

Reports

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2023

## Occohannock on the Bay Living Shoreline Project

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# Occohannock on the Bay Living Shoreline Project

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# Timeline

*2007: Occohannock Creek Shoreline Management Plan developed by VIMS funded by NFWF/Eastern Shore of VA. Resource Conservation & Dev. Council – A sill was recommended at this site in the Plan.*

*2011: The Nature Conservancy contracted with the Shoreline Studies Program to develop a living shoreline plan for Occohannock on the Bay (AKA Camp Occohannock).*

*2013: August – construction of the sills and sand placement*

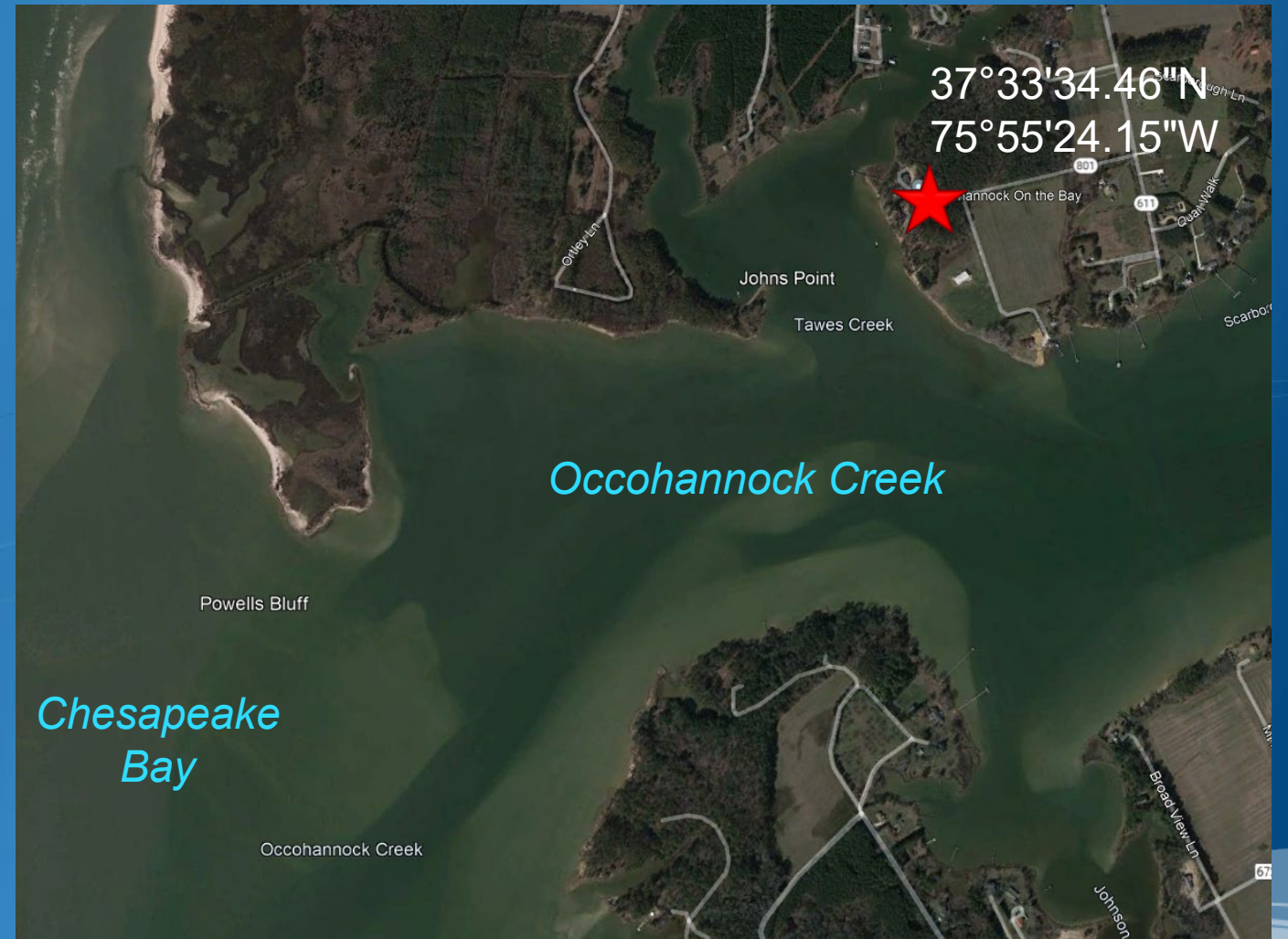
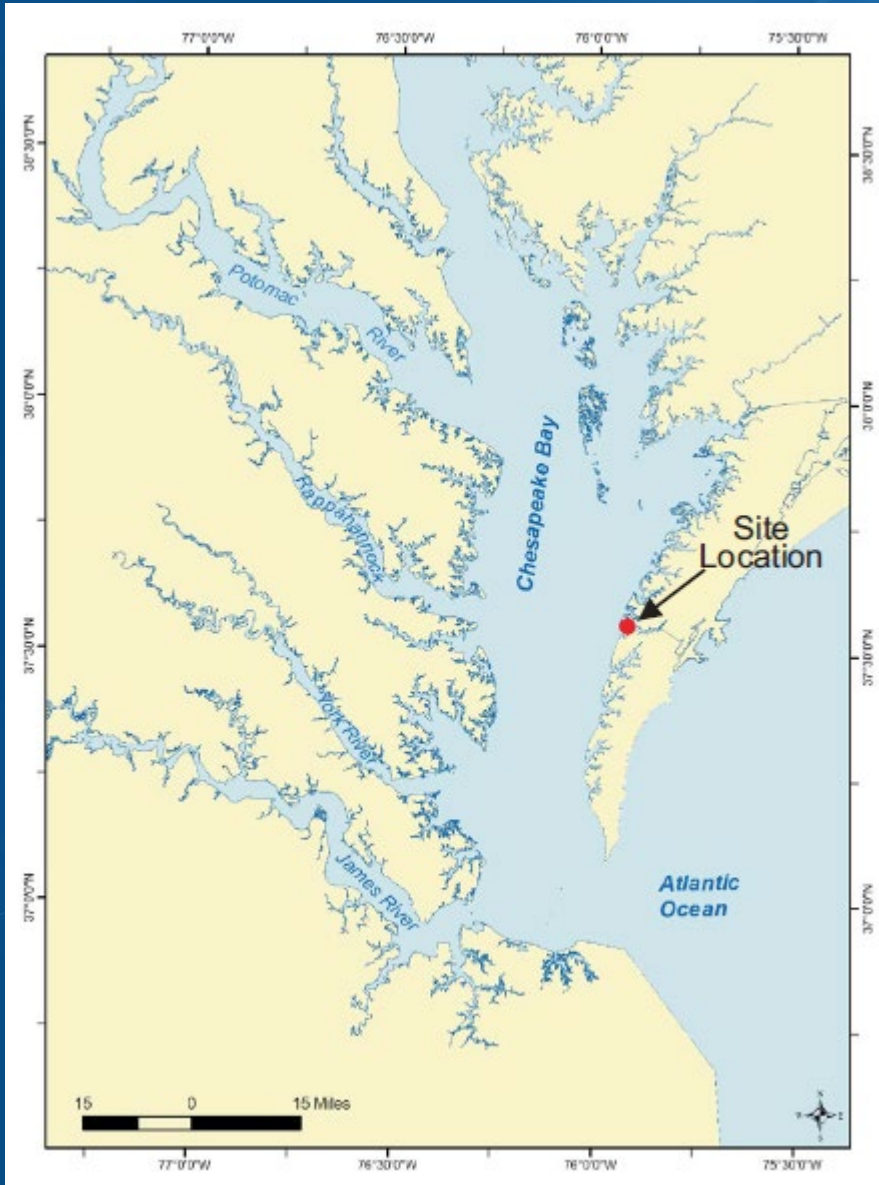
*2013: October – planting of marsh grasses*

