

RISING SEAS AND RISING TO THE OPPORTUNITY ON CAPE ANN

FROM LIVING SEAWALLS AT MARINE STATIONS TO
FLOODABLE COASTAL PARKS WITH WORKING
WATERFRONTS

ALEX MAXWELL + CHELSEA ZAKAS

CAW CLIMATE SUMMIT
JULY 18, 2024

FUSS &
O'NEILL

GUIDING PRINCIPLES

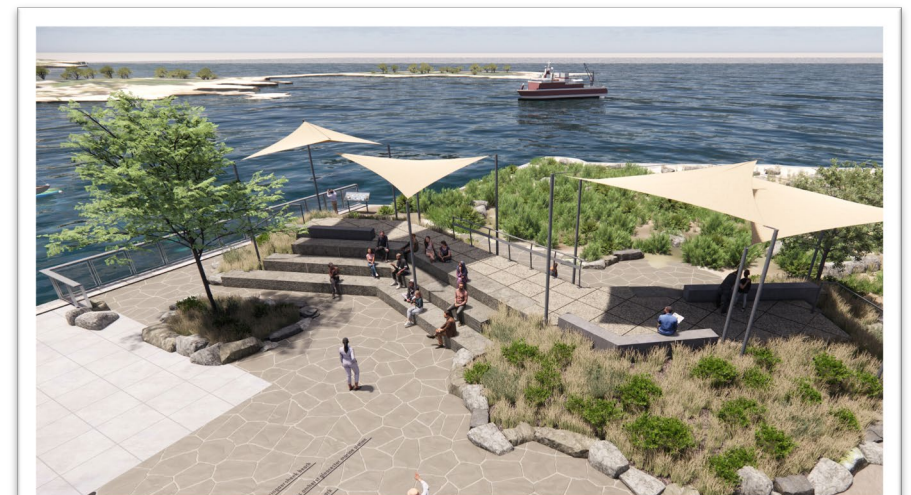
**UNDERSTAND THE
CONTEXT**



**COMMUNITY-INFORMED
VISION**

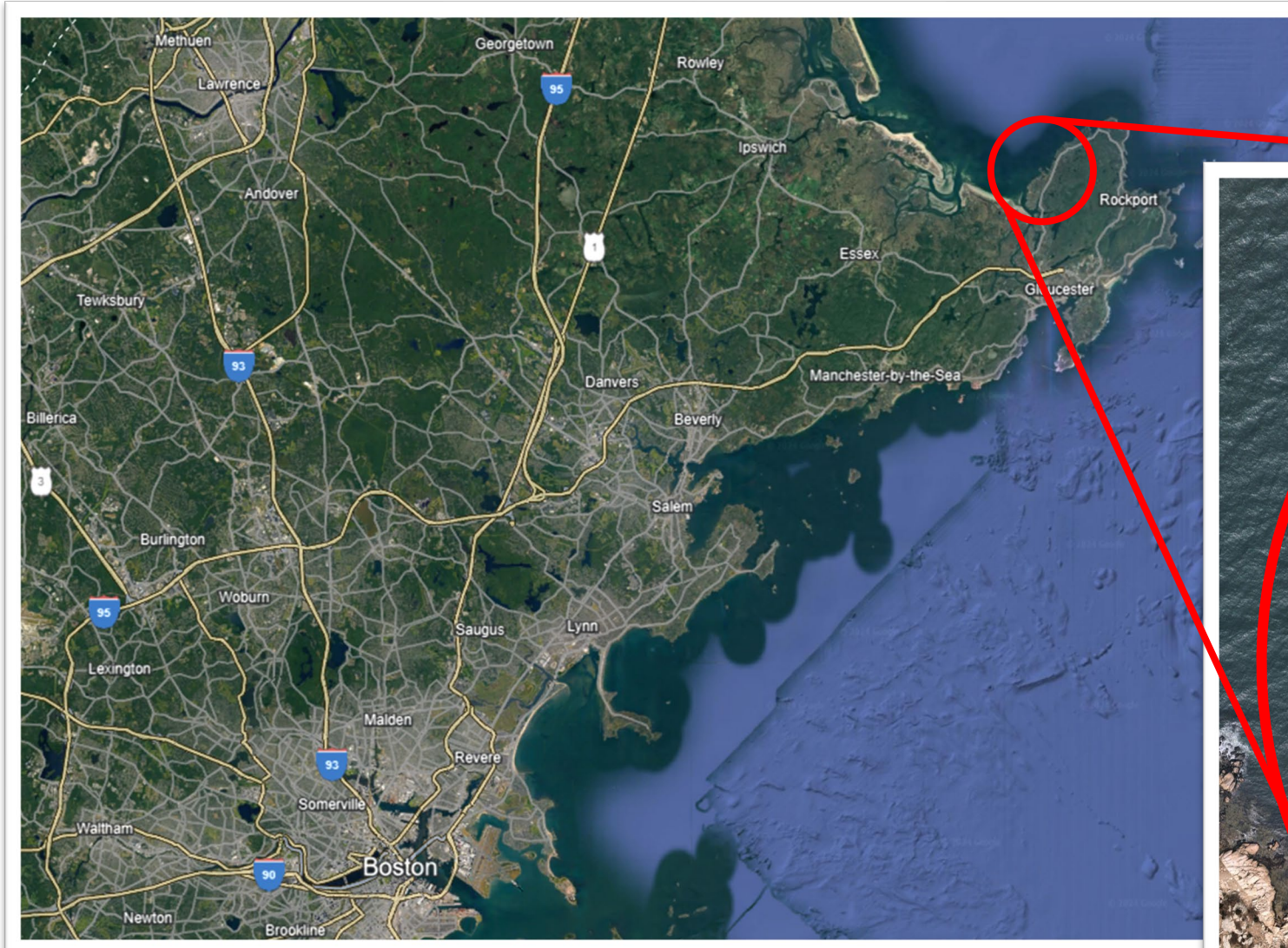


**STRIKE A BALANCE
BETWEEN A RETURN TO
NATURE + CREATIVE
ADAPTATION**



**GLOUCESTER MARINE STATION
PRIORITY SITE IMPROVEMENTS
GLOUCESTER, MA**

PROJECT LOCATION



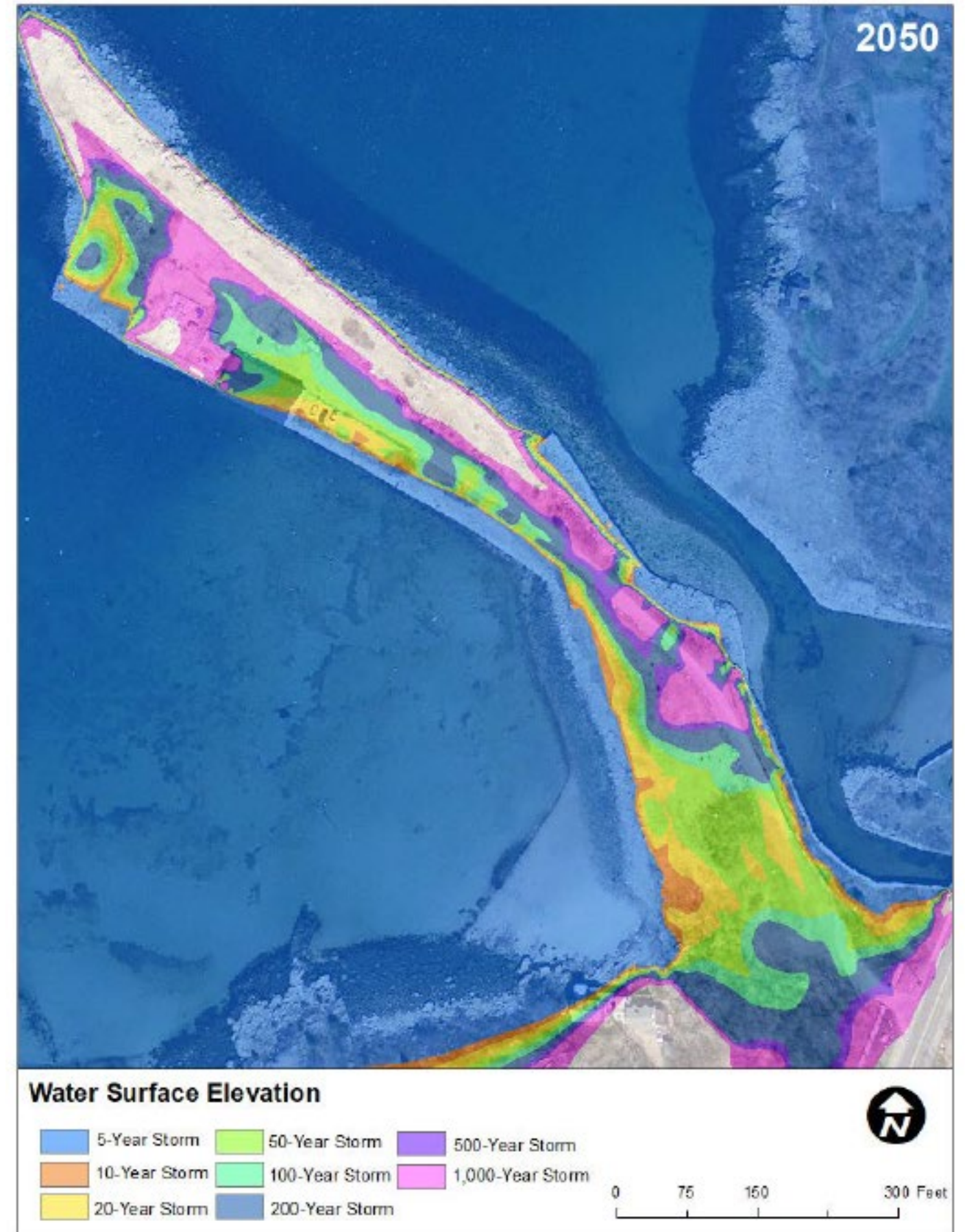
ABOUT THE PROJECT

Phase 1 project is centered on **three priority site improvements**, including:

