



SWAMPSCOTT HARBOR PLAN

Fishermans Beach, Swampscott, Mass.

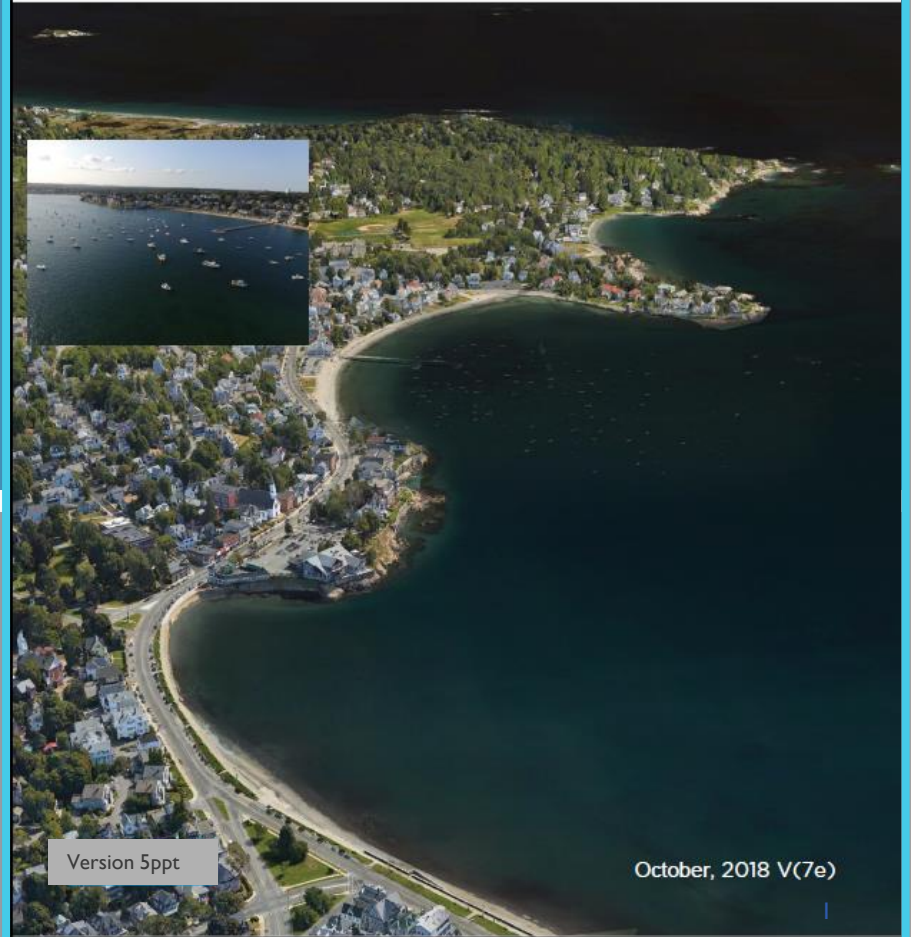


**SWAMPSCOTT
BOARD OF
SELECTMEN**

APRIL 24, 2018

Harbor and Waterfront Plan 2018

Swampscott, MA



Version 5ppt

October, 2018 V(7e)

AGENDA



SWAMPSCOTT & THE SEA—OUR
HISTORIC HARBOR AND
WATERFRONT

GOALS OF THE HARBOR AND
WATERFRONT PLAN

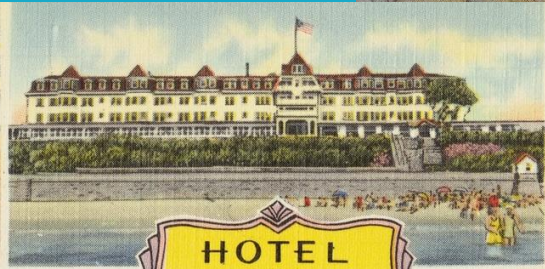
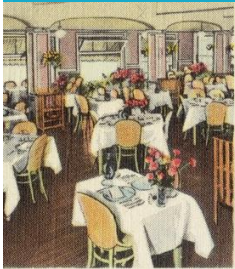
RISK TO SAFETY—RISING TIDES AND
COASTAL RESILIENCY

A VISION FOR SWAMPSCOTT'S
WATERFRONT

NEXT STEPS

SWAMPSCOTT AND THE SEA

Swampscott's
History is



....one of a **Vibrant Seaside Destination.**

SWAMPSCOTT AND THE SEA

Swampscott's
History is ...

Francis Ingalls founds first Tannery in
the New World in Swampscott
(1632).



Capt. James Phillips of the
"Swampscott Seal" (1795).



Swampscott Resident Elihu
Thomson co-founded General
Electric (GE) with Thomas
Edison (1892).



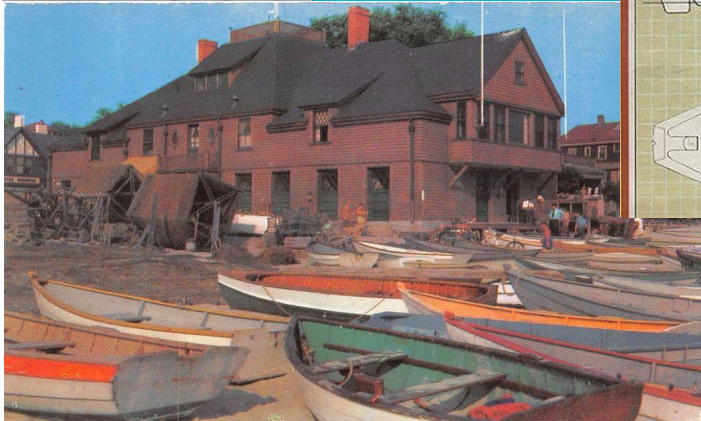
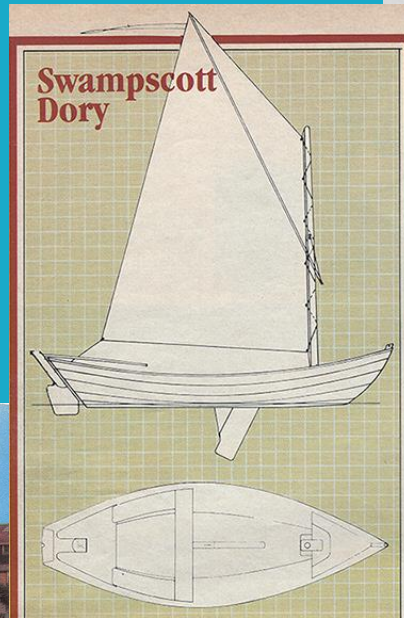
...Deep and Rich.



SWAMPSCOTT AND THE SEA

Swampscott reached worldwide status as the place where Ebenezer Thorndike invented the lobster pot in 1808 ...The Swampscott Dory, a fishing boat still in use throughout the world today, was invented in Swampscott in 1840 by Theophilus Brackett to pull lobster pots. ...GE's Thomson tested aircraft on Swampscott Beaches.

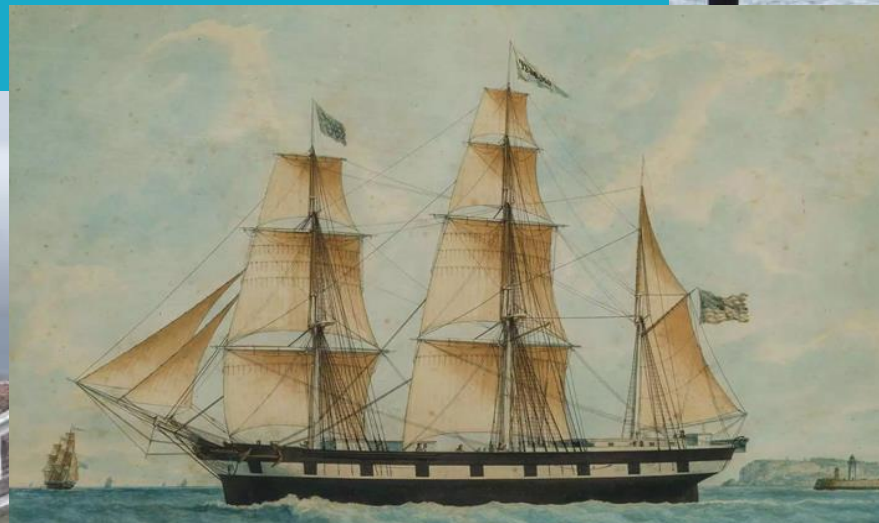
Swampscott's History is



...Essential to the
Town's Identity.

