

**Project Builds on Citizen Initiative to Remove a Derelict Bulkhead and Shoreline Debris, Control Invasive Phragmites, and Add Wetlands to Improve Water Quality and Support Healthy Marine Ecosystems.**

Project Summary: Restoring wetlands and shoreline vegetation between 50<sup>th</sup> and 51<sup>st</sup> Streets on Killam Avenue is part of a larger, comprehensive effort to restore Colley Bay, improve water quality and wildlife habitat, and make Norfolk's urban natural resources more sustainable with predicted sea level rise.

**Project Name:** Colley Bay Living Shoreline Erosion Control and Wetland Restoration Project: Phase II

**Location:** Killam Avenue, between 51<sup>st</sup> and 50<sup>th</sup> Avenues (Highland Park neighborhood)



**Background:** Since the 1930's, Colley Bay has undergone many changes which have resulted in the loss of wetlands and wildlife habitat. The shores of Colley Bay have been riddled with "materials of opportunity", concrete, asphalt, and brick debris, and yet they were still eroding. Trees were undermined and falling into the river. The hardened shoreline and sea level rise conspired to cause wetlands to drown. Invasive Phragmites threatened wetland plant diversity and wildlife habitat. No meaningful public access was available.

**Approximate Cost of the Project:** \$116, 758

**Resource Challenges Addressed:** Eroding shoreline, trees undermined and falling into the river, narrow band of wetlands, invasive Phragmites, and diminished water quality and wildlife habitat value. Unnecessarily-hardened shoreline. Sea level rise effects causing wetland drowning. No meaningful public access.

**Key Partners (Public and Private):** Funding was provided by the Chesapeake Bay Trust, Norfolk Wetlands Board, and the Departments of Planning and Public Works. Wetland planting and goose exclosure fencing volunteers were provided by the Lafayette Wetlands Partnership, Highland Park Civic League, Norfolk Master Naturalists, Chesapeake Bay Foundation VOICES, Old Dominion University (ODU) Biology Graduate Student Organization, ODU undergraduate Marine Science Club, City Staff, Norfolk Wetlands Board, and the businesses Clark Nexsen and American Eagle.

**Types of Jobs Created:** Environmental engineering services, marine contracting, heavy equipment rental, businesses that supply wood stakes, plastic fencing, sand, geotextile fabric, stone, fuel, etc., specialty wetland plant suppliers.

**Results and Accomplishments:** Approximately 200 volunteer hours resulted in the restoration of 415 linear feet of shoreline including 3,400 sq. ft. of shoreline buffer and 17,623 sq. ft. of restored wetlands. The once eroding shoreline is now stabilized with a broad band of native wetland plants, shrubs, and trees which provide greater and more sustainable nutrient reduction, erosion control, air quality, wildlife habitat, and aesthetic improvements. A new sand beach has been installed to provide public access and passive boating access to Colley Bay and the Lafayette River. This highly visible public demonstration project has been successful in persuading adjacent landowners to adopt and implement living shoreline erosion control techniques on their private property. Enhancing wetlands and urban natural resources is a core value in Norfolk's mission and the City understands the role of a healthy environment in sustaining a high quality of life.



**Website:** [public works]

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