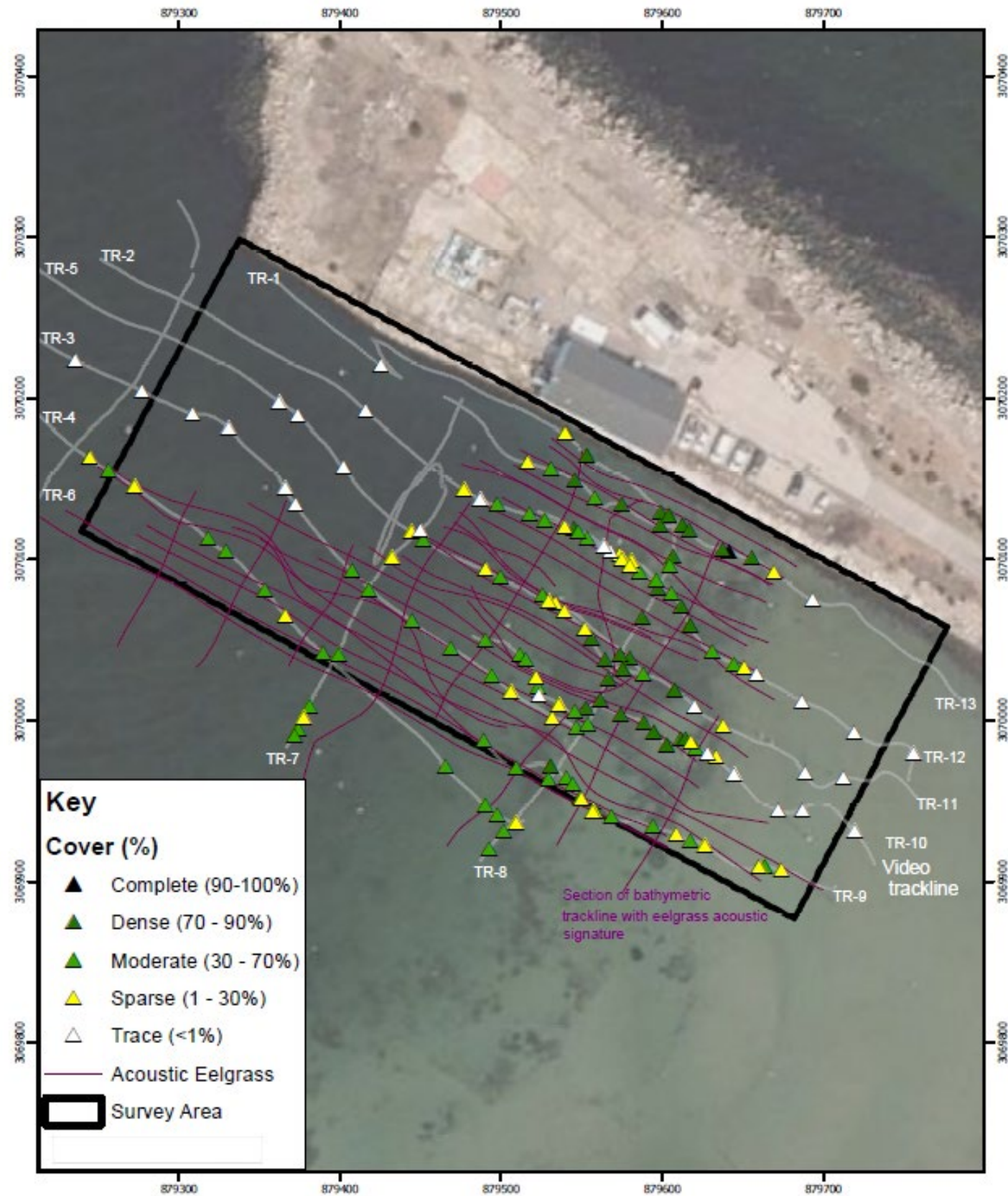
- **Dock & Crane Installations**
- **Seawall Repairs**
- **Outdoor Teaching/Research Area**



UNDERSTANDING THE CONTEXT: CLIMATE



UNDERSTANDING THE CONTEXT: ENVIRONMENT



UNDERSTANDING THE CONTEXT: HISTORY



Consolidated Lobster Co.
(1930-1960s; Babson)



Rockport Granite Co.,
1906

Rockport Granite Co. Works, Bay View, Mass.