SWAMPSCOTT AND THE SEA

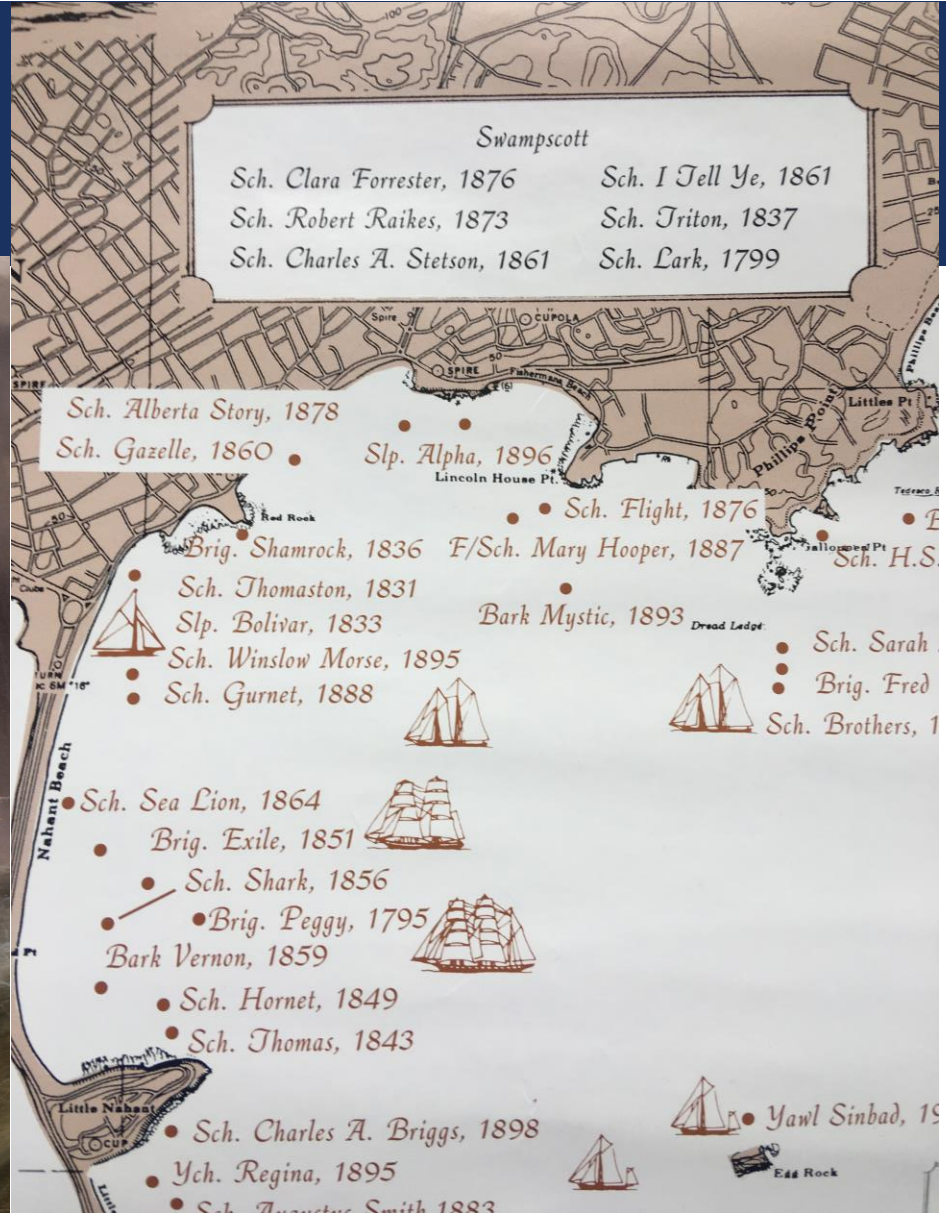
Swampscott has a Rich
Seafaring History...



The “Barque” Tedesco of Portland, ME sank off of White Court, Swampscott, 1857.

...which is Compelling & Intriguing.

SHIPWRECKS OF SWAMPSCOTT



SWAMPSCOTT AND THE SEA

**Today
Swampscott
is.....**



**... a Vibrant Waterfront
Community.**

SWAMPSCOTT AND THE SEA: PLAN GOALS

THE HARBOR AND WATERFRONT PLAN IS SPECIFICALLY DESIGNED TO:



AMPLIFY THE TOWN'S FOCUS ON THE WATERFRONT AS A COMMUNITY ASSET

- INCREASE PUBLIC AWARENESS AND ACCESS TO THE HARBOR AND WATERFRONT, BOATING AND OTHER WATER SPORTS.
- MAINTAIN THE SCENIC CHARACTER AND RICH MARITIME HISTORY OF THE TOWN.
- SUPPORT SUSTAINABLE ECONOMIC DEVELOPMENT.
- REINVIGORATE SWAMPSCOTT AS A DESTINATION AND PORT-OF-CALL.

SWAMPSCOTT AND THE SEA: PLAN GOALS

THE HARBOR AND WATERFRONT PLAN IS SPECIFICALLY DESIGNED TO:



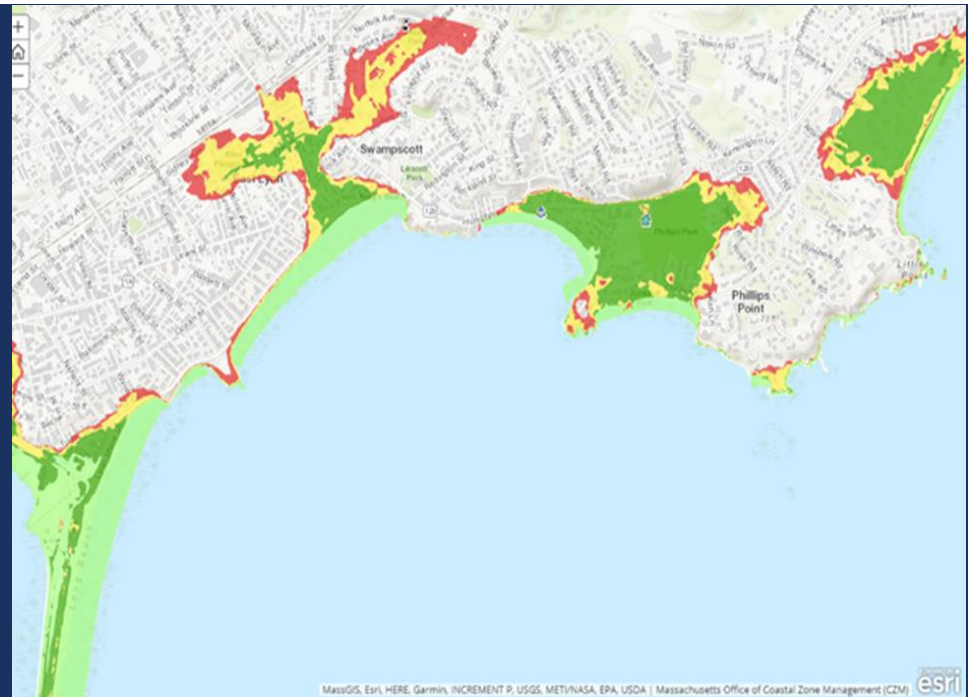
ENSURE THAT NECESSARY INFRASTRUCTURE IMPROVEMENTS ARE MADE TO PROTECT THE HARBOR AND WATERFRONT.

- **TAKE MEASURES TO ADDRESS FUTURE STORM SURGES AND SEA LEVEL RISE; STRENGTHEN ENVIRONMENTAL PROTECTION.**
- **COORDINATE AND COLLABORATE WITH LOCAL, STATE AND FEDERAL REGULATORS AND TAKE ADVANTAGE OF STATE AND FEDERAL GRANTS.**
- **IDENTIFY A PATHWAY FOR CREATING A RESILIENT COASTLINE AND PROVIDE ALTERNATIVES FOR PROTECTIVE MEASURES.**
- **FOCUS ON THE PROTECTION OF LIFE, PROPERTY, AND THE HISTORIC STRUCTURES AND NATURE OF THE TOWN.**
- **ESTABLISH A PLATFORM FOR PROPOSALS FOR NEW AND ATTRACTIVE AMENITIES THAT WILL INCREASE THE DESIRABLE NATURE OF THE TOWN FOR RESIDENTS AND VISITORS ALIKE.**

SWAMPSCOTT HARBOR PLAN



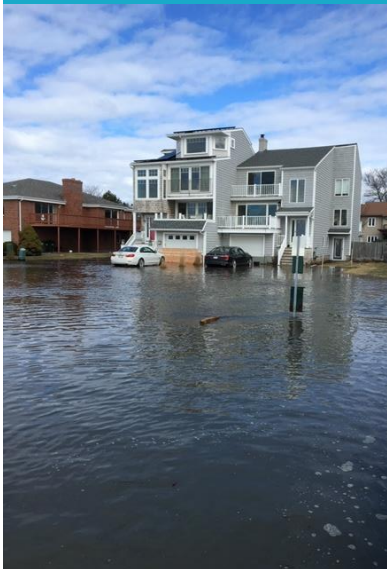
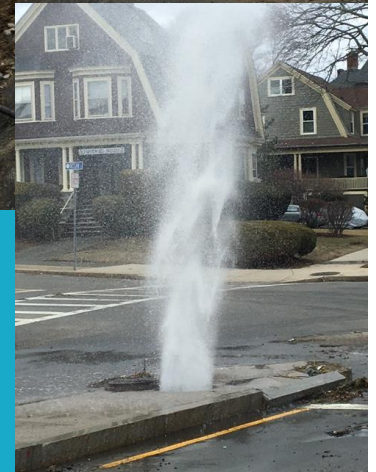
RESILIENCY FOR TODAY AND TOMORROW...



