

The Urgency Of Urban Ecological Restoration Strategies & Motivations

Moderator

Marit Larson, *NYC Dpt. Of Parks & Recreation*

National Conference on Ecosystem Restoration



The Urgency Of Urban Ecological Restoration

Panelists



Terry Doss
Co-Director, Chief Restoration Scientist
Meadowlands Research & Restoration Institute
NJ Sports and Exposition Authority



Pippa Brashear, RLA
Resiliency Principal and Partner
SCAPE Architects



James Duncan
Environmental Resources Project Supervisor
Miami-Dade County



Sarah Charlop-Powers
Executive Director
Natural Areas Conservancy

Urban Ecological Restoration

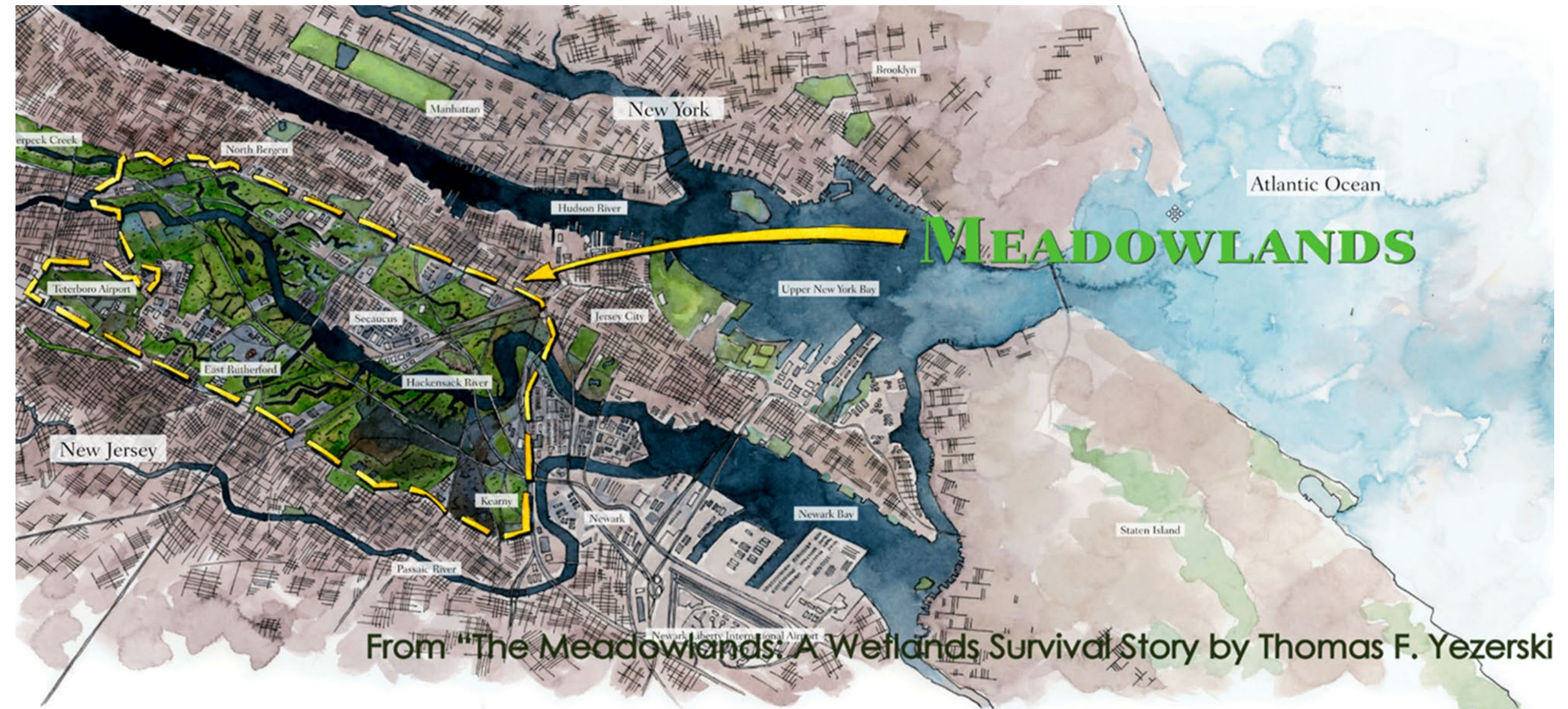


The Bronx River, the Bronx



The New Jersey Meadowlands

Terry Doss, New Jersey Sports and Exposition Authority (NJSEA)



