How Will the Newport Harbor Walk Adapt to a Changing Climate?

Students explore resilient design strategies for Storer Park ~ Design Ideas on Display at Annual Meeting

Recent storms along Rhode Island's coastline have brought the reality of coastal flooding concerns to the doorstep of the state's 21 coastal communities. "Superstorm" Sandy brought four feet of storm surge into Narragansett Bay and inundated several piers and wharves in Newport Harbor, including Bowen's Wharf.

Newporters have also seen other rain events and coastal storms cause flooding in neighborhoods such as the southernmost boundary of the Point Neighborhood along Marsh Street. These changing coastal conditions present many challenges and opportunities to long-term management of our cherished coastal amenities, particularly public access areas in Newport.

With this in mind, the University of Rhode Island (URI) Landscape Architecture program dedicated part of its senior studio to exploring coastal adaptation strategies for Newport's Storer Park, which sits as a southern gateway to the city's historic Point Neighborhood along the Newport Harbor Walk.

Under the direction of Professor Richard Sheridan, the students worked with URI's Coastal Resources Center and RI Sea Grant program to gather the best available science related to sea level rise and storm predictions for the state. From this data, the students then were able to craft future designs for the park that could withstand storm surge and projected sea level rise in the coming years.

The landscape architecture students visited the site and reviewed their early design ideas with Tom Hockaday and Laurie Shaw from the Point Neighborhood Association. It was important that the students were allowed the freedom of a conceptual design exercise while understanding that their designs should incorporate realistic elements that could be considered for implementation in the near future.

The studio developed the following mission for the project: "Due to rising sea levels, Storer Park is on the front line facing storm surge and will ultimately be underwater. Our mission is to connect people from the waterfront to the downtown area with a landscape that will protect from storm surge as well as adapt to a fully submerged environment without threatening the ecosystem of Narragansett Bay."

Goals included are the following: (1) Connect people from downtown and surrounding neighborhoods to the waterfront; (2) Begin Newport's response to projected sea level rise; (3) Create innovative strategies to maintain and enhance the cultural presence of Storer Park in the city; and (4) Consider short-term (10-20 year) and long-term (50-100 year) plans for the park.

The students' ideas ranged from a full redesign of the park with terraced platforms to accommodate future sea water, to site-scale techniques including the design of rain gardens and planted drainage swales within the park that could serve to channel tidewater into the site and direct stormwater out of the site during rain events. Also, strategies to ensure the Harbor Walk remains a clearly marked walkway through the site were explored, as this site is an important link between the Point Neighborhood and points south along the Harbor Walk.

The students' work was shared with multiple audiences after the final presentation in April 2014 at URI, and the design ideas are available from URI upon request. URI continues to work with the city on multiple efforts related to coastal resilience and expect future projects to continue the discussion throughout the community.

For more information on RI Sea Grant's work with Climate Resilient Communities, please see http://seagrant.gso.uri.edu/projects-2/topics/community-resilience/

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