

2021 CLIMATE SUMMIT
New Hampshire Coastal Adaptation Workgroup

PRESCOTT PARK'S RESILIENCY STRATEGY

May 26, 2021 @ 3:00 PM

TODAY'S TOPICS:

- 2017 Master Plan
- Current Flooding Conditions
- Resiliency Strategy
- Updated 2020 Master Plan



Weston & Sampson SM

MASTER PLAN, 2017



PEIRCE ISLAND ROAD

MECHANIC STREET

MARCY STREET

MEMORIAL BRIDGE

LIBERTY LAWN

HOVEY FOUNTAIN

NEW FORMAL GARDEN

ART

TRIAL GARDENS

ART

STAGE

THE SHAW

PERFORMANCE LAWN

PUBLIC FORUM

WATERFRONT

THE SHEAFE

WHALE SCULPTURE

BOARDWALK

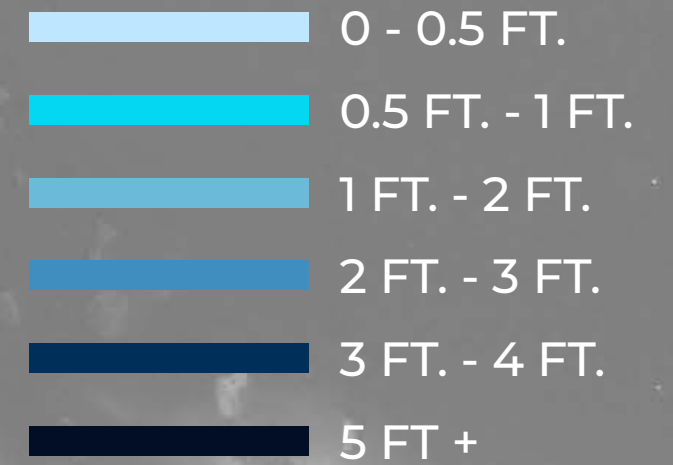
FOUR TREE ISLAND

0 50 100 200FT



**MAX FLOOD ELEVATION:
10.2' NAVD88**

INUNDATION DEPTHS:



