



STORIES OF PROGRESS IN ACHIEVING HEALTHY WATERS

EPA Region 3 Water Protection Division

Enforcement Action Protects Shoreline

Norfolk, Virginia • March 31, 2016

Two sections of “living shoreline” along the Lafayette River in Norfolk, Virginia, constructed under an EPA consent agreement with the city, are part of a broader effort to stabilize the banks of a community vulnerable to sea level rise.

The two areas, totaling 175 linear feet, are separated by an existing boat ramp at the foot of LaVallette Avenue and link up with adjacent shoreline restoration projects.

Among its features, the LaVallette Avenue project includes trees, shrubs and native wetlands grasses, and biodegradable fiber logs.

The work was done as a [Supplemental Environmental Project \(SEP\)](#) – part of a December 2014 EPA Consent Agreement and Final Order with Norfolk for failure to ensure that city-owned construction projects at four sites had stormwater permits designed to prevent runoff.

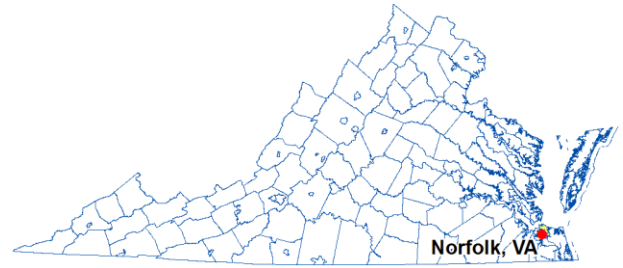
A project completion report states that the SEP will provide water quality improvements to the Lafayette River by stabilizing an eroding shoreline and providing restoration of marsh and upland plant communities.

The work is expected to reduce total suspended solids by nearly 2,000 pounds a year and cut nitrogen and phosphorus pollution to the river, which connects to the Elizabeth River and the Chesapeake Bay.

As alternatives to hard bulkheads and seawalls in controlling erosion, living shorelines are constructed with strategically-placed plants, sand fill and other structural or organic materials. They improve water quality and clarity by settling sediments and filtering pollution and create habitat for aquatic and terrestrial species.

Norfolk, a low-lying community receiving support under EPA’s “[Making a Visible Difference](#)” initiative, has created a number of living shoreline projects as it contends with climate-induced sea level rise.

In addition to the \$90,000 in SEP work, the LaVallette Avenue project includes another 270 feet of living shoreline, a kayak and fishing platform, and buffer improvements.



AT A GLANCE

- An EPA enforcement action contained a provision to build a living shoreline in Norfolk.
- Living shorelines include plants, sand fill and other structural or organic materials to prevent erosion and runoff, and restore habitats.



Living Shoreline in Norfolk, Virginia.
Photo Credit: City of Norfolk