – our funds would not be involved?

Ms. McKay: No. Let Amy handle it. It's an MVP Action Grant.

Mr. McCaffrey called for the vote.

Mr. McCaffrey: Unanimous, so moved.

Mr. Dreyer: We have been talking about a grant for beach nourishment coming from this Committee.

Ms. Gladfelter: We are in the second phase of the Coonamessett River Restoration project and need about \$300,000. We will be taking down middle dam, middle berm and do a culvert replacement. This will increase flood storage both ways.

Mr. Ashton: Putting more water into the bay doesn't hurt it.

Ms. Gladfelter: In phase 1 – when you do a cranberry bog restoration that has dams and cranberries – 2 – 3-ft of sand goes into a burrow pit. There are chemicals from the cranberry farming. Those areas had 200 years under water and 100+ years under sand. It is a most diverse wetland and it came back.

Ms. McKay: Betsy is proposing this because the Director of Ecological Restoration identified this specific grant program for the Coonamessett River project. It's an MVP grant.

Ms. Freitag: Does this come from number 1?

Ms. Gladfelter: No it's from culvert restoration. # 6 is about bridges and culverts.

Mr. Ashton: Who will be the lead?

Ms. Gladfelter: Ms. McKay and I work together. I do all the writing. The lead should be the Conservation Commission. I would like to get a letter of support from this Committee for this action grant?

Ms. Freitag: Move to send a letter of support for the Coonamessett action grant.

Mr. Ashton: Second.

Ms. Freitag: Hazard mitigation ties in with this.

Mr. Ashton: It's the flood storage thing I'm skeptical about.

Ms. Gladfelter: The 3 nor'easters last March pushed water up the River and it can't get back out and it reconnects to the flood plain. It's not any lower in Great Pond.

Mr. Ashton: I can see it's an advantage to having it more open.

Mr. McCaffrey: It's a significant land form in the Town and needs a good looking over.

Mr. Mathews: The Conservation Commission is behind it.

Mr. McCaffrey called for the vote.

Mr. McCaffrey: Unanimous, so moved.

Ms. McKay: Are we looking at the section of roadway for an MVP grant.

Ms. Freitag: It fits into CZM # 1 and 2.

Ms. McKay: I don't know if the sediment budget might fit into that.

Mr. McCaffrey: I think it meets the criteria for both grants. It might not get funded by MVP and would by CZM.

Ms. McKay: You need to choose 1. Either the sediment management plan or the stretch of roadway. Ms. Freitag's goal is to get the Town to start thinking about retreat. Action Grant project?

Mr. McCaffrey: Dynamic adaptation makes it easy.

Mr. Ashton: It's great for Menauhant also.

Ms. Gladfelter: Menauhant is vulnerable. If the sewer line goes it could be bad.

Mr. Ashton: Even fairly small storms cause a lot of sand on the road.

Ms. McKay: The sewer has breached 3 times.

Ms. Freitag: Tying in the marsh resiliency would also have to be looked at.

Mr. Mathews: How will this tie in with DPW?

Ms. Freitag: I sat at the same table as Peter McConarty at the MVP workshop and this was his idea.

Ms. McKay: If this is perfect for the Action Grant – it's the step before a feasibility study. There are two things you are looking for an Action Grant. You need to pick one.

Mr. McCaffrey: We need WHG to help up with it.

Ms. McKay: Do you want them to put forward a successful application and fund it or do you want them to assist with the application?

Mr. McCaffrey: Time is short and I think the analysis that needs to be done would benefit from this type of approach. It will be a stronger application if we have a more sophisticated form of analysis. WHG knows the area now and they have most of the data. We should involve them. The sediment analysis is also a worthwhile project and could be funded by either grant. We can just use it for CZM which is probably more appropriate.

Mr. Mathews: Should we also keep it for the Action Grant?

Mr. McCaffrey: The sediment management plan is just for CZM and we can discuss it with them up to the day they announce the request.

Mr. Ashton: You need one A proposal.

Mr. McCaffrey: Let's see what CZM thinks.

Ms. McKay: We should take the Vulnerability Assessment to the next level. We'll get the report in August and could be applying to the CZM grant.

Mr. Ashton: We have to do it locally.

Ms. Freitag: We can do something for each transect.

Mr. Ashton: And go all the way to where Surf and Shore meet?

Ms. McKay: It's one stretch.

Mr. Dreyer: If you look at it from the perspective of the citizens we'd be remiss if we didn't do something re Menauhant Beach. Perhaps we should concentrate on that first.

Mr. McCaffrey: That's impossible at this time.

Mr. Dreyer: I thought the sediment study was on Menauhant.

Mr. McCaffrey: No, on the whole Town. Ray Jack is taking care of Menauhant Beach. I don't think it's prudent at this time.

Mr. Mathews: Move to pursue a surf drive feasibility study.

Mr. Ashton: Second.

Ms. Freitag: We should change the name to from Trunk River to Shore Street.

Mr. Mathews: I will add that to my motion.

Mr. McCaffrey: The next step is to sit down with WHG.

Ms. McKay: The grant applications have to go on the Selectmen's agenda for their April 8th meeting.

Mr. Ashton: We will need a budget.

Discuss Town Meeting presentation

Ms. Freitag: I will give a presentation on the action grant.

Mr. McCaffrey: I will talk about the State money and the Town's \$100,000 appropriation assuming that we most likely will be using it. I will also be talking about our plans and the report that will be made to the Selectmen in May of 2020. Also our initial recommendations.

Ms. Freitag: We should note that they funded the MVP study and because of that we are way ahead of all the other Towns. The Town needs to know what we've accomplished and what we are planning.

Ms. McKay: We can meet on April 2nd at 4:30 to talk about Town Meeting presentations and meet on the 16th to finalize the CZM grant.

VOTE MINUTES

3/12/2019 will be voted at the next meeting.

Mr. Dreyer: Move to adjourn.

Ms. Freitag: Second.

Mr. McCaffrey: Unanimous, so moved.

The meeting adjourned at 6:00 p.m.

Respectfully submitted,

Susan Cronin, Recording Secretary