

Restoring a True Coastal Preserve in Southeastern CT

Written by Beth Sullivan, Avalonia Land Conservancy; Photos by Roger Wolfe, DEEP Wildlife Division

The DEEP Wildlife Division's Wetlands Habitat and Mosquito Management (WHAMM) Program partners with various municipalities, conservation organizations, and land trusts to accomplish wetland habitat restoration projects throughout the state. Following is one such project as seen through the eyes of the Avalonia Land Conservancy, a non-profit land trust dedicated to the conservation of natural areas in southeastern Connecticut via acquisition. Avalonia holds more than 3,400 acres of land, preserved in perpetuity as natural open space.

Dodge Paddock and Beal Preserve of the Avalonia Land Conservancy is the last open space and true coastal preserve in Stonington Borough. Its history is rich, with generations of changes and uses. But, in the last decade, it has truly been a sad example of how sea level rise can impact the shoreline. Neighbors watched the almost four-acre preserve become wetter and fill with invasive *Phragmites*. Hurricane Sandy devastated walls and flooded the preserve with, not just water, but debris.

In the last two years, the Avalonia Land Conservancy has worked with DEEP's Wetlands Habitat and Mosquito Management Program (WHAMM) to open a new drainage area, remove *Phragmites*, create channels for better flow of floodwaters, and begin a plan for the future.

There is more great news to share. In November 2014, the National Fish and Wildlife Foundation, which administers the Long Island Sound Futures Fund, granted nearly \$45,000 to Mystic Aquarium in partnership with the Avalonia Land Conservancy to restore the landscape in Dodge and Beal Preserve. Planning on the project began immediately upon our notification of the grant award and is well underway for public outreach efforts, planting plans, and the organization of volunteers.

An Adaptable Landscape

Resiliency is a term we have been hearing more frequently. As oceans rise and storms increase in intensity, we have to be prepared to change, to adapt. Shoreline towns are developing task forces to discuss and plan for the needs of the communities on many levels. Our landscape will have to adapt as well.

The Preserve will be studied for elevation compared to sea level, soil salinity,



This aerial photo of the Dodge Paddock and Beal Preserve shows the wetland area that flooded properties after heavy rains, was filled with *Phragmites*, and produced mosquitoes. Drainage channels were excavated to facilitate water flow, *x* were eliminated, and the area is now ready for restoration and replanting.

water levels, and direction of flow. A team comprised of consultants and experts from many areas will work to develop a specific plan for vegetation and plantings that will enhance the area. The plants will be able to withstand freshwater flooding and periodic salt water inundation. They will help filter pollutants that come from road run-off from within the borough to prevent pollutants from reaching the ocean. Native plants will replace the invasive *Phragmites* and provide much greater appeal, food, and shelter for native wildlife. Plants in other areas will reinforce and support the land itself in the face of other storm events.

Many Benefits

Wildlife will not be the only beneficiaries. The area, when completed, will be available as a model for a resilient landscape. Local environmental groups will be able to bring volunteers to help with the project and also experience the landscape first hand. Educational signage will be installed to enable others to learn from this effort, about the best ways to adapt to the changes that are surely in our future.



(Top) The WHAMM crew prepares to breach a berm of gravel and sand deposited by Hurricane Sandy, which prevented drainage. (Bottom) After the berm was breached, a channel was created to release the impounded waters that flooded the preserve and initiate normal tidal flushing.

Beth Sullivan writes a blog for the Avalonia Land Conservancy. You can find her blog, *Avalonia etrails*, at <http://avaloniaetrails.blogspot.com>. Learn more about the Avalonia Land Conservancy at <http://avalonialandconservancy.org>.

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