



## MAKE CAMBRIDGE RESILIENT STEERING COMMITTEE NOTES

**January 27, 2026**  
**1:30- 3:00 PM**

The Make Cambridge Initiative serves as an umbrella for multiple common efforts & grants:

- Flood Mitigation Plan & Concept Design
- Flood Mitigation Project (Phase 1 Design)
- Community Development
- NFWF Habitat Enhancements & Green Stormwater Management

Virtual meeting conducted. Stakeholders and invited guests in attendance:

Name	Organization/Department
Larry White	Strategic Programs Development, LLC
Wayne Suggs	City of Cambridge DPW Director
Lajan Cephas	City of Cambridge - Mayor
Brett Summers	City of Cambridge – City Council
Glenn Steckman	City of Cambridge - Manager
Brian Herrmann	City of Cambridge – Planning Director
Jimmy Windsor	Dorchester County- Emergency Management
Dr. Kenny Rose	UMCES – Horn Point
Theresa Davenport	UMCES – Horn Point
Stephen Liu	Maryland Department of the Environment
Bryan Bay	Maryland Department of the Environment
Leah Sheppard	Maryland Department of Natural Resource
Carrie Decker	Maryland Department of Natural Resource
Josh Patterson	Maryland Department of Emergency Management
Thomas Laczko	USACE Baltimore District
Amanda Pollack	Center for Watershed Protection
Allison Lee	Center for Watershed Protection
Matt Pluta	ShoreRivers
Megan Barniea	BayLand Consultants
Anna Johnson	BayLand Consultants
Sepehr Baharlou	BayLand Consultants
Virginia Smith	SP&D
Michele King	SP&D

The meeting focused on updates to the flood mitigation design project.

### Agenda

- 60% Design Embankment and Living Shoreline – Anna Johnson, PE, CC-P, Project Engineer, BayLand Consultants & Designers, Inc.
- 60% Design Stormwater Management – Megan Barniea, P.E., Senior Project Manager, BayLand Consultants & Designers, Inc.
- NFWF Scope of Work - Dr. Kenneth Rose, Horn Point Laboratory, University of Maryland Center for Environmental Science

## Project Update

Larry White, Project Manager provided a brief update of the project. Following the incorporation of 30% design comments, the project designers made refinements to the embankment and living shoreline design in response to public and resident input, as well as site- specific features. Further enhancement of the stormwater management system design were made to reduce vulnerabilities and increase capacity of the system. In addition, Mr. White reported that work continues on both the habitat enhancement modeling and the flood risk and vulnerability modeling by the University of Maryland Center for Environmental Sciences (UMCES). The flood risk and vulnerability analysis will be used for the FEMA required Benefit Cost Analysis (BCA). An updated BCA will be needed for the release of Phase II – Construction grant funding. Both the new BCA and updated phase 2 construction cost estimate are underway. Finally, Larry reported that the City is pursuing additional funding opportunities for construction. This includes MDE’s Comprehensive Flood Management Grant Program for increasing the capacity of existing SWM system and NFWF Coastal Resilience Construction Grant.

Following Mr. White’s update, he requested that Carrie Decker, DNR provide an update. Ms. Decker discussed that several DNR representatives reviewed the 30% design drawings and provided initial review comments, as applicable, considering this was an early stage in the design process. Ms. Decker reported that she along with Christine Burn, DNR, presented at a November 2025 meeting of the Women’s Club of Cambridge on climate resiliency and DNR’s new mapping tool, [Maryland Coastal Flood Explorer](#), as well as, [MyCoast: Maryland](#). She further reported that members from her team served as speakers for the [Virtual Living Shoreline Public Education Session](#) held on December 10, 2026. The recording of the session is available on the [project website, public involvement](#) page. Finally, Ms. Decker reported that she and her colleague Dylan Taillie were scheduled to present at the January 26<sup>th</sup> Cambridge Mayor and Council meeting, however due to inclement weather they were rescheduled and will present at the upcoming February 9<sup>th</sup> meeting.