COMMUNITY-INFORMED VISION: THE LIVING LAB



STRIKE A BALANCE: LIVING SEAWALL

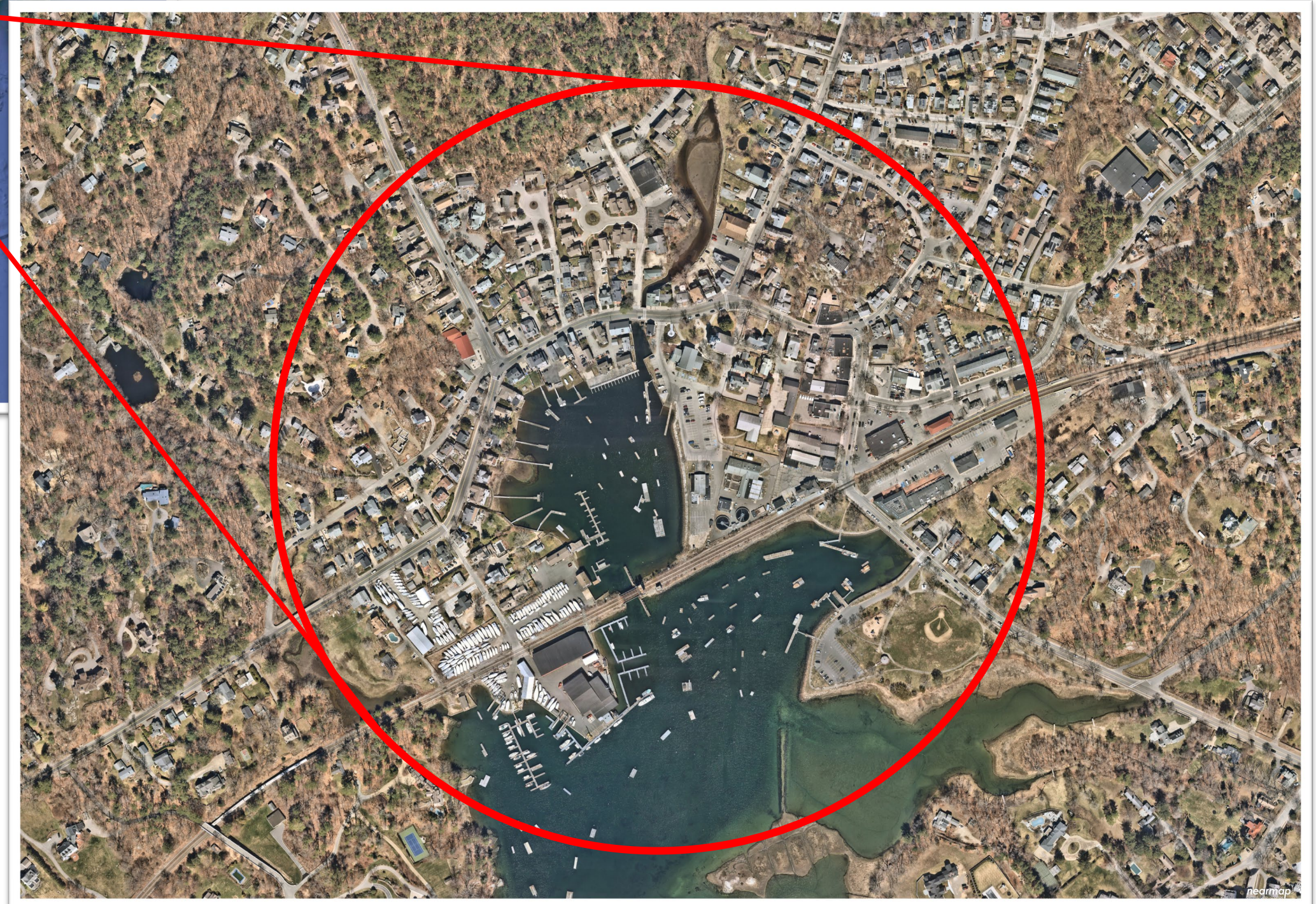
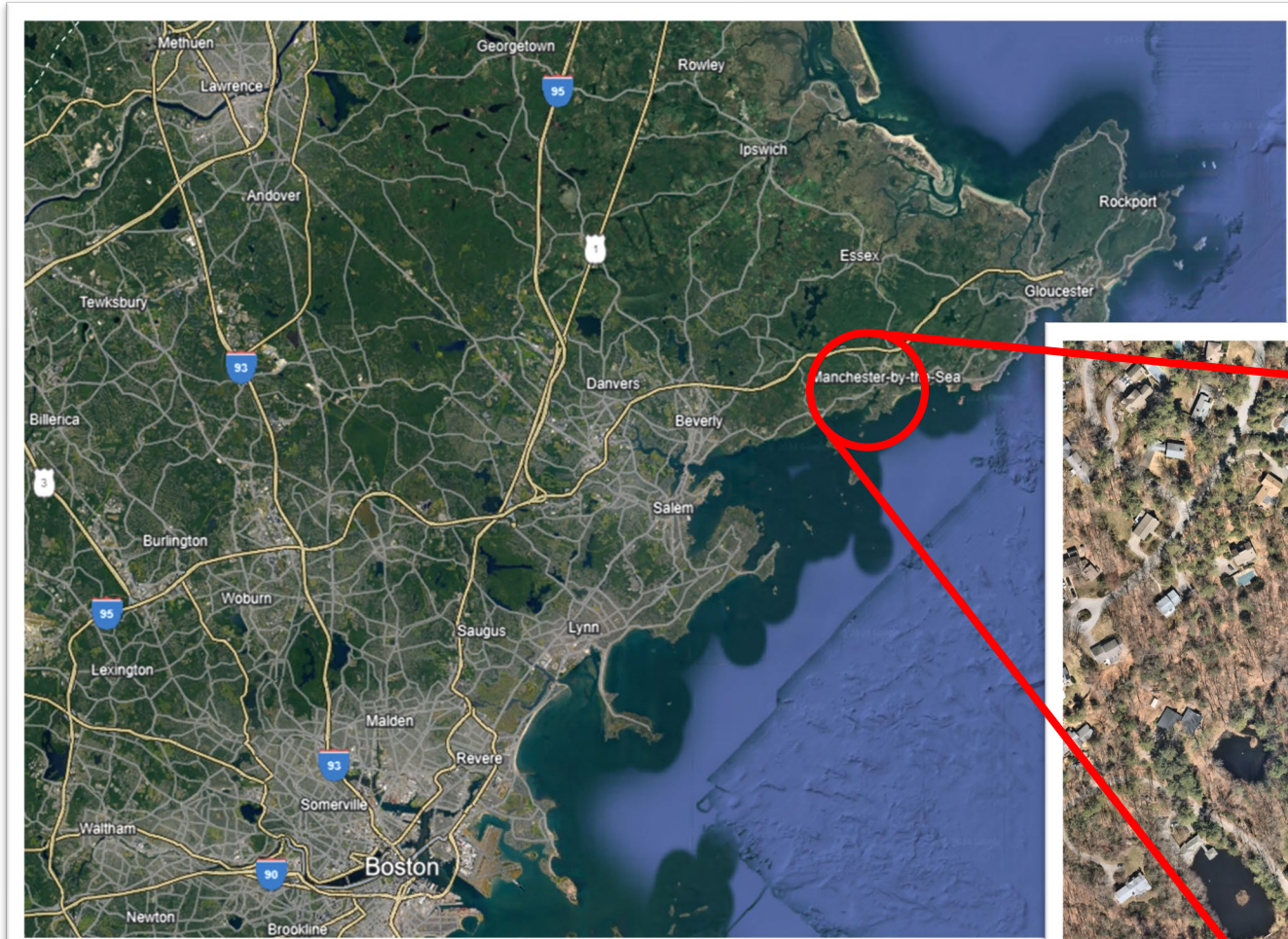