**Sheafe Warehouse
+/- 10.0'**

**Shaw Warehouse
+/- 6.2'
+/- 6.5'
+/- 7.9'**

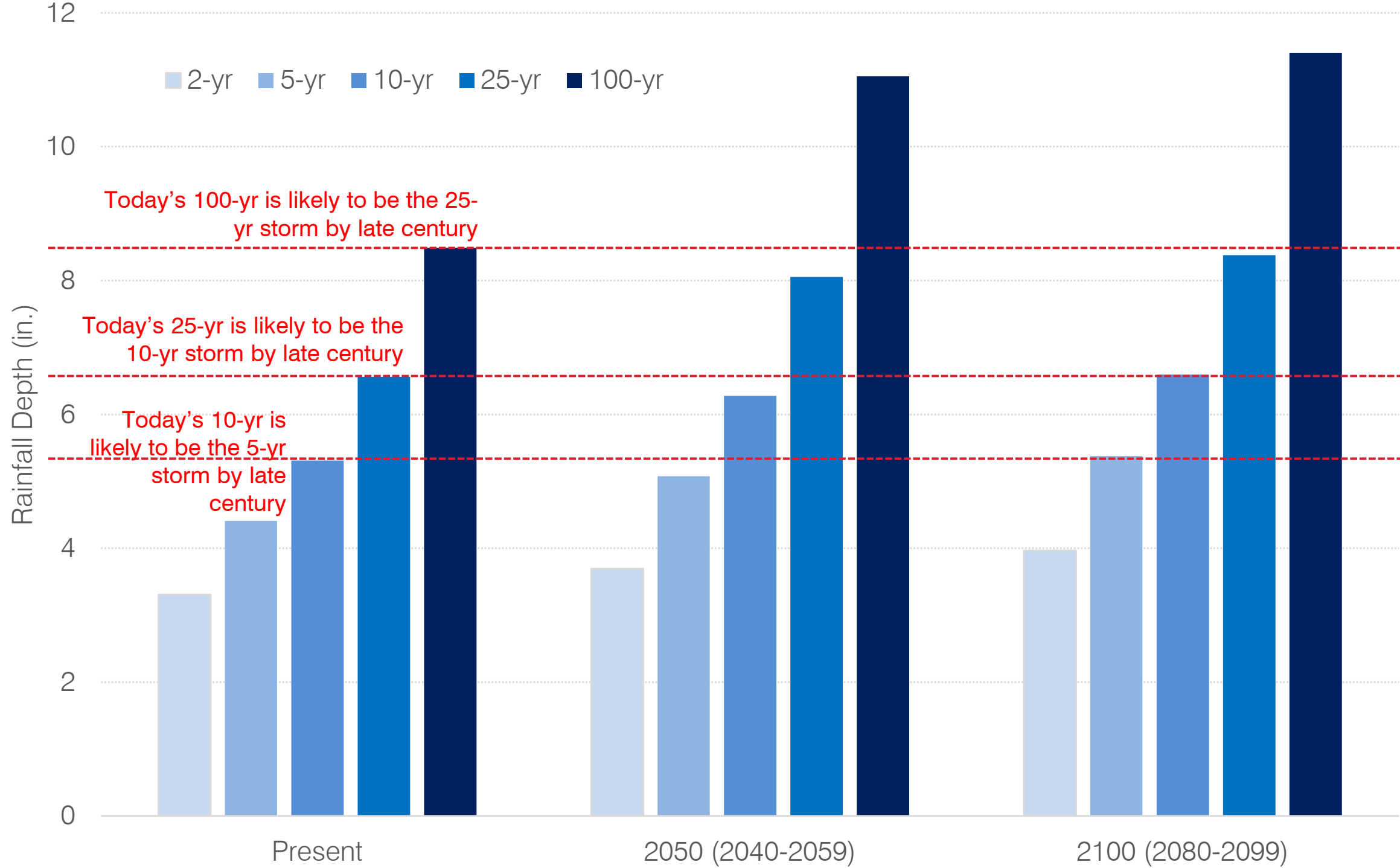
**The Player's Ring
8.9' - 9.1'**

**FLOODING UNDER
TODAY'S HIGH TIDE
DURING A 100 YEAR
STORM**



Scale In Feet

STORMWATER FLOODING IMPACTS



Source: Climate change projections for Portsmouth by Dr. Cameron Wake as part of NHDES publication on New Hampshire Coastal Flood Risk Summary Part 1: Science, released September 3rd, 2019