From "The Meadowlands: A Wetlands Survival Story by Thomas F. Yezerski

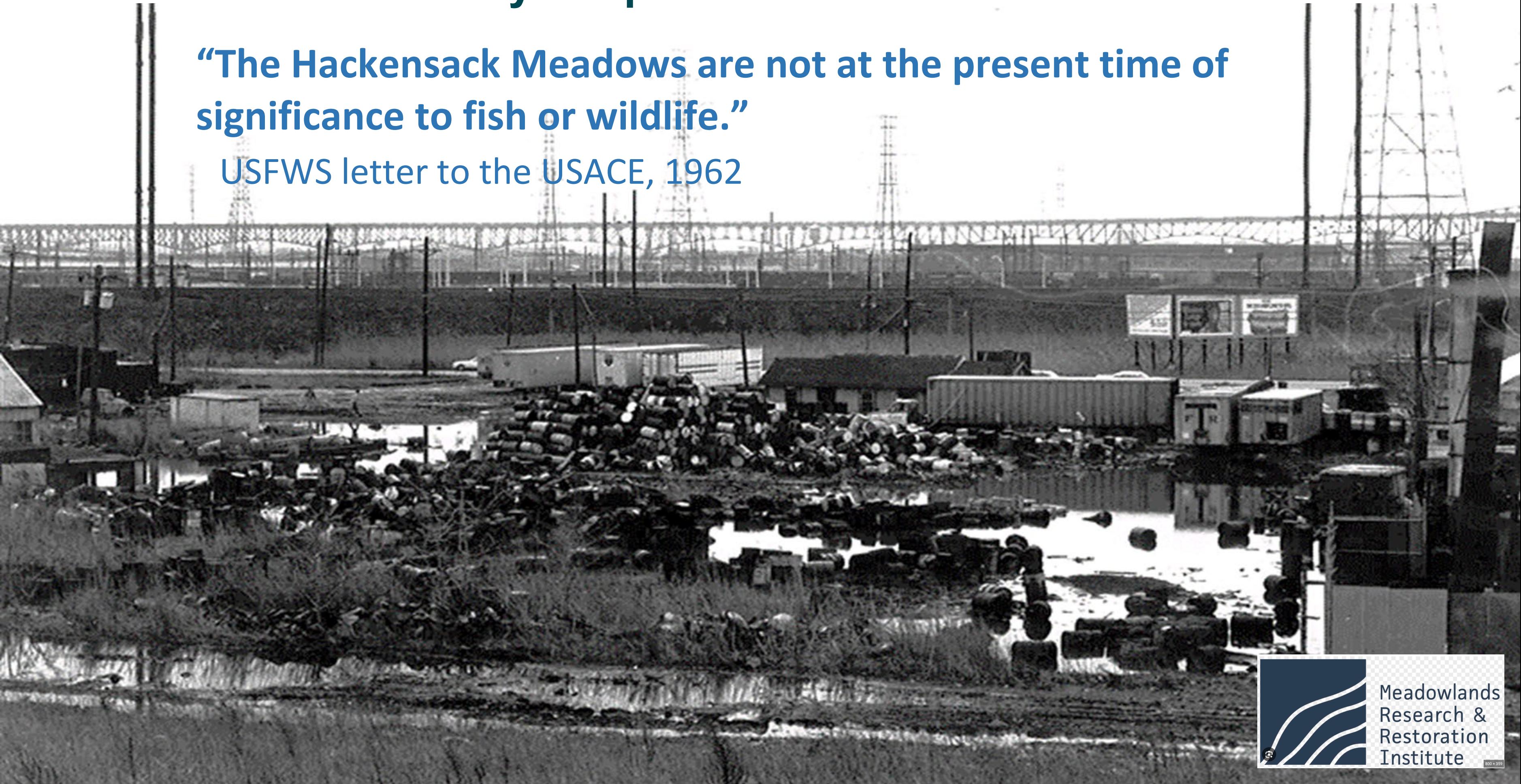
Natural Areas defined by Development and Infrastructure



Places are used as they are perceived

“The Hackensack Meadows are not at the present time of significance to fish or wildlife.”

