"Climate park"

Yue Dong

Reasons (climate part):

- Warming oceans and melting glaciers and ice sheets are raising global sea levels.
- The selected sea level scenario points to a 35% risk of at least one flood over 5 ft taking place between today and 2050 in the Nantucket area.
- There is a lot of rainfall here.





Reasons (park):

According to a survey from recreation & Parks master plan, 2019.

- 94% of respondents described the overall recreation facility quality as adequate or needs improvement (49%- needs improvement), 82% of respondents are year round residents
- Playgrounds (47%)
- Mountain bike and hiking trails
- Track or walking track (indoor and outdoor)
- Swimming pool not shared with schools (36%)



Past project:

PIN project: W ashington Street and The Creeks Resilience and Adaptation Area Strategy, 6 August 2021

FLORID







Goals:

The historic coastal areas are threatened and the coastal landscape has not been valued and developed for a long time. To document and assess the historic urban landscape of Washington Street area of Nantucket Town and develop an overall resilience and adaptation strategy including focus areas and demonstration projects that respond to coastal hazards, the need for entertainment and leisure, and sea level rise.

Case study: Hunter's Point South Waterfront Park, Long Island City, NY. Designer: SW A/Balsley.



Case study: Hunter's Point South Waterfront Park, Long Island City, NY. Designer: SW A/Balsley



Paprocany Lake Shore park. Poland. Architects: RS + Robert Skitek.





Storage of water in the landscape





HEAVY RAIN CONDITIONS



Figure: 4.31

NORMAL CONDITIONS (Level 1)

Minghu Wetland Park, Guizhou, China. Architects:

Turenscape



An aerial view of the park during the dry season (left) and the monsoon season showing a 20-year flood (right)

Materials:

The choice of material is important: for example marine grade stainless steel with a high quality finish to prevent further weathering caused by salt spray; the use of wood is limited to sustainably obtained heavy ants wood, which can withstand a wide range of rapid humidity changes and maintain a long lifespan in environments where other trees may further decay.

Local plants for resilience and storage water.

• Save Water—Native plants are adapted to the local climate and site conditions.

- Save Time—Less maintenance is required with native plants once established.
- Reduce Pesticide Use–Native plants have developed their own defenses against many pests and diseases.

• Enhance Wildlife Habitat–Provide shelter and high quality food for native wildlife.

• Protect Nantucket's Distinctive Landscape and Fragile Ecosystem.



Sassafras

Cordgrass

Goldenrod,

Seaside

Elements in climate park:

For the recreational part:

Children play area.

Wooden terrace for walk.

Bike trail.

Special area for lying and rest.

Some wooden benches on the beach.

Shower place.

For climate part:

Low terrain lawn.

Elevated pedestrian walkway.

Elevated viewing platform.

Local plants.

For the landscape part:

Picnic lawn and landscape using native plants.

Bike parking area.

Small landscapes.

Small Botanical Garden.



Sea level rise condition along W ashington st. in 2020 2040 2060.











Cross -sectional view



Historical boards and sea level rise boards: Show what happened to this place in the past, the history of Washington Street, the history of the surrounding buildings, and what will happen in the future, the severity of sea level rise and the damage to historic buildings.





Cross - sectional view

Reference :

Recreation, Respite, Art, and Resilience Find Harmonious Balance in New York's Newest Waterfront Park

https://www.swagroup.com/projects/hunters-point-south-waterfront-park/

Paprocany Lake Shore Redevelopment / RS + Robert Skitek" 18 Oct 2015.

https://www.archdaily.com/775301/paprocany-lake-shore-redevelopment-rs-plus

FEMA Flood Map Center

From recreation & Parks master plan, 2019.

Washington Street and The Creeks Resilience and Adaptation Area Strategy, 6 August 2021

Floodability: A New Paradigm for Designing Urban Drainage and Achieving Sustainable Urban Growth.

https://nc-cleanwater.com/2019/01/25/the-importance-of-native-plants/

Moisture Control Guidance for Building Design, Construction and Maintenance

https://www.greenbuildermedia.com/blog/natural-swimming-pools-work-best-in-warm-climates