

CRTF

Duxbury Coastal Resiliency Task Force

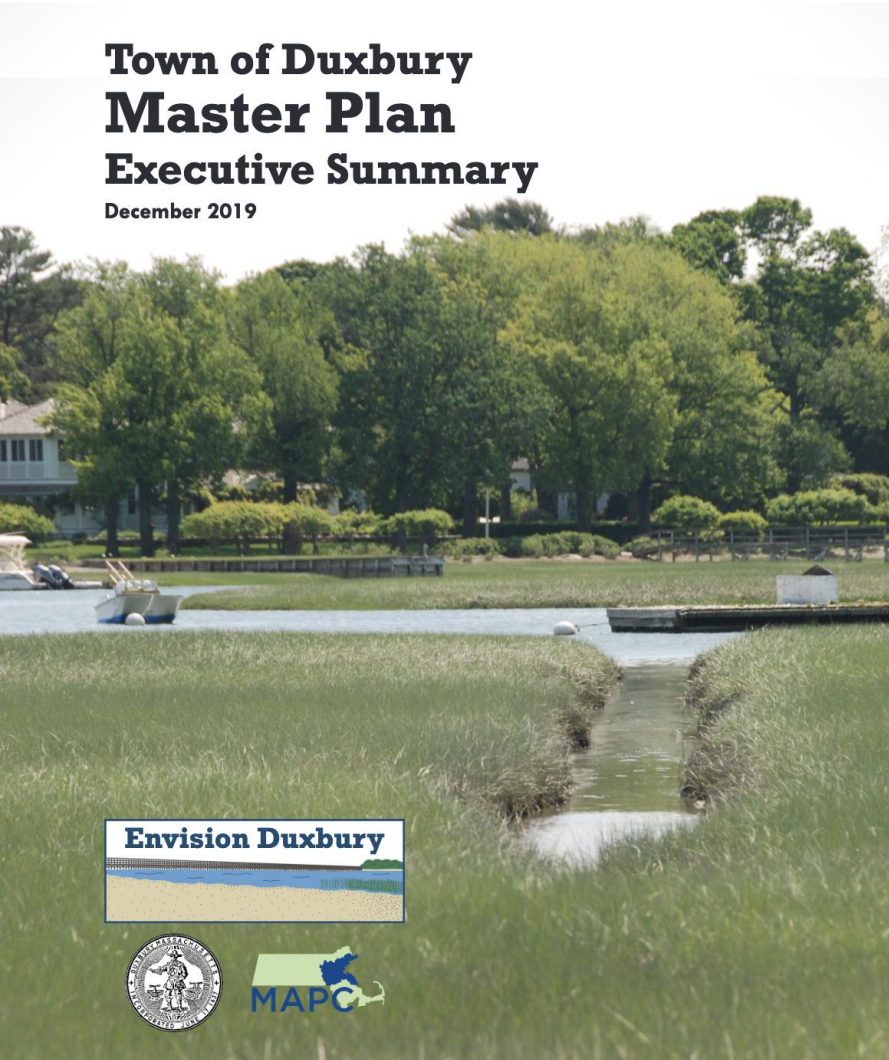


Stakeholder Kick-off July 31, 2023

CRTF Acknowledgements

Town of Duxbury Master Plan Executive Summary

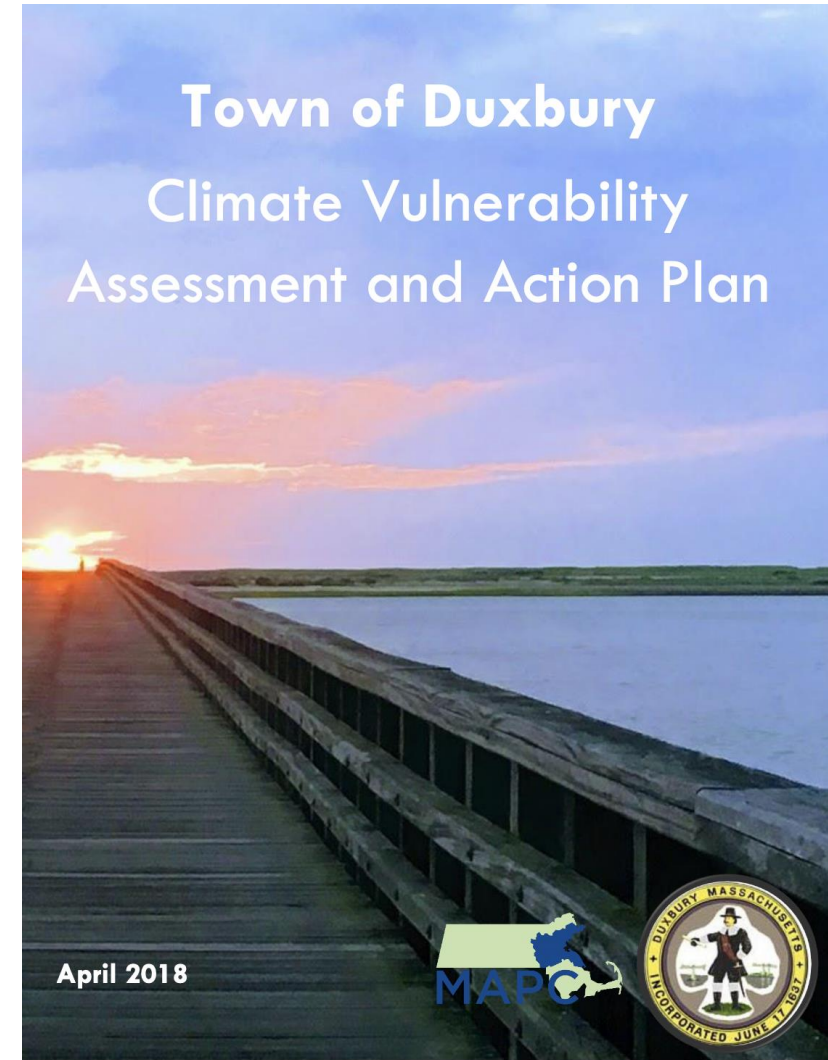
December 2019



Duxbury Climate Change Vulnerability Assessment and Adaptation Plan

June 2021

Town of Duxbury Climate Vulnerability Assessment and Action Plan



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Vulnerability Assessment & Adaptation Planning



Avoid

Identify future 'no-build areas' and use planning tools to prevent new development in areas at risk now or in future



Accommodate

Continue to use the land but accommodate changes by building on piles, converting agriculture to fish farming or growing flood- or salt-tolerant crops



Protect

Use hard structures (eg sea walls) or soft solutions (eg dunes and vegetation) to protect land from the sea. May be prohibitively expensive, especially in the long term

