

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF NATURAL RESOURCE RESTORATION  
DIVISION OF PARKS AND FORESTRY

# LIBERTY

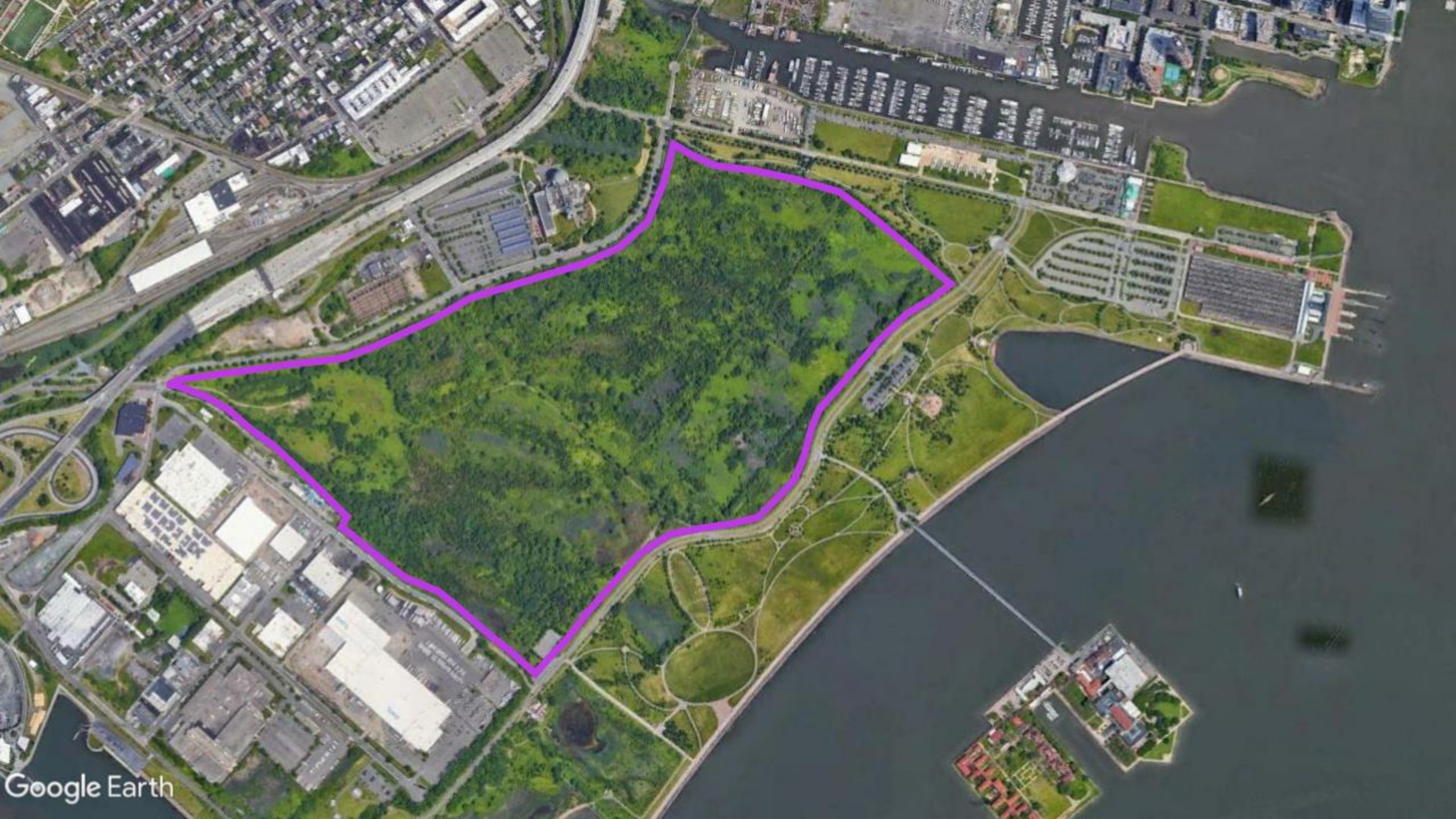
## State Park

### Habitat Restoration Breakout Session

February 4, 2021









# Ecological Restoration



## Tidal Wetlands

50 Acres

## Non-tidal Wetlands

27 Acres

## Uplands

133 Acres

## Parking & Amenities

24 Acres

