



The City of Hampton, Virginia, in Chesapeake Bay, faces significant threats from sea level rise. At Sewells Point, across the bay, sea level has risen 14 inches since 1950, and it continues to rise an inch every four years. Nearly 1.5 feet of increase is projected by year 2050. Projection maps show a large portion of the city will be underwater or experiencing severe flooding before then. Although the city's primary land use is low density residential, significant parts of the population reside in high and medium-density residential areas within flood zones. City's existing water infrastructure already struggles to address current needs. The issue is exacerbated by sea level rise. Due to its historic, social, and ecological significance, the study team selected the Buckroe Beach neighborhood as the focus area. The goal is to attract residents and tourists back to the historically significant parts of the city through reimagining streets' role in connecting people to natural ecologies and educating the public about flooding and climate change.

This research focuses on:

- 1) Evaluating the city's stormwater and wastewater infrastructure as they relate to its social, economic, and environmental issues
- 2) Exploring opportunities and obstacles presented by existing natural and engineered water management systems
- 3) Developing green infrastructure design scenarios to develop adaptation scenarios.