MassGIS, Esri, HERE, Garmin, INCREMENT P, USGS, MET/NASA, EPA, USDA | Massachusetts Office of Coastal Zone Management (CZM)

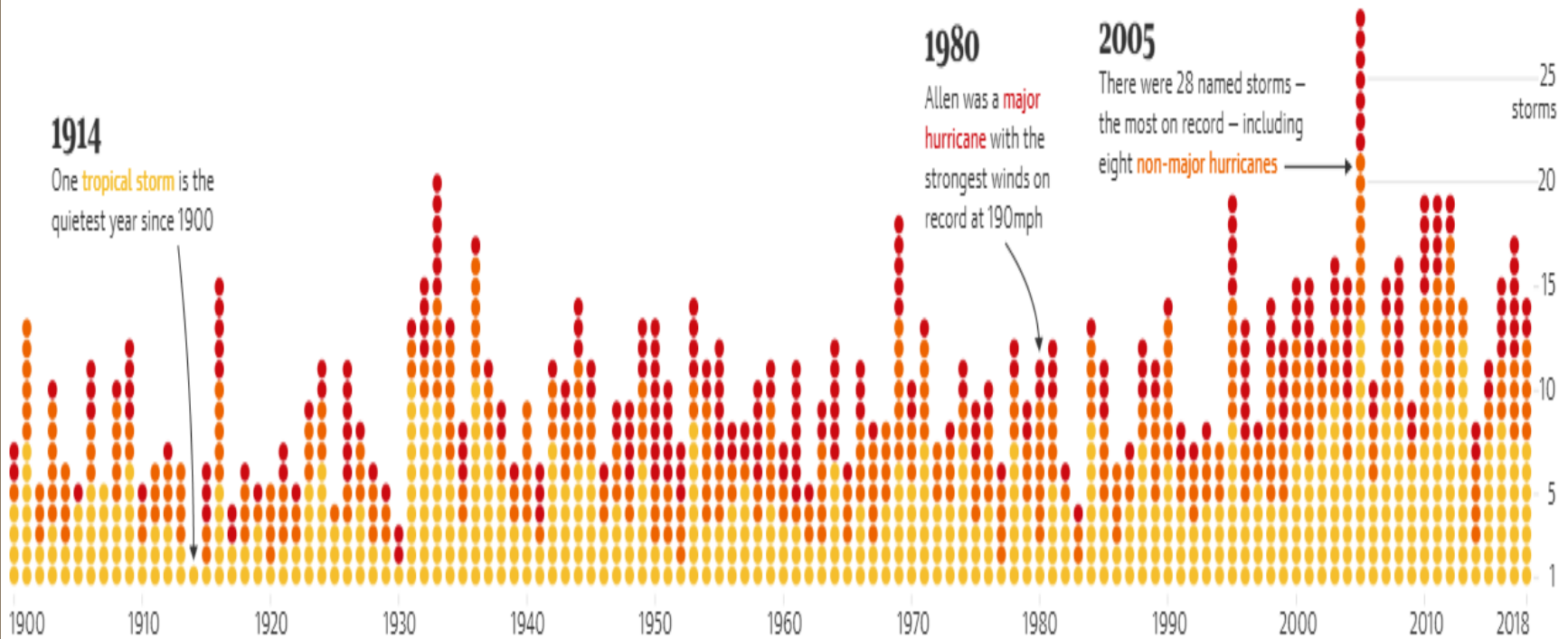
SWAMPSCOTT AND THE SEA

**Swampscott is
Vulnerable...**



**...to Severe Weather Events and the
increasing Impacts of Climate Change.**

RATES OF STORMS DRAMATICALLY INCREASING (2005 HAD 28 NAMED STORMS)



Source: National Hurricane Center

10 Most Destructive Hurricanes in U.S. History

	NAME:	YEAR:	CATEGORY:	COST:*
1	Katrina	2005	3	\$116.9 BILLION
2	Andrew	1992	5	\$50.4 BILLION
3	Ike	2008	2	\$30.7 BILLION
4	Wilma	2005	3	\$22.7 BILLION
5	Ivan	2004	3	\$21.9 BILLION
6	Charley	2004	4	\$17.5 BILLION
7	Irene	2011	1	\$17.4 BILLION
8	Hugo	1989	4	\$16.5 BILLION
9	Rita	2005	3	\$13.4 BILLION
10	Agnes	1972	1	\$12.9 BILLION

70% OF THE MOST DESTRUCTIVE HURRICANES
OCCURRED IN THE PAST 15 YEARS

Hurricane Bob – 1991
Hurricane Sandy - 2012

COASTAL RESILIENCY

**Estimated
\$40Million in
Damages over
the past 25
Years**

This map includes four worst-case scenarios of storm surge based on thousands of modeled combinations of hurricane intensity (Category 1-4), forward speed, track or direction, and other factors not including sea level rise. The National Oceanic and Atmospheric Administration (NOAA) National Hurricane Center, in partnership with the U.S. Army Corps of Engineers (USACE), uses the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model to calculate the storm surge heights and map coastal areas with the highest degree of exposure.

Zoom in until the hurricane surge scenarios come into view. Community facilities and infrastructure are identified with an icon and facility outline. Click the icon for a pop-up box displaying the facility name, type, town or city, and the water level associated with the hurricane surge scenarios. Flood levels represent water depth in feet above 0 (NAVD) 88, rather than above the ground surface. Coastal flood data can be directly compared for each facility by switching viewer tabs.

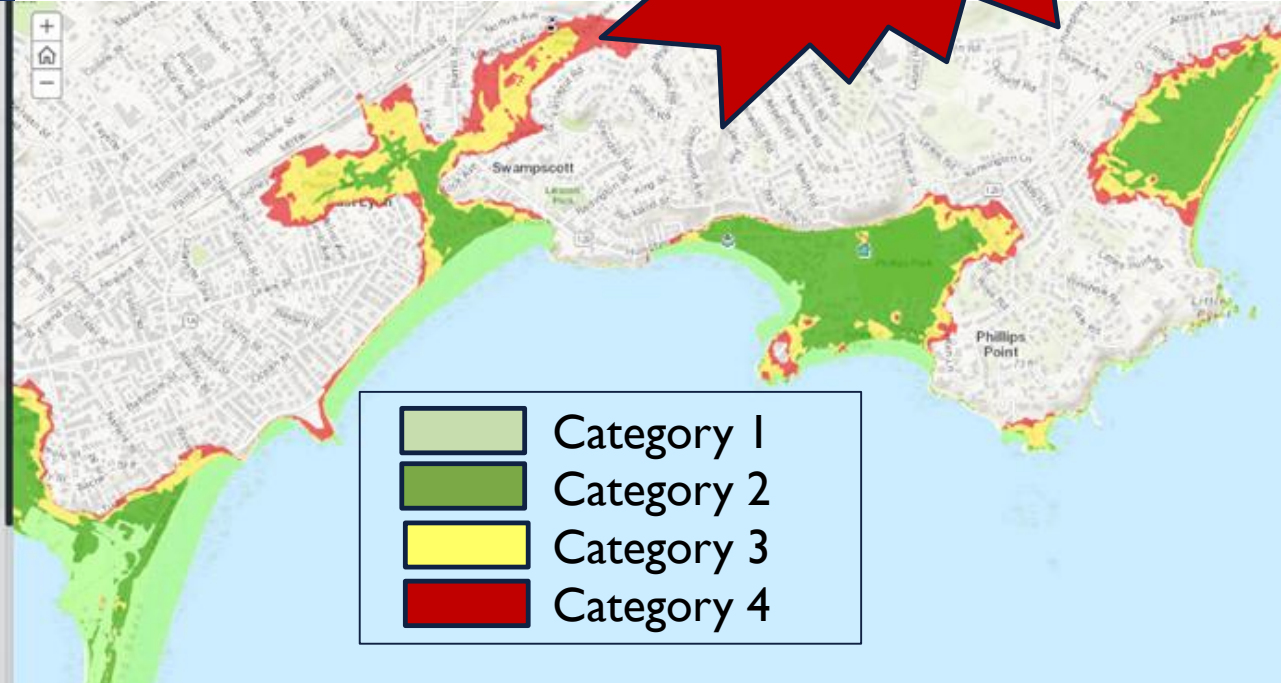
For planning purposes only. Hurricane surge data courtesy of USACE, October 2013. These data were mapped using current sea level. Please see the [technical report](#) (PDF, 272 KB) for data sources and processing steps.

