

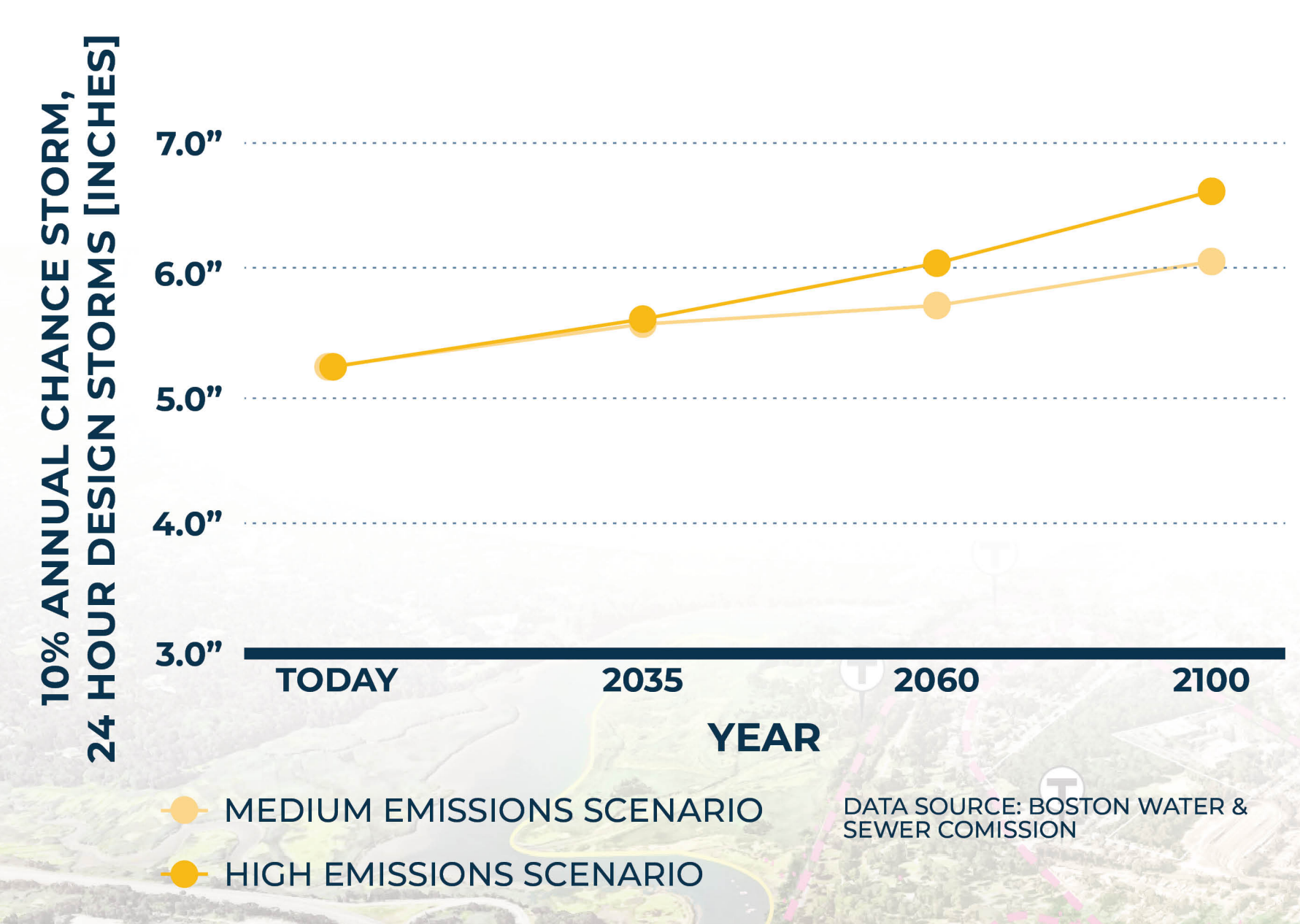
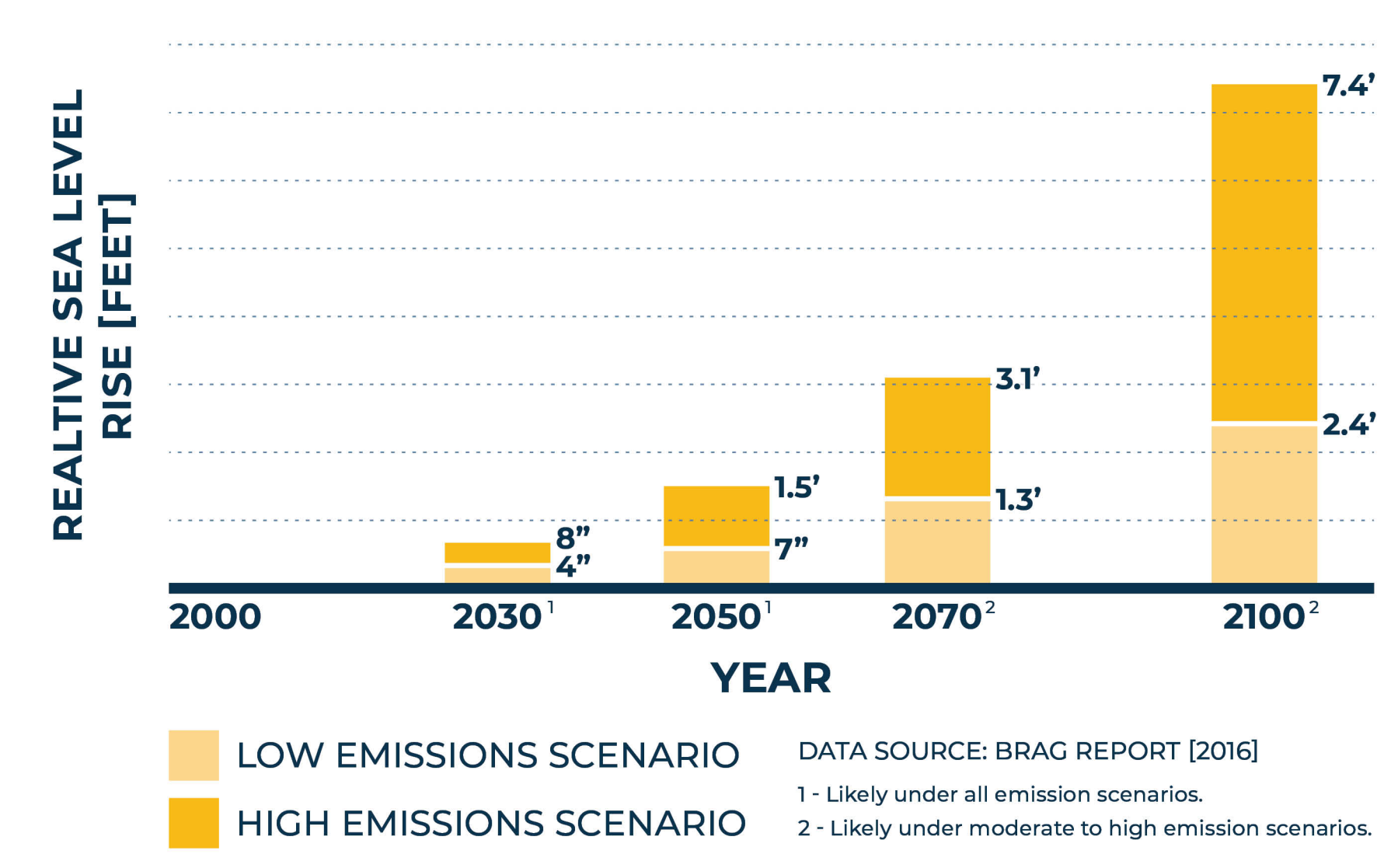
1 CLIMATE READY DORCHESTER WELCOME!

