



# CAMBRIDGE SHORELINE RESILIENCE PLAN STAKEHOLDER MEETING NOTES

**May 27, 2021**

**1- 4:30 PM**

In-person meeting and field visit conducted. Stakeholder in attendance included:

Name	Organization/Department
Larry White	Project Manager, Strategic Programs Development, LLC
Kayhla Cornell	MEMA-Mitigation Planner
Stacey Underwood	USACE Silver Jackets Coordinator
Kevin Wagner	MDE-Community Assistance Program Manager
Debbie Herr Cornwell	Maryland Department of Planning
George Hyde	Cambridge City Engineer
Steve Garvin	Dorchester Emergency Management Planner
Herve Hamon	Dorchester Director of Planning & Zoning
Sasha Land	DNR- Flood Mitigation Planner
Jaleesa Tate	MEMA-State Hazard Mitigation Officer
Nevin Stambaugh	MEMA-Mitigation Planner
Jacazza Jones	MEMA- Mitigation Fiscal Administrator
Jesse Diehl	MEMA-Mitigation Planner
Steve Rideout	Consultant and Former City Council Member for Ward 1
Dick Morris	Citizen
Matt Pluta	Director of Riverkeeper Programs

## Welcome & Overview

City of Cambridge Project Manager Larry White opened the meeting and asked all attendees to introduce themselves and who they represented. A brief overview of the project was presented to the committee including accomplished items and where we stand in the planning process, an introduction to the topics that were presented, what is expected of the committee members from the meeting and a description of the 5 project sites that committee were able to view during a field visit.

## Restoration of Barren Island and James Island- Presentation

Kristen Fidler, Director of Harbor Development MDOT Maryland Port Authority presented on the dredging program MDOT administers in many parts of the bay and its tributaries. Highlights of the presentation include:

- The success of the program is attributed to the stakeholder engagement and sharing of information. A key partner is the ACOE.
- Dredge program is based on keeping Maryland and the Chesapeake Bay competitive with adjacent port markets. In order to be competitive and the channel must be kept to a depth greater than 50 feet for the movement of goods. If no dredging is done the channel will go from 50 feet to 45 feet in 3 years.
- Dredging is needed to remove the constant buildup of silt material in the channel. The program splits the Bay into 4 sections and dredging planning is supported by a stakeholder group of 9. The program produces approx. 5 million yards of dredge material per year.
- The beneficial use of dredge material is defined in statue to restore or enhance aquatic environments.

- Poplar Island: Planned area for dredged material on island will be full in ten years. As part of a 30 year plan a new location a new location to store dredged material will need to be identified in the mid Bay section to take the place of Poplar Island.
- James Island: The program has identified this island as the next project site. It is anticipated that this island will begin to receive federal dredge material in 2024
- Baren Island: Is currently under study for next generation of Dredging in the mid Bay section.
- The program supports smaller dredging project in tributaries of the Bay that improve navigation and provide opportunities for dredge material to support barrier development to protect adjacent shorelines.
- Refer to MDOT presentation handout for additional details.

### **Risk Assessment Modeling & Analysis**

Muthukumar S Narayanaswamy from Michael Baker provided a summary of bath tube flood model that was developed for the Choptank River. Results for three flood scenarios were presented:

- SLR Projections of 2.0ft by 2050
- BFE + 2.0ft of freeboard + SLR Projections of 2.0ft by 2050 for total of 9ft.
- Base Flood Elevations identified by FEMA

The presentation focused on the data processing and methodology that was used to develop the modeling. Illustrations were used to represent the steps that were necessary to identify existing coastal features and the steps that were needed to adjustments for flaws/gaps in the Lidar data.

Under the first scenario (SLR Projections of 2.0ft by 2050) flooding was limited to areas that residents typically experience during high tides and include areas on each side of Great March Park, at the end of roads in West End fronting the shoreline along Hambrooks Ave, and the mouth of Cambridge Creek.

Under the second and third scenarios (SLR Projections of 2.0ft by 2050 plus + BFE + 2 ft. of freeboard totaling 9ft.) almost all areas will breach, and extensive parts **of north part of the City** will be inundated with water. However, under the BFE model areas are breached but flooding only occurs adjacent to the MD Highway 50 bridge abutments.