Hurricane Surge Scenarios

- Category 1
- Category 2
- Category 3
- Category 4

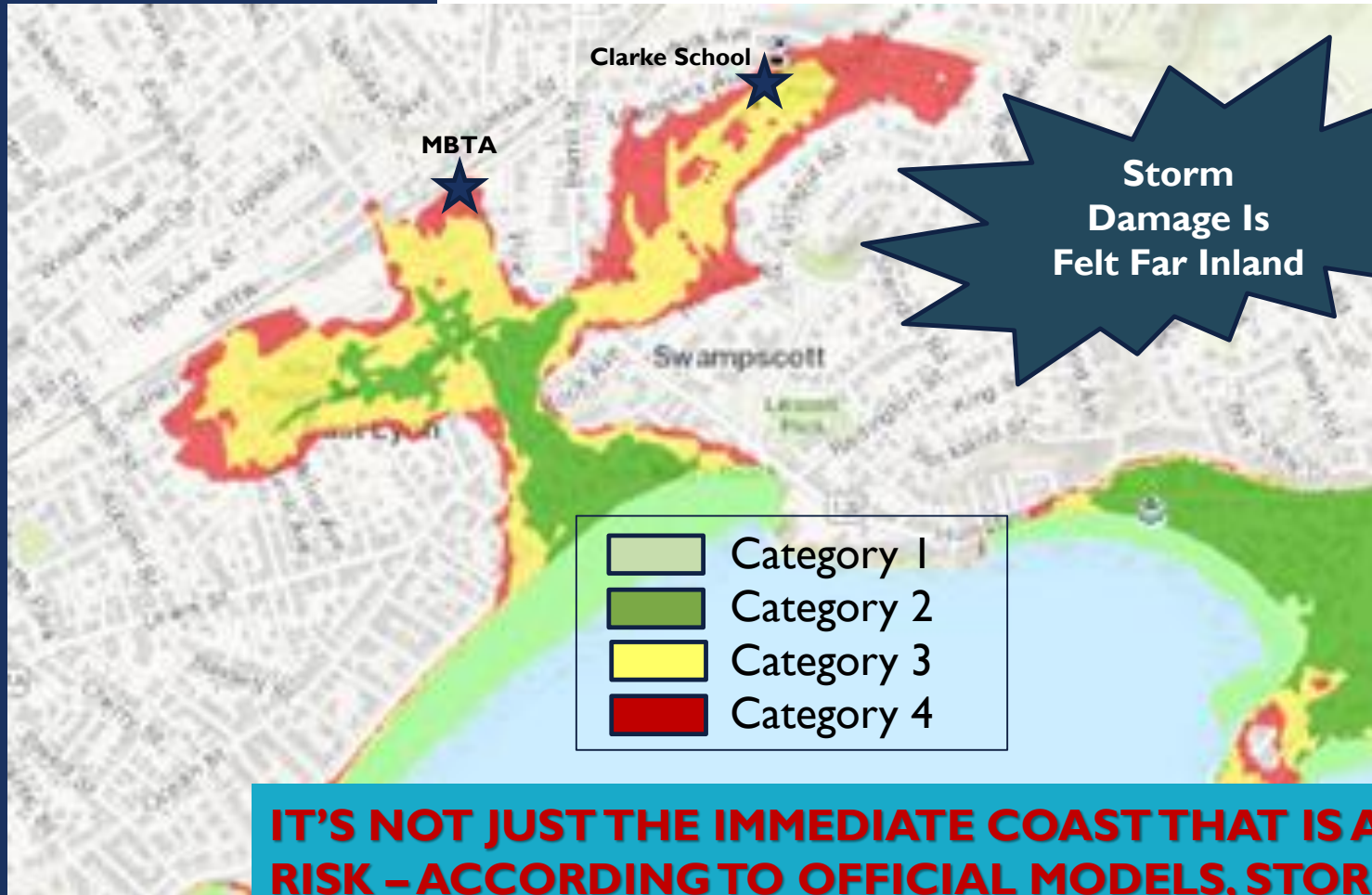
Public Facilities and Infrastructure

- Airport
- Community Health Center
- Electrical Generation Facility
- Fire Station
- Harbormaster
- Hospital
- Landfill
- Library
- Long-Term Care Residence
- MBTA Commuter Rail Station
- MBTA Subway Station



RISKS ARE INCREASING.....AS IS THE DAMAGE TO SWAMPSCOTT'S COASTLINE AND NEAR COASTAL AREAS

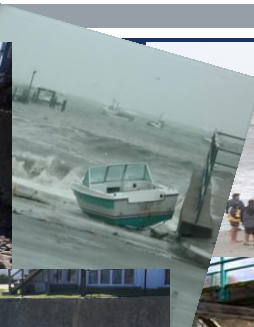
COASTAL RESILIENCY



IT'S NOT JUST THE IMMEDIATE COAST THAT IS AT RISK – ACCORDING TO OFFICIAL MODELS, STORM DAMAGE WILL REACH INLAND AREAS.

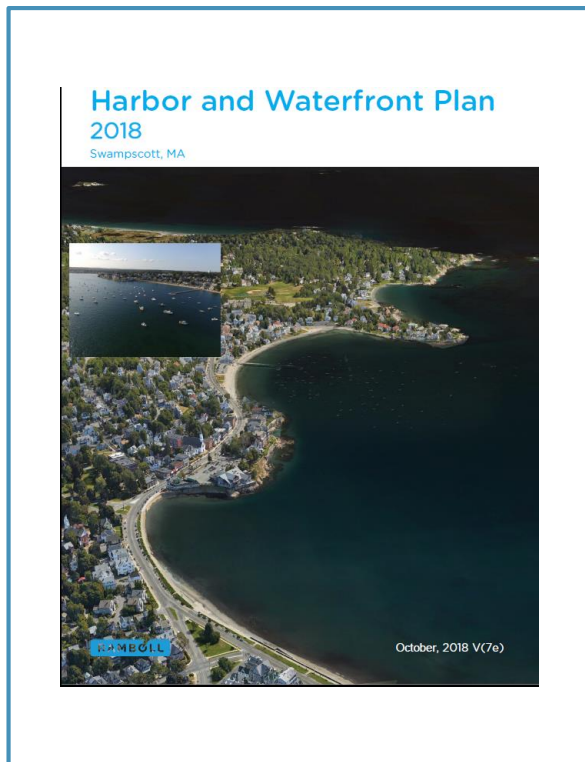
RECENT DAMAGE

ENTERING
EST. 1829
SWAMPSCOTT
EST. 1829



SWAMPSCOTT HARBOR PLAN

HIGH IMPACT IMPROVEMENTS FOR A BRIGHT FUTURE...



SUMMARY MAP OF PROPOSED PROJECTS AND IMPROVEMENTS



	PROJECT
1.	Protective Living Reef
2.	Fish House Repairs / Upgrades
3.	Fisherman's Beach Pier Upgrades
4.	Swampscott Promenade & Cliff Walk
5.	Hotel & Conference Center
6.	Parking

	PROJECT
7.	Eisman's Beach Bath House & Snack Shack
8.	Phillips Beach Bath House & Snack Shack
9.	Fisherman's Bath House / Concession / Restaurant
10.	Trolley
11.	Kings Beach Pier & Viewing Platform

