

**THE COMMISSIONERS OF ST. MICHAELS**  
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Climate Change/Sea Level Rise Commission  
Special Meeting: Community Input/Feedback Session:  
West Harbor Road/East Chew Avenue Flood Mitigation Study  
Thursday, July 13, 2023, at 5pm

**Call to Order** –Meeting opened at 5:01 pm. Pledge of Allegiance.

Present: Roy Myers, Dennis Glackin, John Marrah, William Boicourt, Dr. Andrew Thaler, Doug Rollow, and Town Administrator Rob Straebel, Town Planner Steve Ball and Town Staff Kris Kakabar. Guest Attendees: Sasha Land, Kate Vogel, & other staff members (DNR), Brent Jett and Keegan Marsh (George, Miles, & Buhr, LLC Architects/Engineers), Jim Tapp and Mark Van Fleet (Waterways Management Advisory Board) and Kristen Lycett (Planning Commission). Public attendees: eight via zoom, six in person.

**Minutes**

Mr. Myers requested a motion to approve the Climate Change/Sea Level Rise minutes from June 8, 2023, motion made by Mr. Glackin, seconded by Mr. Boicourt, and carried on a vote of 6-0.

**Public Comment:**

None.

**Overview**

Mr. Myers opened the special community input/feedback meeting for West Harbor Road/East Chew Avenue Flood Mitigation Study, introduced Brent Jett with George, Miles, & Buhr, Architects/Engineers, the company contracted via bid to perform this study to evaluate the concepts and strategies for mitigation of sea level rise he has devised for this area. We plan to devise a briefing packet for the Town Commissioners for the August meeting. The Climate Change/Sea Level Rise Commission (CC/SLRC) has decided to design to elevation five feet above mean sea level based upon projections provided by Anna Johnson, BayLand, and William Boicourt's study, which project mean SLR to be above 5 feet and provide good protection through 2075.

**Overview, Presentation, and Discussion**

*Brent Jett, Project Engineer, Certified Floodplain Manager, and Certified Climate Change Professional for this study with George, Miles, & Buhr, LLC Architects/Engineers (GMB)*

Mr. Jett made a power point presentation of the West Harbor Road/East Chew Avenue Flood Mitigation Study with some of their current findings from their assessments and prior public and waterman input meetings. (They are still evaluating the stormwater impact in this area and will provide this data once available.) (See the presentation slides and survey on the Town's website.) They have narrowed their design concepts down to two to be presented this evening along with the pros and cons, how to get to the finished product, and areas to obtain funding for the next stage. Concerns voiced: lighting, pedestrian walkway, small boat underutilized, and the

picturesque view at the corner could be developed more. The final product of this study is to provide a mitigation plan and design one area to 30% for this project. GMB engineers have performed an assessment and mapping of the area and storm drain system and obtained critical elevations to aid in the designing phase.

Option A: New bulkhead at 3foot, grass berm (erosion is possible but could use gabion baskets), walkway, small retaining wall to transition to parking, reduction of parking to 40 spaces with green space, and removal of shed (which would gain four parking spaces and greenspace). Dock/Pier options reviewed (fixed pier with higher piles and steps through the berm area to them approximately every 25 feet is recommended by Mr. Jett).

Stormwater problems: Pipes are undersized, causing localized flooding. Considering a stormwater pump system (cistern) in the East Chew portion of the parking area. Walkway to connect the boat launch areas: option to close the small boat launch area and convert to a kayak launch then could place a walkway to connect the two. Bioretention areas are a possibility, if needed, in the greenspace areas between the parking spaces on West Harbor Road.

Sasha Land's response, with DNR: We need to determine where in the serviceable life the second (small) boat ramp is? We will also need to prove justification that the function for this ramp no longer exists, as it was originally intended, for the Town to apply for an exemption. Ms. Land will continue to follow the protocol through to complete this investigation for an exemption for possible removal of this boat ramp.

Option B: Raise bulkhead to elevation five with walkway behind it, greenspace at lower end Harbor Road and East Chew Avenue, need to determine options from parking to walkway (long ramp or retaining wall are options), reduction of parking to 40 spaces, and removal of shed.

Mr. Jett broke the work down into four project areas:

- 1) Second sailboat in, down around the hook.
- 2) East Chew includes addressing stormwater and raising bulkhead to 5foot, between the sailboat and the small boat ramp.
- 3) The small boat ramp itself.
- 4) The area between the small and large boat ramps.

Mr. Glackin used Mr. Parkersons' dock area as a visual, which he recently completed his bulkhead now at 4'4" with finger piers and a step down. What we are proposing would be another eight inches above this elevation. It was commented that floating piers are wider than finger piers, but we need to investigate as there are many models. Mr. Marrah suggested to Mr. Van Fleet, on the Waterways Advisory Board, that as we move forward, we may need to reconfigure the boat slips in the harbor area to accommodate this possible increased width. We need to determine the relation of the harbor line to the shoreline to make further determination of pier options moving forward. A fixed pier option with increasing the elevation incrementally with sea level rise (SLR) increases is an option.

Public comment: The objective is to keep the water from coming out of the harbor onto the shoreline/street. We need to await DNR's determination of the small boat ramp being at the end of the use of its serviceable life. Add to your schematic that we are keeping the water away from the road. Sasha Land explained that there is a process she must follow in relation to this small boat ramp, as they were built with public dollars (Waterways

funds) from boating to build both boat ramps and bulkheads and there are parameters in how this can be spent. Because of the unprecedented times we are in and how things are changing now (SLR) we have to prove our evaluation and unexpected changes which have occurred and then how to move forward.

