

Riverbank Restoration and Stabilization

**Five-Mile Creek
Town of Norwalk, CT**

The Project

Located in a developed residential area, Five-Mile Creek has undergone dramatic changes in its location, flow and intensity. These changes have resulted in increased erosion and mass wasting. Over the past few years, a private residence along the Creek has lost a substantial portion of land to this erosion. The homeowner retained Stearns & Wheler to:

- conduct an environmental site assessment
- identify potential stabilization measures
- develop construction drawings
- prepare and submit local permit application
- provide on-site construction observation

Stearns & Wheler collaborated with the owner and their representatives to complete this project.

Stearns & Wheler's Approach

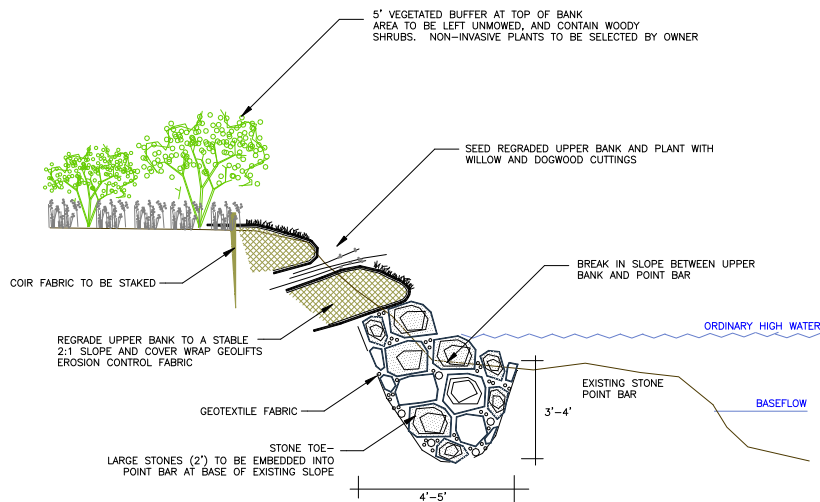
Stearns & Wheler's landscape architects, engineers and wetland scientists worked together to develop a site-sensitive approach to bank stabilization. The bank restoration consisted of an armored stone toe for the lower bank, with a series of bioengineered geolifts for the upper bank. The geolifts were wrapped with a



biodegradable fabric and planted with willow and dogwood cuttings.

Project Results

Stearns & Wheler simplified the environmental permit application process for the owner by collecting necessary information in advance and by coordinating with regulatory agencies during the planning process. Developing a stabilization plan which incorporated bioengineering principles allowed the permitting process to be completed in an expeditious manner, thus allowing construction to occur quickly, before the spring floods. Lastly, Stearns & Wheler's hybrid design lowered the overall construction budget while enhancing the ecological character of the site.



DETAIL OF
VEGETATED GEOLIFT BANK STABILIZATION
NOT TO SCALE