*2017: Monitoring revealed one area that needed replanting. Grasses replanted in July*

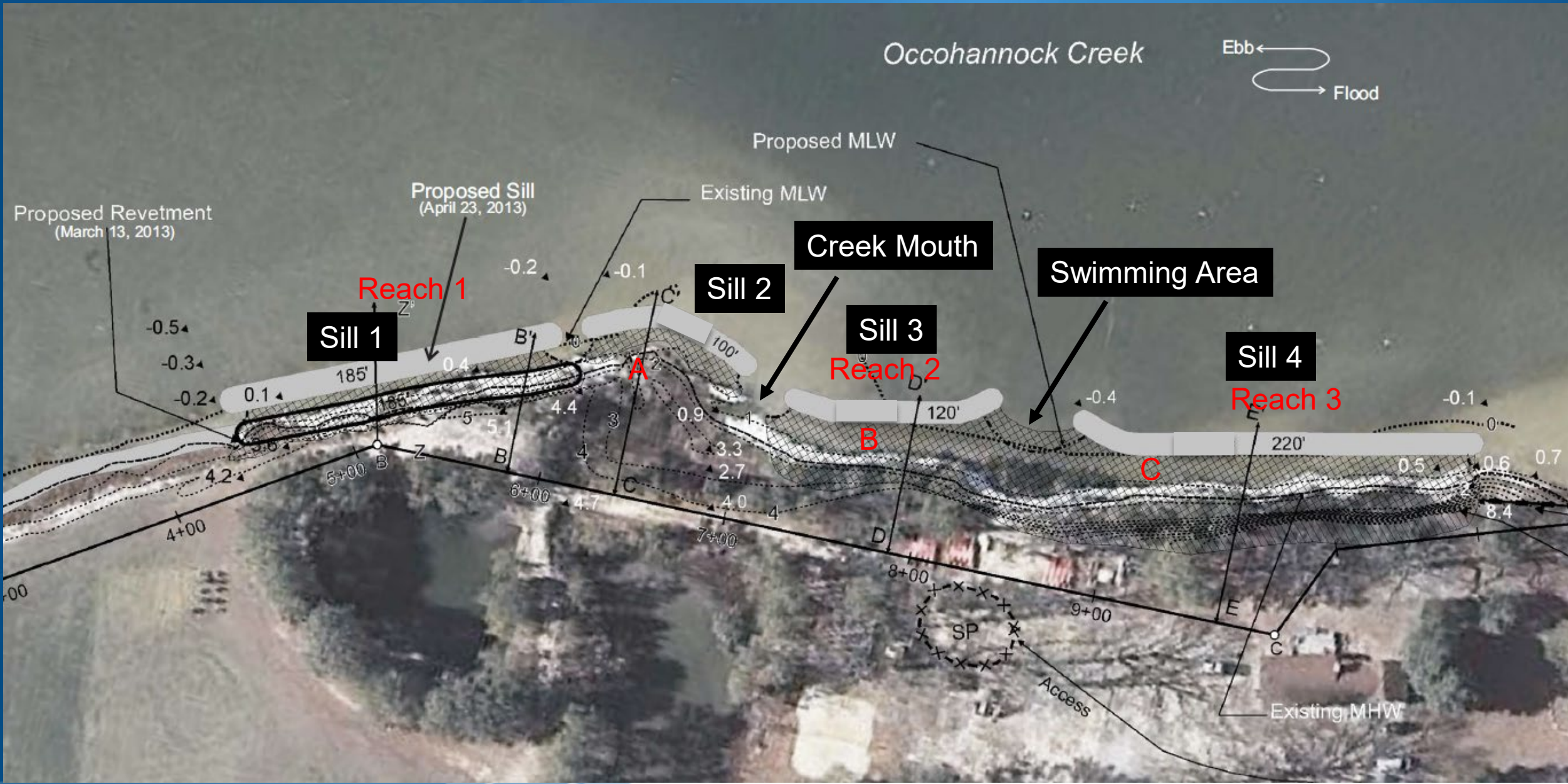
*2023: ASBPA Best Restored Shore Award!*