B
SCAPE
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utile
WOODS HOLE GROUP
Nitsch Engineering

Climate Ready Dorchester builds upon the ongoing Climate Ready Boston planning efforts - led by the City of Boston - to increase Boston's ability to thrive in the face of intensifying climate risks, leading to improved quality of life for all residents.

The open house today is to involve you early in the planning and design process to help us understand your concerns, desires and priorities, and inform this plan. Later this year there will be a second open house like this one where you will be able to view and comment on preliminary draft plans and strategies. Early next year, the City of Boston will release a final report with draft designs and an implementation plan for the City and its partners in Dorchester.

SEA LEVEL RISE AND RAINFALL PROJECTIONS



CLIMATE PREPAREDNESS

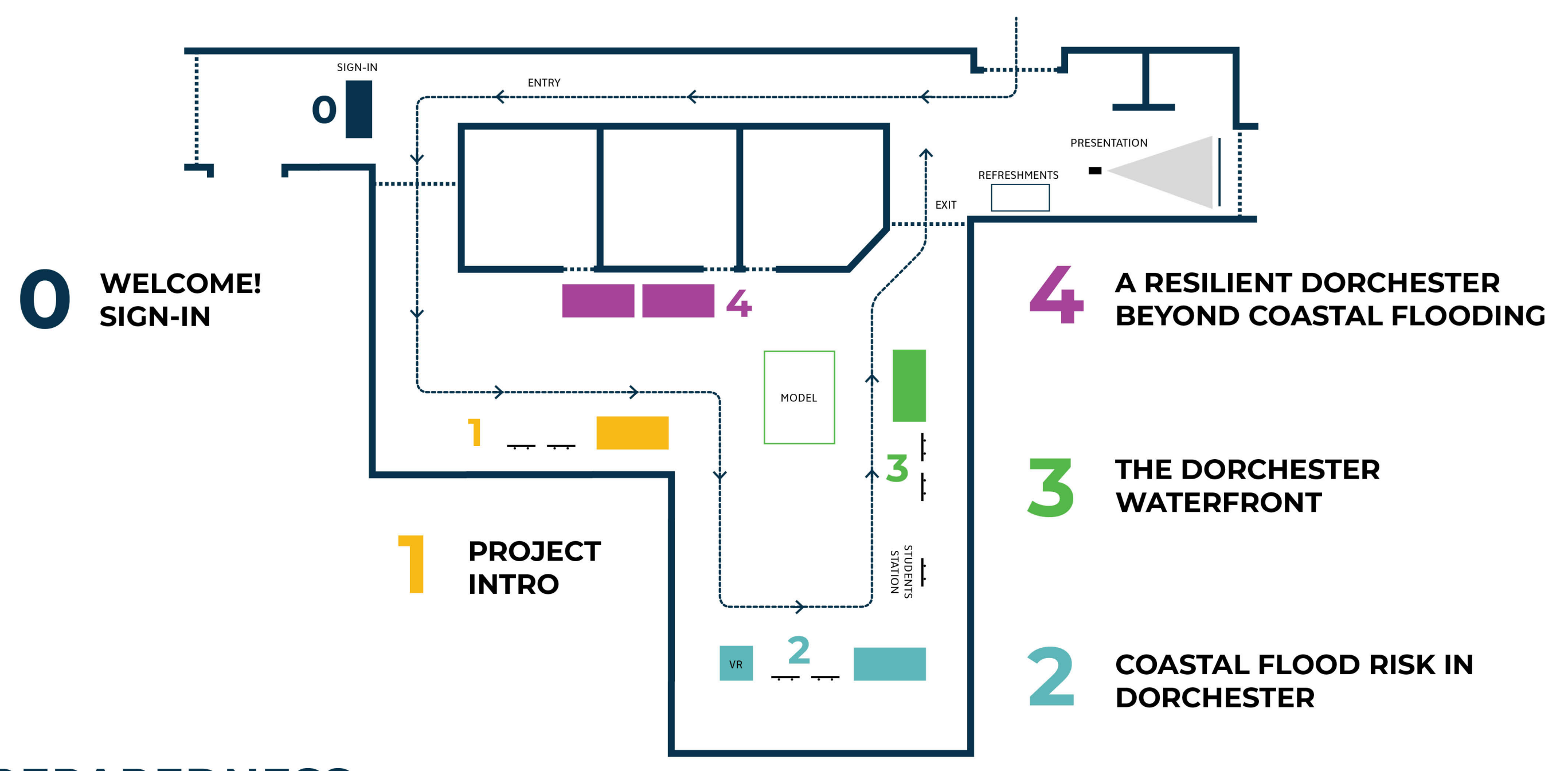


Illustration of a resilient Dorchester waterfront as part of the Resilient Harbor Vision, 2018.



RESILIENT BOSTON HARBOR : DORCHESTER

- = FLOOD ADAPTED BUILDINGS
- = ELEVATED LANDSCAPES
- = CONNECTIONS AND ACCESS

1

CLIMATE READY DORCHESTER

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CLIMATE READY DORCHESTER

Climate Ready Dorchester is a neighborhood-specific initiative to identify coastal resilience solutions for the impacts of climate change, specifically coastal flooding and sea level rise. Solutions developed as part of this initiative will enhance the physical and social resilience of the neighborhood while also addressing existing issues of connectivity, accessibility and equity.

✱ WE'RE HERE!


JUNE 2019
PROJECT KICK-OFF

SEPTEMBER 2019
OPEN HOUSE #1
LISTENING & LEARNING

DECEMBER 2019
OPEN HOUSE #2
DESIGNING & EVALUATING


FEBRUARY 2020
FINAL REPORT FOR
CLIMATE READY DORCHESTER

EVALUATION CRITERIA




EFFECTIVENESS

Is the initiative effective at reducing the risk to residents, other stakeholders, and the assets they rely on from coastal flooding?




FEASIBILITY

Can the initiative be reasonably implemented and maintain / sustain?




DESIGN LIFE & ADAPTABILITY

Will the initiative be adaptable over time once it is implemented?




ENVIRONMENTAL & PUBLIC HEALTH BENEFITS

Does the initiative provide benefits to and minimize impacts on the "natural" environment?