COASTAL VULNERABILITY

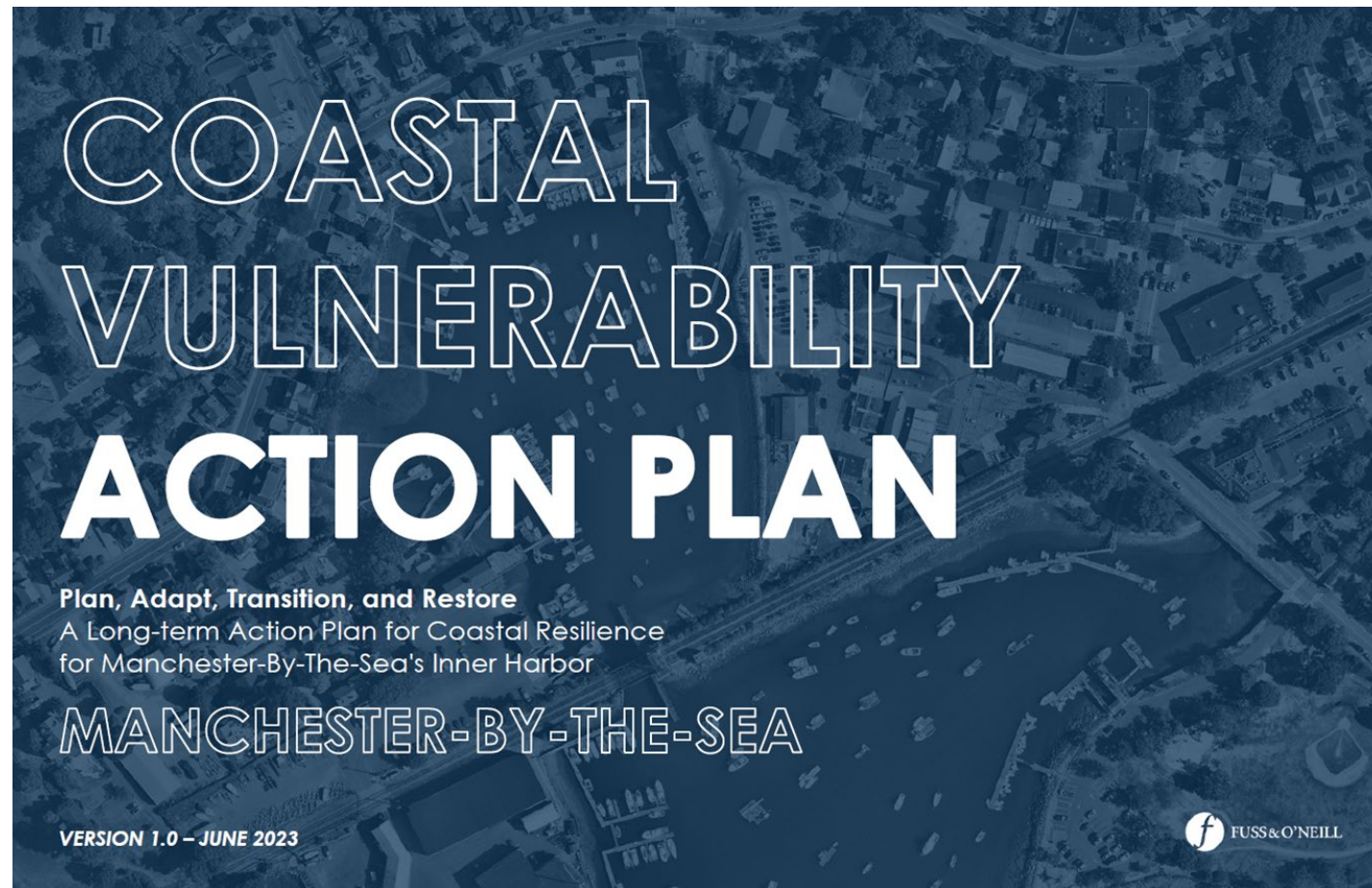
ACTION PLAN

MANCHESTER-BY-THE-SEA, MA

PROJECT LOCATION



ABOUT THE PROJECT



COASTAL VULNERABILITY ACTION PLAN

Plan, Adapt, Transition, and Restore
A Long-term Action Plan for Coastal Resilience
for Manchester-By-The-Sea's Inner Harbor