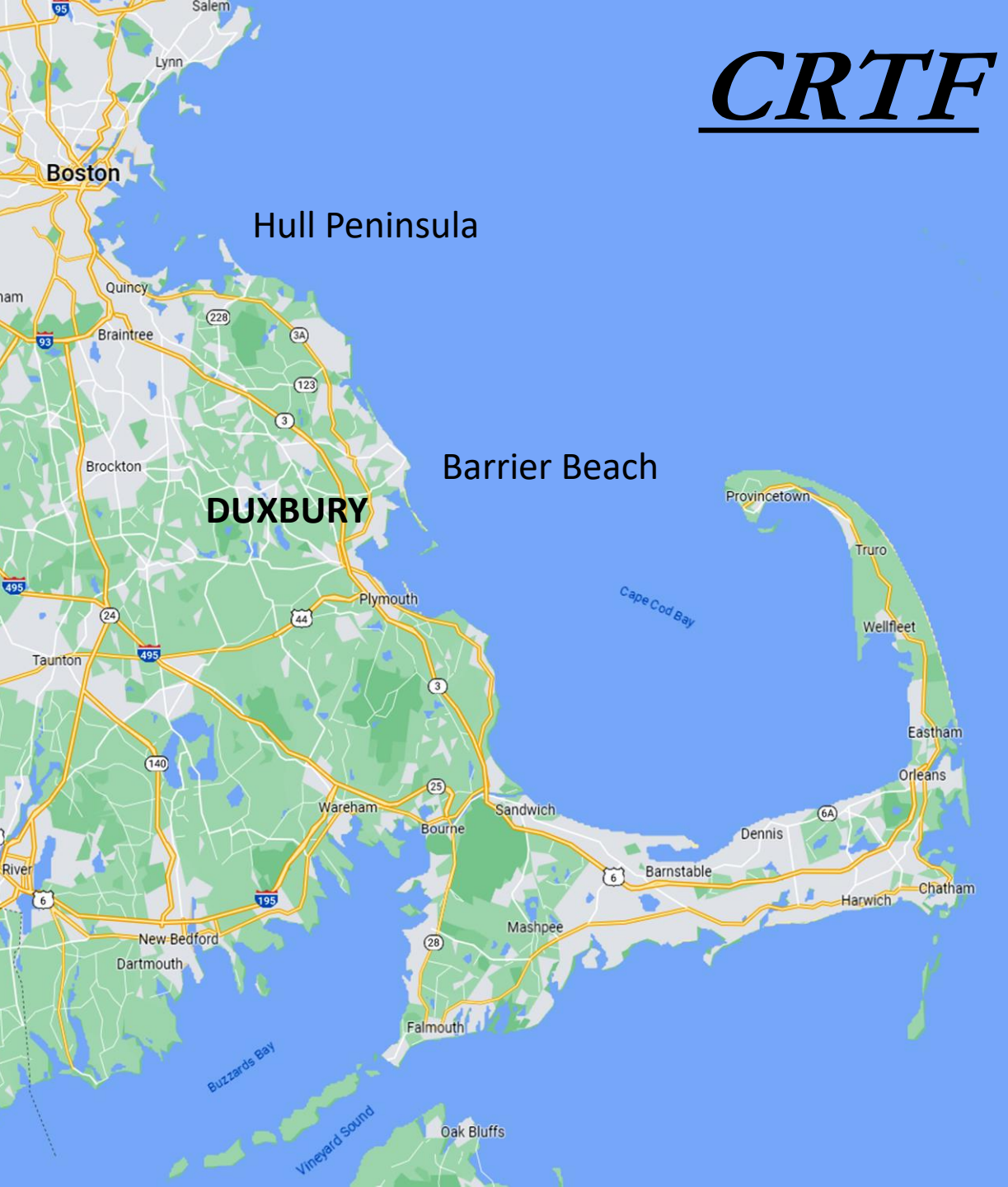


Retreat

Withdraw, relocate or abandon assets that are at risk; ecosystems are allowed to retreat landward as sea levels rise



- Reduce vulnerability to sea level rise & storm surge.
- Be pro-active – How do we build to co-exist with our environment?
