

Long Beach West Tidal Marsh

Habitat Restoration Project

Stratford, CT

**Funding application through the
Housatonic River Basin Natural Resource Damages
Funding Program**

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Abstract

Long Beach West is a 35-acre undeveloped coastal barrier beach located in Stratford, CT. Until a few months ago, the area was a ghost town, where 40+ cottages had stood abandoned since 1996 when the bridge connecting Bridgeport and Pleasure Beach burned down. These cottages were demolished and removed from the barrier beach during the winter of 2010-2011, and many associated structures (docks, floats, etc) were removed along with them. This was as part of a large-scale dune restoration project that was planned through an extensive partnership and funded through various sources including CT Department of Environmental Protection, National Fish & Wildlife Foundation, and the US Fish & Wildlife Service, who had contributed the most - \$909,000 through the American Recovery & Reinvestment Act of 2009 (Stimulus Funds).

What remains on the beach are some invasive weeds and a few bare patches that require planting of native species tolerant of the dry, sandy conditions and salt spray from Long Island Sound. On the Lewis Gut side of Long Beach West is vast tidal marsh system known as the Great Meadows – 750 acres in all including the open water of Lewis Gut and the marshes on both the barrier beach side and mainland side. During the cottage demolition process it was noted that there are 2 small areas of tidal marsh connected to the barrier beach that are dominated by the invasive variety of the common reed (*Phragmites australis*). Given the level of effort and funding already expended to restore this barrier beach, and the invasive species control project that is planned for later this year, we would like to eradicate these small patches of *Phragmites* before they can expand and invade the newly restored dune areas that are connected to this marsh.

Project Narrative

We are requesting funds to cover the costs of project design, permitting, and construction. Once the design is ready and the CTDEEP authorizations are issued, the plan will be to herbicide the two patches of *Phragmites* and bulldoze the sandy material toward the dune. The sand will become part of the dune, and the 2 *Phragmites* patches will be excavated down to an elevation that will support native salt marsh vegetation including *Spartina alterniflora*, *S. patens*, *Distichlis spicata*, *Iva frutescens*, and many more.

A secondary objective of this project is to pick up and remove any debris that has been carried into the project site by the tides. Lewis Gut receives lots of new flotsam (primarily large pieces of lumber and foam) on a regular basis and much of it washes up on the tidal marshes that surround it. Crews working on the marsh restoration will also remove such flotsam to help prevent additional marsh degradation from shading and smothering. Tidal marsh soils under a piece of plywood cannot support vegetation, but will continue to decompose due to the high organic content in the soil. After a little while, the area under the wood will become lower than the marsh around it, creating an isolated depression that is too low support vegetation, but holds water and breeds mosquitoes.

Community Involvement / Partnerships

This site is owned by the Town of Stratford and is open to the public. The local community has organized clean-ups of the area on a regular basis, including several already this year after the cottage removal was completed.

The town will supply a dumpster and waive the associated disposal fees. CTDEEP – WHAMM will carry out the work with their staff and equipment.

Assessment of the ‘environmental effects’

No permanent or long-term negative impacts are expected by the completion of this tidal marsh restoration project. Only short-term impacts and even these are negligible. After the *Phragmites* patches are sprayed, the sandy material upon which they are growing will be landscaped into the adjacent sand dune. These areas will be excavated down to an elevation that will support native salt marsh plant species. Immediately after completion, this area will be bare and devoid of vegetation. But plants will colonize the site by the next growing season; the site will be only sparsely vegetated for about 1-2 more growing seasons. After about 5 growing seasons, one will not even be able to tell that any work was done here because by then the site will be densely vegetated with native salt marsh species.

We expect only long-term positive benefits from the removal of *Phragmites* and the growth of native marsh plants. Additional future work that we are considering for this site includes a more comprehensive invasive species control plan for the dunes, and transplanting native species such as American beachgrass (*Ammophila breviligulata*), and native shrubs such as bayberry, beach plum, and Virginia rose.

Site Map, Plans, and Photos





Long Beach West area map



Long Beach West, Stratford. See next page for close up image. Area 1 is a low spot that has a berm along the waterward edge. This allowed *Phragmites* to enter and take over. The idea is to herbicide the *Phragmites* and remove the berm to convert this area back to a salt marsh. Area 2 is a high spot that is also dominated by *Phragmites*. This area will be excavated down to an elevation that will support native salt marsh plant species, and the sand will be landscaped into the adjacent dune. Also, the cottages and boat docks visible on this page and the next page have been demolished and removed from the barrier beach.



1

2



Project Budget

Project plans have not been drafted yet. Part of the budget would be for the preparation of the construction plans.

Long Beach West Tidal Marsh Restoration project budget

\$21,200 cost estimate for design and construction
-1,200 from town (in-kind) waiving dumpster and disposal fees
-20,000 Requested from Housy Funds

Itemized costs

Dumpster rental and disposal fee for collected debris	\$1,200
Engineering, construction plans, bid documents (if necessary)	\$4,000
Construction	<u>\$16,000</u>
TOTAL:	\$21,200