SOCIAL EQUITY & QUALITY OF LIFE

Does the initiative provide quality of life benefits to people [who live or work in Boston]? Are those benefits shared fairly by all?



VALUE CREATION

Does the initiative increase the "value" of the land around it and ability to sustainably fund resilience into the future?

WHICH CRITERIA ARE THE MOST IMPORTANT TO YOU?

Use the postcards to mark your priorities.

The map displays the Dorchester area and its surroundings, including parts of Boston, South Boston, and the City of Quincy. It highlights various project areas and zones, such as 'CLIMATE READY DOWNTOWN & NORTH END', 'CLIMATE READY SOUTH BOSTON', 'MOAKLEY PARK VISION PLAN', 'UNIVERSITY OF MASSACHUSETTS', 'MALIBU BEACH', 'TENEAN BEACH', 'NEPONSET RIVER RESERVATION', and 'MATTAPAN'. The map also shows the 'PROJECT AREA BOUNDARY' and 'MBTA COMMUTER RAIL' lines. A legend in the bottom right corner provides details on the map's symbology, including the '2070 (40in SLR) 100% ANNUAL CHANCE STORM' zone, the '2070 (40in SLR) 10% ANNUAL CHANCE STORM' zone, the '2070 (40in SLR) 1% ANNUAL CHANCE STORM' zone, and 'OPEN SPACES'.

2

UNDERSTANDING COASTAL FLOOD RISK

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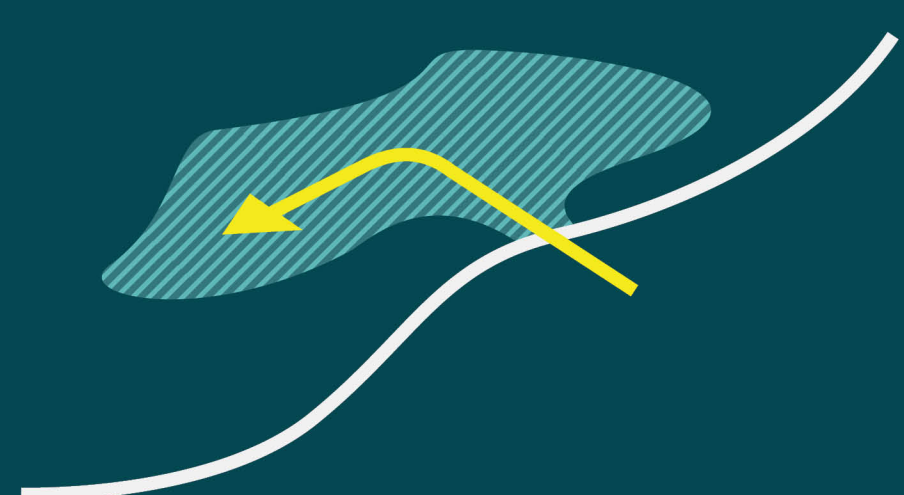
HOW DOES COASTAL FLOODING HAPPEN?

Depending on the physical features of the coastal areas, water from the harbor can enter into the neighborhood in different ways.



FRINGE FLOODING

impacts low-lying areas along the waterfront as water levels rise above the ground elevation.



FLOOD PATHWAYS

impact low-lying inland areas when water enters through a discrete low-lying area on the waterfront.

WHAT'S AT RISK?

With larger and more frequent floods, much is at risk. Damage to exposed roads and transportation networks – such as near-term risks to the MBTA Red line, sections of the I-93, and Morrissey Blvd – could isolate areas of Dorchester and interrupt its emergency response system.

As sea levels rise, more areas of Dorchester will be impacted: threatening homes, businesses, and open space, and disrupting the local economy, commuter routes, business operations, and other day-to-day activities.

HOW OFTEN DOES COASTAL FLOODING OCCUR?



100% ANNUAL CHANCE STORM

A storm with a 100% chance of occurring each year.
Another way to think about it, a storm of this magnitude will likely occur in the next year.



10% ANNUAL CHANCE STORM

A storm with a 10% chance of occurring each year.
Another way to think about it, a storm of this magnitude will likely occur in the next 10 years.



1% ANNUAL CHANCE STORM

A storm with a 1% chance of occurring each year.
Another way to think about it, a storm of this magnitude will likely occur in the next 100 years.

LEGEND

- PROJECT AREA BOUNDARY
- MBTA COMMUTER RAIL
- MBTA RAPID RAIL
- TIDAL FLAT
- WETLANDS
- 2070 (40in SLR) 100% ANNUAL CHANCE STORM
- 2070 (40in SLR) 10% ANNUAL CHANCE STORM
- 2070 (40in SLR) 1% ANNUAL CHANCE STORM
- FLOOD PATHWAYS
- (PROGRESSION IN STEPS)

2. MORRISSEY BOULEVARD



1. BAYSIDE PARKING LOT

GEIGER-GIBSON COMMUNITY HEALTH CENTER

JOHN W MCCORMICK MIDDLE SCHOOL

PAUL A DEVER SCHOOL

JFK PRESIDENTIAL LIBRARY AND MUSEUM

UNIVERSITY OF MASSACHUSETTS BOSTON

SAVIN HILL YACHT CLUB

OLD COLONY YACHT CLUB

3. TENEAN BEACH



2

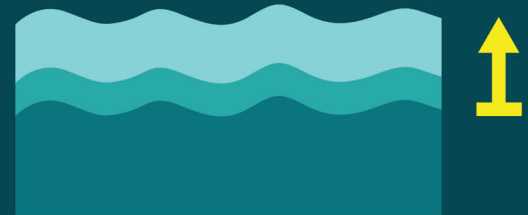
UNDERSTANDING COASTAL FLOOD RISK IN DORCHESTER

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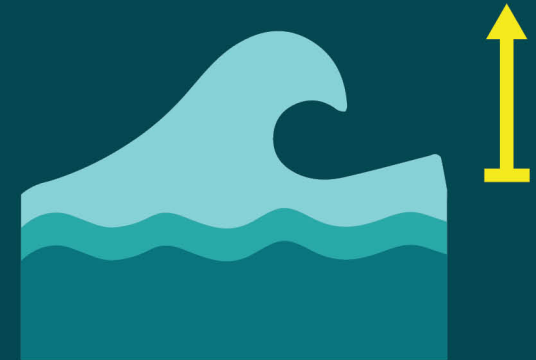
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WHAT THREATENS THE DORCHESTER SHORELINE?

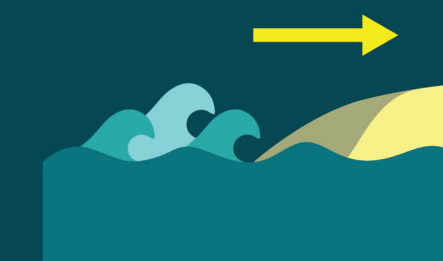
SEA LEVEL RISE
slow and permanent



STORM SURGE
event-based



WAVE ACTION & EROSION
*slow and permanent
or event-based*



**TELL US WHAT YOU
CARE ABOUT THE MOST
IN THE FLOODPLAIN?**



Use the postcards
to mark your
responses.