## 60% Design Embankment and Living Shoreline

### **Anna Johnson, Project Engineer BayLand Consultants & Designers, Inc.**

The design team has been working hard these past few months following the 30% design schematic level to incorporate review comments and refine the design construction documents. Ms. Johnson indicated that she would not review the design drawings sheet by sheet, but rather she would concentrate on providing the steering committee members with changes, and the reason for those changes, resulting in design refinement.

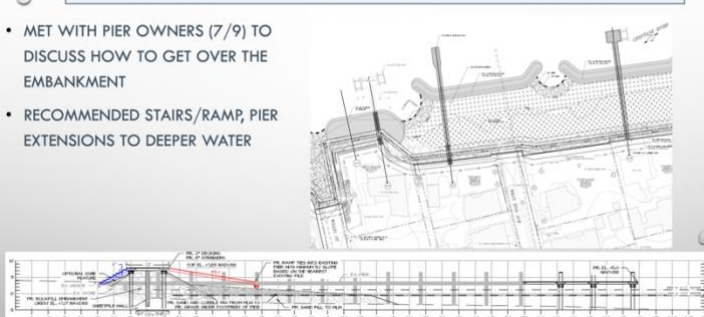
Design refinements were based on:

- Geotechnical Analysis
  - o 30 Borings performed overall, 25 boring focusing on the embankment, with 5 focused on the living shoreline.
  - o average settlement of rock filled embankment =± 8 inches
  - o average settlement of earthen embankment = ± 5inches
  - o sheeting length ± 16 - 18 feet with 5 – 8 feet embedment
  - o This information helped to guide decisions such as length of sheet pile acting as flood barrier.
  
- Coastal Modeling – Internal modeling by BayLand to ascertain design performance of the system, supplemental to what is being completed by UMCES was completed. Work completed by UMCES will further inform the design. The USACE coastal modeling to determine structure(s) height and adequacy to reduce wave energy using both pre and post project conditions. Basically, comparing how they differed. Ms. Johnson reported that with design on average they saw 88% wave reduction.

- Meetings with individual pier owners in late October and early November. Ms. Johnson reported that the design team met individually with seven out of nine to discuss pier adjustments to work with the flood mitigation project design while maintaining their accessibility and enjoyment of the water.
- MD Shoreline Project Review Team (SPRT) meeting on December 4, 2025, to obtain initial feedback which led to a few design changes. Ms. Johnson reported that there was good representation from state and regulatory agencies. They asked questions of the design team, made comments during the meeting and followed up with written comments following the meeting. These included protection of tidal areas in existing living shoreline, habitat protection, and SWM facilities within critical area buffer. Slight modifications were subsequently made to design.
- Public engagement some design adjustments, some tweaks were made based on the public engagement. Ms. Johnson indicated that this is something we've been doing continuously throughout the design process. In an effort to be transparent we built a model berm. Comments received resulted in a few modifications.

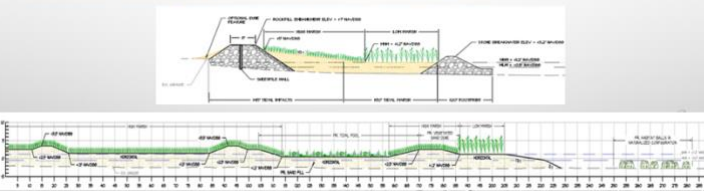
### PIER ADJUSTMENTS

- MET WITH PIER OWNERS (7/9) TO DISCUSS HOW TO GET OVER THE EMBANKMENT
- RECOMMENDED STAIRS/RAMP, PIER EXTENSIONS TO DEEPER WATER



### SHORELINE PROTECTION REVIEW TEAM (SPRT) MEETING

- MET ON DECEMBER 4, 2025
- MEETING ATTENDED BY: USACE, DNR, MDE, NOAA – NMFS, CAC
- RECEIVED FOLLOW-UP COMMENTS ON DECEMBER 19, 2025



