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A New Planting Tool for Coastal Homeowners

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A new online information resource, “The Coastal Riparian Tool” is being developed to help homeowners and municipalities landscape riparian corridors (the land along our river, streams and wetlands). Created by Connecticut Sea Grant and the UCONN Department of Plant Science and Landscape Architecture, this tool will be particularly useful for replanting in the face of severe weather events such as the recent storms Irene and Sandy. Funding was provided by the Long Island Sound Futures Fund.

Many people along the shoreline and even a ways inland are out working in their yards and finding delayed impacts from Superstorm Sandy. In addition to the many branches littering lawns, the salt spray and wave overwash impacted many properties near the shore damaging or killing both landscaping and natural vegetation. White pine trees, in particular, suffered a great deal of salt spray damage with the needles turning brown and falling off.

Scientists are predicting more intense coastal storms as our climate changes, so we need to prepare and plan for the impacts of these storms. One easy way to do this is to replace damaged or dead landscaping plants with native plants that are tolerant of salt spray.

In February 2012, then House Speaker Christopher G. Donovan formed a bipartisan task force, The Shoreline Preservation Task Force, to study and make legislative recommendations on storm impacts on shoreline homeowners and businesses. The task force, chaired by Representative James Albis, was also charged with looking at the impact of climate change on efforts to preserve shoreline communities. The Task Force recently published its report, including a list of recommendations: The Shoreline Preservation Task Force Report. (http://www.housedems.ct.gov/Shore/pubs/Task_Force_Report_Final.pdf) One of the report’s sections has to do with the development of Education and Information Resources: “…developing education programs to promote rain gardens and similar measures” (p.7). This coastal tool is a resource for both Connecticut and Long Island residents that fits in well with the Task Force recommendations.

Riparian corridors are critical because they are the area of intersection between a natural system (a water body) and a human-based system (residential, agricultural, or industrial). When vegetated, these areas can provide multiple benefits, particularly as the first line of defense against the impacts of surrounding land uses. Riparian corridors are often the first line of
defense against the impacts of imperious surfaces (driveways, streets, parking lots, patios, roofs, etc.) by slowing runoff from precipitation. They also aid in flood control, filter or trap pollutants, provide habitat and corridors for wildlife as well as scenic value and privacy. Within coastal areas, these corridors are of significance in reducing erosion.

“Landscaping with native plants will reduce the rate of erosion during storms, and will increase the rate of recovery afterwards” states Harry Yamalis of Connecticut Dept of Energy and Environmental Protection, Office of Long Island Sound Programs. Yamalis is the Long Island Sound Study Habitat Restoration Coordinator for Connecticut.

Along the coast, some people understandably do not want to interrupt their view or water access with vegetation. Also, establishing and maintaining a riparian corridor may be difficult. Plants in this harsh climate struggle with salt spray, punishing winds, and poor/sandy soil conditions. This presents problems for many traditional landscaping plants, particularly if they are hit by multiple storms during the growing season.

Mark Brand, UConn Professor of Horticulture, Julissa Mendez, graduate student in Landscape Architecture and I have teamed up to develop fact sheets, a coastal riparian corridor plant list, and planting cross sections to assist landowners in planting their properties with native vegetation, while maintaining both water views and water access. The fact sheets describe the functions and values of coastal riparian areas, how to prepare an area for planting (from the two extremes of starting with turf, or with an area full of invasive plants), and how to plant and maintain the plantings. The plant list includes native trees, shrubs, herbaceous perennials and grasses and is divided into three categories: salt spray tolerant, not salt spray tolerant, and an intermediate group with low tolerance. For each plant, tolerance for dry, sandy soils or wet, poorly-drained soils is indicated as well as their availability at nurseries. The planting cross sections assume an average distance of 75 feet between a home/building and the water. The cross sections maintain
about 25 feet of lawn, and show different planting scenarios including with and without sea walls, and different slopes, while allowing for water views and access. Zones are indicated in the cross sections and plants from the different categories can be chosen from the plant list.

I hope that this will be a useful tool for coastal landowners, municipalities and state agencies in adapting to coastal storms by using more native species that can withstand salt spray and periodic inundation. Landowners do not have to change all their plantings at once, but can replace plants over time, and work on sections of their property over the course of several years.

“The Coastal Riparian Tool provides homeowners with easy to use guidelines to help them beautify their properties and reduce erosion, while also making a positive impact on the health of our important coastal habitats” said Georgia Basso, USFWS Wildlife Biologist and Liaison to the Long Island Sound Study.

In the near future, the fact sheets, plant list and diagrams will be available on the UConn CLEAR web site, http://clear.uconn.edu.

Cross Section: D
Salt spray: Occurs often (property adjacent to Long Island Sound)
Shoreline: Seawall present
Slope of property: 5% (almost flat)

In areas closest to the water, use upland plants that are salt spray tolerant. Depending on planting scheme, some Zone 3 plants may do well if protected from salt spray.