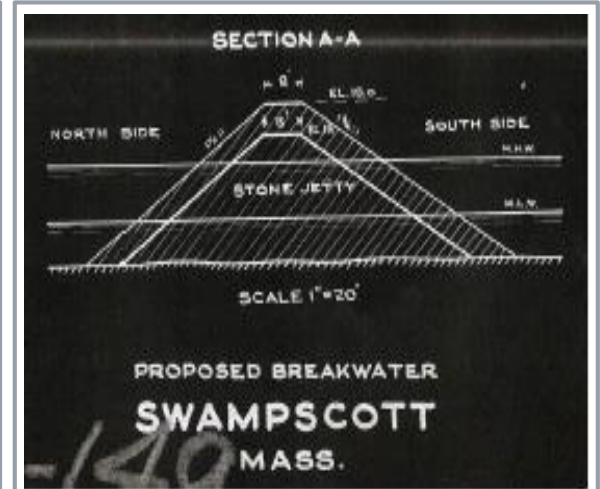
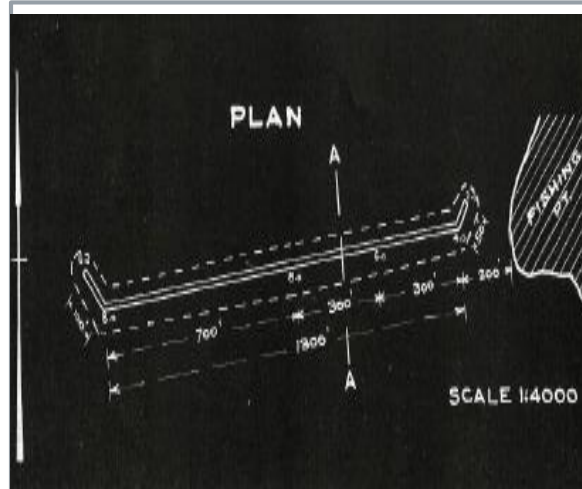
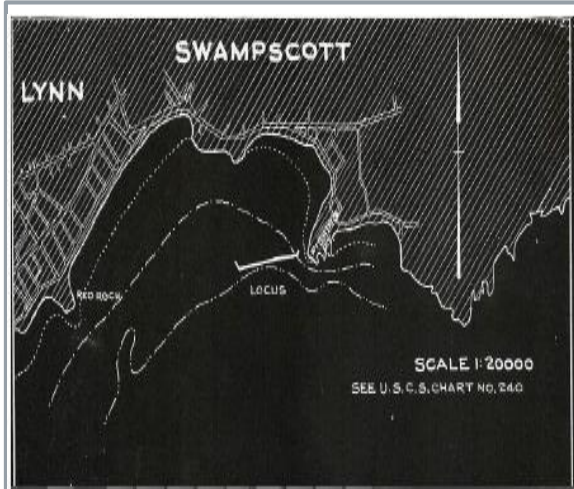
SWAMPSCOTT AND THE SEA



REPAIR & RESTORE HISTORIC FISH HOUSE



Cost Estimate:	\$1M - \$1.5M
Grants:	\$1M - \$1.5M
Private Funds:	\$50K - \$100K
Income Stream:	\$25K-\$50K/yr
Damage Avoidance	\$50k-\$400K/yr
Payoff Period (Est.)	1 year



INFRASTRUCTURE INVESTMENTS TO SUPPORT HARBOR AND WATERFRONT RESILIENCY

- ORIGINAL DESIGN SKETCHES FROM THE U.S. ARMY CORPS OF ENGINEERS 1924 DESIGN FOR A BREAKWATER AT THE MOUTH OF SWAMPSCOTT HARBOR.
- FEDERAL GOVERNMENT FUNDING WAS PULLED FROM THE PROJECT, AND THE STRUCTURE WAS NEVER BUILT.
- IN ORDER TO MINIMIZE THE IMPACTS OF SUCH STORM EVENTS ON THE COASTLINE, THE HARBOR AND WATERFRONT NEEDS PROTECTION.
- THIS PLAN SUPPORTS INTERVENTION IN THE FORM OF RESILIENT STRUCTURAL ENHANCEMENT OF COASTAL INFRASTRUCTURE.

SWAMPSCOTT AND THE SEA

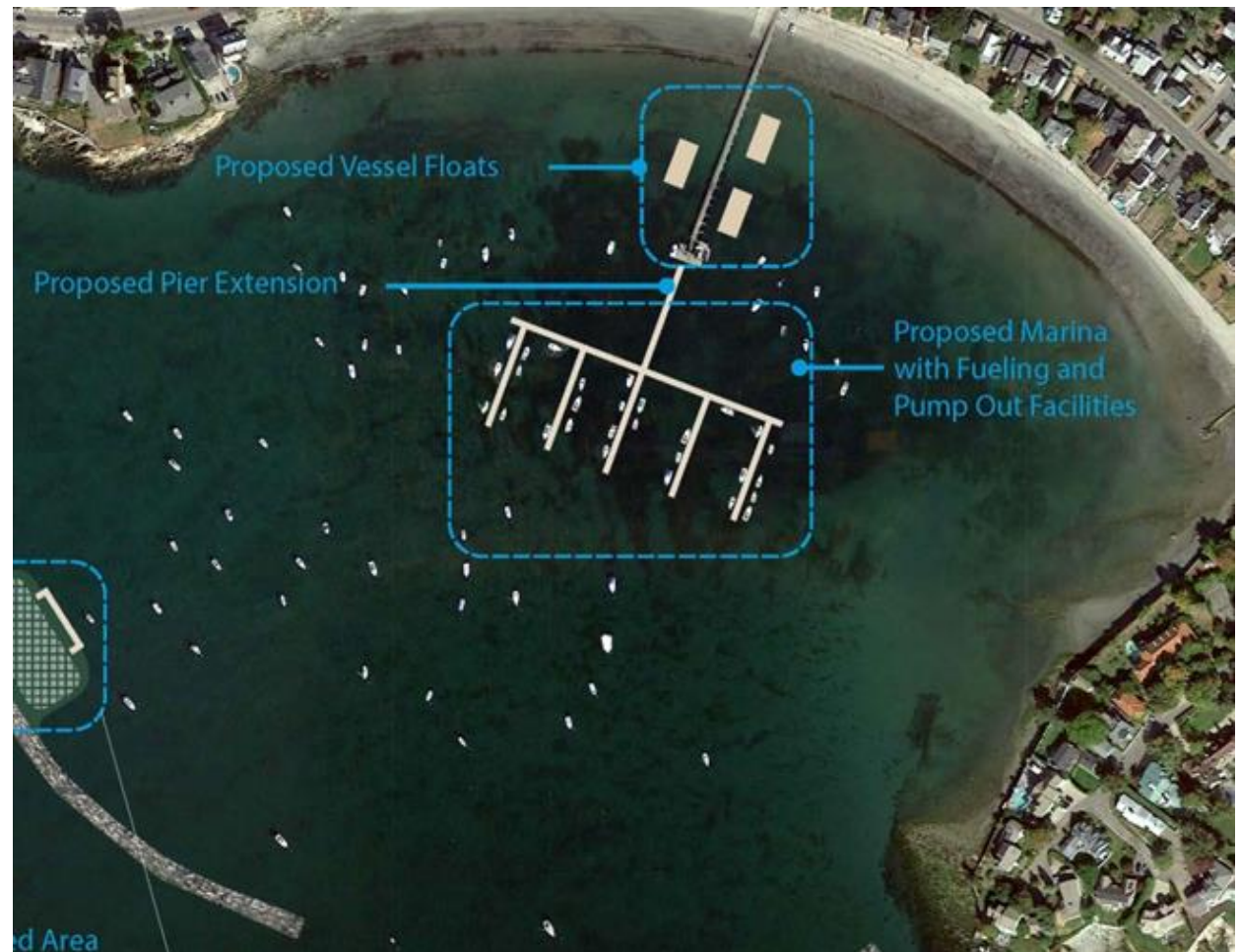


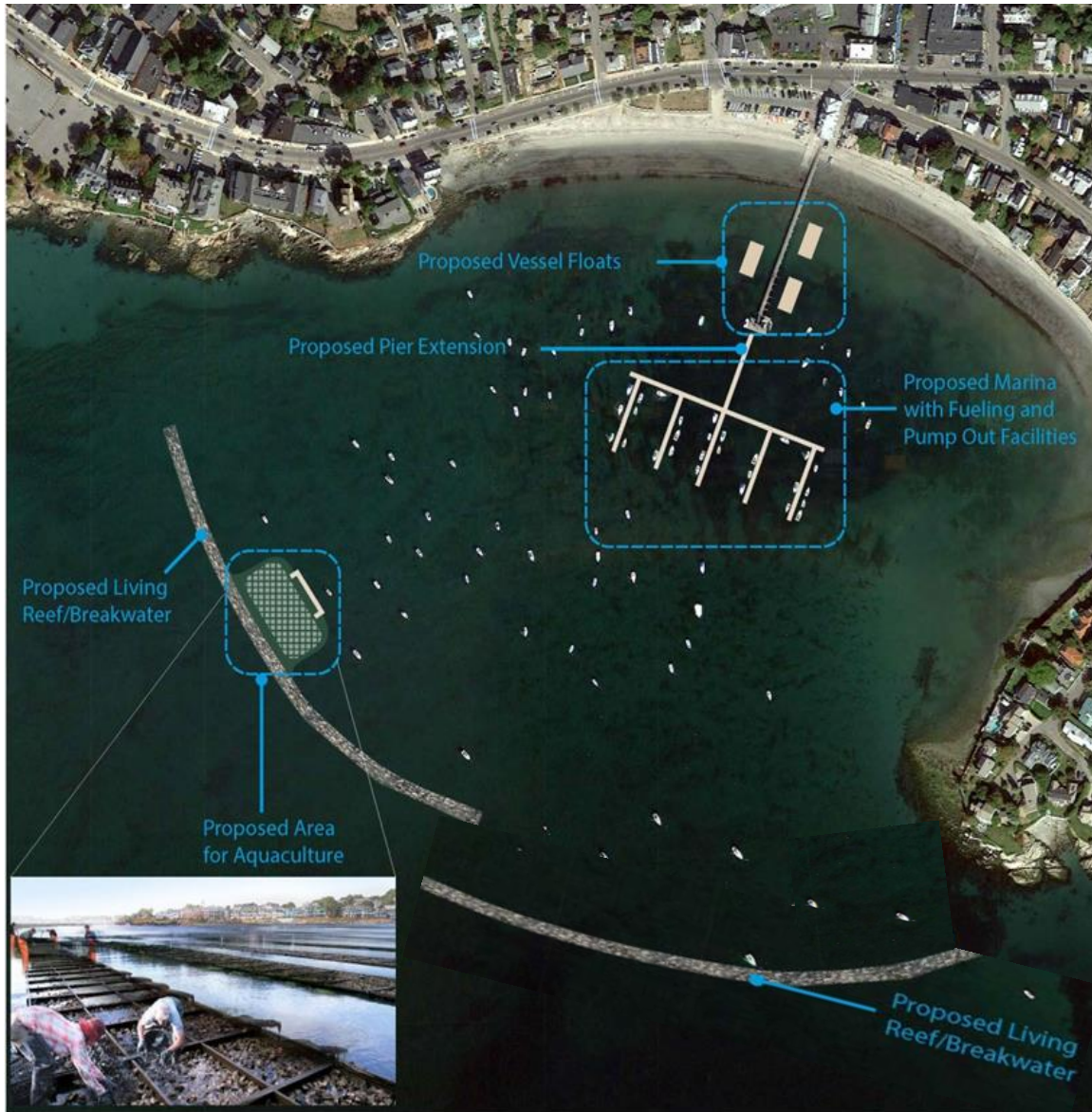
HARBOR PROTECTION AND THE “PROTECTIVE LIVING REEF”