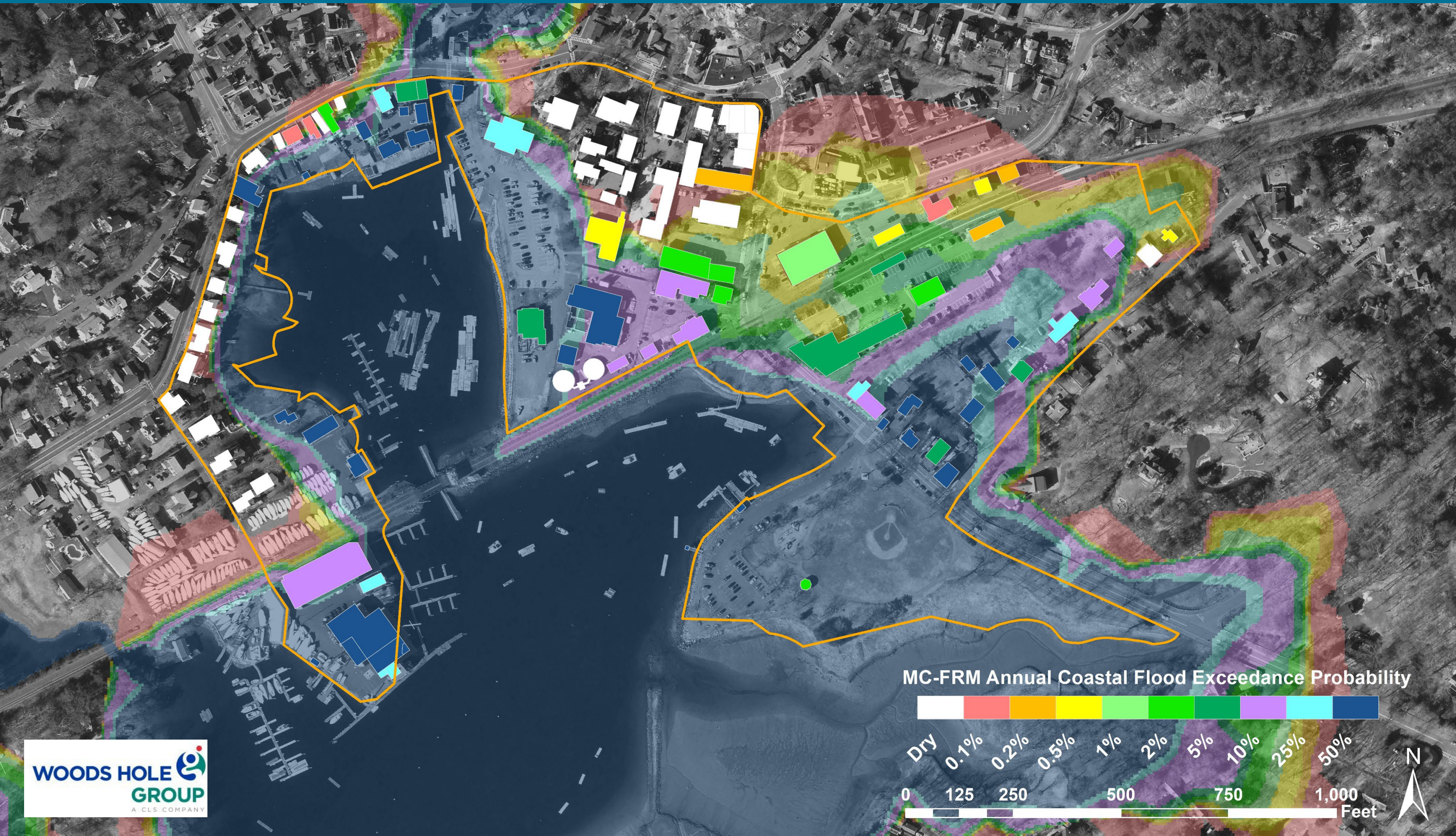
MANCHESTER-BY-THE-SEA

VERSION 1.0 – JUNE 2023

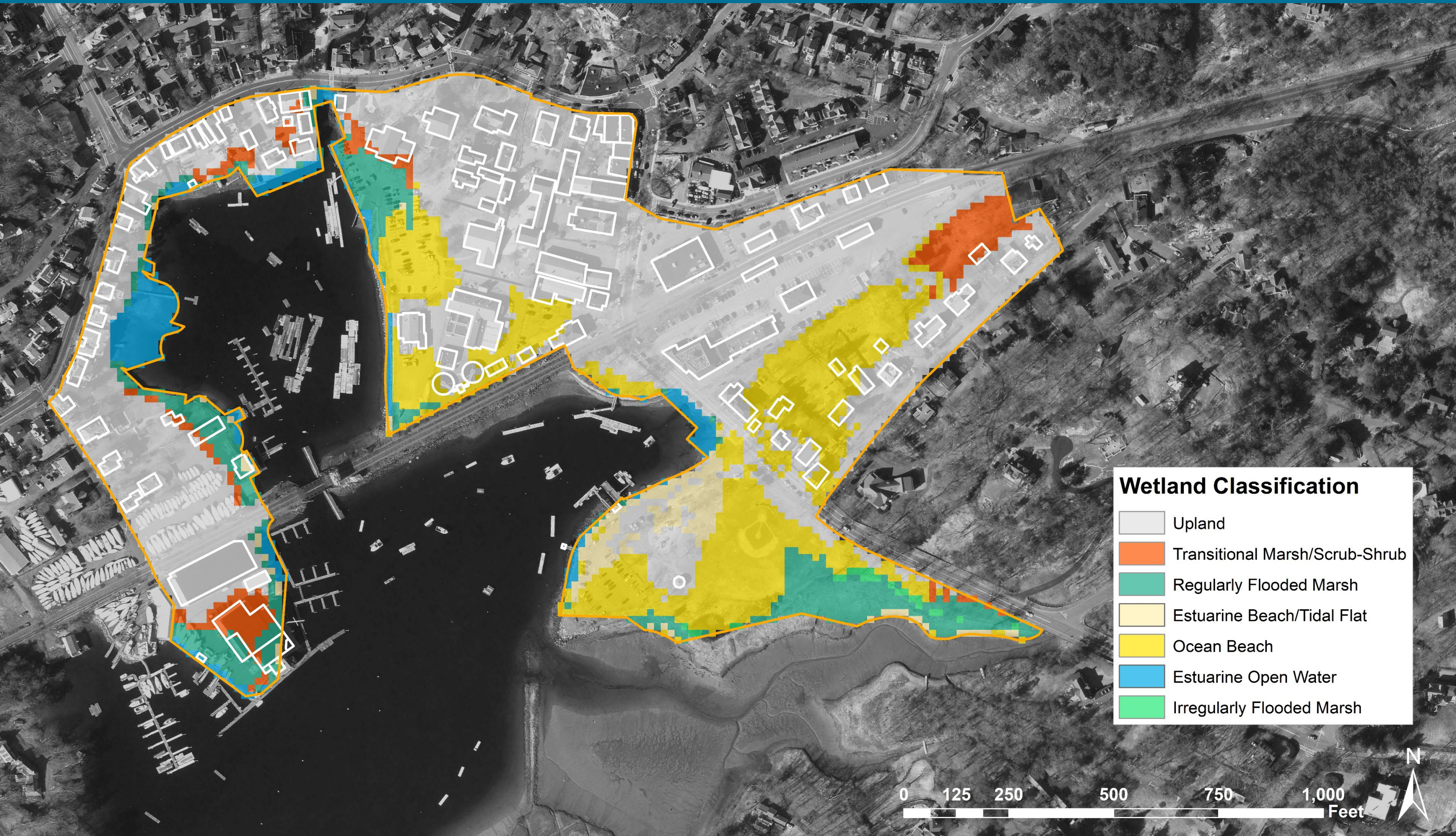
