

# Carbon in the Tidewater

HAMPTON, VIRGINIA | UNIVERSITY OF DELAWARE COASTAL RESILIENCE DESIGN STUDIO  
**Resilient Self-Generative Infrastructure**

## Grandview Barrier Island

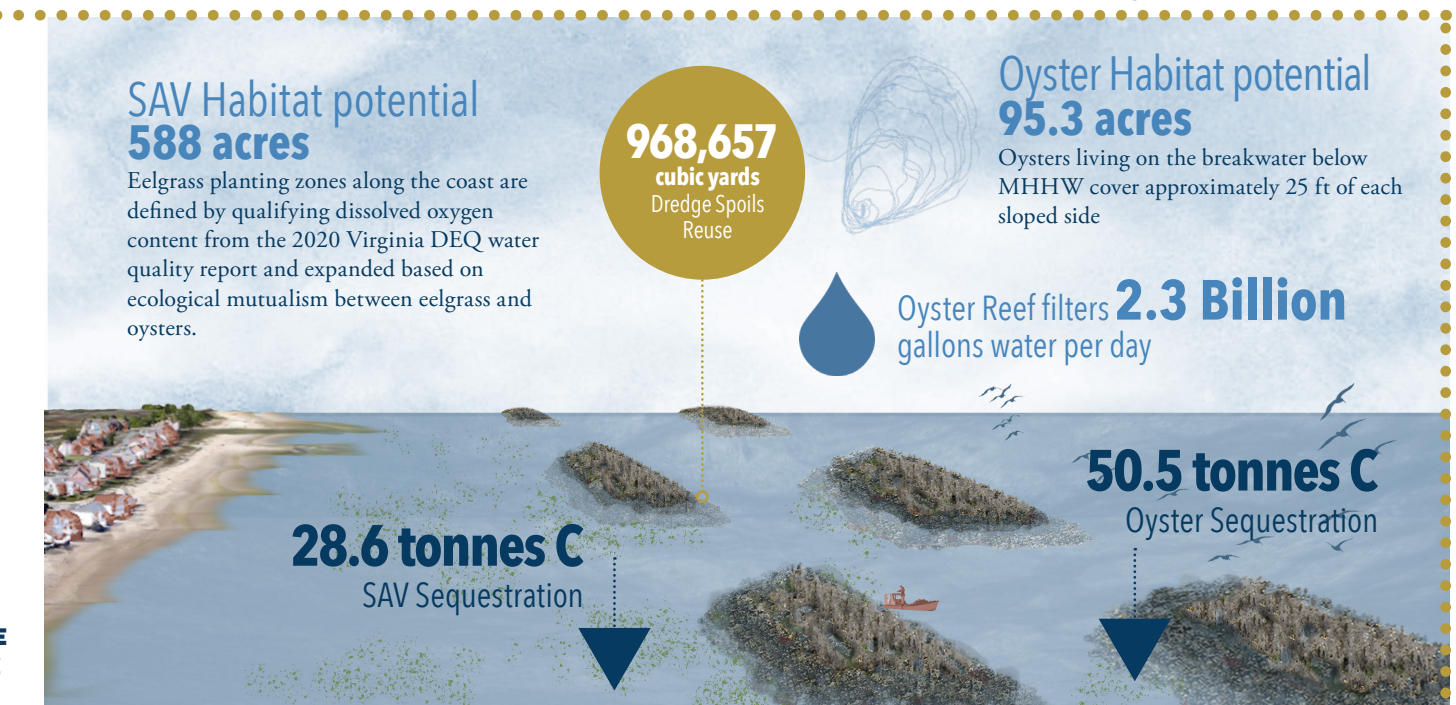
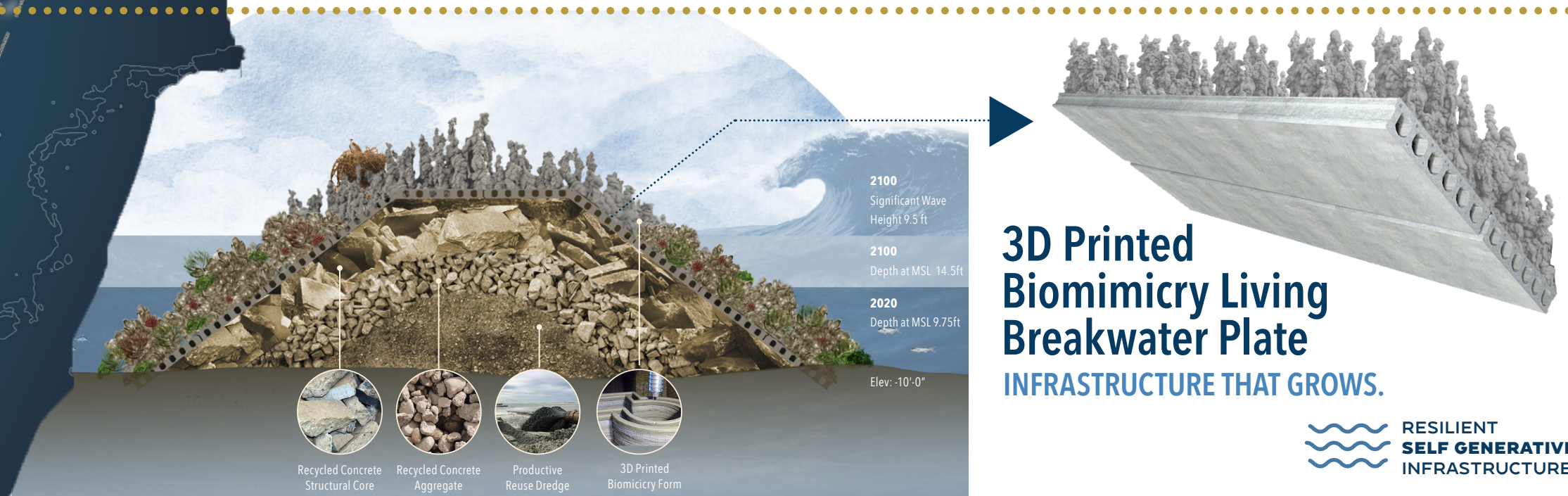
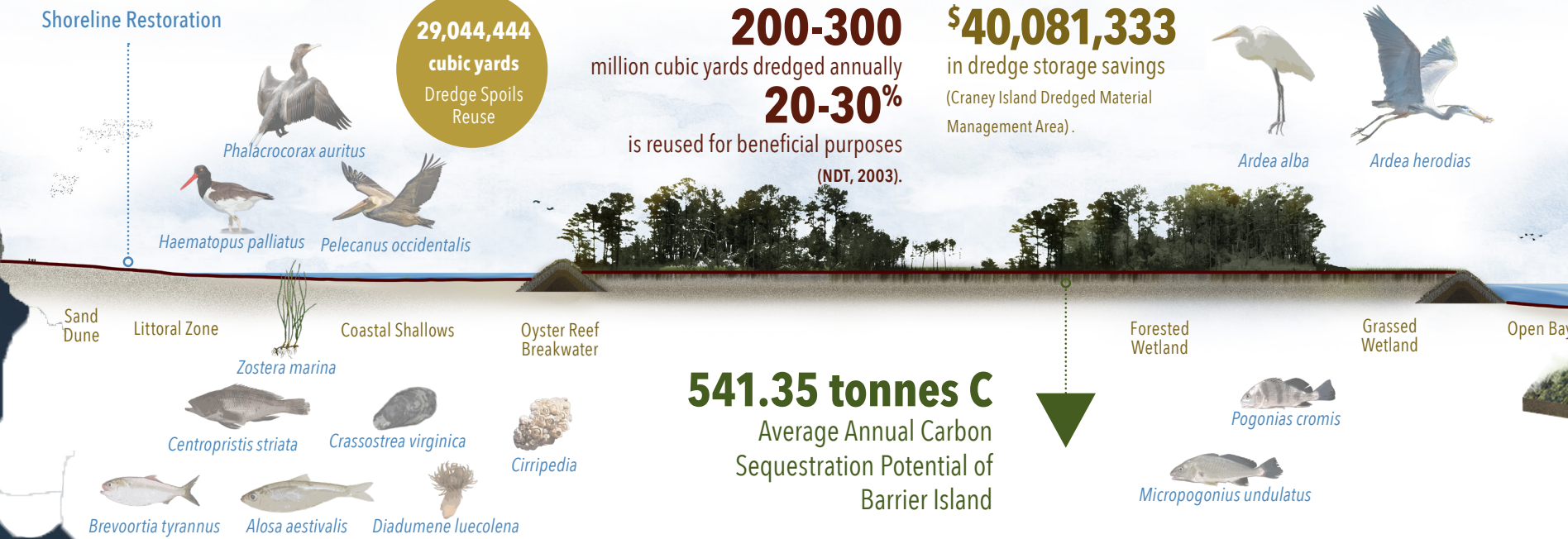