RESILIENCY STRATEGY



PROTECT

PROTECT THE PARK BY IMPROVING SEA WALL INFRASTRUCTURE, ADDING TIDE GATES, AND MANAGING ON-SITE STORMWATER



RETREAT

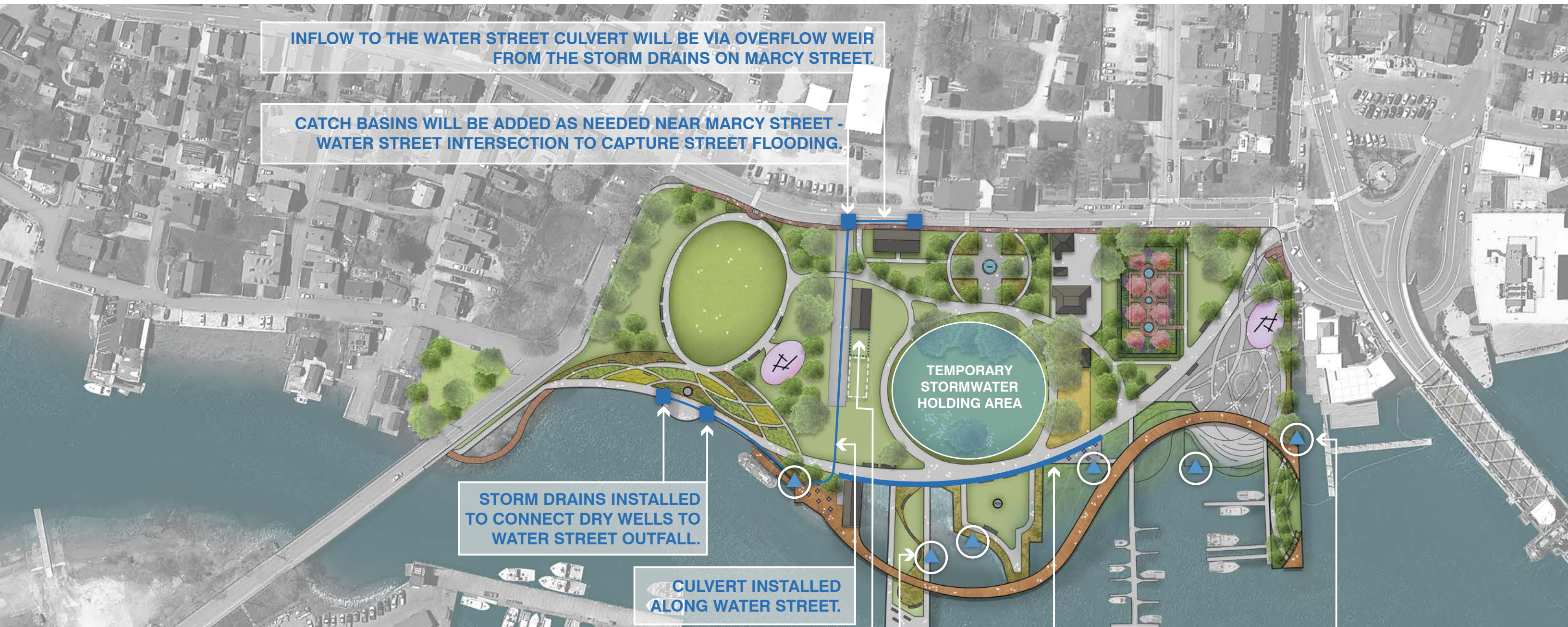
RETREAT FROM SEA LEVEL RISE BY RAISING & SHIFTING THE SHAW TO A HIGHER ELEVATION TOWARDS MARCY STREET



ACCOMMODATE

ACCOMMODATE FOR FLOODING BY CREATING TEMPORARY ABOVE GROUND STORMWATER HOLDING DURING PEAK STORM EVENTS

PROPOSED INTERVENTIONS



INFLOW TO THE WATER STREET CULVERT WILL BE VIA OVERFLOW WEIR FROM THE STORM DRAINS ON MARCY STREET.

CATCH BASINS WILL BE ADDED AS NEEDED NEAR MARCY STREET - WATER STREET INTERSECTION TO CAPTURE STREET FLOODING.

STORM DRAINS INSTALLED TO CONNECT DRY WELLS TO WATER STREET OUTFALL.

CULVERT INSTALLED ALONG WATER STREET.

MOVING AND RAISING THE SHAW WAREHOUSE.

OUTFALL TO BE LOWERED AND UP-SIZED TO ACCOMMODATE ADDITIONAL RUNOFF.