# Tidal Wetlands Environmental Benefits

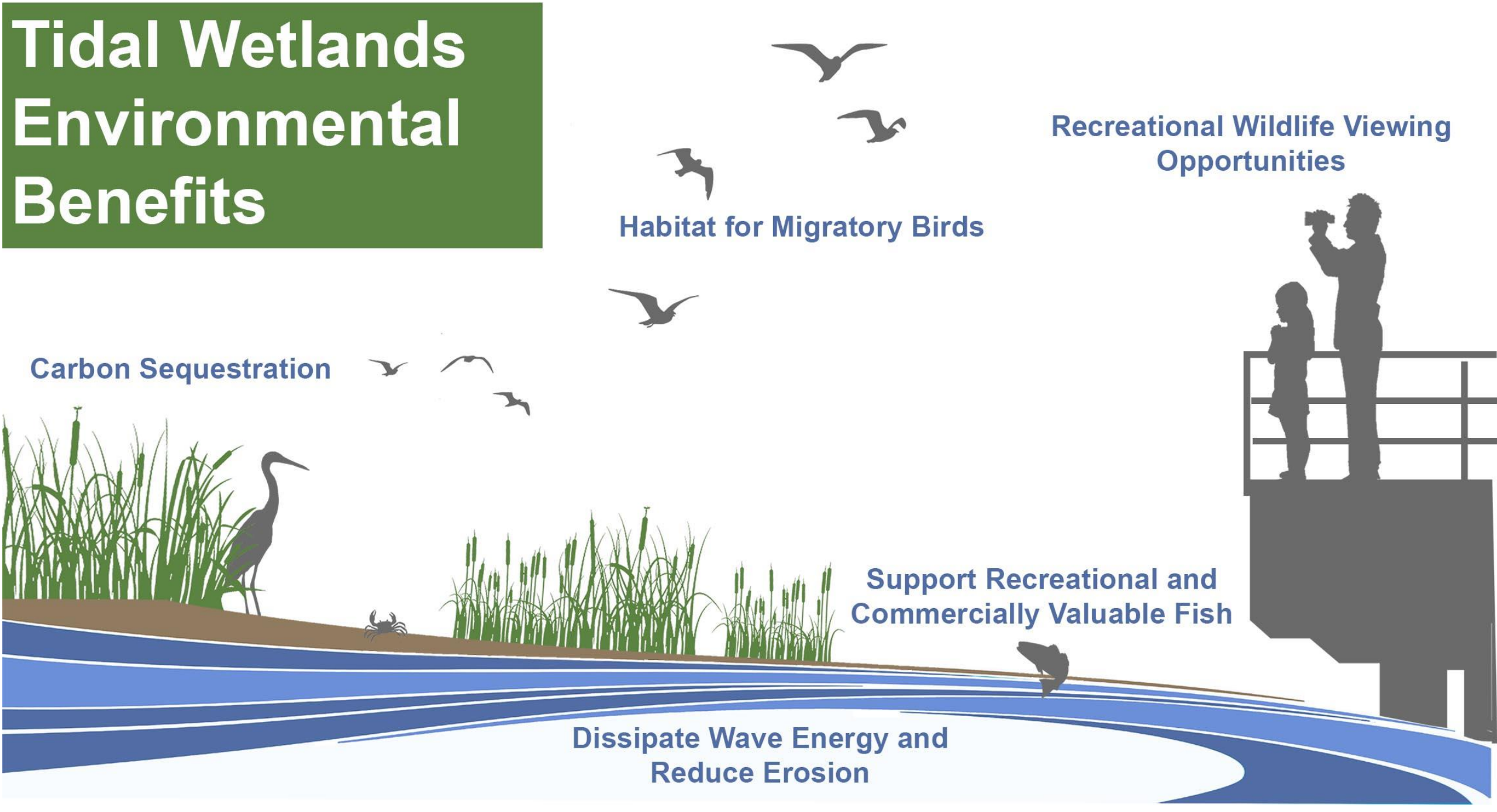
Habitat for Migratory Birds

Recreational Wildlife Viewing  
Opportunities

Carbon Sequestration

Support Recreational and  
Commercially Valuable Fish

Dissipate Wave Energy and  
Reduce Erosion





# Non-tidal Wetlands Environmental Benefits

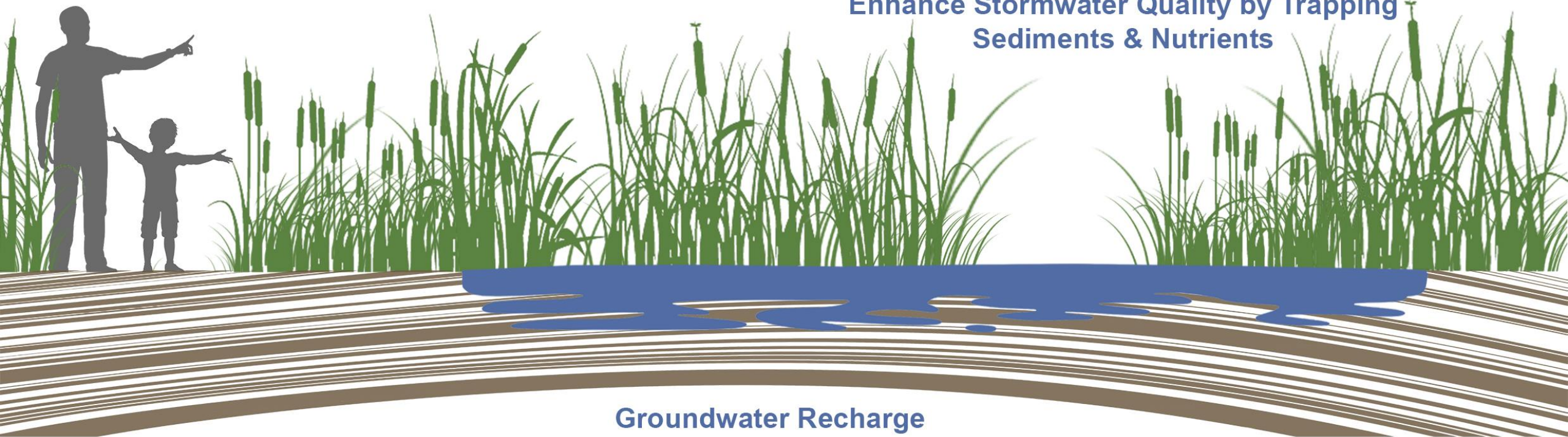