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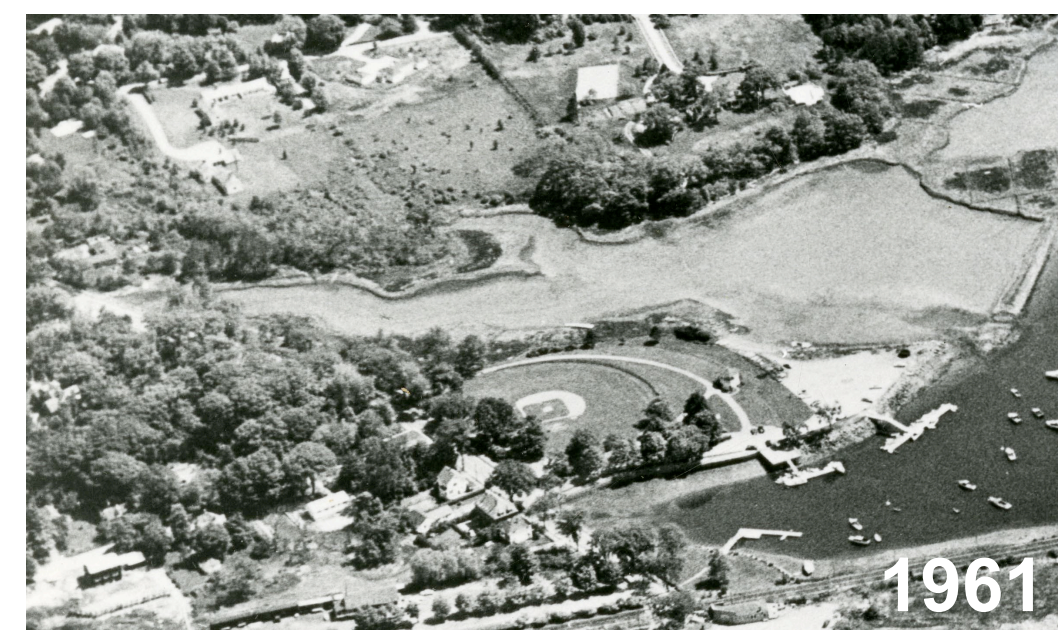
UNDERSTANDING THE CONTEXT: CLIMATE