# Location

## Occohannock on the Bay (AKA Camp Occohannock)

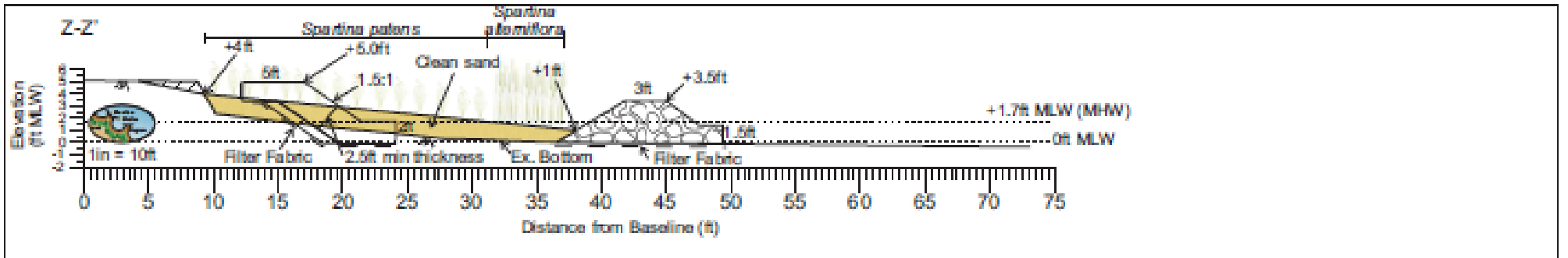


# Camp Occohannock Living Shoreline Plan

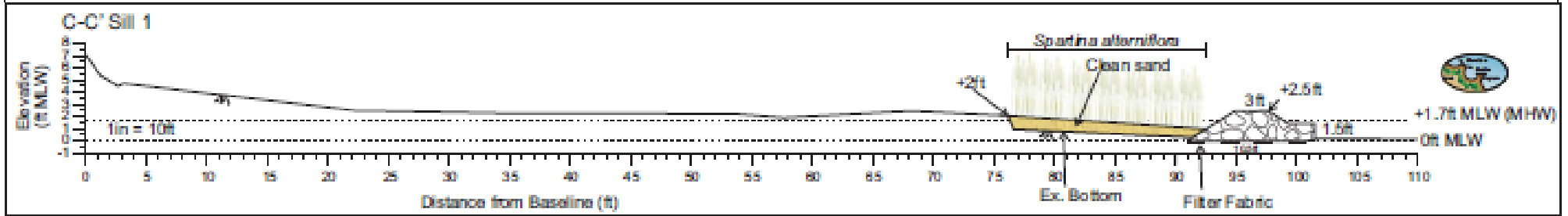


# Typical Cross-Sections

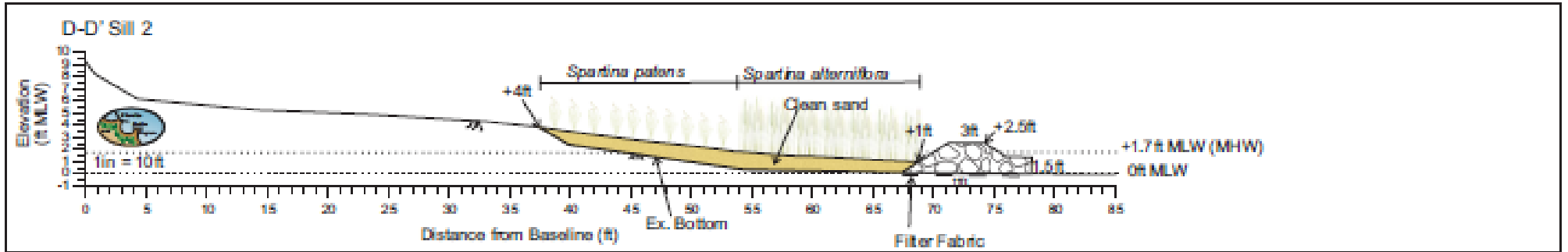
Reach 1  
Sill 1



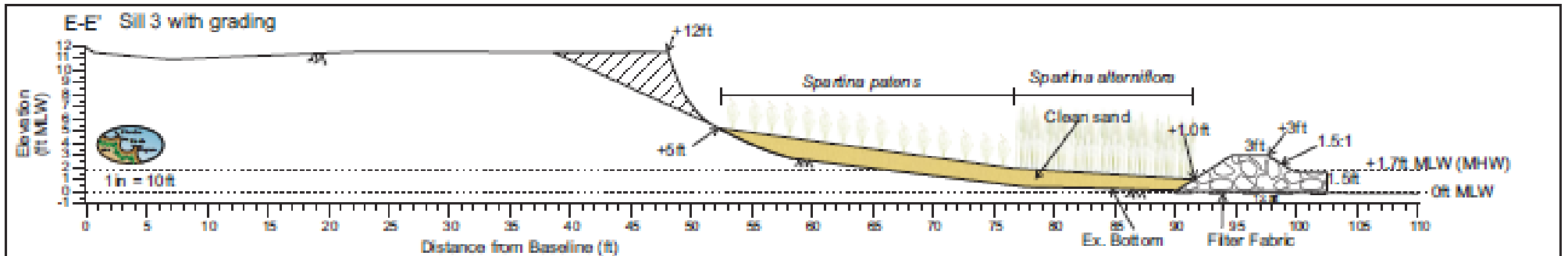
Reach 1  
Sill 2



Reach 2  
Sill 3



Reach 3  
Sill 4





# Reach 1

BEFORE (January 2012)

AFTER 10 Years (October 2023)



AFTER (October 2013)



# Reach 1

Maintenance: Salt bush and small pines were growing along backshore and low bank when we visited for a monitoring survey of the site. We reminded the property owners of needed maintenance to ensure that the marsh continues to thrive. After 10 years, the property has been maintained by removing small trees (<1 inch diameter.)

AFTER 10 Years (October 2023)

AFTER 5 YEARS (July 2018)



# Reach 2

BEFORE (January 2012)



AFTER 10 Years (October 2023)



AFTER (May 2014)

# Reach 3

BEFORE (March 2013)



AFTER 10 Years (October 2023)



AFTER (May 2014)

# Reach 3 Monitoring & Maintenance

*During a site visit, a bare spot was noted. It was replanted by volunteers later that summer and has filled in very well in the last 6 years.*

AFTER 4 years (May 2017)



AFTER 4 years (July 2017)