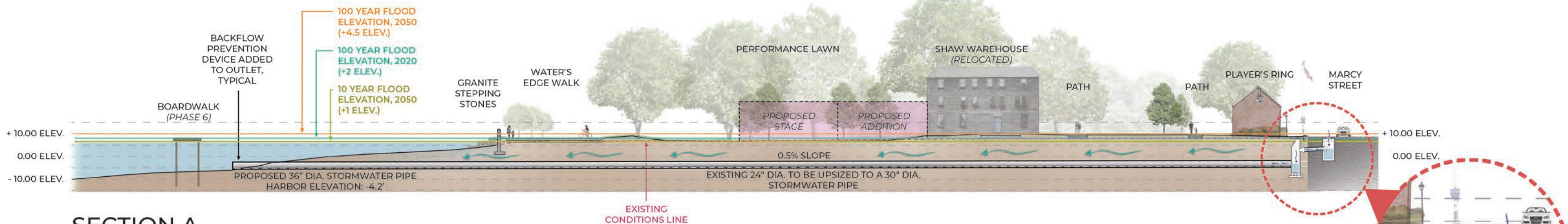
RAISING AND IMPROVING THE SEA WALL.

ALL EXISTING OUTFALLS WILL HAVE TIDE GATES IF NOT ALREADY IN PLACE.

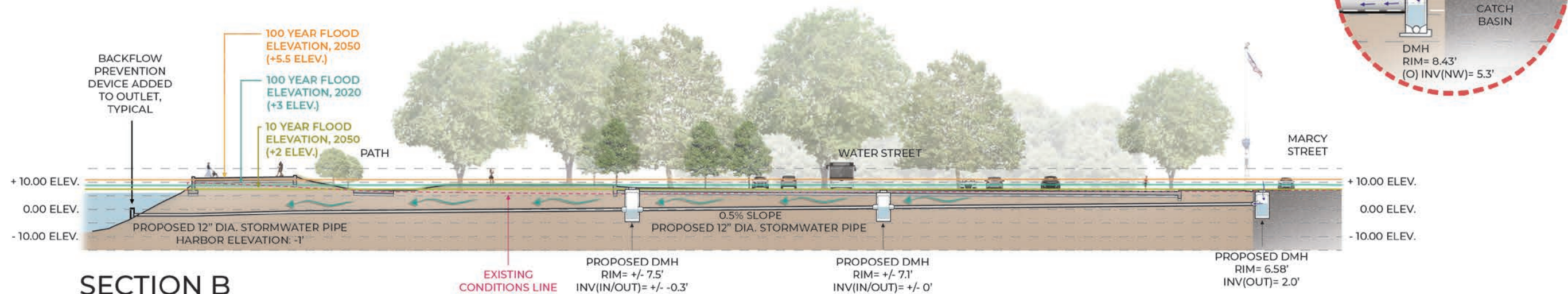
Proposed Conditions Improvements under Baseline Climate Scenario

Flooding Area	Existing Conditions	Proposed Conditions	
	Flooding (MG)	Flooding (MG)	% Reduction
Prescott Park	0.295	0.000	100%
Marcy & Water St.	0.279	0.000	100%
Total	0.574	0.00	100%

