



MLA Thesis Author

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A New Era of Restoration and Redevelopment in Bayonne, NJ: Reconnecting Community to Upper New York Bay

As sea levels rise and storm frequency and severity increase, adaptive design is required for increased resilience and long-term occupation along the waterway. The art and science of landscape architecture can provide effective land-use changes and social advancements to help facilitate this pursuit. In this way, landscape architecture is a useful tool for improving ecological services, land use, and social issues in our ever-changing world.

This thesis examines an intertidal area and surrounding shoreline along a portion of eastern Bayonne, New Jersey covering approximately 75.4 acres. Various design proposals are presented that activate, fortify, and rejuvenate this tucked-in intertidal mudflat. Much of the design focus is centered around improving waterfront access, circulation and use, along with water quality, stormwater management, and storm resiliency.

The site and surrounding area presented a variety of issues and challenges relating to stormwater management, waterfront use and access, coastal restoration, and shoreline protection.

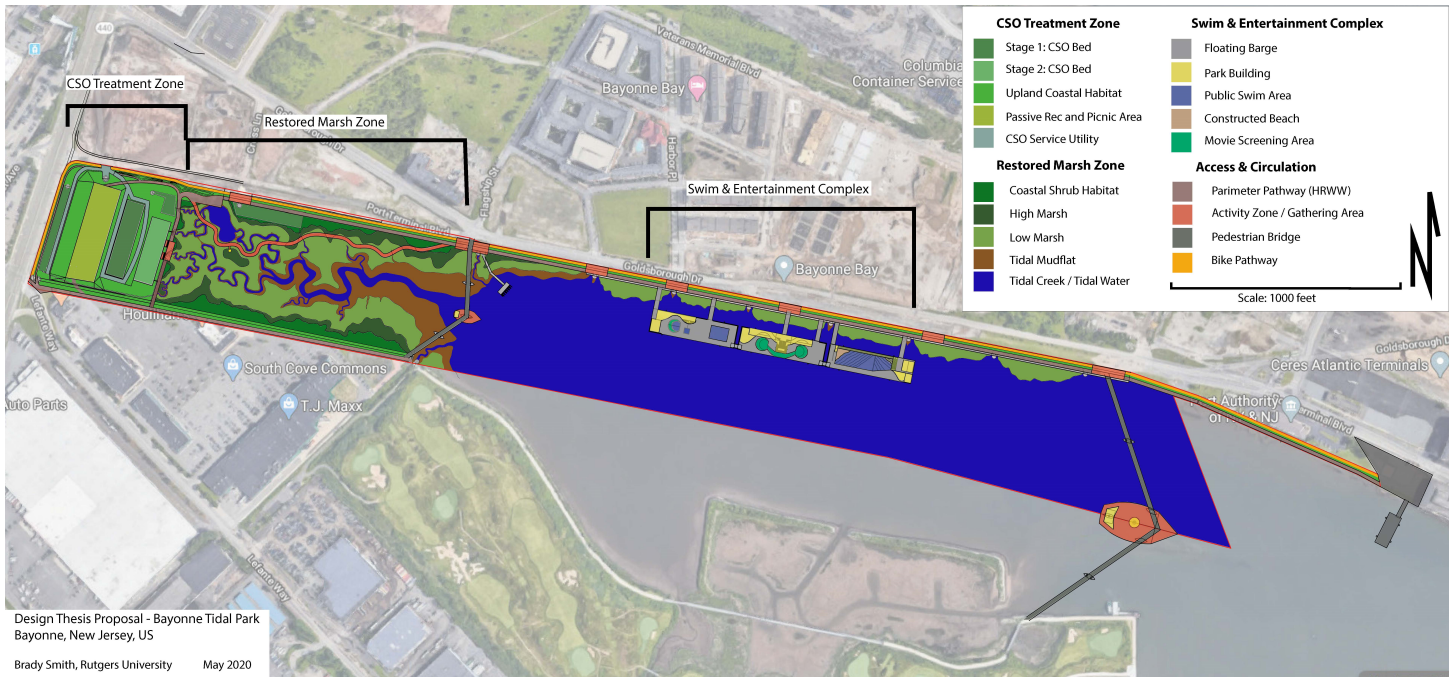
Redevelopment directly north of the site at Peninsula at Bayonne Harbor will bring more than 10,000 new residents to Bayonne by 2026. These new coastal occupants will greatly benefit from improved waterfront access, along with open space for outdoor recreation, relaxation, and community engagement.

Design solutions include effective CSO management, involving treatment of CSO discharge effluent and the reduction of overflow events triggered by moderate-to-heavy rainfall. This effective management of CSOs serves as the foundation for increased site use and improved ecological services. Focus is placed on providing scenic waterfront access and circulation for nearby residents, more improved and resilient surge and flood protection, and much-needed wildlife habitat for the broad range of flora and fauna that frequent the Bay. Last, these design solutions provide the framework for a broad variety of proposed programming, intended primarily to promote community interaction along the waterfront, health and well-being, coastal education, research and preservation and maximum use of space within the site.

See next page for visual support...

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by Brady Smith



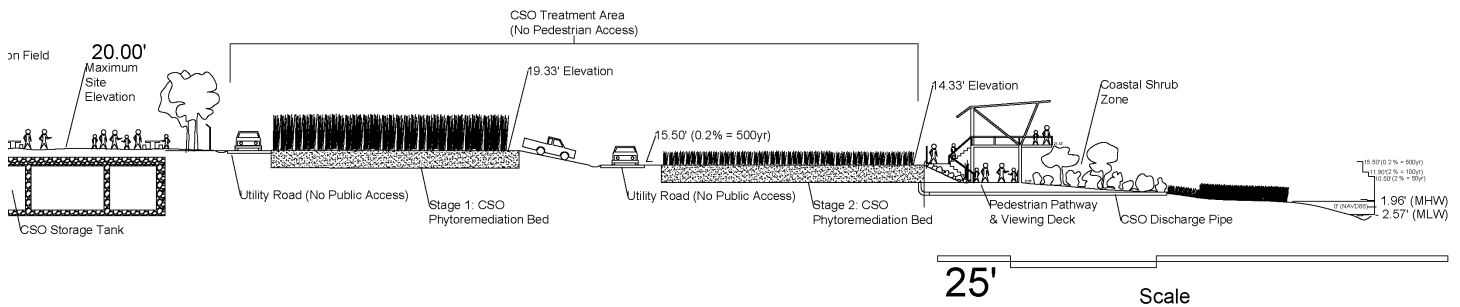
Site plan of proposed design solutions.



Looking EAST from Hwy NJ440 across the site.



Aerial of CSO outfall locations located within the site.



Section view of CSO storage tank, constructed wetland for phytoremediation of CSO effluent, and covered viewing deck looking east.



BRADY SMITH is a third-year graduate in the Landscape Architecture Program at Rutgers University. His overall academic interest is in adaptive planning and design, with particular interests in sustainable food systems, water resource management, ecological restoration and coastal resiliency.

Brady has lived throughout America, from rural Iowa and Illinois to urban New York City, Houston, and Jacksonville. His love for coastal systems came while living along the Florida shores where he obtained his undergraduate degree in Environmental Studies with a concentration in Marine Science. Prior to his pursuit in Landscape Architecture, Brady enjoyed other professions, ranging from sales and service to environmental consulting and water resource management. His mantra is, "being interested in being interested" as he envisions a lifetime of learning about the world around him.

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