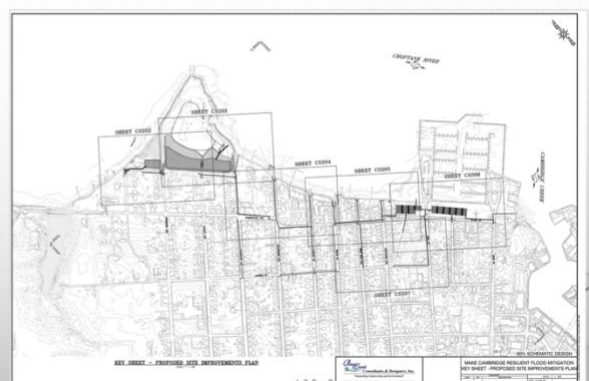
## 60% Design Stormwater Management

**Megan Barniea, P.E., Senior Project Manager, BayLand Consultants & Designers, Inc.**

Ms. Barniea reported that similar to the living shoreline and embankment, the stormwater management approach is pretty much the same as the 30% design with just some minor changes. Ms. Barniea reviewed the overall design elements. There are two storage areas, one is the underground pipes at Long Wharf Park area, and the other is the stormwater extended detention wetland at Gerry Boyle Park. Additionally, the existing storm drain, that outfalls into the river are being removed and a new storm drain system will be installed that picks up runoff from the street ends and kicks it into a collector system. One collector system will go to the storage area at Long Wharf Park, and the other one will go to the storage area at Gerry Boyle Park.

### 60% DESIGN – STORMWATER MANAGEMENT

- **DESIGN REFINEMENTS BASED ON:**
  - DESIGN EVOLVEMENT
  - DETAILED FLOW TABS & MODELING
  - EMBANKMENT DESIGN
  - PUBLIC ENGAGEMENT



As an update, Ms. Barnieu explained that design refinements and minor changes have been made as more details have been and are developed working towards construction documents. They now have detailed flow tabs are working on a 2-D proposed model right now. Designers looked at the individual flow within each pipe segment to properly size the pipe for the projected ten-year storm flows. Some pipe segments were updated based on these calculations.

Additionally, due to changes made at the southern project tie-in location, modification of proposed swale and storm drain infrastructure in that area were necessary. Also, through the public engagement period several additional revisions were made.

The Planview of the storage areas at Long Wharf Park, see below. Ms. Barniea reported that the connection between the two areas were simplified, reducing the number of structures. The pump station designs are evolving; the design team now have more detailed plan view sections and structure tables associated with the pump stations. She further reported that no major changes have been made collector systems, however a few shifts in street end inlets so that they're at the toe of the embankment were made. Also, some minor pipe alignment shifts to optimize the fit between existing road features and utilities were made.

A few shifts in the structures and alignments of the pipes at Gerry Boyle Park were made. However, in the wetland detention design, modifications were made to account for large events such as Iron Man/Eagleman and the Regatta.

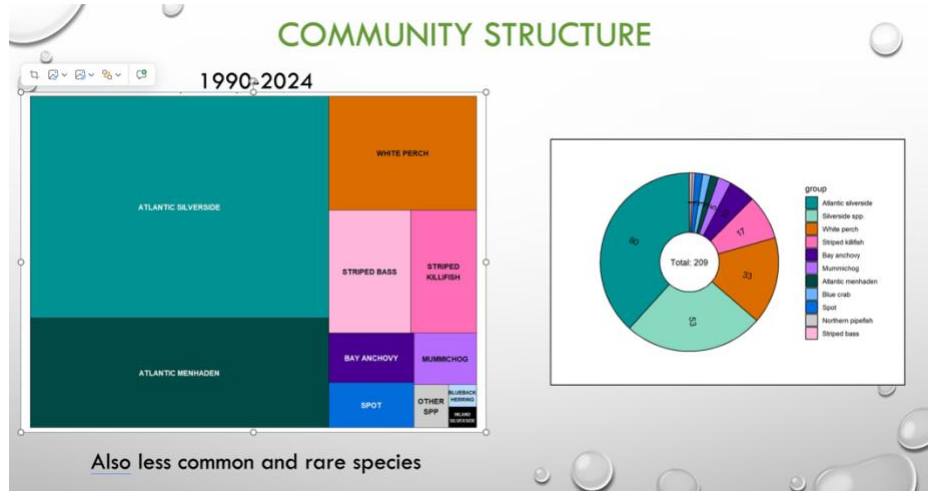
Ms. Barniea reported that her team is actively working on model that will show the reduction of flooding for the ten-year storm event with proposed improvements. This will be ready to present at the February 24<sup>th</sup> public meeting. Finally, Ms. Barniea indicated that 90% design is expected summer of 2026.