## Buckroe Breakwater

## Ft. Monroe Wetland Restoration

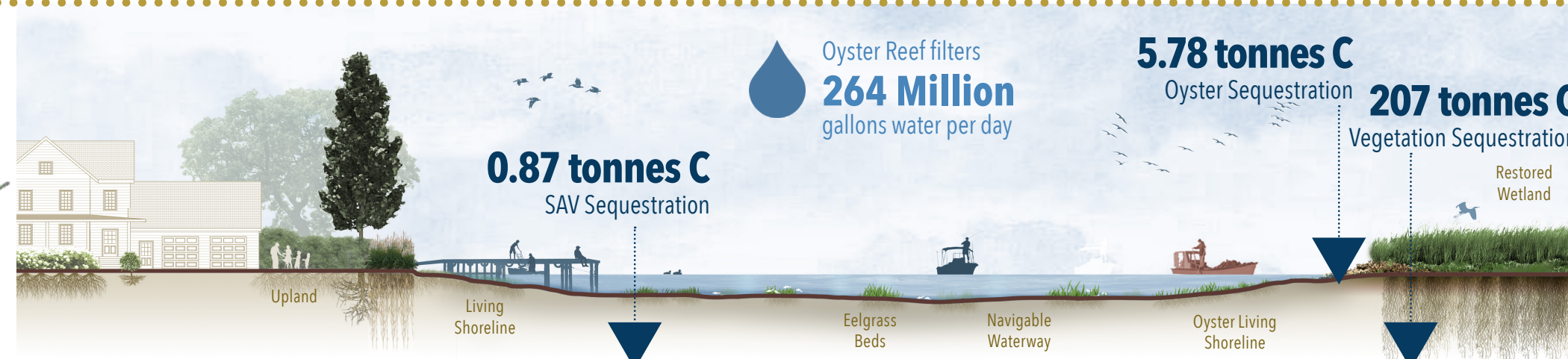
## Chesapeake Carbon Gardens

0 0.25 0.5 1 Miles



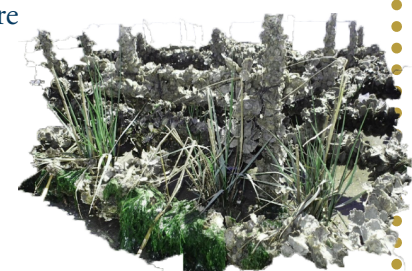
**SAV Habitat potential 18 acres**

Eelgrass planting zones inside Mill Creek are defined by qualifying dissolved oxygen content from the 2020 Virginia DEQ water quality report with an assumption of improved benthics and water clarity from the oyster inhabited living shoreline along the wetland edge.



**Biodegradable Oyster Substrate 11 acres**

These biodegradable, modular units with proven success in North Carolina are suggested in place of a traditional coir log edge surrounding the wetland.



**Typical Landscape Design**

**0.04 tonnes C**  
Annual Sequestration

**165,369**  
gallons of stormwater runoff



**Historic Tidewater Inspired Design**

**0.40 tonnes C**  
Annual Sequestration

**66,226**  
gallons of stormwater runoff



**Vernacular Tidal Inspired Design**

**0.41 tonnes C**  
Annual Sequestration

**62,878**  
gallons of stormwater runoff

