

# Project Guide



## Project Objectives

- Characterize historical changes
- Characterize current ecological and social conditions.
- Identify gaps in knowledge and potential resilience and management strategies
- Evaluate models of future marsh migration scenarios

## Project Deliverables

- Coastal Wetland Management Assessment for the Choptank River Ecosystem
  - Literature review
    - Native and Invasive species presence
    - Temporal changes to the system
      - SLR and SWI
    - Sociological Conditions
  - Professional Interviews
  - Next Steps
- Public Mapper of Choptank River Marshes
  - Historical changes
  - Future projections

## Student Questions

### Ilana

Historical changes of the marshes, including historical shorelines, marsh loss over time, vegetation and elevation changes, and a vulnerability index

- Are there any other publicly available datasets not yet included in this analysis that could inform how the marshes have changed over time?
- What is the best way to measure change in elevation across the marsh (i.e., median elevation change)?
- What are some ways to use these results to inform management plans for the marshes?

### Mia

Mitigation measures, including the status of invasive Phragmites across the marshes, and Ash tree populations, and future outlook and management options

- What are the “best” approaches to address environmental stressors from climate change on tidal marshes (invasive species removal, habitat loss prevention, sediment placement to keep pace with sea level rise, etc) when considering ethics, scientific success rates, and funding availability?
- What are the decision matrices and considerations for ways to approach invasive species within marsh areas? How do we weigh the positives and negatives to properly address each site?

## Paul

Adaptation measures, including the effect of sea level rise, saltwater intrusion, and the role of farmers in marsh migration and management

- How do we better target farmers that are more likely to implement certain strategies?
- Better local understanding and collaboration is direly needed. How can organizations get people on the ground with such limited financial and human resources?
- How can marsh managers better prioritize and elevate farmers' role in developing marsh management strategies that may better align with their wants and needs?

## William

The future scope of the marshes, including marsh migration corridors and land use around the marshes.

- Marsh Migration Corridors largely overlap with urban/forest areas.
- Does the forest serve as a function of the sea wall? Prevent SLR, flood and soil erosion
- Marsh migrates due to SLR →Forest blocks SLR and migrations

Space for Personal Notes