STRATEGY 1 INCREASE THE COASTAL EDGE ELEVATION



SEAWALLS & REVETMENTS

Example: Morecambe Promenade and Seawall, Lancaster, UK. Designed by Atkins.

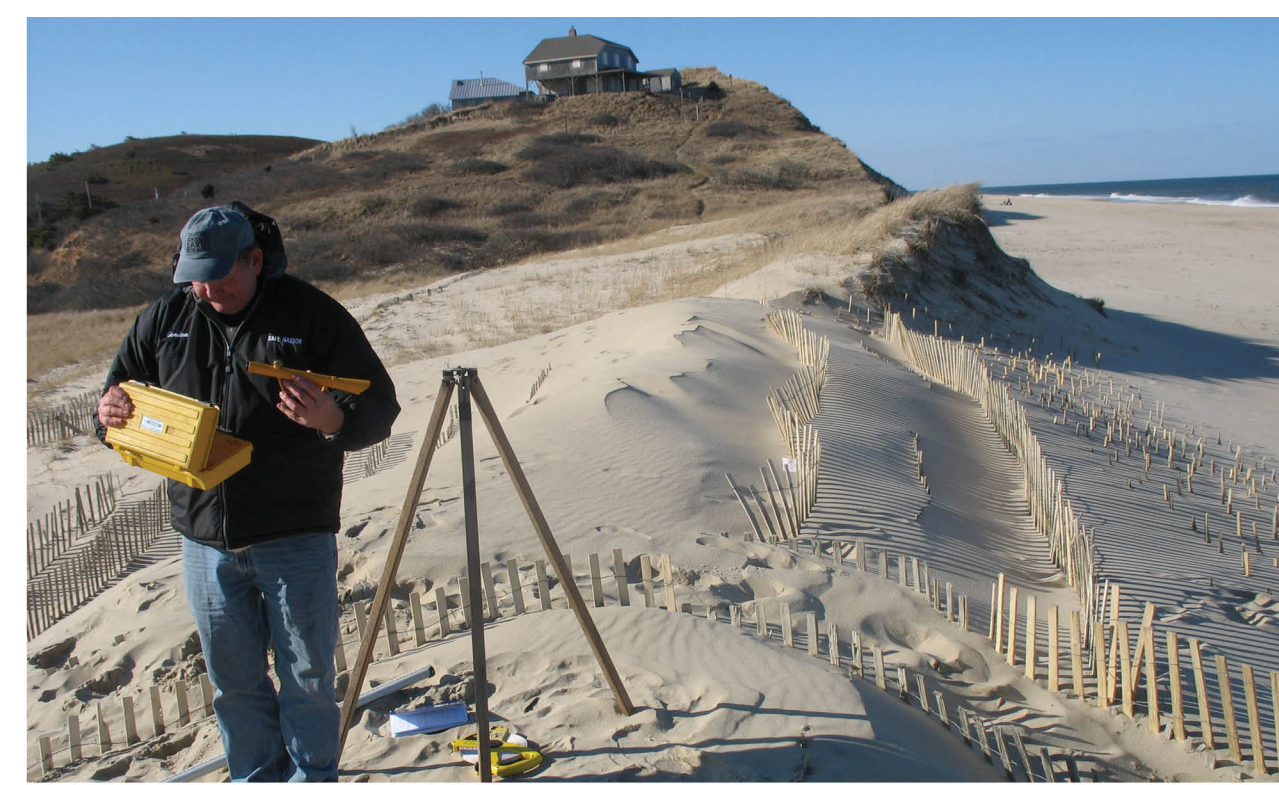
STRATEGY 2 PROTECT AGAINST STORM SURGE



INTEGRATED FLOOD PROTECTION SYSTEMS

Example: Levee in Miami Conservancy District, Miami, Ohio. Designed by USACE

STRATEGY 3 MINIMIZE UPLAND WAVE ZONES



DUNES

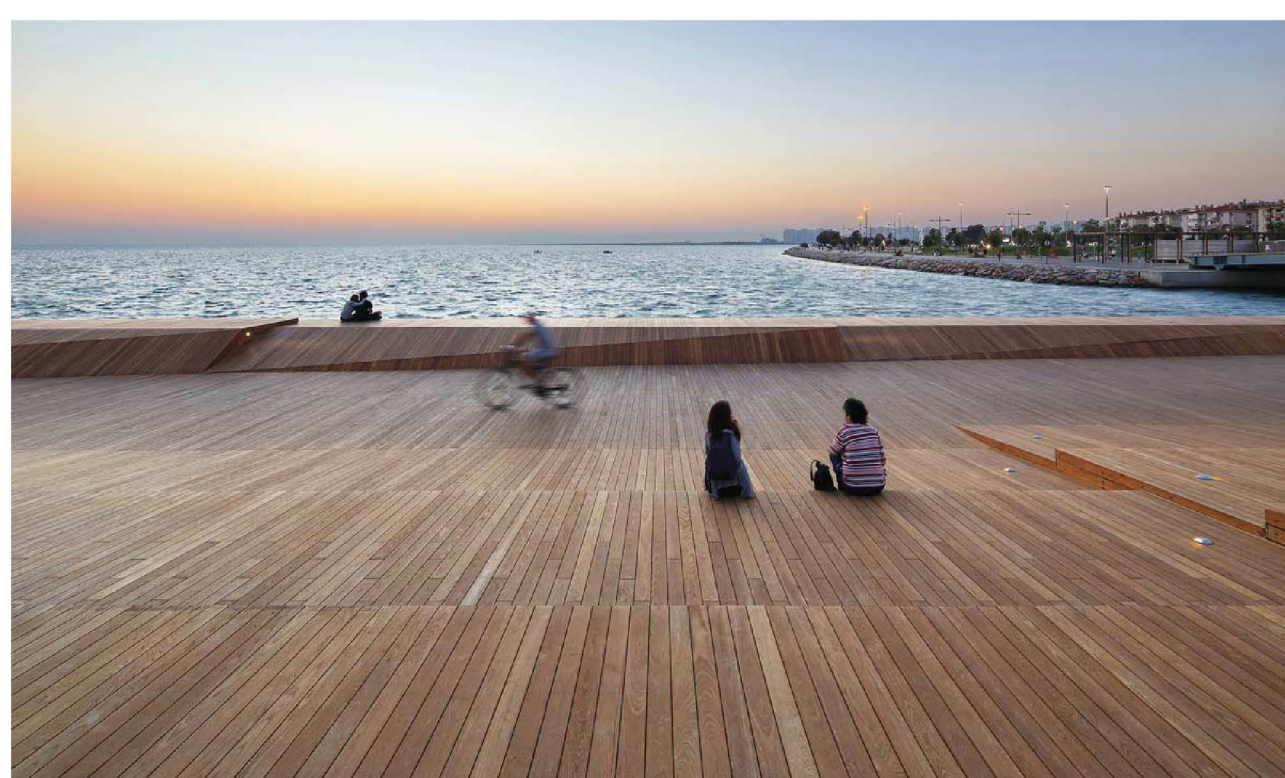
Example: Dune restoration, Ocean Beach, Truro, MA.