UNDERSTANDING THE CONTEXT: ENVIRONMENT



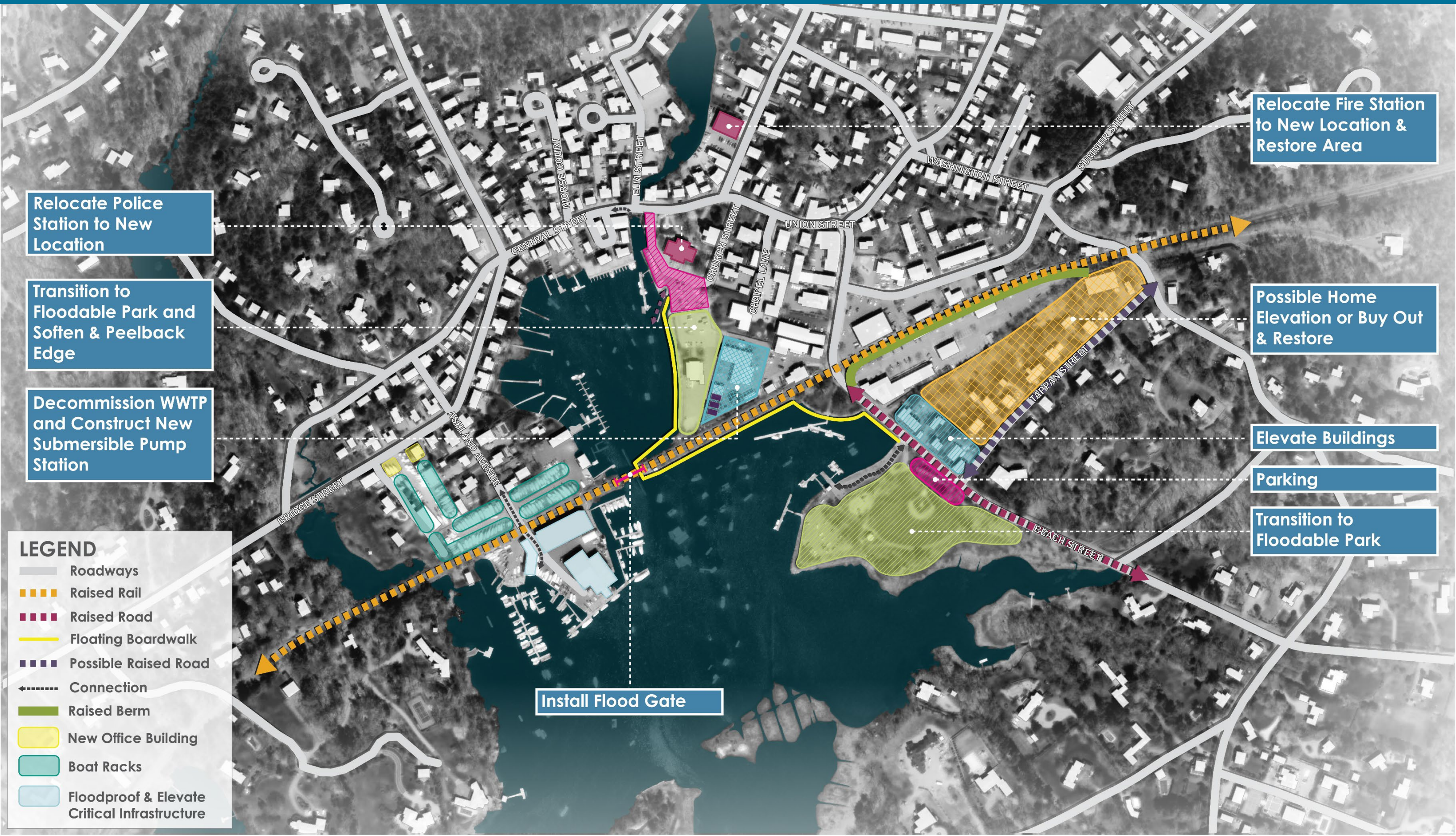
UNDERSTANDING THE CONTEXT: HISTORY



COMMUNITY-INFORMED VISION



STRIKING A BALANCE: LONG-TERM ACTIONS (RAISED RAIL AS FLOOD CONTROL STRUCTURE)