PROPOSED INTERVENTIONS



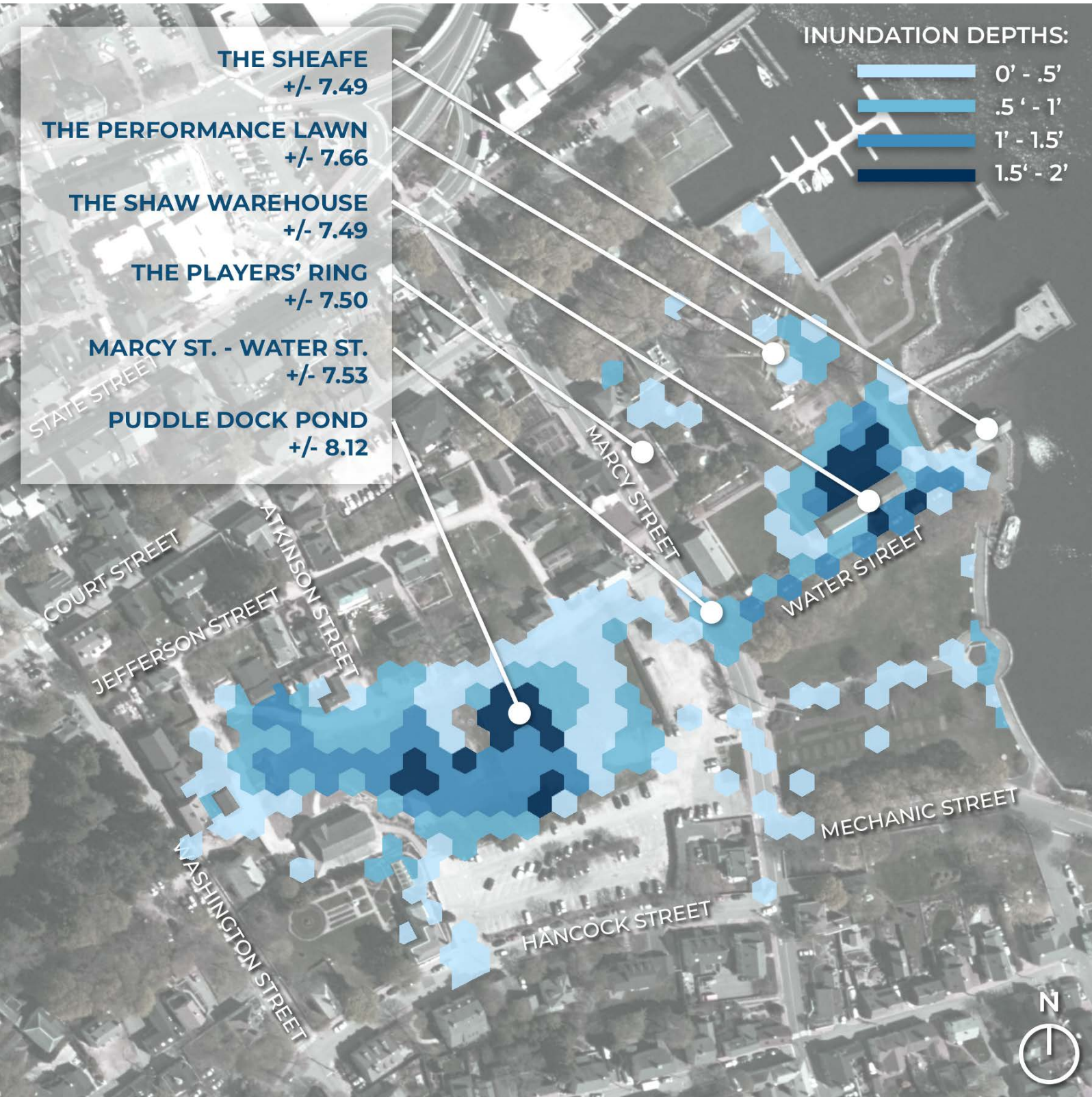
SECTION A
THROUGH THE PERFORMANCE LAWN



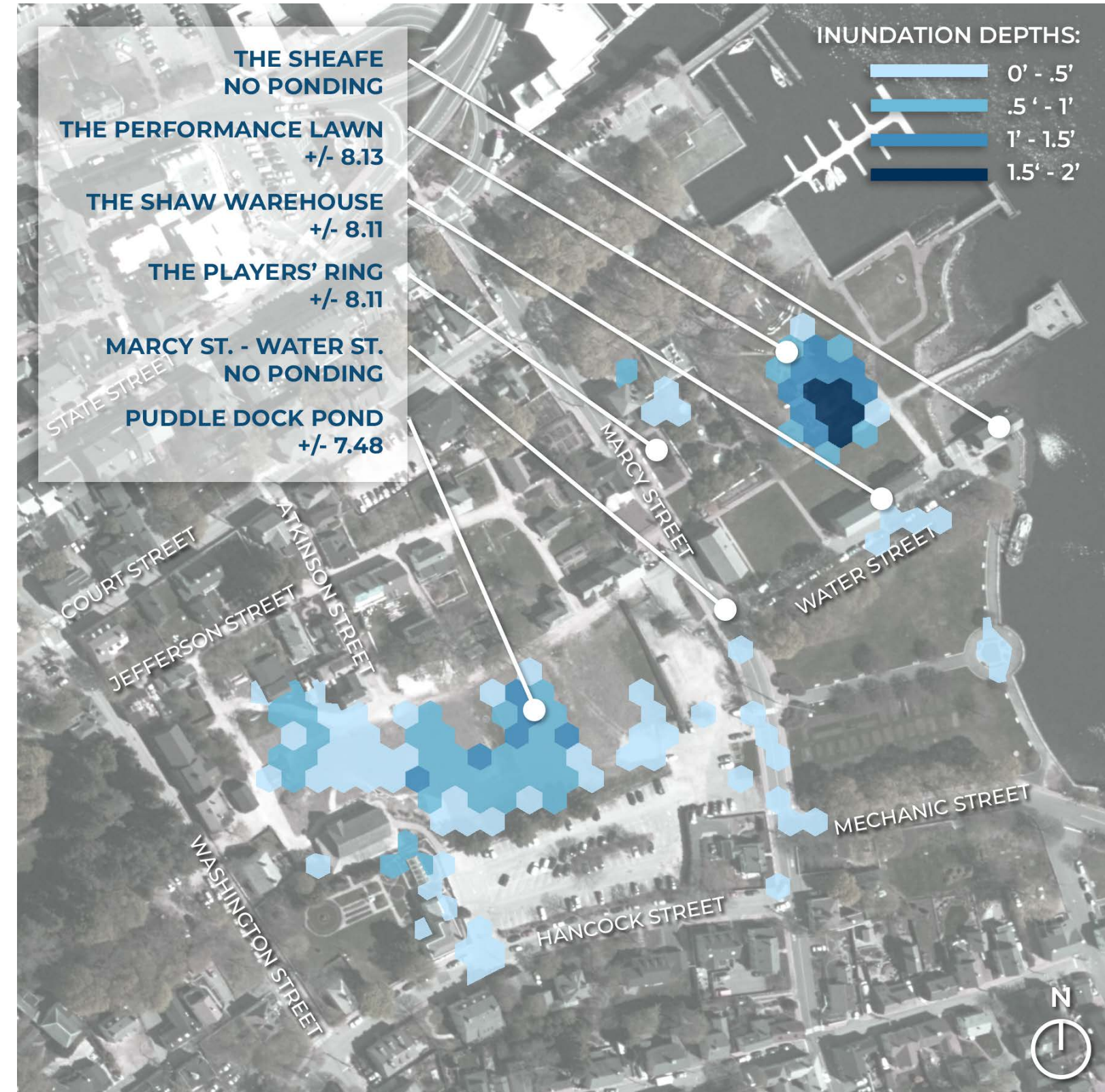
SECTION B
THROUGH WATER STREET

PROJECTED IMPROVEMENTS

10-YR FLOOD UNDER EXISTING CONDITIONS



10-YR FLOOD UNDER PROPOSED CONDITIONS



UPDATED MASTER PLAN, 2020



LIBERTY LAWN

TRIAL GARDENS

ART

THE SHAW

ADDITION STAGE

PERFORMANCE LAWN

HOVEY FOUNTAIN

NEW FORMAL GARDEN

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PEIRCE ISLAND ROAD

MECHANIC STREET

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MARCY STREET

MEMORIAL BRIDGE

PROPOSED RELOCATED MAINTENANCE FACILITY

FOUR TREE ISLAND

0 50 100 200FT



KEY TAKEAWAYS:

- **Protect** by adjusting sea walls and improving critical infrastructure.
- **Retreat** by moving and raising important maritime architecture.
- **Accommodate** by regrading and creating preferential flood pathways and temporary above ground stormwater storage.

Thank You!
Questions & Comments?