Nesting and Foraging  
Habitat for Wildlife

Provide Environmental  
Education Opportunities

Enhance Stormwater Quality by Trapping  
Sediments & Nutrients

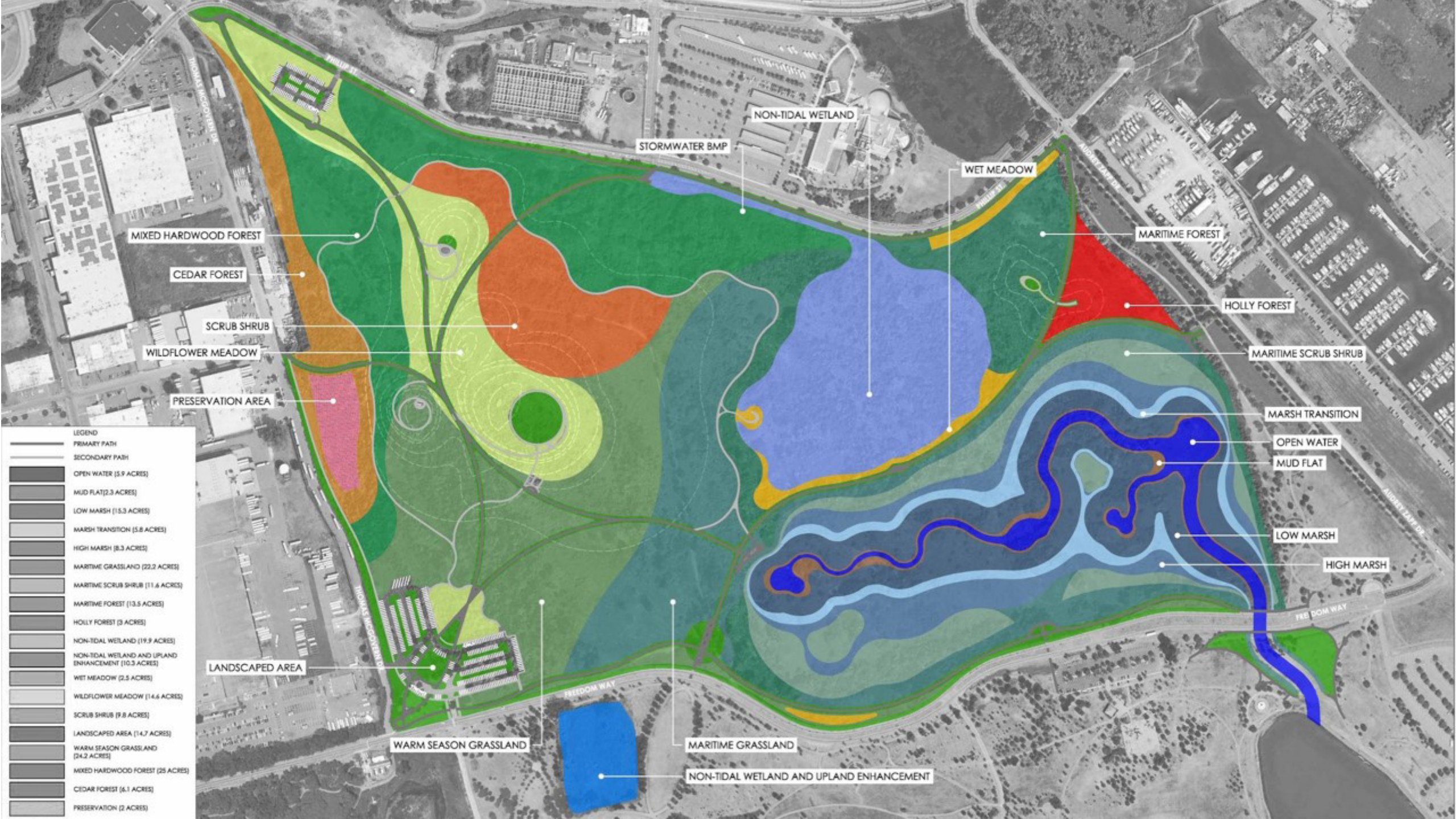
Groundwater Recharge



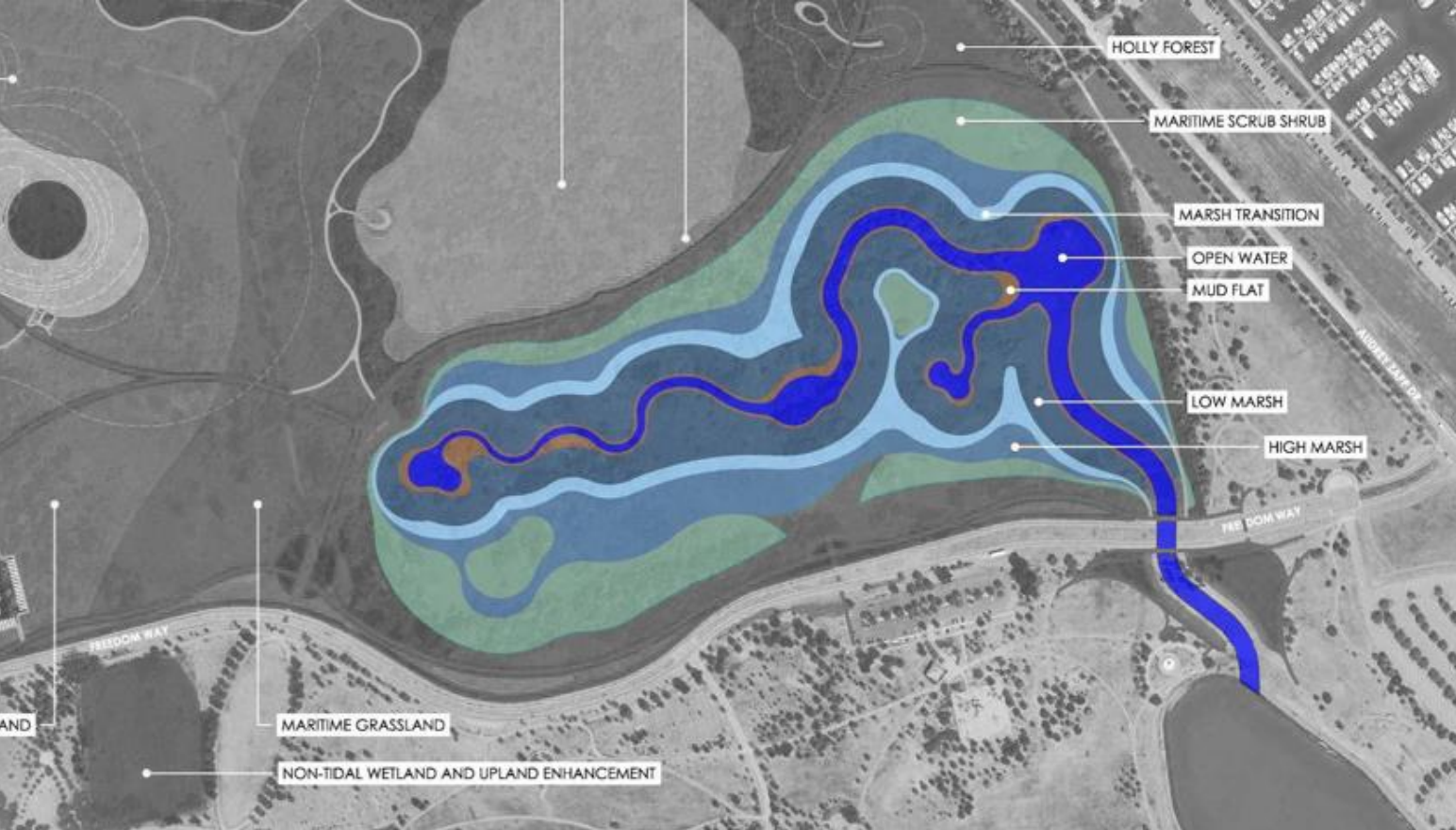
# Urban Forest Environmental Benefits











Maritime shrub scrub



Mudflat



Low marsh



Tidal Marsh





Larval fish habitat