## National Fish and Wildlife Foundation (NFWF)

**Dr. Kenneth Rose and Theresa Davenport, Horn Point Laboratory, University Of Maryland Center For Environmental Science**

The National Fish and Wildlife Foundation (NFWF) – National Coastal Resilience Fund is providing funding for the habitat restoration project. Dr. Rose reviewed evaluation method using suitable-weighted habitat, spatial cells two meters by two meters throughout the living shoreline based on existing habitat. For each species a habitat model is created, the area is added up. Basically, if the area is weighted high, the habitat score is good in a cell and down weighted when bad, resulting in number per square meters of suitable weighted habitat for each species.



Dr. Rose indicated that Theresa Davenport is conducting a literature review for the all the habitats that are proposed in the living shoreline design, but in particular, those that are not currently present or are not present in any great abundance, historical data is not available. Several examples were discussed.



*Annual Review of Marine Science*  
Performance Evaluation of Natural and Nature-Based Features for Coastal Protection and Co-Benefits

Matthew A. Reidenbach,<sup>1</sup> Ming Li,<sup>2</sup> Kenneth A. Rose,<sup>2</sup> Tori Tomiczek,<sup>3</sup> James Morris,<sup>3</sup> Cindy M. Palinkas,<sup>2</sup> Lorie W. Staver,<sup>2</sup> William Nardin,<sup>2</sup> Matthew W. Gray,<sup>2</sup> Serena B. Lee,<sup>2</sup> Ariana E. Sutton-Grier,<sup>6</sup> and Amy M. Hruska<sup>7</sup>

For consideration in *Journal of the American Water Resources Association*

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Research Article  
Research Article A Framework for Prioritization and Assessment of Ecosystem Restoration: An Illustration Using the Chesapeake Bay

Kenneth Rose, Mark Monaco, Thomas Ihde, Eric Smith, Jay Stauffer, Kirk Havens, Lee McDonnell, Lewis Linker, Kaylyn Gootman, Bruce Vogt, Marjorie Friedrichs, Mary Fabrizio, Colin Hawes, and Dante Horemans

Dr. Rose indicated that BayLand summarized existing waterfowl data. This adds to the fish and shellfish data. While not a waterfowl breeding area, Cambridge is along a migration route. Specific waterfowl species will be analyzed for habitat without project and with project.

Dr. Rose provided the first cut of the species his team is proposing to analyze, and it comes from a more of an ecological perspective- what we expect to see and what's their now. He requested input from the steering committee on the following table. The black indicates currently present, while the orange text are species that have been brought during previous public engagements. Dr. Rose asked, "is this a good list or not?" He indicated that his team will prepare a package for committee member review, but the idea is that - are abundant before or after or both.

Fish	Shellfish	Ducks	Vegetation	Invasive/Pest
Atlantic silversides	Blue crabs	Diving ducks	SAV?	Blue catfish?
Menhaden	Oysters	Dabbling ducks		Mosquitos?
Striped bass		Gadwall?		
Killifish (Mummichog)		Lesser Scaup?		
Bay anchovy				
Spot				
Croaker				
White perch?				
Sheepshead minnow				

Virginia Smith provided updates on public outreach. Please see the Make Cambridge Resilient website for further details.

- **Co-Applicants Meetings** (60% Design & Permitting Process Co-Applicants)
    - o In-Person Open House & Individual Virtual Meetings
  - **February 9, 2026** - Project Update & DNR Presentation to the Mayor & City Council
  - **February 24, 2026** - 60% Design Public Outreach Session
- Note: Inclement Weather Date - February 26, 2026.*

### **Next Steps**

- Meeting Notes Distributed and posted to project website
- Steering committee review & comment- 60% Design Distributed, as requested
- Enhancements of design - Resulting from outreach process
- 90% Design & JPA Permit application \*City & Co-Applicants Signatures