Relocate Police Station to New Location

Transition to Floodable Park and Soften & Peelback Edge

Decommission WWTP and Construct New Submersible Pump Station

Relocate Fire Station to New Location & Restore Area

Possible Home Elevation or Buy Out & Restore

Elevate Buildings

Parking

Transition to Floodable Park

Install Flood Gate

- LEGEND**
- Roadways
 - Raised Rail
 - Raised Road
 - Floating Boardwalk
 - Possible Raised Road
 - Connection
 - Raised Berm
 - New Office Building
 - Boat Racks
 - Floodproof & Elevate Critical Infrastructure

FLOODING IN THE PARK



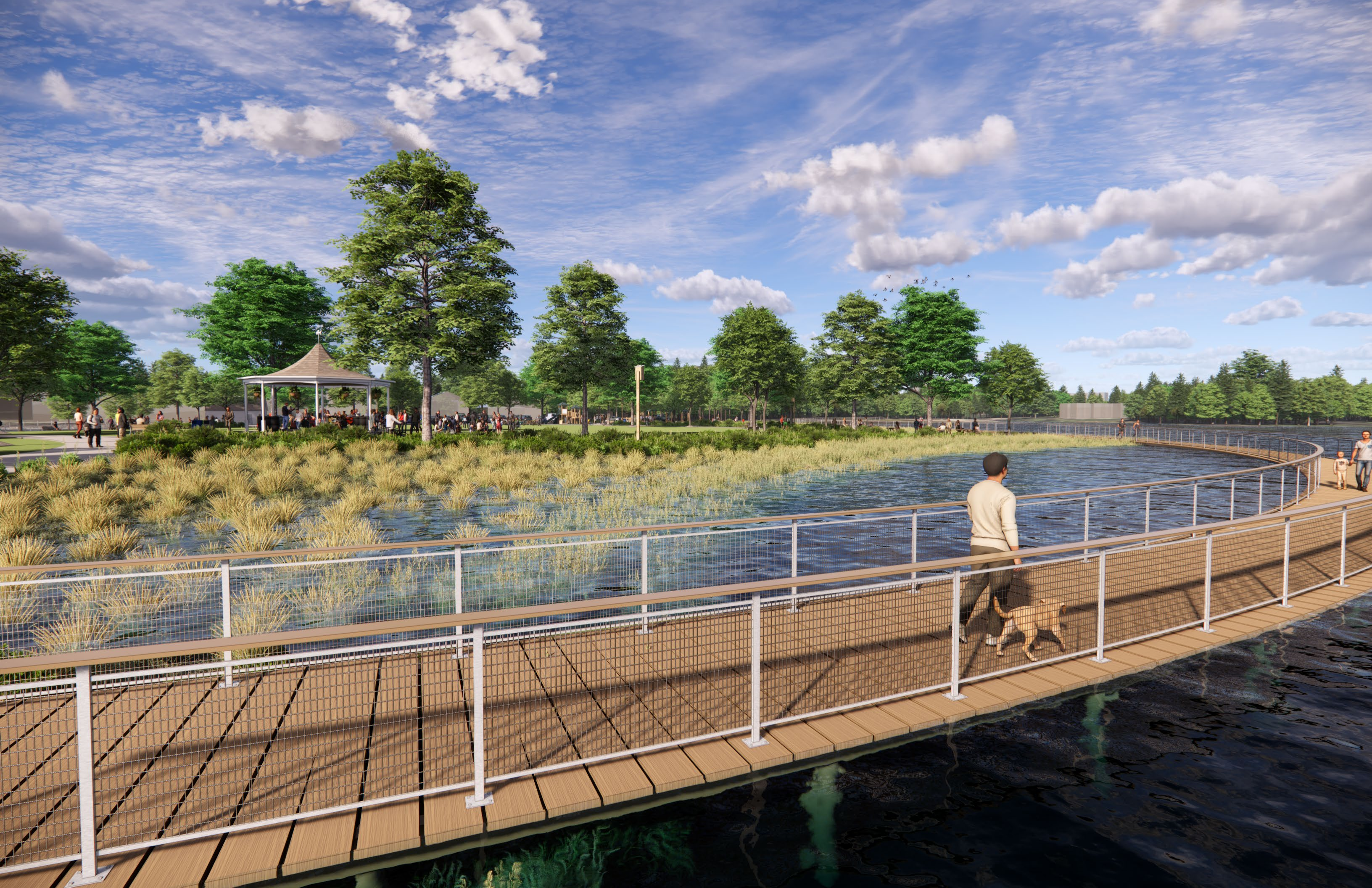
MASCONOMO PARK – DESIGN CONCEPT

1. Reconfigured public parking
2. Parking for working waterfront
3. Bathroom/Harbormaster office
4. Elevated band stand
5. Expanded tot lot playground with new ADA surfacing
6. Expanded older kids playground with new ADA surfacing
7. Flexible event lawn
8. Secondary lawn area
9. Boardwalk
10. Terraced habitat exploration area
11. Overlook seating
12. Connection to future harbor walk



2050 MHHW EXTENTS





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O'NEILL**

Solve better. **Go further.**