Substrate and habitat for  
invertebrates



Foraging habitat



Nesting habitat

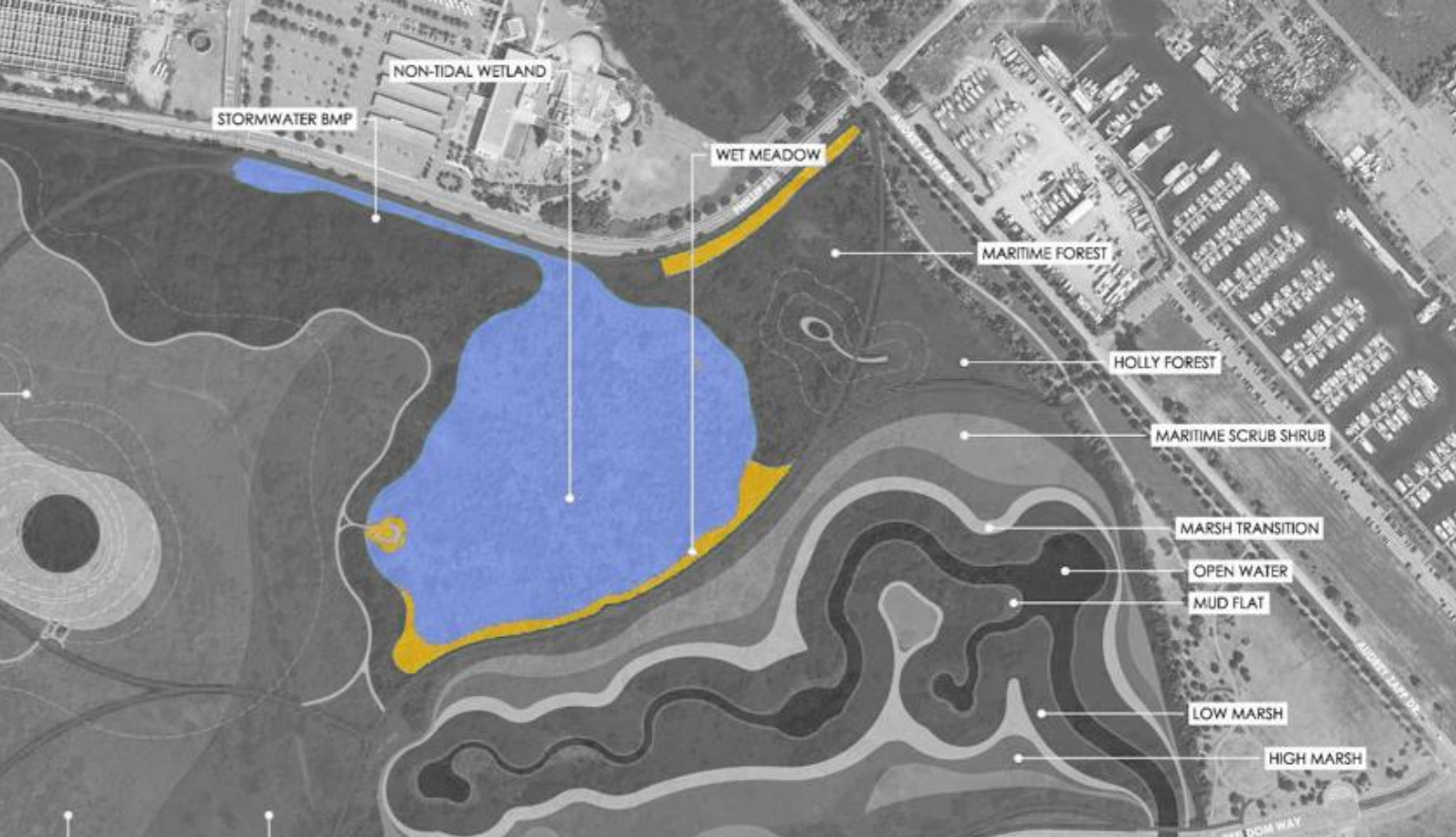




Designed to accommodate sea  
level rise

Variable width cap to ensure  
stability







# Non-tidal Wetlands

## Emergent and shallow open water habitats

tussock sedge, wool grass, rice cut grass, joe-pye weed

## Scrub shrub wetland habitats

swamp rose, northern arrowwood, buttonbush







Wildflower meadow



Warm season grassland



Red cedar forest



Mixed hardwood forest



# Upland habitats



## Salt tolerant communities

Maritime forest: maples, oaks, bayberry, groundsel bush

Holly forest: American holly, pitch pine, serviceberry

Maritime grasslands: winter bent grass, big bluestem, little bluestem, seabeach evening primrose