STRATEGY 4 ADAPT THE BUILT ENVIRONMENT



ADAPTED OPEN SPACES

Example: Hunter's Point South Park, New York, NY. Designed by ARUP, SWA, and Weiss/Manfredi.



RAISED BULKHEADS

Example: Bostanlı Sunset Lounge Project, Ismir, Turkey. Designed by Studio Evren Başbuğ.



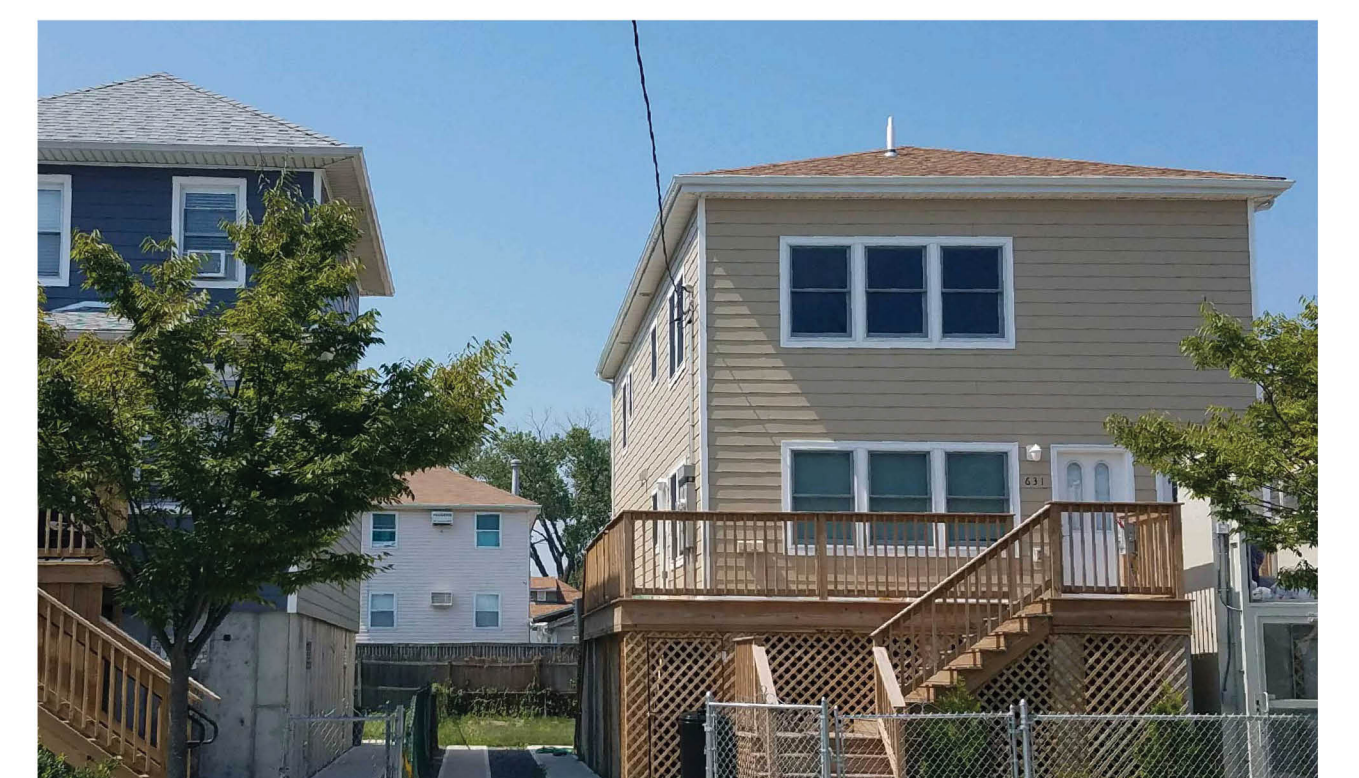
PERMANENT & TEMPORARY FLOODWALLS

Example: Floodwall in New Orleans, LA



OFFSHORE BREAKWATERS

Example: Offshore Barriers at Five Sisters, Winthrop, MA



ADAPTED RESIDENTIAL BUILDINGS

Example: Elevated houses in Queens, NY.



TIDE GATES

Example: Self Regulating Tide Control Gates by Waterman Valve, LLC.



LEVEES & MULTI-PURPOSE LEVEES

Example: Cedar Rapids Riverfront Multi-Purpose Levee, Cedar Rapids, IA. Designed by Sasaki.



