Jamestown Rediscovery
HISTORIC JAMESTOWNE

A More Permanent Solution to the Historic Seawall

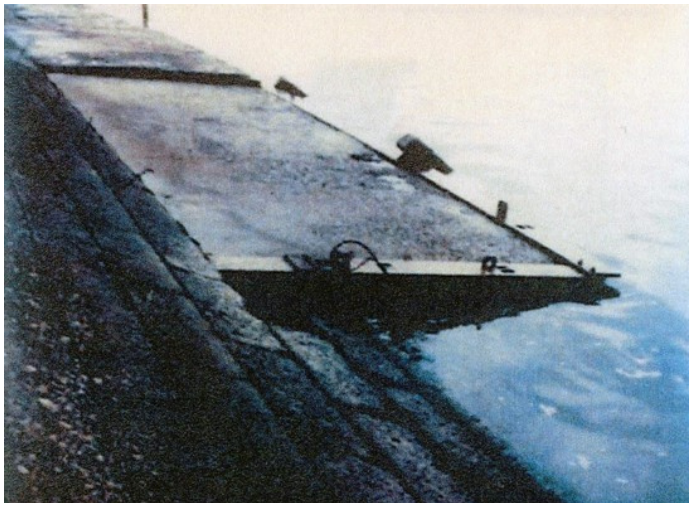
Earlier this summer, we began working on shoring up the seawall – a key tactic in our fight to mitigate the effects of climate change and sea level rise on the archaeological and historic resources on Jamestown Island. These efforts are simply the latest in a 100-year battle against increasing erosion.

Shortly after Preservation Virginia acquired the 22.5 acres of property around the church tower, it is recorded: "In 1896 … the remnant of the original headland, which still shielded the adjacent river bank below it from abrasion, was removed to bring the shore to a fair line for receiving protection work, constructed in that year. It is credibly stated that when the bank thus exposed was undermined by the waves, several human skeletons lying in regular order, east and west, about two hundred feet west of the tower ruin were uncovered."

This statement illuminates a few things we understand to be true today: erosion has been an issue on the western end of the island, the previous attempt to cut back the shore to "a fair line" and add some protection was not successful, and the burials that were exposed are most likely part of James Fort's 1607 burial ground.

APVA (The Association for the Preservation of Virginia Antiquities, now Preservation Virginia) leadership at the time understood the severity of the continuing damage caused by the river and petitioned the federal government for funds to arrest further erosion. With federal dollars allocated, APVA worked with Samuel H. Yonge, an engineer with the Army Corps of Engineers who had experience along the Mississippi River, to design and install the seawall between 1901 and 1906. This sloped revetment of interlocked concrete blocks provided protection for almost a century.

Top: The APVA's first attempt at erosion control in the 1890s.
Bottom: The 1906 seawall designed by Samuel H. Yonge.



Replacement toe installation in the 1980s.

Hurricane Irene damage in 2011.

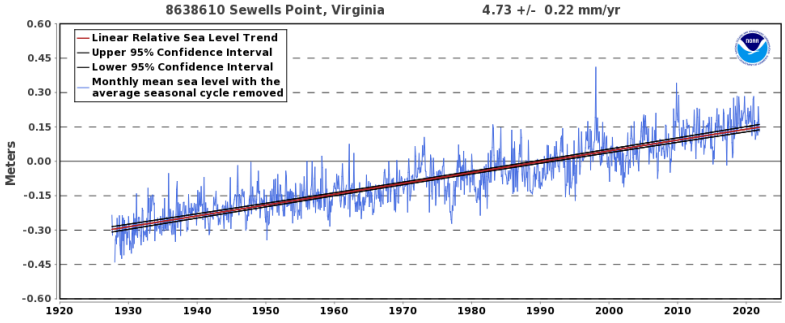
By the early 1980s, the original wooden toe that kept the concrete blocks from sliding into the river was failing. Again the Army Corps intervened and replaced the lower wooden components with a large concrete toe. Since Jamestown Rediscovery started excavations in 1994, there have been many more breaches in the seawall requiring expensive repairs.

Preservation Virginia (PV) and Jamestown Rediscovery Foundation (JRF) recognize that repairs every five to eight years is neither sustainable nor responsible, and a more permanent engineered solution is necessary. Recently, Jamestown Rediscovery Foundation received a grant to assess, perform maintenance, and augment the 1,700 linear feet of historic seawall.

With these funds, JRF contracted with Vanasse Hangen Brustlin, Inc. (VHB) to engineer a solution that will protect the island for the next 50 to 75 years. After extensive planning, Coastal Design & Construction, Inc. carefully placed 96,000 tons of armor stone in front and halfway up the seawall to provide the weight and dissipating power to neutralize wave action. This project, and the site's listing on the National Register of Historic Places' 11 Most Endangered Historic Places list, started the Save Jamestown campaign. The Fort end of the island is still under attack from climate change and sea level rise and must be addressed. This effort will cost more than $30 million to raise buildings, elevate roads, pathways, and landscapes, improve infrastructure, and install flood berms with flood gates and a pump station.

Jamestown is a vital piece of American history and the next five years are critical. With your support, we can take a comprehensive approach now and preserve the future of Jamestown.

Learn more about the project at historicjamestowne.org/savejamestown



Sea level rise since 1927. Rising sea levels mean more catastrophic flood events throughout the year.