# Upland habitats



## Warm season grassland

Virginia wild rye, switchgrass, grass-leaved goldenrod



## Wildflower meadows

Purple coneflower, milkweed, wild bergomont





# Upland habitats



## Scrub shrub

Northern arrowwood, grey dogwood,  
black berry



## Mixed hardwood and Cedar forest

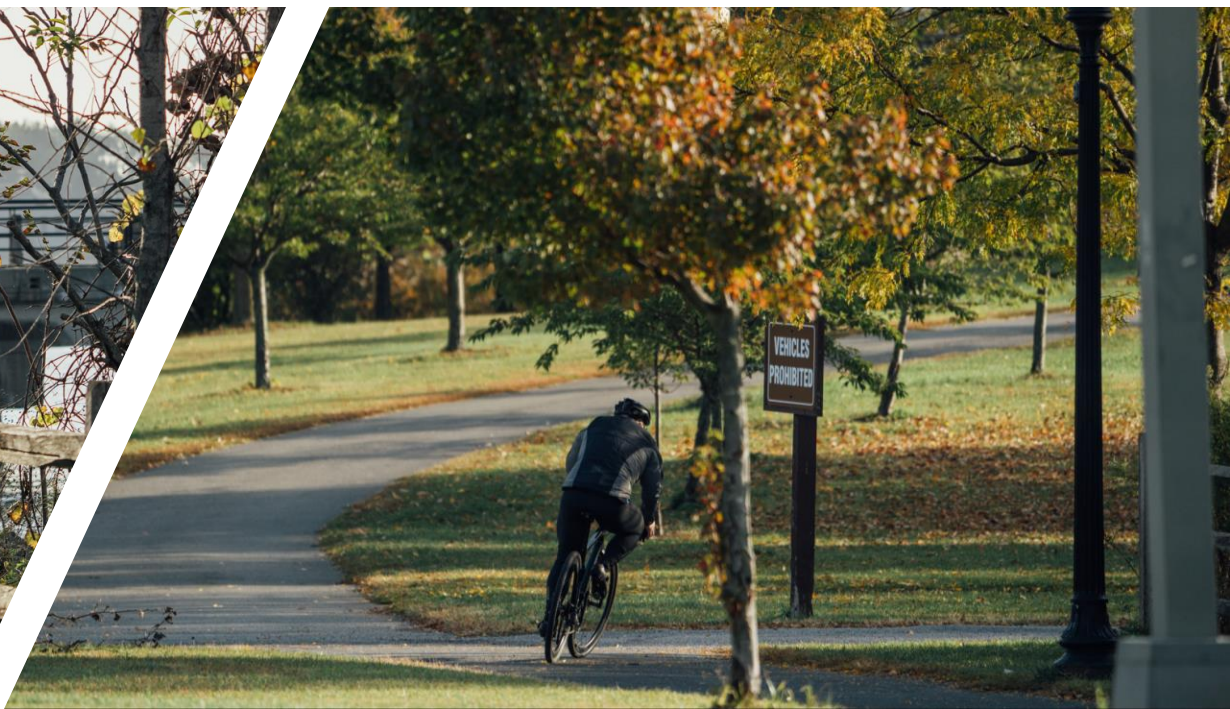
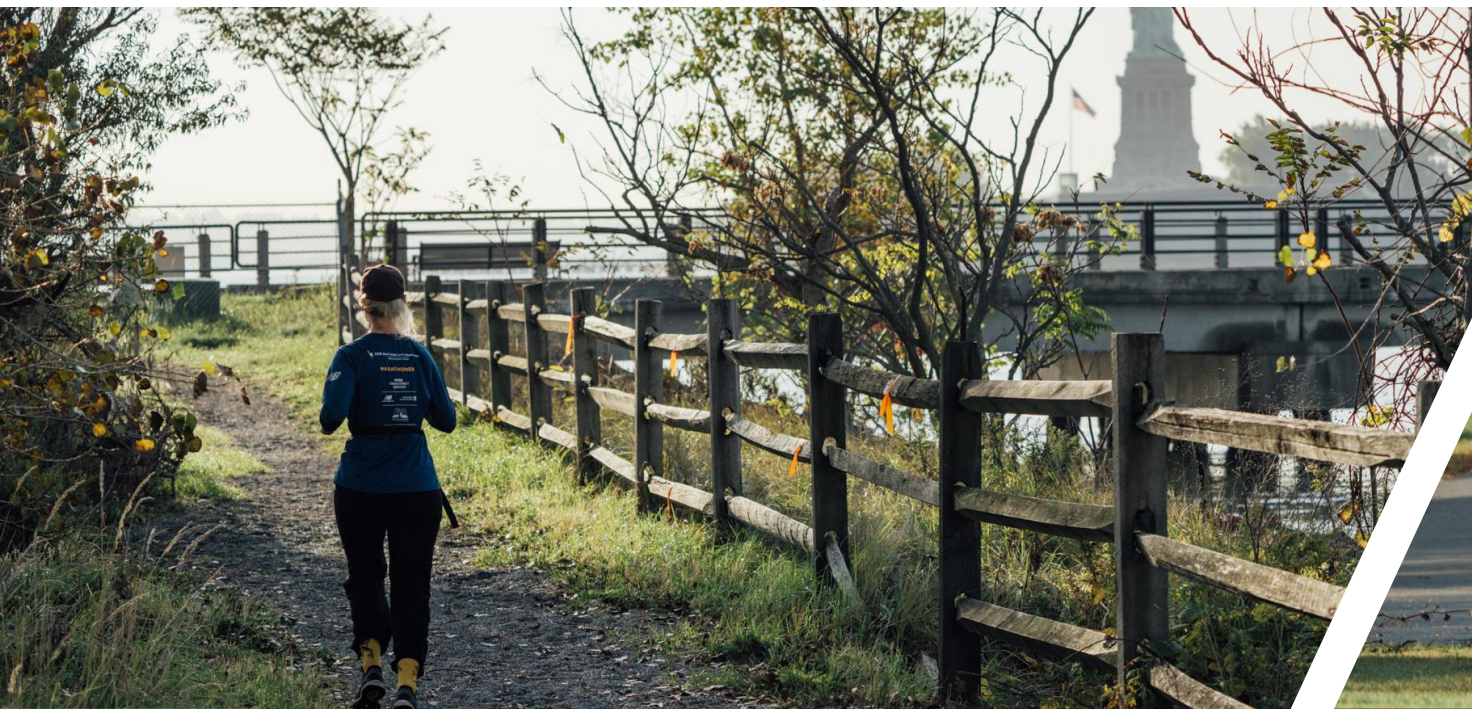
Red cedar, oaks, red maple, maple  
leaved viburnum