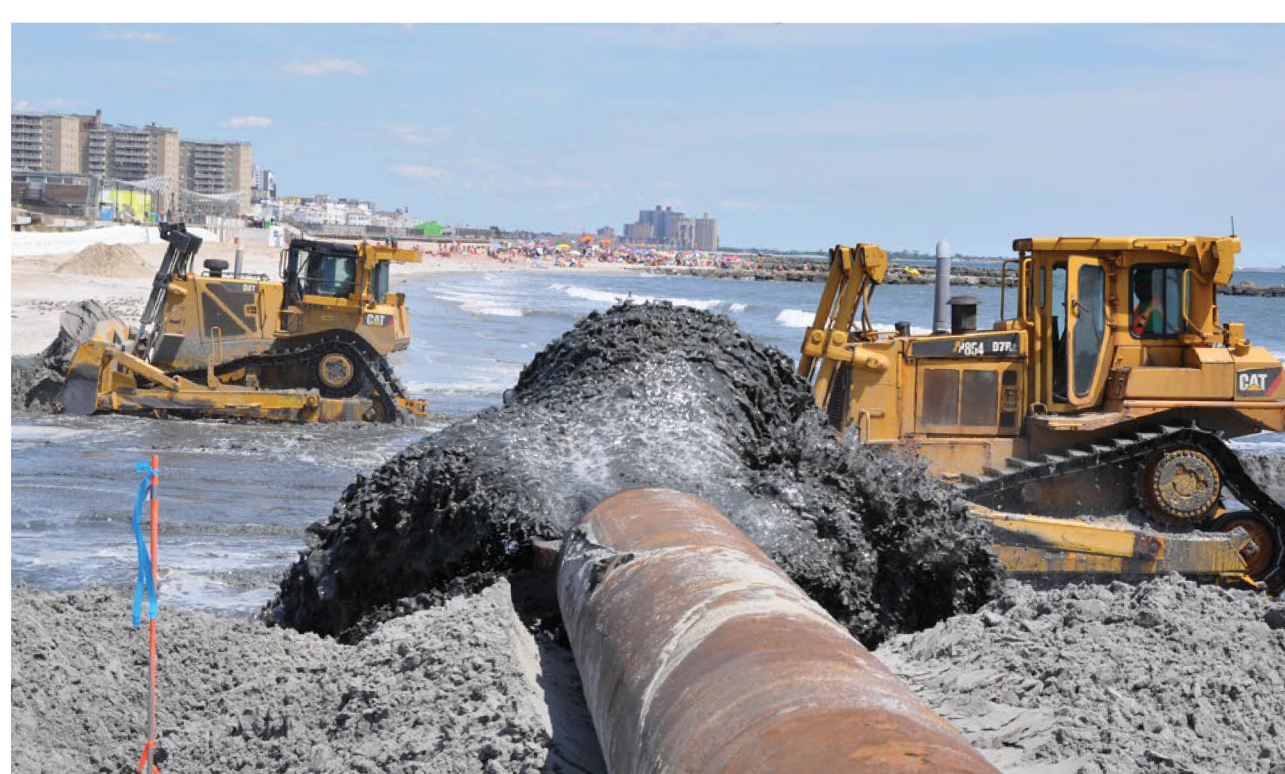
WETLANDS, LIVING SHORELINES & REEFS

Example: Living Shoreline at Condor Street Urban Wild, Boston, MA.



ADAPTED FACILITIES

Example: Spaulding Rehabilitation Hospital, Boston, MA. Designed by Perkins + Will.



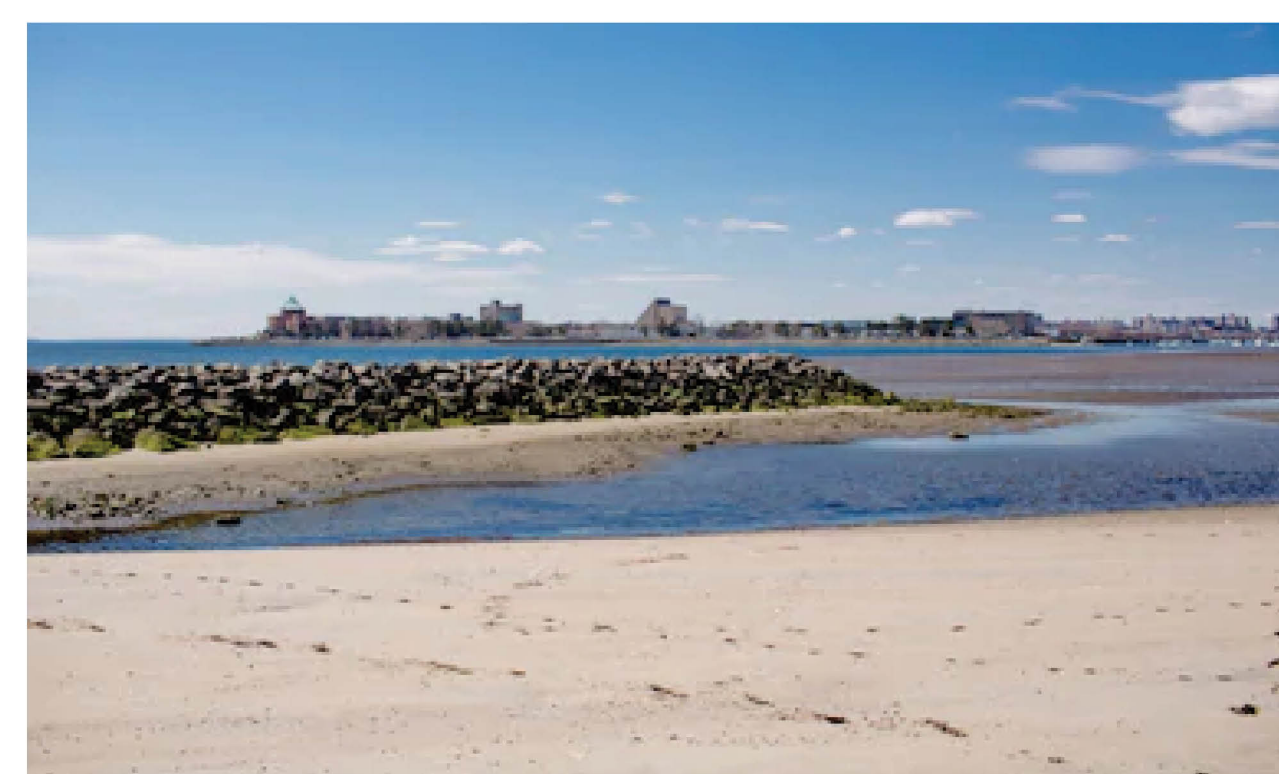
BEACH NOURISHMENT

Example: Beach Nourishment at Rockaway Beach, New York, NY.