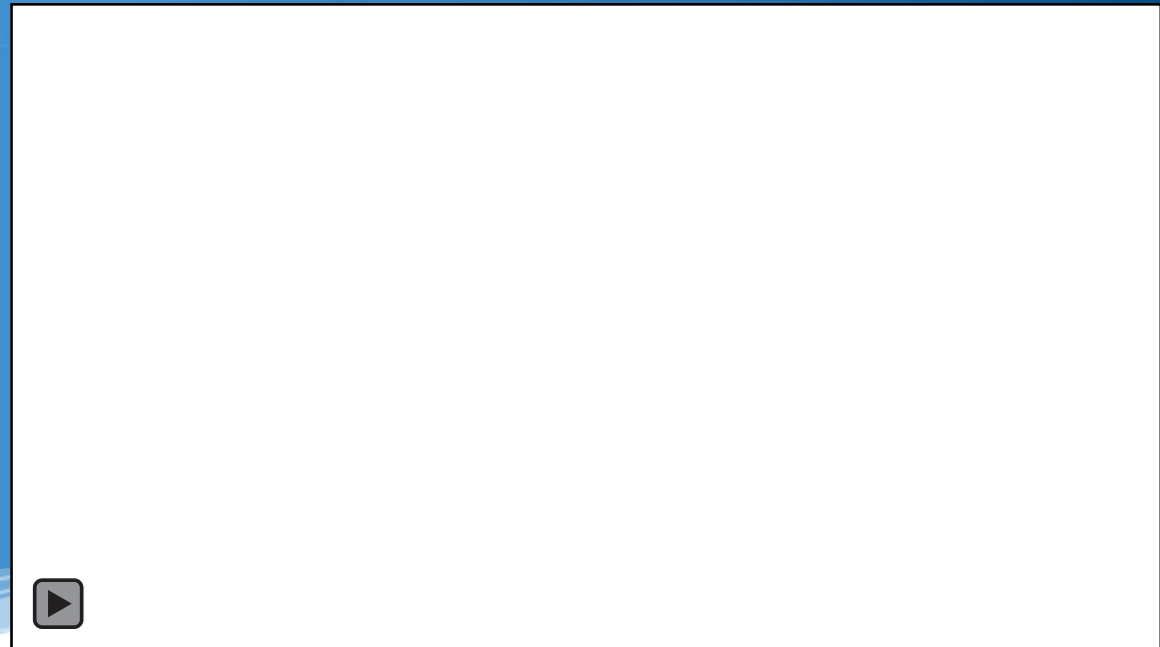


# Habitat



Shellfish growth on the rock sills; faunal usage of the marsh; and small fish utilization along sill structures at high water.

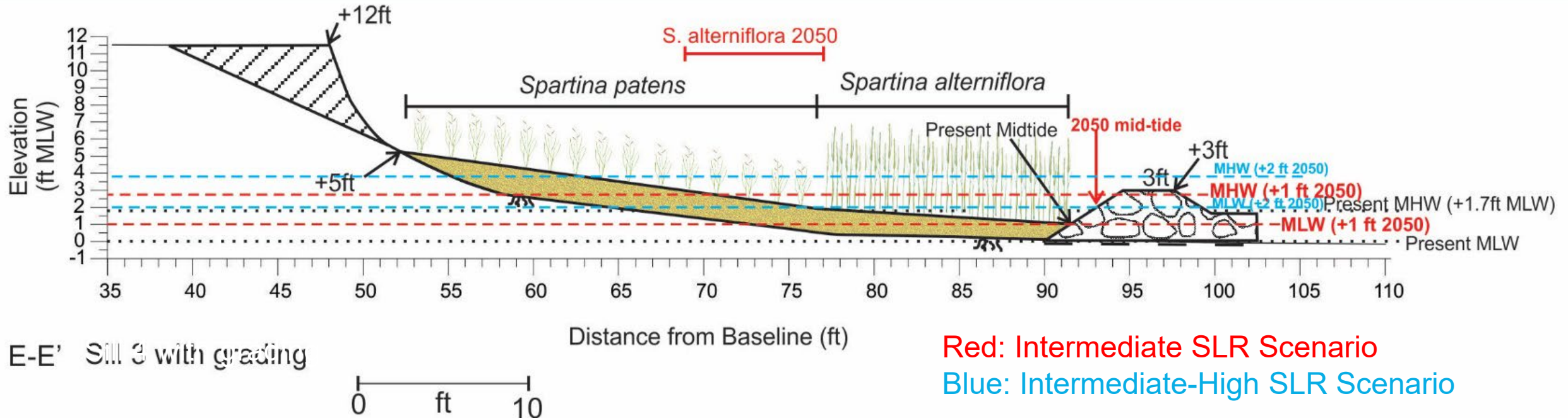
Ghost Crab Army



# Coastal Resiliency and Sea-Level Rise

By overlaying SLR parameters onto the existing shore conditions, we can show how SLR will impact the site.

- A non-vegetated wetland will develop immediately landward of the sill where the existing low marsh is.
- Low marsh will migrate into the existing high marsh.
- High marsh will be able to migrate up the graded slope.



# Camp Occohannock Living Shoreline Project

## Project Purpose:

Demonstrate living shorelines as cost-effective, hybrid green-gray infrastructure approach for protecting local communities from coastal hazards while enhancing coastal resilience and ecosystem health.