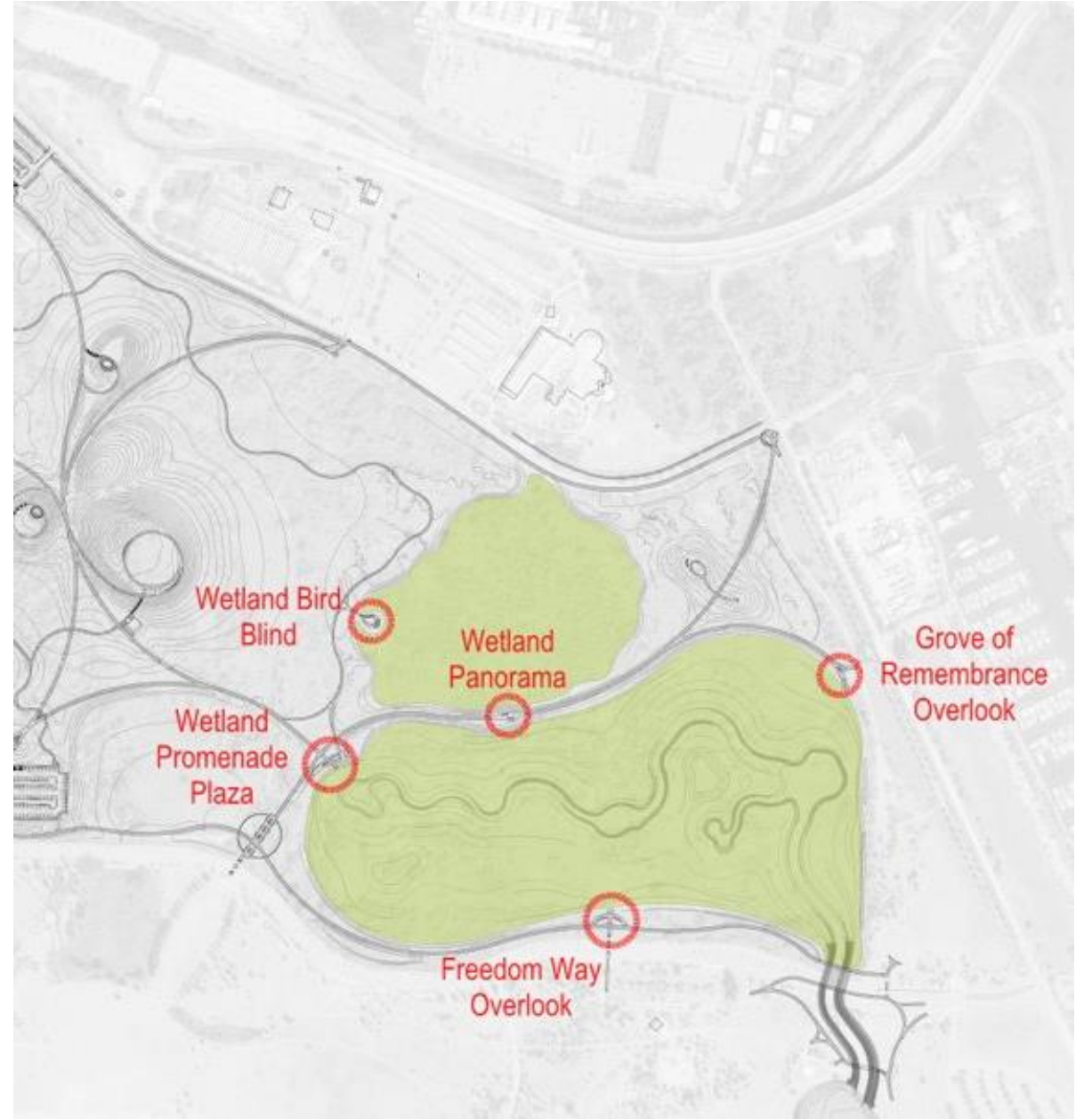




- PARK PROGRAMMING**
- 1. RISE OF REMEMBRANCE MARSH OVERLOOK AND PROMENADE
  - 2. SHADE PLAZA
  - 3. LAND BIRD BLIND
  - 4. ADREN'S INTERPRETIVE TRAIL
  - 5. SCIENCE CENTER ENTRANCE
  - 6. HILLIPS PARKING (100)
  - 7. MEADOW WALK
  - 8. NATURE TRAIL LOOP
  - 9. THOMAS MCGOVERN ENTRANCE
  - 10. VALLEY VIEW OVERLOOK AND SLEDDING HILL
  - 11. LIBERTY VIEW









# Monitoring & Maintenance

## Immediate

Contracts include measurable success criteria and require replacement of plants that do not survive in the first year

## Short-term

Permits and Mitigation Council require 5 years of monitoring and corrective action in the event plantings are not successful

## Long-term

Eventually maintenance shifts to the Park.

*Potential opportunities for citizen science, community involvement, education and training opportunities.*



# Thank you

Submit suggestions,  
comments, or  
questions to:

[ispinterior@dep.nj.gov](mailto:ispinterior@dep.nj.gov)