A case study using scenario 1 (SLR Projections of 2.0ft by 2050) was also presented showing the extent of flooding and levels of mitigation that would be needed to limit flooding in areas that would be considered nuisance flooding today. This level of protection would eliminate nuisance flooding which is a high priority for the City. It would also be less expensive and lighter lift that would provide positive outcomes to current flooding condition. Specific mitigation methods were not identified as part of this study, only levels of protection that would be needed and an improvement that was represented with a GIS polygon. In every case the anticipated flooding under scenario one was mitigated.

Two fact sheets were distributed as part of a participant packet that provided background information on the steps that were undertaken to determine the SLR including technical assistance from Sasha Land, Maryland Department of Natural Resources, used in the model as well as the summary of the model and the results of the case study before and after mitigation for each study site.

### **Mitigation Concept Ideas**

As part of a field preparation committee members were asked to think about what types of mitigation measures, they would like to see and what measures should be considered. Items that were presented include coordination efforts that will be needed to tie mitigation measures across private/public property, potential conflicts with private docks and navigation of pleasure watercraft, permitting and innovative land use policies/zoning regulations that could be considered, and the consideration of offshore, nearshore and onshore flood risk reduction measures for each study site

A fact sheet for concept visions was distributed as part of the participant packet that provided background on each study site, primary land management policy goals, design considerations and living shoreline applications. The fact sheet was supplemented with a location map and illustrations for mitigation measures at each study site. The intention of this fact sheet was to give steering committee members conceptual design ideas that they could discuss while on the field visit.

These areas include:

- (1) Great Marsh Park,
- (2) West End where private property exists along the shoreline,
- (3) Yacht Club and City Marina where open land extends to Cambridge Creek,
- (4) Cambridge Creek, which is fully developed along its banks, and
- (5) Sailwinds, which is a 24-acre track under development by the Cambridge Waterfront Development Inc.

Ideas for potential projects in each of the high risk areas were outlined in the slideshow.

- In addition, Ms. Land suggested researching additional best management practices to include each site's concept designs, such as, floating docks.
- A suggestion was made and echoed by several state agency representatives that a special meeting be convened with state agency partners to discuss the planning process, goals, objectives, and potential mitigation ideas.

### **Field Visit Including Five (5) Identified Sites**

These areas include:

- (1) Great Marsh- Gerry Boyle Park
  - Project will consist of multi-use plan that includes residential, park amenities, flood risk reduction measures and tie into County property west of site/private property east of site
  - Existing stormwater flooding issues upland is planned to be conveyed to station and pumped
  - Project will require buy-in from private properties on all sides of park
  - Evidence of erosion to West side of park property and is undercutting service road. Existing riprap protecting the park is failing due to erosion of base material.
  - Rooster Island will be considered as part of a later Phase of the project.
  - Breakpoints that were identified in model currently have beach access and are also the areas that were previously identified for crab claw headwater feature.
  - Recommend taking a tiered approach that will save money, provide different levels of protection and opportunities for enhanced aquatic environments. This involves low level protection at shoreline and higher level of protection along southern boundary of park.

#### **Comments provided during the field visit included:**

Reconfiguration/reimaging the park from both a floodplain management and recreation usage perspective. Existing asphalt roadway is an ongoing maintenance issue. New placement of the roadway and parking area(s) within the park could provide additional recreation opportunities near the water, while mitigating the closing of the road and ongoing

maintenance issues due to undercutting and flooding. Restoring the natural functioning of the floodplain and restoration of the existing shoreline to a more natural condition, such as a living shoreline, could exponentially improve the conditions of the park and reduce the impacts of flooding. Keeping in mind the quote “floods are acts of God, but flood losses are largely acts of man” by Glibert F. White, is apropos. Additionally, using this area for stormwater storage/retention may also be a viable mitigation action to reduce nuisance flooding to structures behind the park.