Mr. Boicourt: where does the water go above 5 feet and for stormwater events. Maybe you could provide contours on the land side to show where the water will flow to. Mr. Jett's response was: "If built to five feet, there will be minimal water cresting over but when it does the greenspace will assist in minimizing it the water will infiltrate into these areas by design.

Mr. Jett answered Mr. Marrahs question regarding the drainpipes which would eventually be buried at level that they will be under water: They will be built into a cistern and will not need to rebuild the stormwater infrastructure in the roadway in this area. The 12-inch pipes coming off Harbor Road might need a bigger system underground. A manifold with a bigger system may be an option. Mr. Jett still needs to run the numbers to determine the amount to hold this amount of water in this area.

Mr. Jett recommends the use of tide gates on the seven stormwater discharges into this area. He is working with Wapro (A company who works with products/technology to control the flow in sewer and stormwater systems.) to produce a box solution for this area. For the area from the high school to Meadow Avenue a flow regulator to be placed by the high school may be an option to help manage the volume coming down through these pipes from the upper drainage issue. The other options are a cistern and pump station, the upsized what is coming from the valley gutter overboard off Harbor or expanding this or making a boxed system to hold more volume. Mr. Glackin posed the ratio question to how much of this volume is being dealt with by the proposed system and its effectiveness in solving the issue. Mr. Jett stated it helps but is not enough in itself.

GMB's proposal looks to lose eight parking spaces. Mr. Glackin has carried out a parking study and can be found as an attachment. Mr. Van Fleet, Waterways Advisory Board, commented that the reduction in parking spaces would work if it were enforced properly according to use to watermen's working hours. We would also need to consider parking spaces for kayakers if a kayak launch is installed and the fact that we are losing parking for the trailer in front of the shed (not enough space to allow for trailer parking in this area). Mr. Jett may be able to get two spaces for the kayakers.

Mr. Jett covers electricity and lighting options. The Town will need to consider the possible added expense for electricity hookups, for all slip holders, as some may use it for unintended luxury purposes on their boats. Mr. Jett then explained the parking surface options and the walkway surface materials along with the pros/cons to the public. Kayak launch options touched upon but will be pending option of being able to close the small boat ramp.

Mr. Myers questioned when will the stormwater evaluation be complete. Mr. Jett is to meet with Wapro and the county the following week to obtain more information regarding numbers and management strategies. Need to consider water coming down Chew Avenue.

Brent needs from the CC/SLRC:

Berm or bulkhead

Fit or finish options

Fixed vs floating pier  
Number of parking spaces

Mr. Van Fleet suggested the CC/SLRC make a chart analysis containing the options presented in relation to relative need versus want grading order. Mr. Marrah suggested the implementation process could be initiated in phases. Sasha Land, DNR, spoke with other engineering companies regarding the berm option and reports that there is a challenge for you and peers to build on a landscape in an area like we are dealing with so an informed decision can be made. Can you find other areas in which this berm design has been done and the outcome of its use? Mr. Glackin cited the SLR tide gauge study by Mr. Boicourt with the bulkhead at 3 versus five feet, with the frequency at a 3-foot bulkhead 2050 - 64 times the tidal flooding will exceed this and by 2075 most times it will exceed the bulkhead. This study supports ineffectiveness and maintenance issues with the berm.

Other items which need consideration are the width of the walkway to meet ADA compliance, along with the ramps/stairs to the parking area meeting ADA compliance, need and/or appropriate space for a dock box, can we extend the finger piers as per the Code in the harbor line (Harbor line needs adjusted).

***Summary:***

We will meet in 2 weeks to learn about the stormwater findings and further discuss how both the stormwater and flooding in the harbor will relate to the two options presented and then we can make decisions. The Waterways Advisory Board will be present during this meeting.

Sasha Land requested an aerial diagram with contours of elevations on the landward side as it ties into the 5-foot and how everything ties in with the modifications.

Kate Vogel: We need to calculate the volume of water coming up the small boat ramp versus if we removed it.

Response from Mr. Jett: It is negligible as it is spread out over the vast water area.

Dr. Thaler reinforced that this may be a one-time deal to experience this level of infrastructure funding.

**Public Comment**

1. A vote for the bulkhead.
2. Consider more long term than short term, with climate changes affecting more states and request for money going up, suggest we plan out for several years than returning to pre-construction process in a several years.
3. We need more information about how the run-off from the surrounding areas will be managed.
4. It is concerning that this presentation addressed lighting, walkways, and parking before making any comment about controlling the flooding.
5. YES, John! Things are changing fast in Florida and California already. Now New England is crying for water control help.

**Announcements**

The parking study by Mr. Glackin should be reviewed and provide feedback.

Briefing Packet from visit with Secretary Strickland is attached for your review.

The Commissioners of St. Michaels approved us proceeding with the RFP for the Advanced Assistance Study and Memorandum of Agreement with FEMA/FEMA. They also approved moving forward with the North Street stormwater project with BayLand.

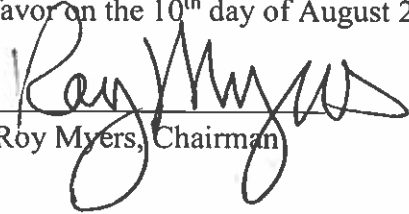
August 10<sup>th</sup> BayLand will present the mitigation areas for San Domingo Creek.

**Adjournment**

Mr. Marrah made a motion to adjourn the meeting. Seconded by Dr. Thaler and carried through on a vote of 5-0.

The meeting adjourned at 6:47pm.

Minutes approved as submitted by \_\_\_ vote in favor on the 10<sup>th</sup> day of August 2023.

  
Roy Myers, Chairman