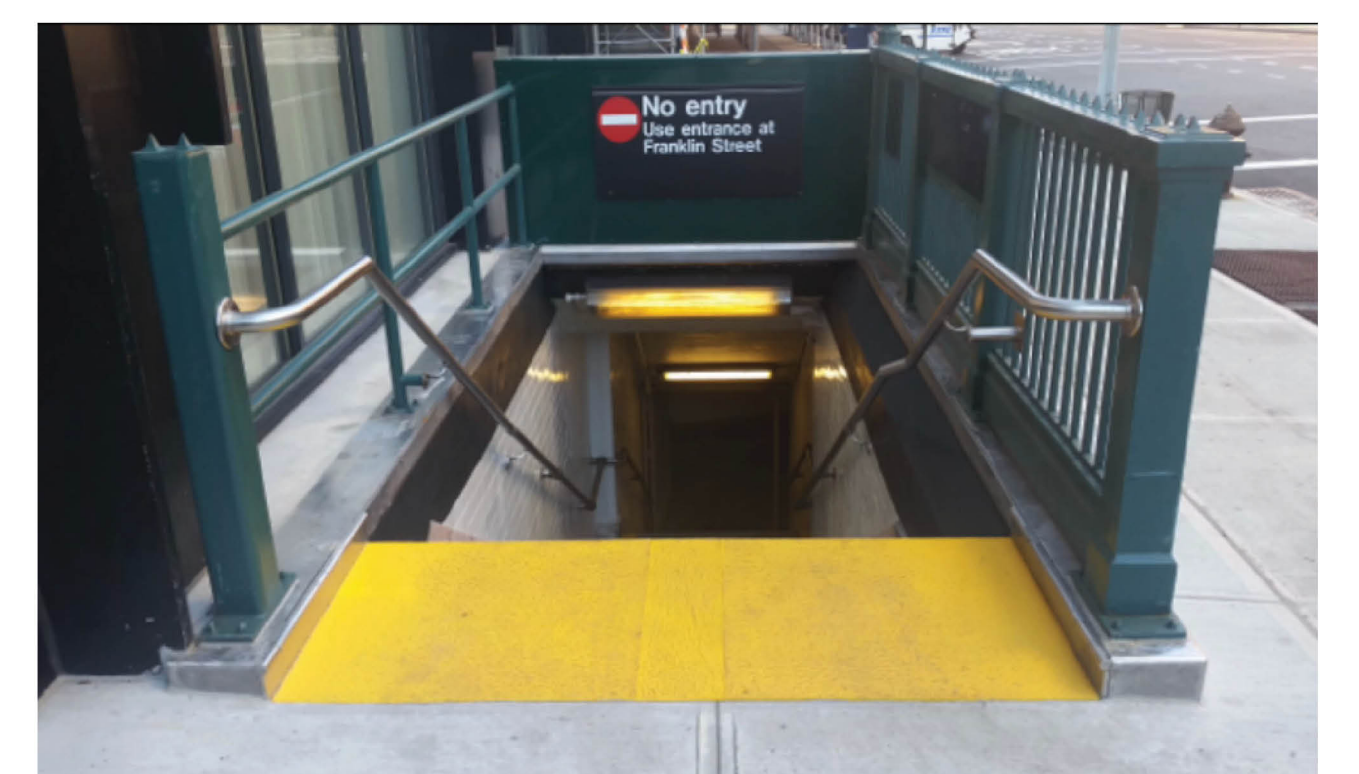
LOCAL STORM SURGE BARRIERS

Example: Lake Borgne Surge Barrier, New Orleans, Louisiana. Designed by Tetra Tech.



GROINS

Example: Groin at Plumb Beach, New York, NY.



ADAPTED TRANSPORTATION SYSTEMS

Example: Subway Flood Adaptation Measures, MTA, New York, NY.

3

WATERFRONT OPEN SPACE AND ACCESS

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DO YOU GO TO THE WATERFRONT? HOW DO YOU GET THERE?

Is the waterfront along Dorchester a destination for residents? How often do you go to the waterfront and how?



BY FOOT



BY RAIL



ON BIKE



BY CAR

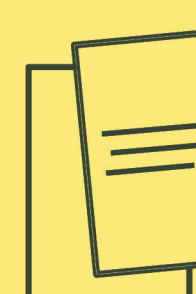


BY BUS

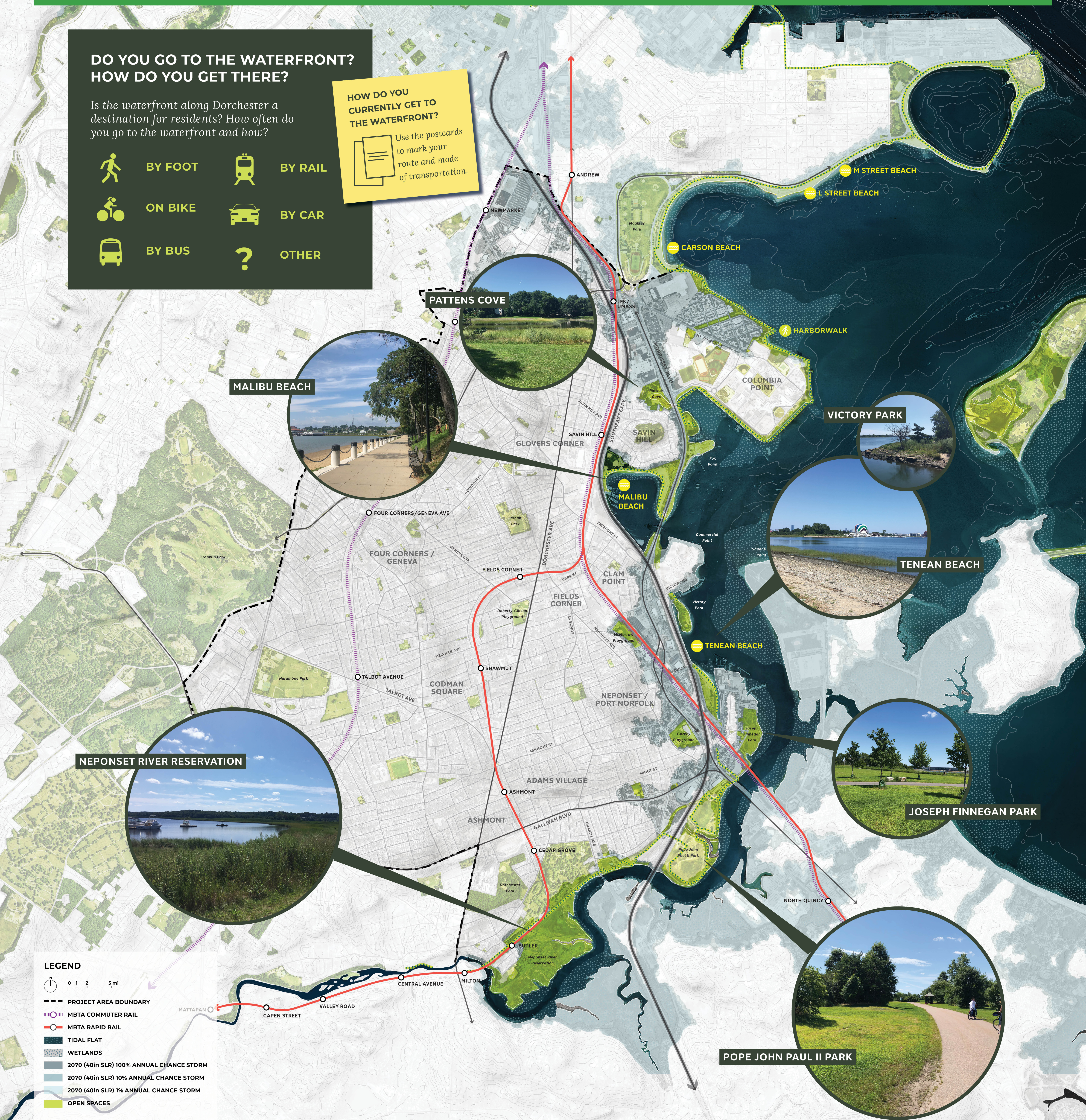


OTHER

HOW DO YOU CURRENTLY GET TO THE WATERFRONT?



Use the postcards to mark your route and mode of transportation.