<b>Workshop Questions for June 8 Meeting</b>	
What existing problems do you see?	
What are the main physical features that should be considered?	
Are there any barriers that need to be addressed?	
What level of flood protection should be considered?	
What type of mitigation measures should be considered?	
Are there any hinging permitting procedural requirements?	
What are the main drawbacks to this mitigation measure?	
Are there any funding sources that could support mitigation measures?	
How would this mitigation measure tie into the others?	
General Comments:	

- (2) West End where private property exists along the shoreline- Oakland Street at Seawall
- Flood walls in the location are in poor condition – high tide waters were evident in street at the time of the visit. Funds have been received for repair/reconstruction of walls only at the end of streets.
  - Area has flooding associated with failing stormwater systems as well as tidal water intrusion. Stormwater solutions should include conveyance improvements with pump station.
  - Condos that were constructed in 2006 have revetment to about 5 feet (BFE) (first floor elevation is 7 ft) and floodwall at end of street will be replaced to BFE 5’ which is one foot higher than existing – need to be conveyed to a station and pumped.
  - City owns the marina, and a portion of the slips are YC. Floating dock around marina but all slips are stationary.

**Comments provided during the field visit included:**

Lack of continuity in existing structural flood protection.  
 Design revetment to allow community access to water. During visit committee member pointed out kids use beach areas and swim in river.

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General Comments:	

(3) Yacht Club entrance at bulkhead

- Existing bulkhead on city property was installed in 2006
- Storm drain issues along Water Street that will need to be mitigated by collection and pumping

**Comments provided during the field visit included:**

Area of interest was the city parking lot that has 19 spaces set aside for the yacht club on the side of the lot away from the city marina and the strip of land between the parking lot and the retaining wall at the river that goes along the side of the yacht club down to the city park and then along the water over to Jim Brady's house on Choptank.

If you go back and look, there is a slope to the land from the edge of the parking lot to the retaining wall. One idea was to put sea grasses along the edge of the wall with additional dirt placed there as well to act as a somewhat of a barrier for water washing over that wall. While it would not be high enough to prevent possible major flooding, it could be attractive and could act as a buffer. Along the parking lot and street going to the park, she suggested building a small mound of ground to do two things, - be an additional buffer from water coming on land from the river and reducing the runoff of water from the parking lot into the river.

That coupled with additional sea grass plantings there could act as another attractive barrier that would also help reduce pollutants from the parking lot going into the river.

The challenge would be who would take care of the plantings and see that they were properly watered? Possibly the city could be convinced to build and plant the barriers including a watering system that would be connected to the yacht club's water supply so that there could be a shared cost of improving the area that benefits the yacht club and also helps the city to reduce runoff and water breaking over the wall there.

Another part of the challenge there is the seaweed and debris that backs up into the corner of the fence down near the pump house. This is a place that the city has talked about having a bike rental and kayak rental place with a floating dock. Possibly having some dredge fill being placed down in that area could help reduce heavy waves that are certainly impacting the seawalls there and would also allow for a floating dock for someone to start a business there. Potential business could include a kayak and/or bike rental shop.

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How would this mitigation measure tie into the others?	
General Comments:	

(5) Sailwinds, which is a 24-acre track under development by the Cambridge Waterfront Development Inc.

- City owned and managed properties. Development setbacks are in place 120 – 200 feet
- Existing hospital is planned to be demoed and relocated. Existing plan allows for large setbacks from shoreline
- Recommendations of the plan should incorporate planned land uses for Sailwinds
- Bacteria issues are found in stagnant water therefore the City cannot label it a swimming beach. This is due to lack of flushing water in corners of claw.

<b>Workshop Questions for June 8 Meeting</b>	
What ways can the steering committee assist with Sailwinds proposed development?	
Are there any coastal land development regulations in place elsewhere that should be considered here?	
Are there any barriers that need to be addressed?	
What level of flood protection should be considered?	
What type of mitigation measures should be considered?	
Are there any funding sources that could support mitigation measures?	

How would this mitigation measure tie into existing bulkhead improvements?	
General Comments:	

### Next Steps

- **Public Launch of Website- Link on City Website completed & Facebook Post, however additional outreach is needed.**
- **Stakeholder Meeting #4- June 8, 2021, from 1:30 – 3:00 PM**
- **Open House(s)- TBD**
- **Visual Preference Public Survey**