USFWS letter to the USACE, 1962



Ecological restoration is Urgent



Landscape Design & Urban Ecological Restoration

Pippa Brashear, RLA, SCAPE Landscape Architecture

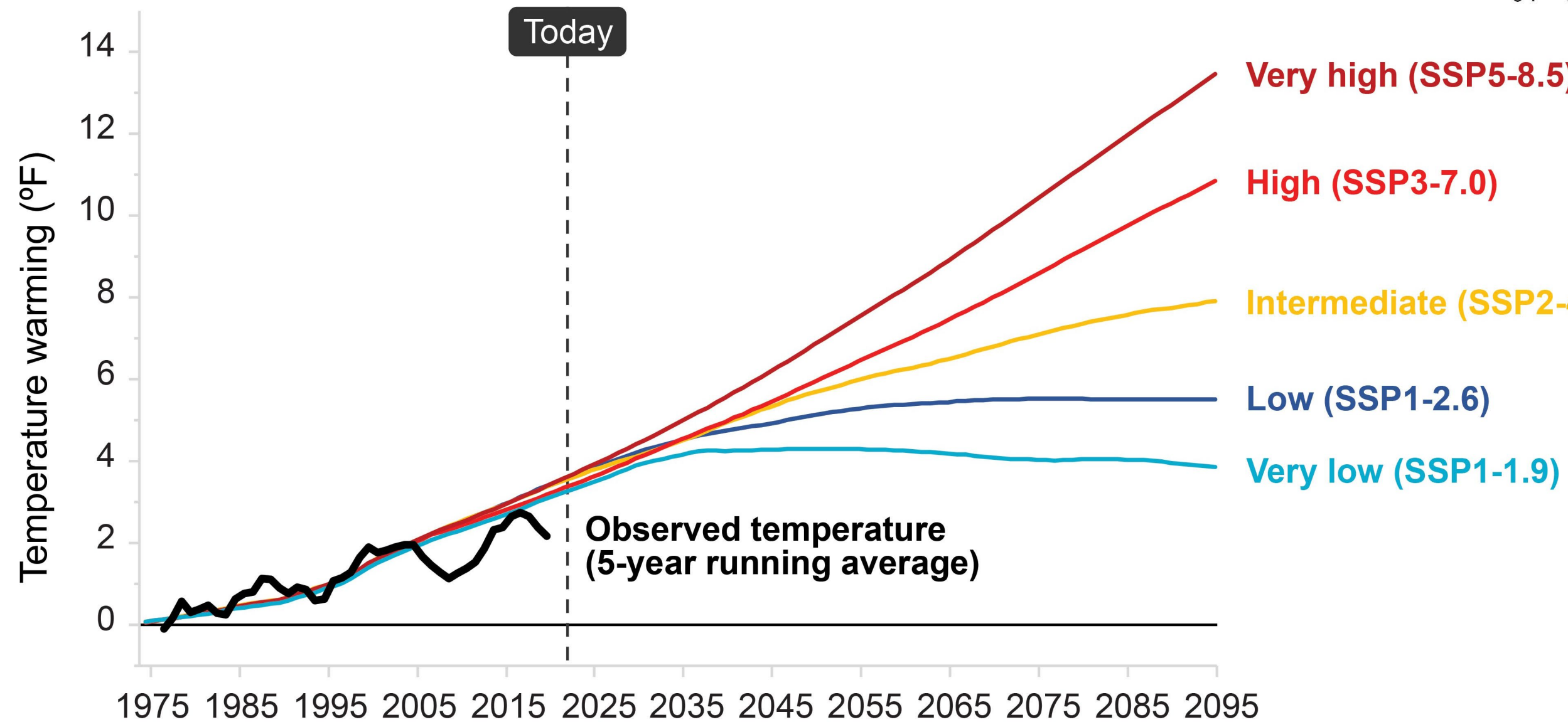
SCAPE



Our environment is changing ... rapidly.

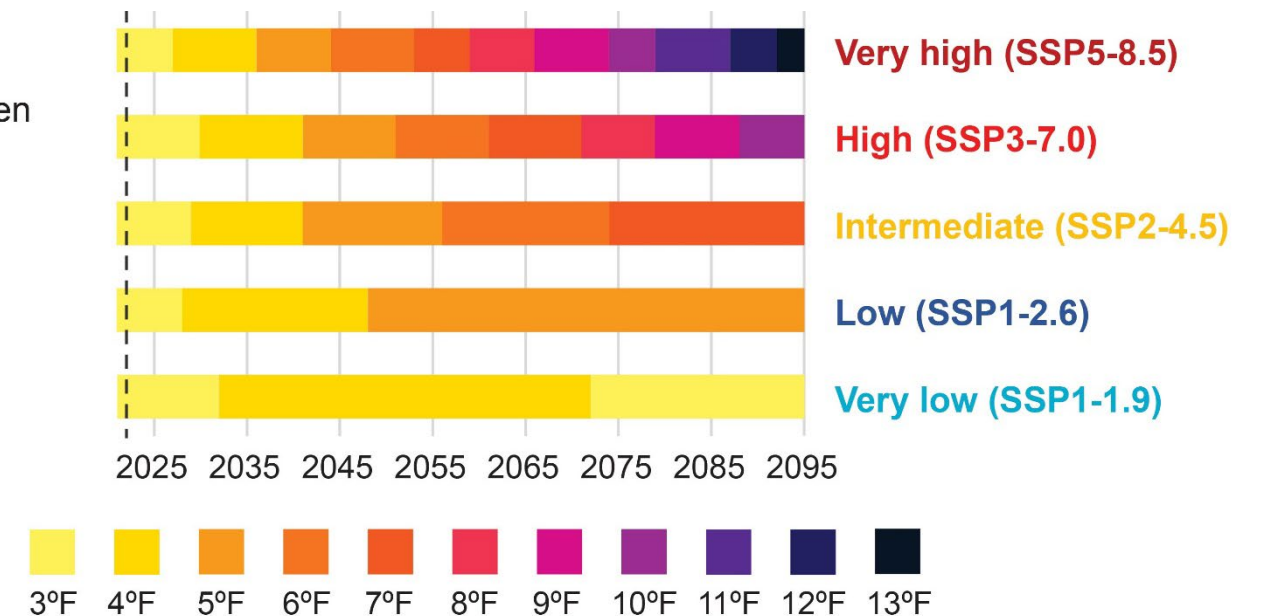
Future Warming

Future warming in the United States will depend on the total amount of global greenhouse gas emissions.