LEGEND

- 0 1 2 5 mi
- PROJECT AREA BOUNDARY
- MBTA COMMUTER RAIL
- MBTA RAPID RAIL
- TIDAL FLAT
- WETLANDS
- 2070 (40in SLR) 100% ANNUAL CHANCE STORM
- 2070 (40in SLR) 10% ANNUAL CHANCE STORM
- 2070 (40in SLR) 1% ANNUAL CHANCE STORM
- OPEN SPACES

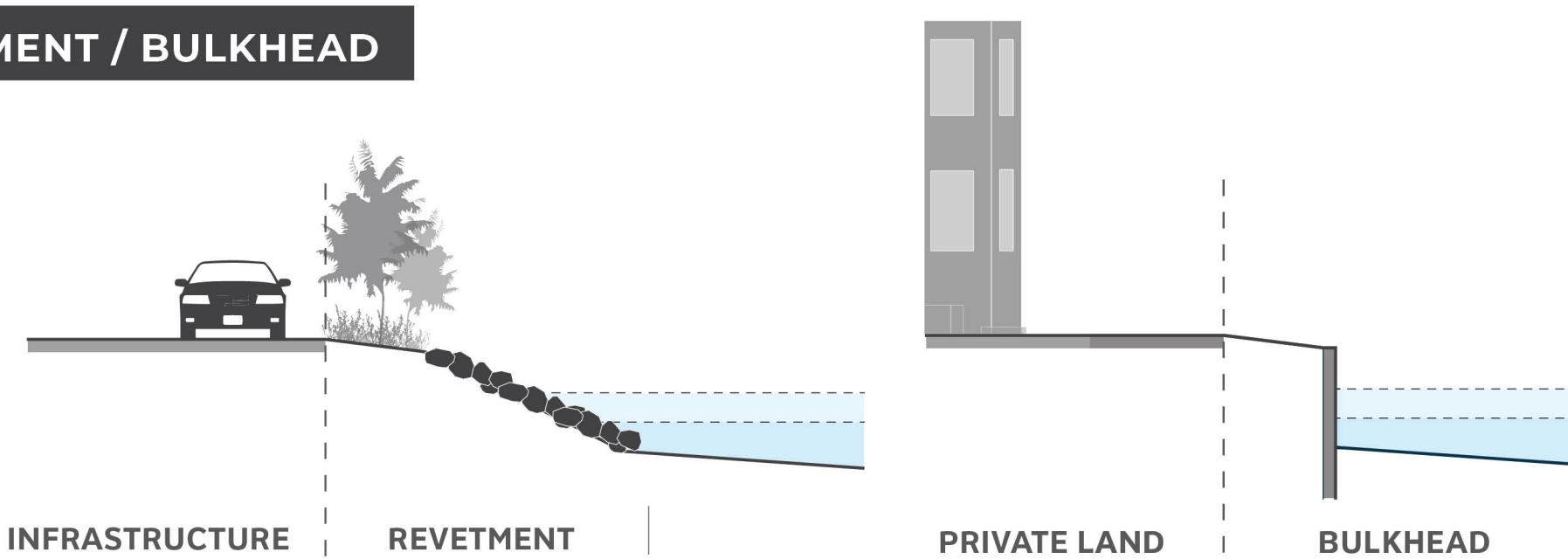
PARK + BEACH



PARK + SHORELINE



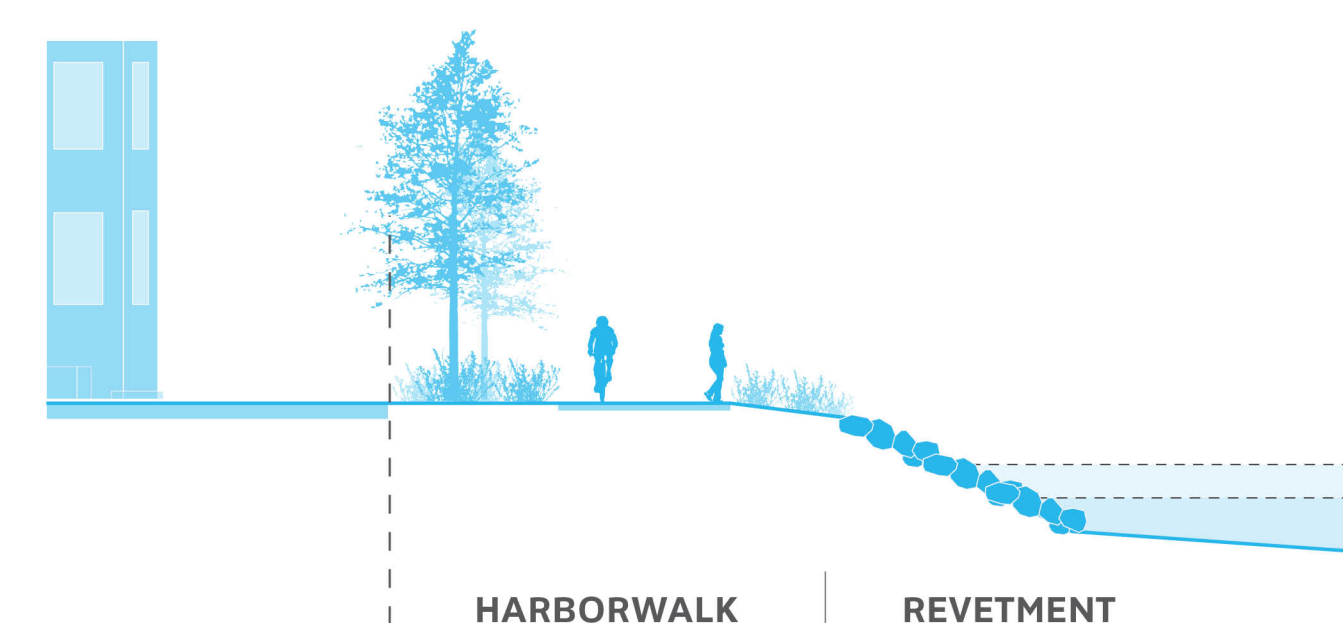
REVETMENT / BULKHEAD



TIDAL WETLANDS



HARBORWALK



SHORELINE CONDITIONS



SHORELINE OWNERSHIP



- CITY
- STATE - DCR
- STATE - DPW
- STATE - MBTA
- STATE - OTHER
- FEDERAL

WATERFRONT ACTIVITIES

How do you use the waterfront today? And how would you like to use it in the future?



SWIMMING AND
SUNBATHING



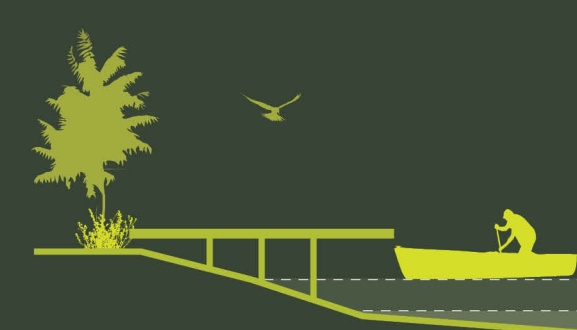
PLAYING SPORTS



PICNICKING



WALKING AND
BIKING



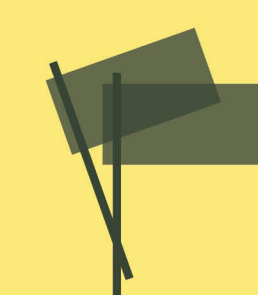
BOATING



WORKING

OTHERS
TELL US!

TELL US HOW YOU FEEL ABOUT THE
DORCHESTER WATERFRONT!



Use the flags on the
physical model to capture
your responses and
thoughts.

I CURRENTLY
DO THIS
ON THE
WATERFRONT!

I WOULD
LIKE TO DO
THIS ON THE
WATERFRONT!