Cost Estimate:	\$8M - \$12M
Grants:	\$6M - \$7M
Private Funds:	\$1M - \$2M
Income Stream:	\$200K-\$300k/yr
Damage Avoidance	\$250k-\$2M/yr
Payoff Period (Est.)	10-15 years

SWAMPSCOTT AND THE SEA

**NEW
ECONOMIC
POTENTIAL
FOR THE
HARBOR:
SLIPS,
BOATING,
AND A
DESTINATION
PORT.**

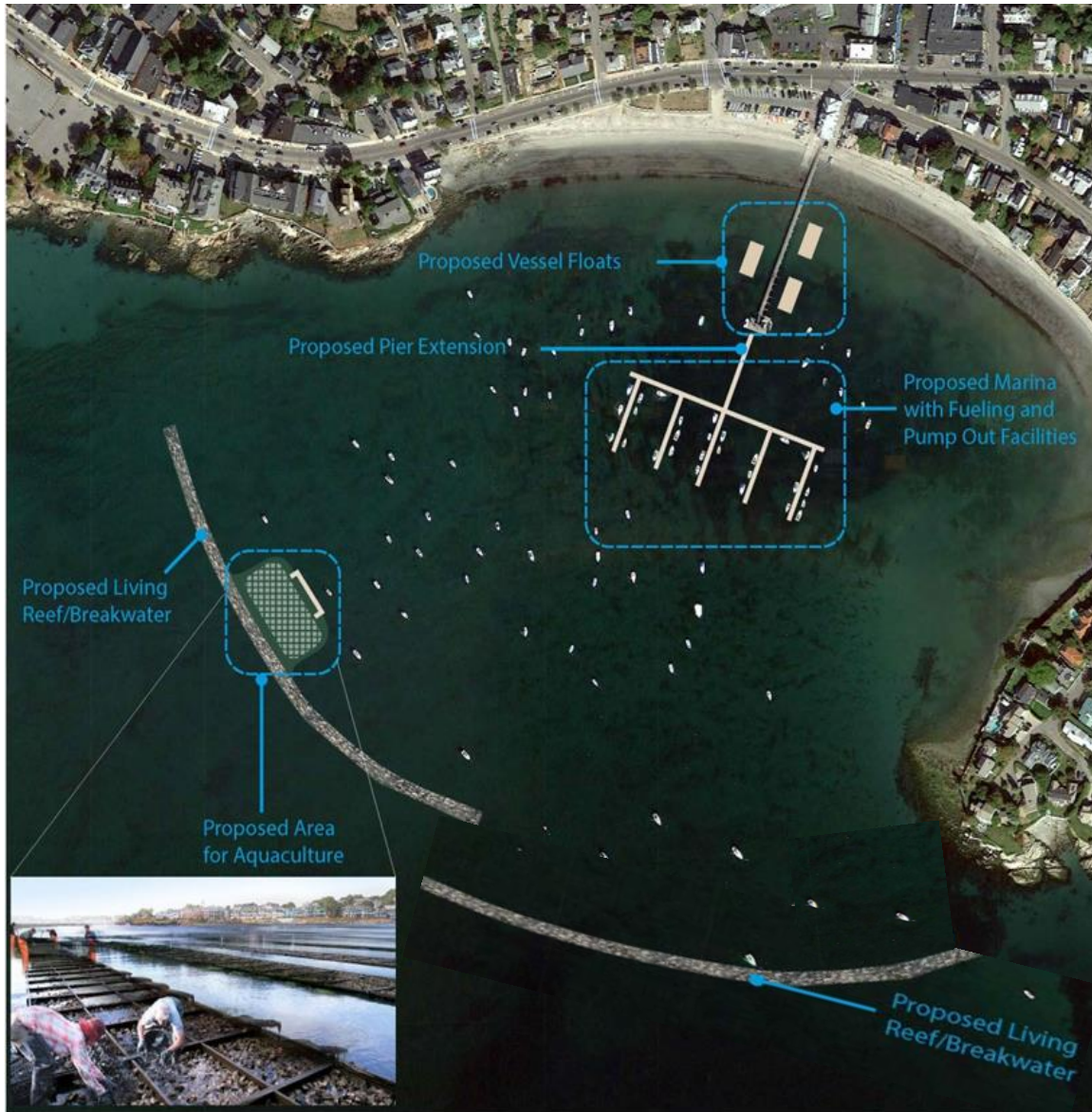




SWAMPSCOTT AND THE SEA:

**RENEWED
MARINE
IDENTITY
FOR THE
TOWN:**

**CLAM AND
OYSTER
REEFS &
HARVESTS
FROM THE
SEA.**



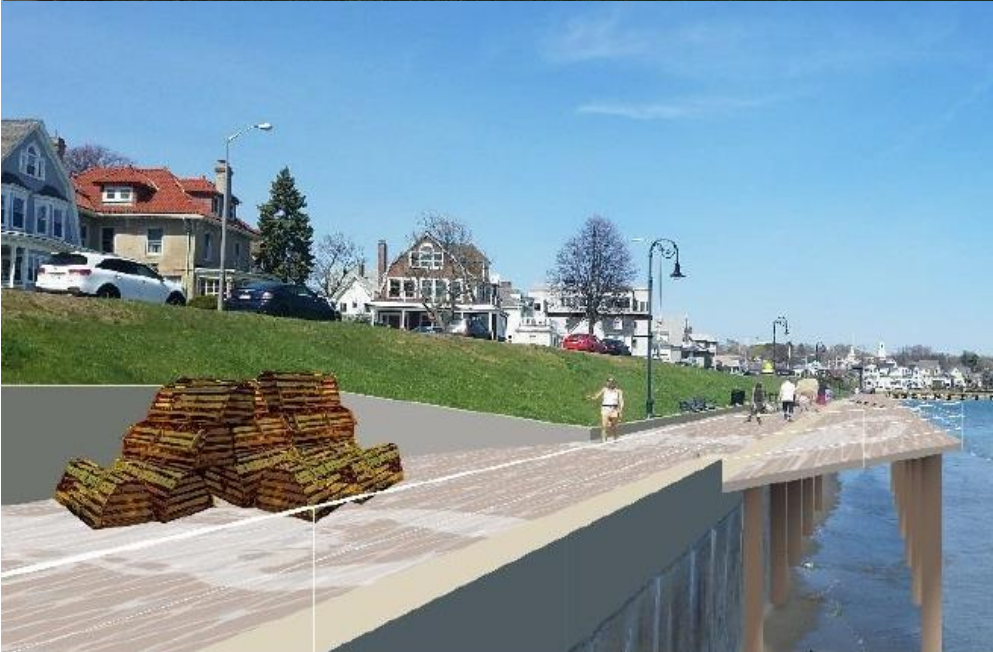
SWAMPSCOTT AND THE SEA:

EDUCATIONAL & RESEARCH OPPORTUNITY

- SWAMPSCOTT MARINE LABORATORY & INSTITUTE
- SWAMPSCOTT PARTNERING WITH MAJOR INSTITUTIONS & UNIVERSITIES

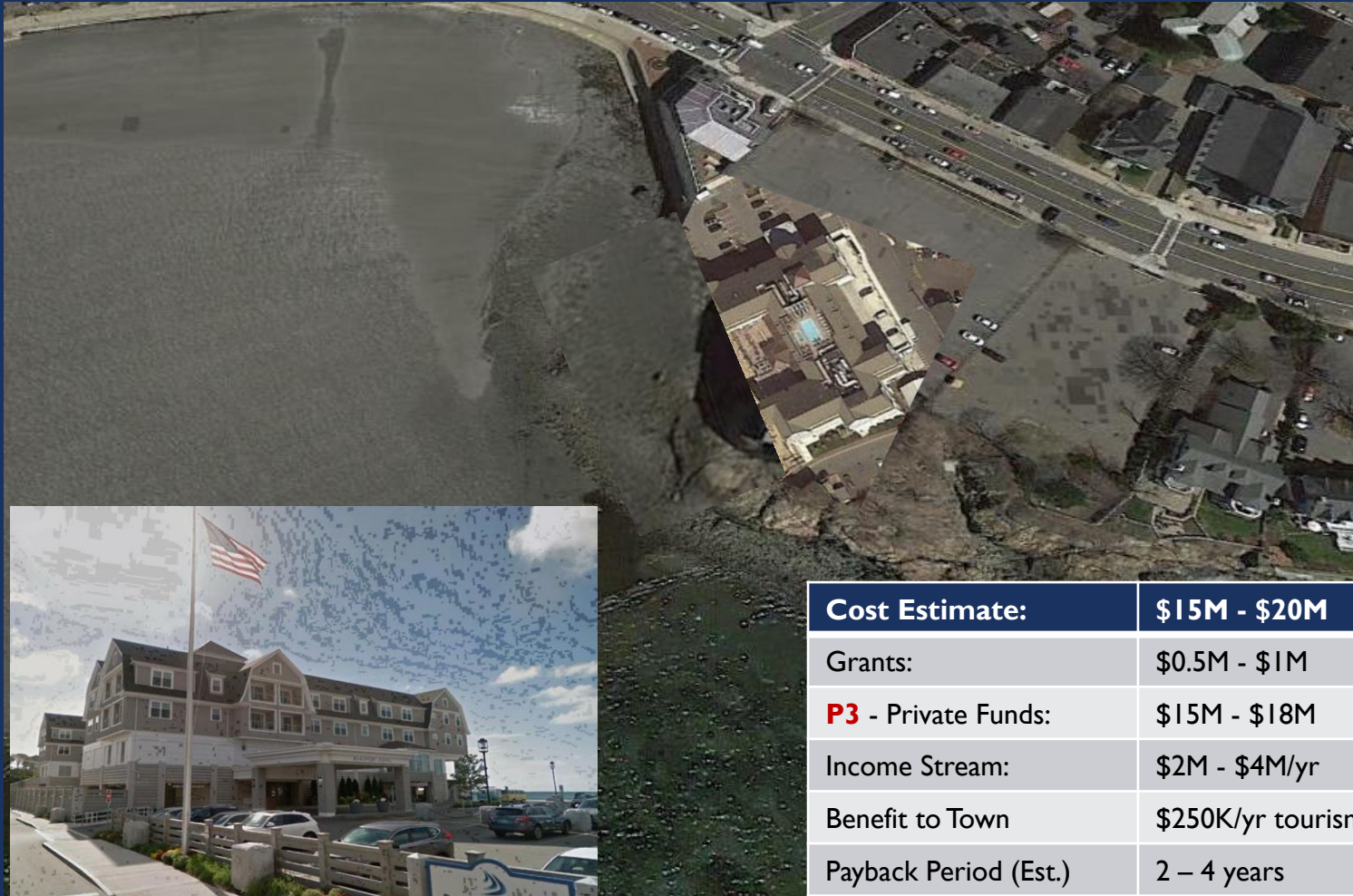
SWAMPSCOTT AND THE SEA:

SWAMPSCOTT EDGEWATER PROMENADE & CLIFF WALK



Cost Estimate:	\$12M - \$18M
Grants:	\$5M - \$8M
Private Funds:	\$2M - \$4M
Income Stream:	\$400K-\$600k/yr
Damage Avoidance	\$200k-\$400k/yr
Payback Period (Est.)	10 – 16 years

SWAMPSCOTT AND THE SEA:



Cost Estimate:	\$15M - \$20M
Grants:	\$0.5M - \$1M
P3 - Private Funds:	\$15M - \$18M
Income Stream:	\$2M - \$4M/yr
Benefit to Town	\$250K/yr tourism
Payback Period (Est.)	2 – 4 years

EDGEWATER BY THE SEA HOTEL & CONFERENCE CENTER

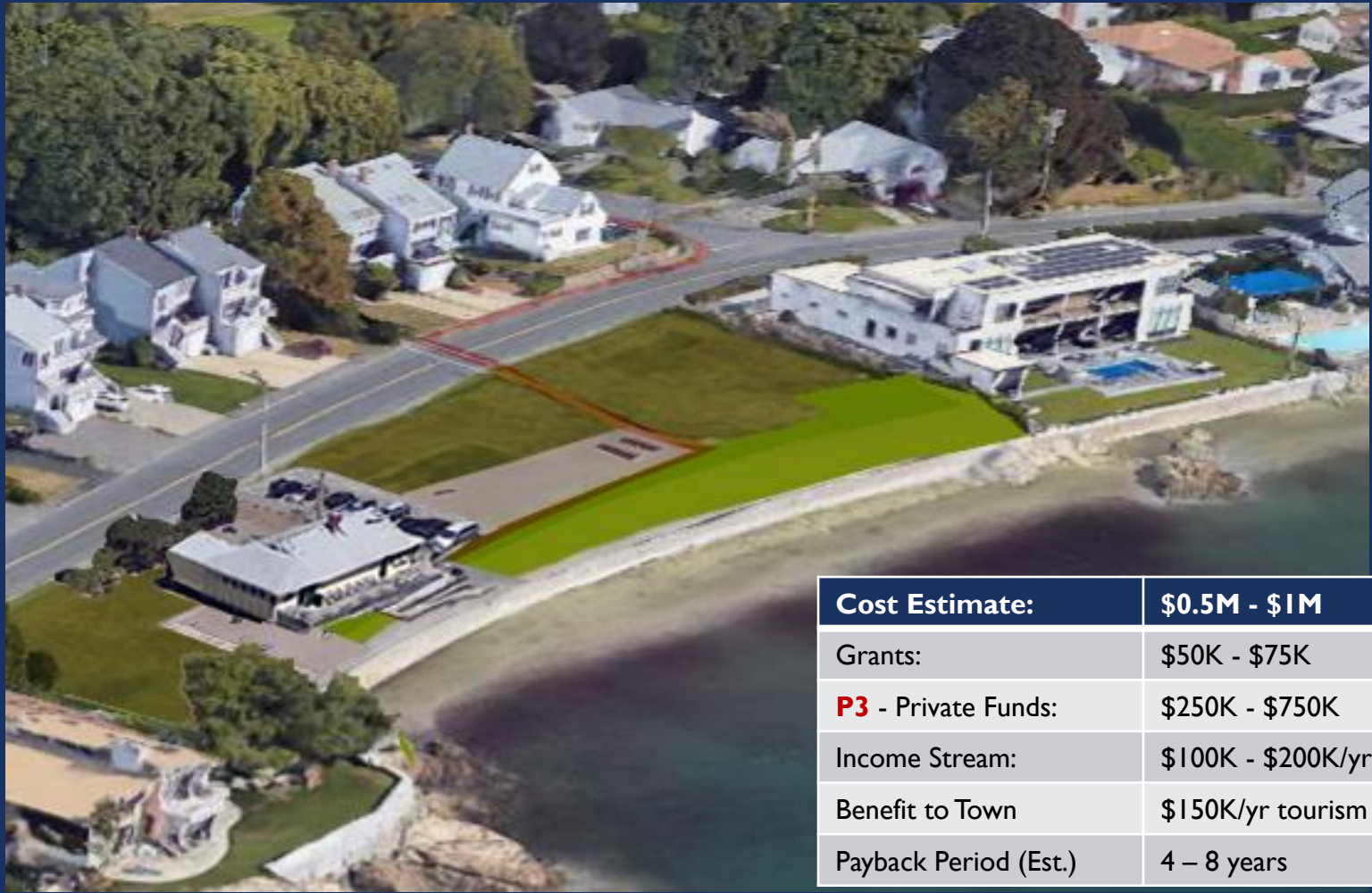
SWAMPSCOTT AND THE SEA:

KINGS BEACH PIER AT THE START OF THE PROMENADE



Cost Estimate:	\$5M - \$8M
Grants:	\$2M - \$4M
P3 - Private Funds:	\$0.5M - \$1M
Income Stream:	\$1M - \$2M/yr
Benefit to Town	\$200K/yr tourism
Payback Period	8 – 10 years