Crossing Times

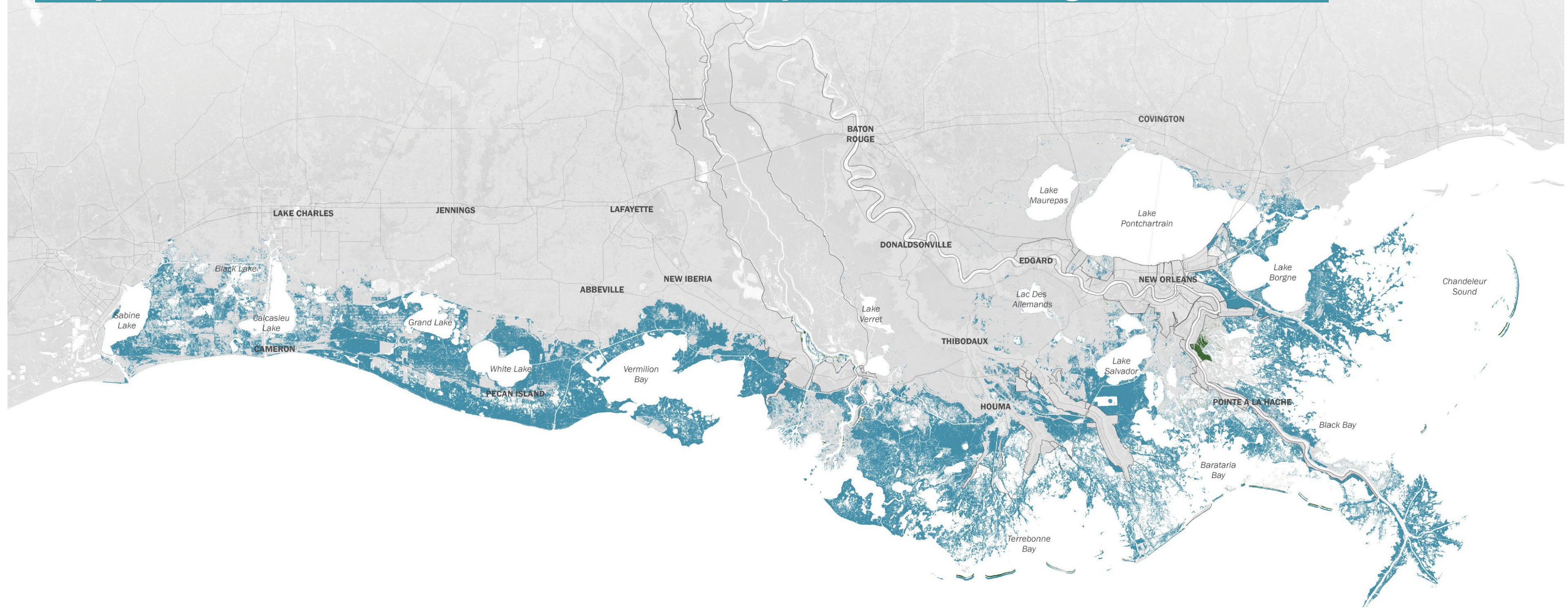
Whether—and when—a given temperature threshold is crossed depends on both the amount and rate of global greenhouse gas emissions.



Change has become
the essential element
of our time.


Lawrence Halprin
(Landscape Architect)


Impacts are felt at the scale of landscapes & urban regions.



Land conversion, without action

2024 Coastal Restoration Plan, LA

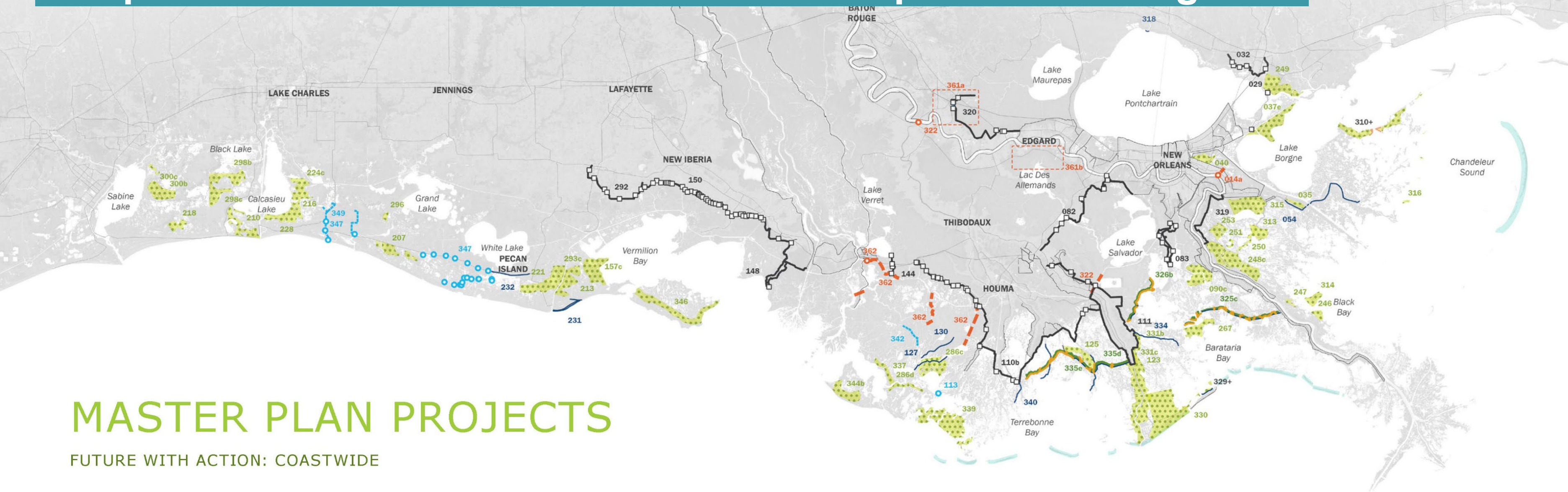
Land Gained 

Land Lost 

Map: Land Change, Future Without Action, Higher Scenario, Year 50.

Adaptation is needed at the scale of landscapes & urban regions.

Explore more on CPRA's website.
<https://coastal.la.gov/our-plan/2023-coastal-master-plan/>



MASTER PLAN PROJECTS

FUTURE WITH ACTION: COASTWIDE

The 2023 Coastal Master Plan identifies projects designed to restore, create, and maintain land; reduce flood risk to citizens and communities; and sustain habitats that support a variety of recreational and commercial activities. The restoration and risk reduction projects selected perform well with respect to future conditions and reflect a comprehensive, long-term focus and continued commitment to balancing the diverse objectives of the master plan. In addition to these specific projects, \$2.5 billion is allocated to programmatic restoration efforts, including barrier island maintenance and repair, small-scale hydrologic restoration, and local strategies, such as bank stabilization and oyster reef

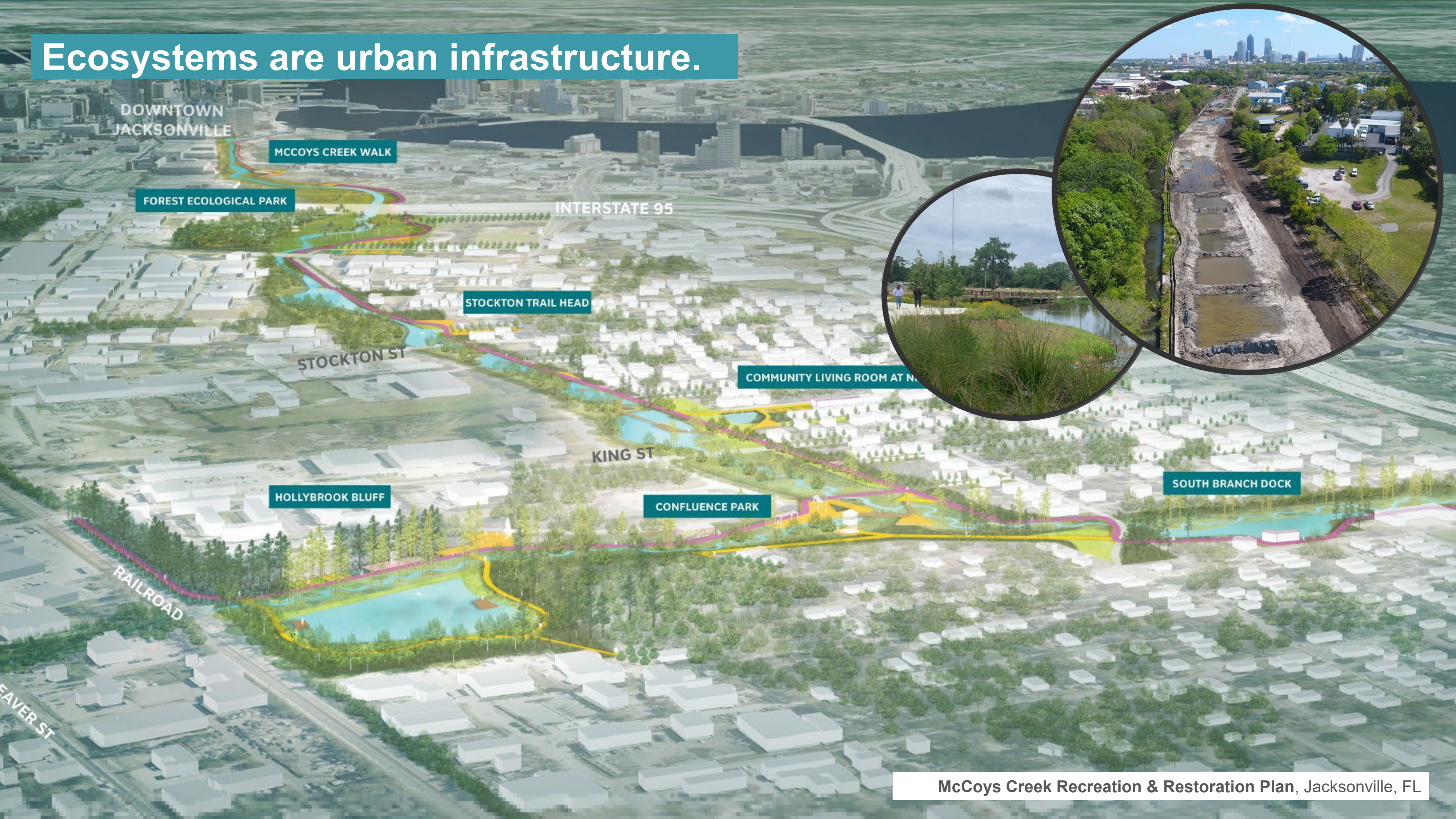
restoration. Additionally, \$11.2 billion is allocated to nonstructural risk reduction activities across the coast.

Beyond the projects, the master plan acknowledges that the coastal area is dynamic, and additional adaptation will be required to continue living, working, and playing in coastal Louisiana. The plan alone is not sufficient to respond to all of the challenges the future may bring, but it is a catalyst for coordinating local, state, and federal efforts to help address our coastal land loss crisis and threats from storm surge-based flooding. The plan also highlights the need to continue to pursue the greenhouse gas reductions that are necessary to avoid the most severe impacts of climate change.