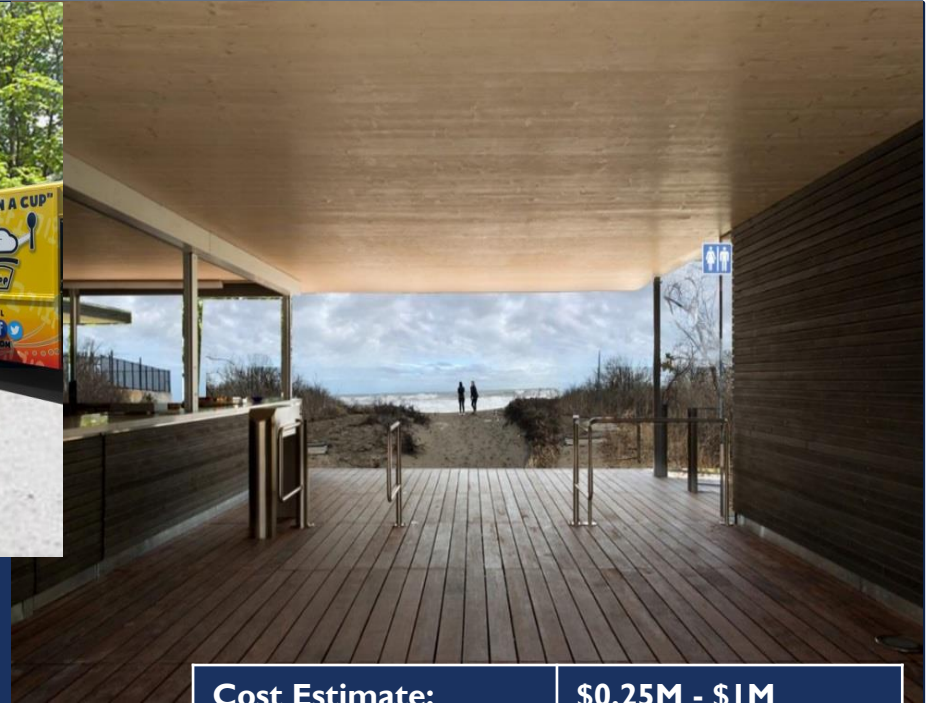
SWAMPSCOTT AND THE SEA:



Cost Estimate:	\$0.5M - \$1M
Grants:	\$50K - \$75K
P3 - Private Funds:	\$250K - \$750K
Income Stream:	\$100K - \$200K/yr
Benefit to Town	\$150K/yr tourism
Payback Period (Est.)	4 – 8 years

EISMAN'S BEACH BATHHOUSE AND SNACK SHACK

SWAMPSCOTT AND THE SEA:



Cost Estimate:	\$0.25M - \$1M
Grants:	\$50K - \$75K
P3 - Private Funds:	\$100K - \$450K
Income Stream:	\$50K - \$100K/yr
Benefit to Town	\$200K/yr tourism
Payback Period (Est.)	6 – 10 years

PHILLIPS BEACH BATHHOUSE & SNACK TRUCKS

SWAMPSCOTT AND THE SEA:



“Snack Shack” and Bath-house Amenity



Restaurant on Pier Amenity



Conveyor Belt on Pier for Commercial Fishermen

Restored Historic Fish House

Cost Estimate:	\$3M - \$7M
Grants:	\$100K - \$150K
P3 - Private Funds:	\$2M - \$6M
Income Stream:	\$50K - \$100K/yr
Benefit to Town	\$250K/yr tourism
Payback Period (Est.)	6 – 10 years

Raising and Widening Fisherman’s Beach Pier

SWAMPSCOTT AND THE SEA:



Cost Estimate:	\$2M - \$5M
Grants:	\$100K - \$150K
P3 - Private Funds:	\$1M - \$4M
Income Stream:	\$50K - \$100K/yr
Benefit to Town	\$100K/yr tourism
Payback Period (Est.)	6 - 8 years



PARKING LOT & GARAGE

SWAMPSCOTT AND THE SEA:

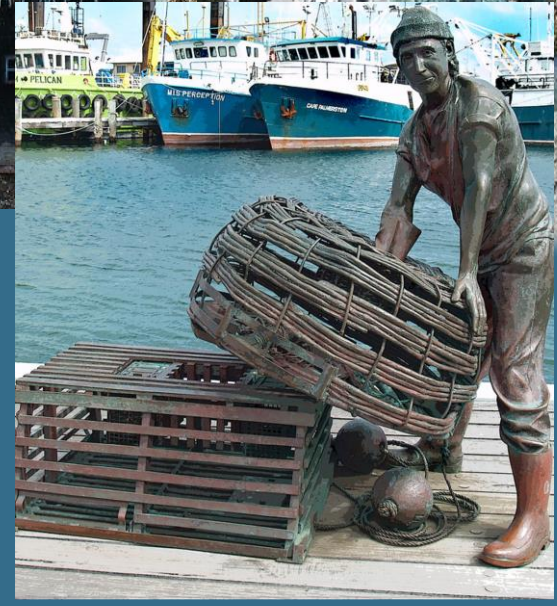


Cost Estimate:	\$0.25M - \$0.6M
Grants:	\$100K - \$150K
P3 - Private Funds:	\$0.2M - \$0.5M
Income Stream:	\$50K - \$100K/yr
Benefit to Town	\$400K/yr tourism
Payback Period (Est.)	1 - 3 yrs



TOWN TROLLEY LOOP TIES IT ALL TOGETHER

CREATING A SENSE OF PLACE: ART INSTALLATIONS



CREATING A SENSE OF PLACE: FESTIVALS, CELEBRATIONS & CONCERTS



**SUMMARY
OF COST /
BENEFIT**

ECONOMIC AND SOCIAL BENEFITS

TOWN GOALS MET BY THE PLAN

1. **Revitalizes the Town Waterfront for the Benefit and Enjoyment of Town Residents and Visitors.**
2. **Protects the Waterfront and Town from Storm Damage and Climate Change Threats.**
3. **Protects and Enhances Swampscott's Historic Identity.**
4. **Develops a Welcoming Waterfront that will increase Visitation, Attract Businesses, and increases Commercial Economic Activity and Income.**
5. **Establishes Swampscott as a Regional & State Destination.**
6. **Focuses on Enhancing and Revitalizing the Town Harbor – One of the Best and Most Valuable Assets in the Community.**

FUNDING OPPORTUNITIES

Federal Funding Opportunities:

- NFWF (National Fish & Wildlife Foundation (\$0.25M - \$ 2.5M annual));
- TIGER Grant (\$5M - \$35M individual grants to up to 50 recipients per year);
- EPA Brownfields Grant Program (Case by Case Basis - \$ 25K - \$2.5M Grants Traditionally);
- Federal Resiliency & Waterfront Grant Program (\$100K – \$1.25M Federal Infrastructure Grants);
- Federal Economic Development Grant Program (\$ 25K - \$1M revolving Econ Dev Grants & Loans);
- US Army Corps of Engineers Dredge Program (Congressional: \$0.5M - \$ 25M for Waterfronts).



State Funding Opportunities:

- State Public Waterfront and Boating Infrastructure Grant (\$10K – \$500K);
- Seaport Economic Counsel (\$25k - \$250K for Waterfront Projects);
- State Housing and Urban Development Harbor and Port Grant Funds (\$25K - \$100M);
- State Infrastructure Grants and Loans Programs (\$.5M - \$3M, multiple annual awards);
- DEP Brownfield and Sites Cleanup Grants (Case by Case Basis - \$ 25K - \$250K Grants);
- State Resiliency & Waterfront Infrastructure Grant Program (\$100K – \$2M for Infrastructure).

RECENT EXAMPLES OF FUNDING IN MA

- **Baker-Polito Administration Awards \$2.5 Million to Support Plymouth Inner Harbor Dredging**
10/09/2018 Executive Office of Housing and Economic Development
Award will enable Plymouth to undertake significant dredging project in preparation for upcoming Plymouth 400 Commemoration
- **Baker-Polito Administration Celebrates Completion of Next Phase of Fairhaven's Union Wharf**
Office of Housing and Economic Development
 - Second phase of rehabilitation project rebuilds bulkhead and consolidates marine safety functions
- **Baker-Polito Administration Announce 2018 Navigational Dredging Pilot Program Awards**
8/29/2018 Executive Office of Housing and Economic Development
 - \$3.6 million in state grants supporting 10 projects, leveraging another \$3.9 million in local funding
- **Baker-Polito Administration Celebrates Completion of Next Phase of Fairhaven's Union Wharf**
8/27/2018 Executive Office of Housing and Economic Development
 - Winthrop Park will provide new educational and recreational opportunities for residents and visitors



**NEXT
STEPS**

PUBLIC ENGAGEMENT
MAY: PRESENTATION AT TOWN MEETING
JUNE: 3 PUBLIC LISTENING SESSIONS