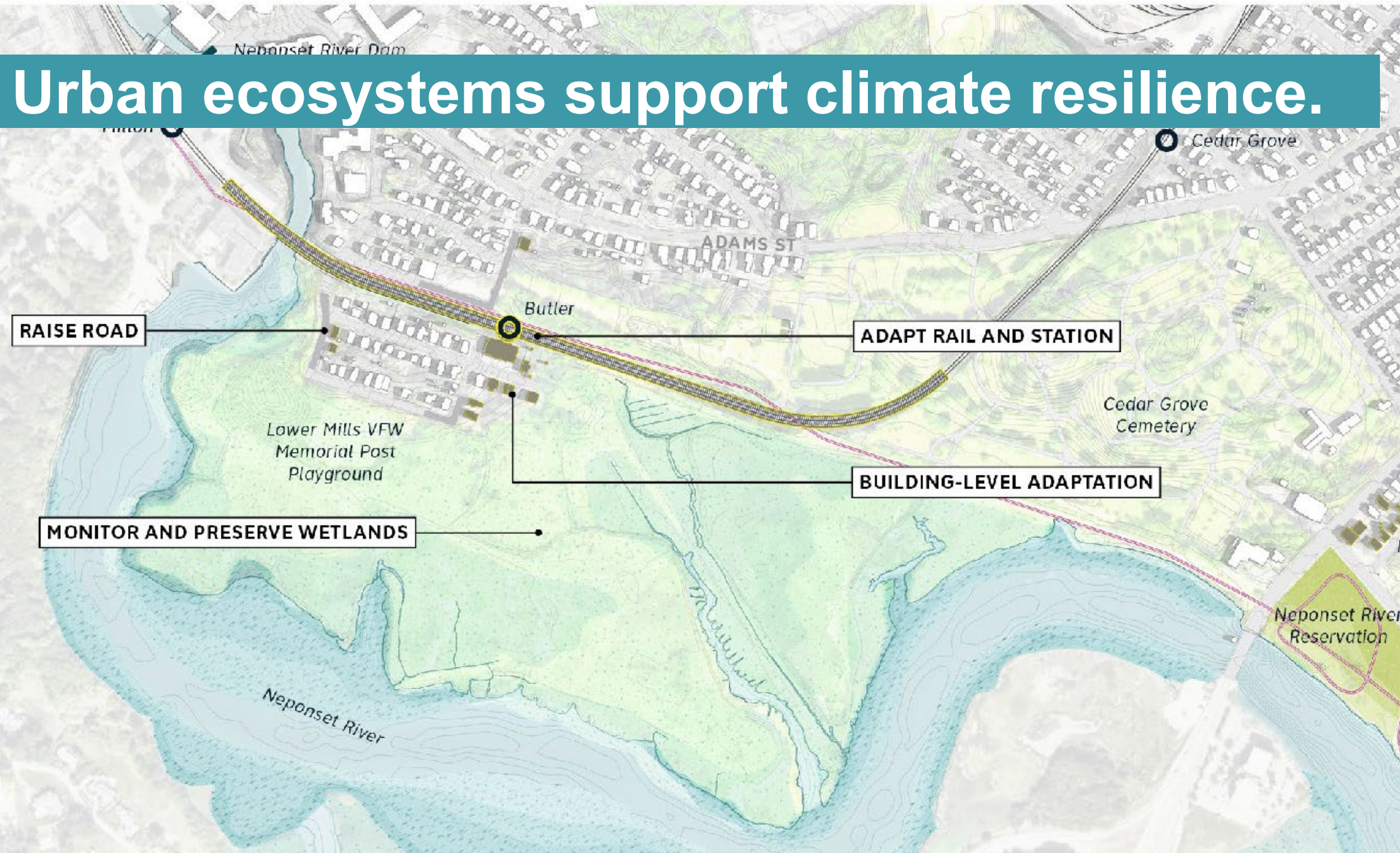


Figure 5.1: Planning Budget Allocation by Project Type in USD

Ecosystems are urban infrastructure.



Urban ecosystems support climate resilience.



1% Annual Chance Flood with 9 in of SLR (2030s) with near-term coastal resilience solutions in place



1% Annual Chance Flood with 40 in of SLR (2070s) with near-term and long-term coastal resilience solutions in place

LEGEND

- Coastal Flood Risk Area without action
- Coastal Flood Risk Area with coastal resilience solutions
- Coastal Resilience Solution (Flood Risk Reduction)
- Coastal Resilience Solution (Access, Ecology & Equity)

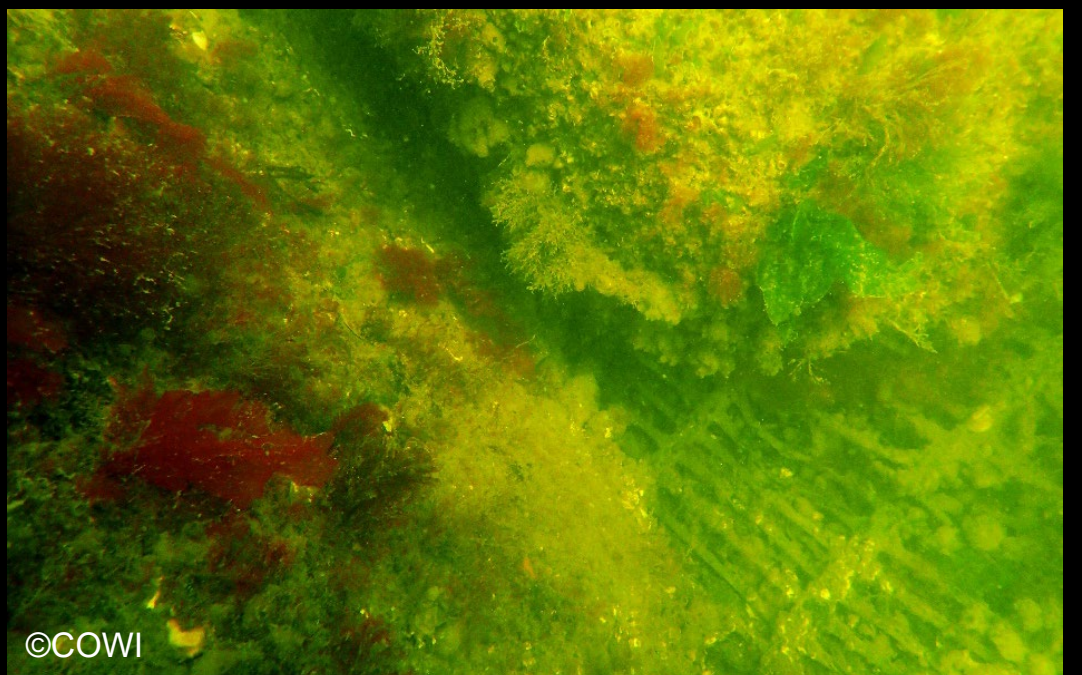
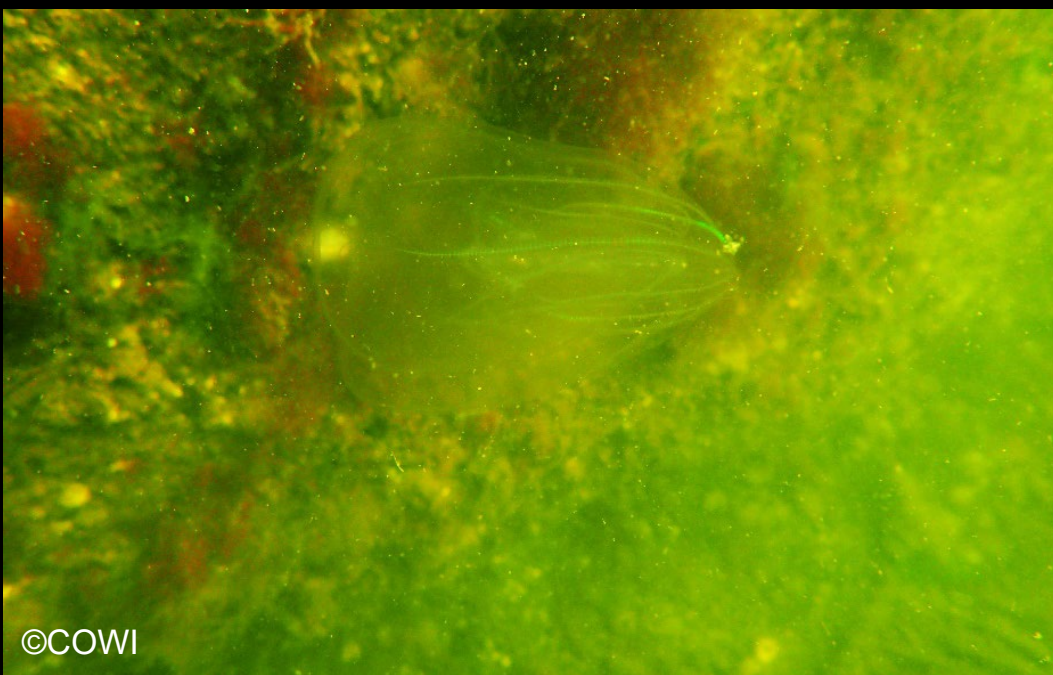
Ecosystems of tomorrow may not look like those of the past.



Historic Oyster Beds, Raritan Bay / Staten Island, NY



Living Breakwaters, Raritan Bay / Staten Island, NY
SCAPE + COWI + SEARC + ARCADIS + MFS + WSP





“The key to solving the challenges of climate change is changing human behavior, and humans aren’t going to change their behavior without a direct connection to the natural world.”

— *Pete Malinowski,*
Executive Director & Co-Founder, Billion Oyster Project

Connection, restoration, and engagement at the urban interface

James Duncan, Miami-Dade County Div. of Environmental Resource Management




Pine Rockland Restoration projects in Forest Patches



Bringing restoration stories to events in a modified shipping container



The EEL Program manages more than **84 preserves... 27,000+ acres** of native habitats.



The Environmentally Endangered Lands (EEL) Program is tasked with the responsibility to acquire, preserve, enhance, restore, conserve and maintain environmentally endangered lands for this

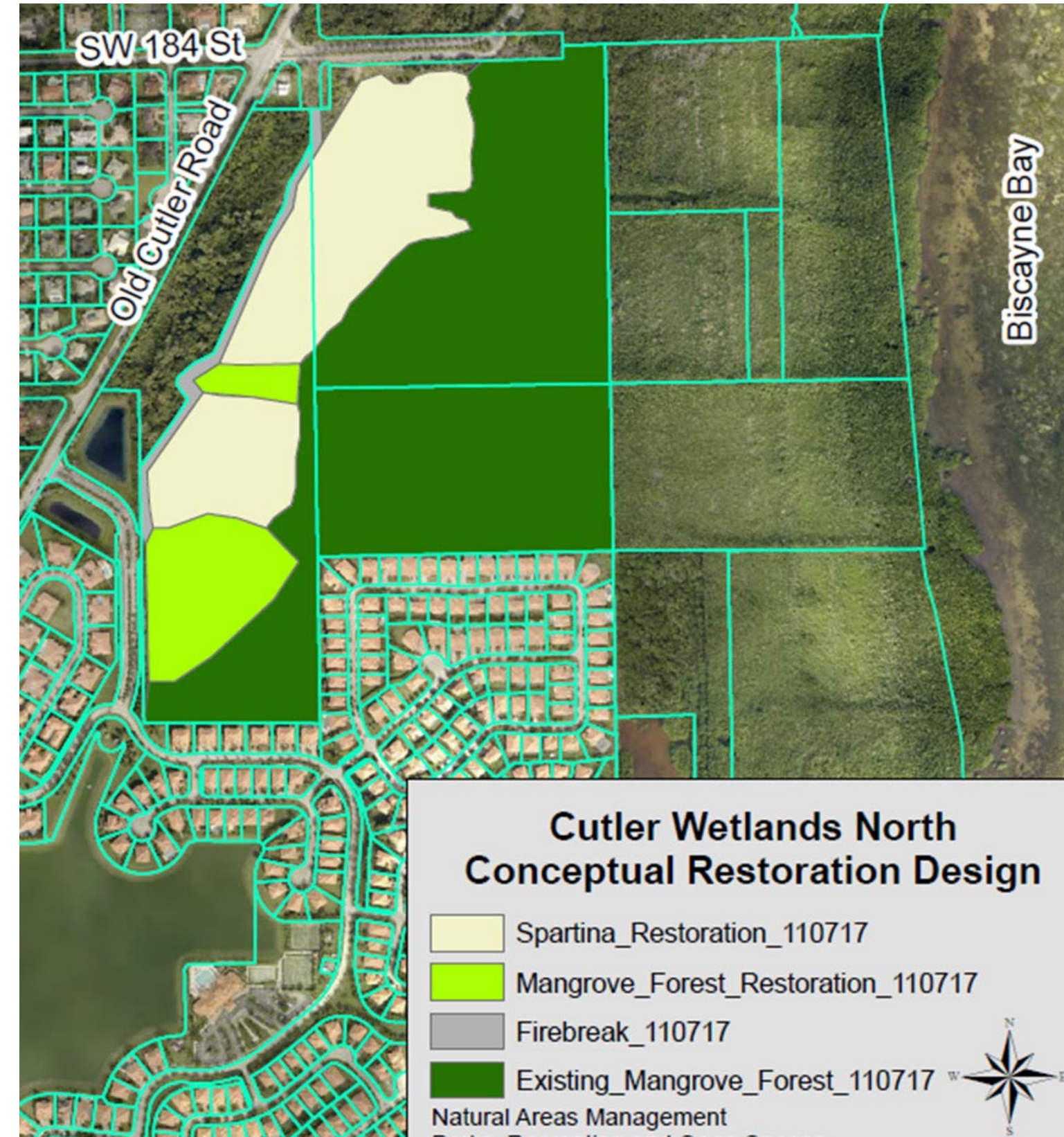


Community engagement example: Black Forest Monument



Projects To Know in Miami-Dade County

- Pine Rockland Business Plan
- Calderon Pineland/NABA Project
- Florida City Pineland/Black Forest Monument
- Deering Rehydration Project
- North Cutler Wetlands
- Matheson Hammock Project
- Restoring Connections, Rebuilding Healthy Communities: Land Conservation Approach to Environmental Services and Social Equity



West Matheson Preserve Ecological Restoration



New York City + National Partnerships and Investment Models

Sarah Charlop-Powers, Natural Areas Conservancy





Importance of Urban Restoration

- NYC Forests have 85% native canopy
- 50% of New Yorkers experience nature only in NYC Parks
- 11% of NYC is natural areas



Healthier natural areas provide more benefits



High Carbon Storage
Maximum cooling
High social benefits



Healthy Forested Area

Low Carbon Storage
Reduced cooling
Reduced social benefits



Degraded Forested Area



New York City

- Trails - park equity, volunteerism, reduce fragmentation
- Workforce - strengthen the local environmental workforce
- Policy + Advocacy - forest, wetland and trail plans





Forests in Cities: A National Network

- Strengthen a community of practice
- National research on cooling, carbon and stormwater
- Advocate for increased resources and support



<https://www.nycgovparks.org/natural-areas>

<https://meadowlandsrri.com/>

www.scapestudio.com

<https://www.miamidade.gov/>

<https://naturalareasnyc.org/>

THANK YOU!