- Change policies, bylaws, and regulations to promote adaptation and build resiliency to the effects of climate change, important among these wetlands protection

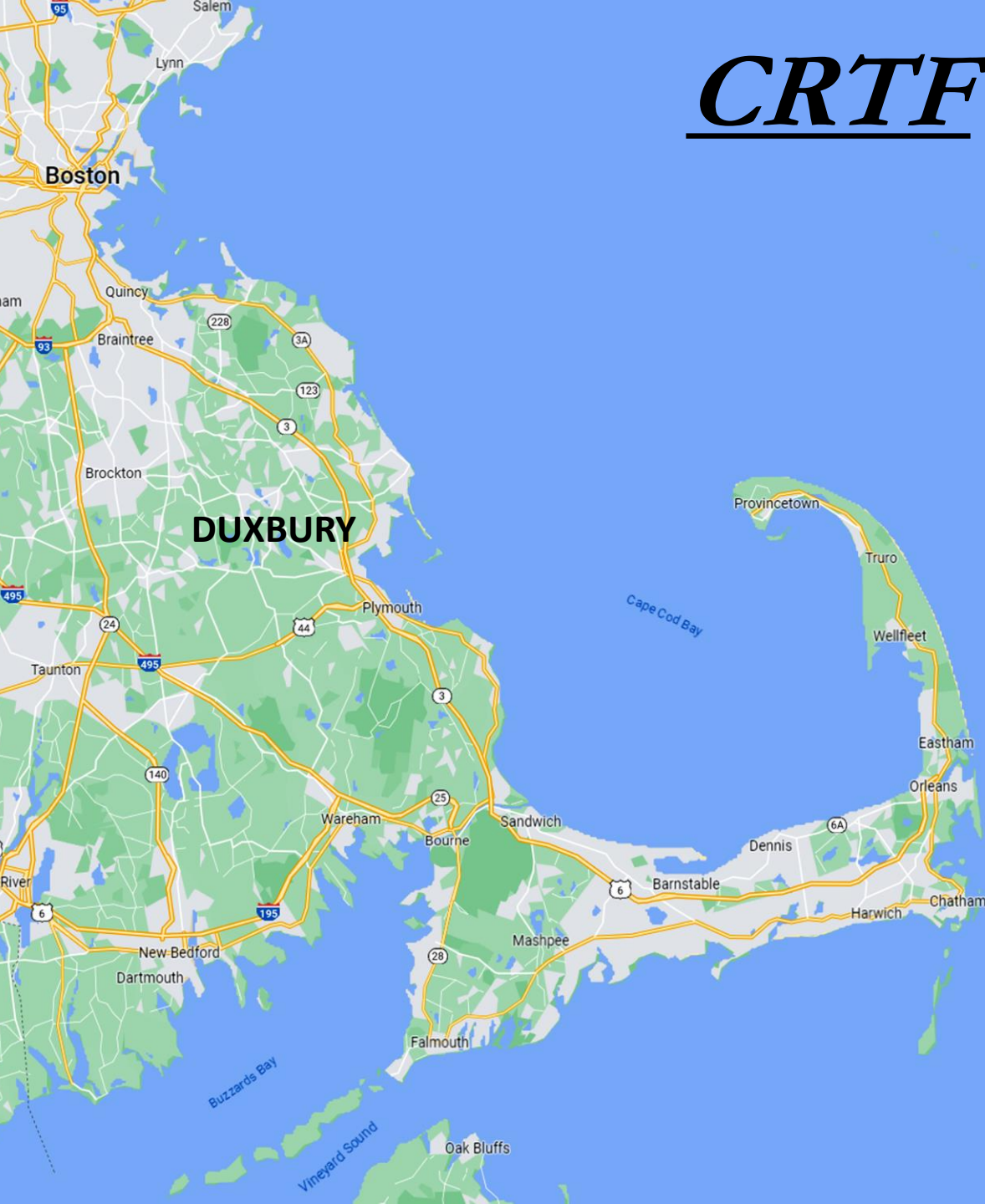


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Charge

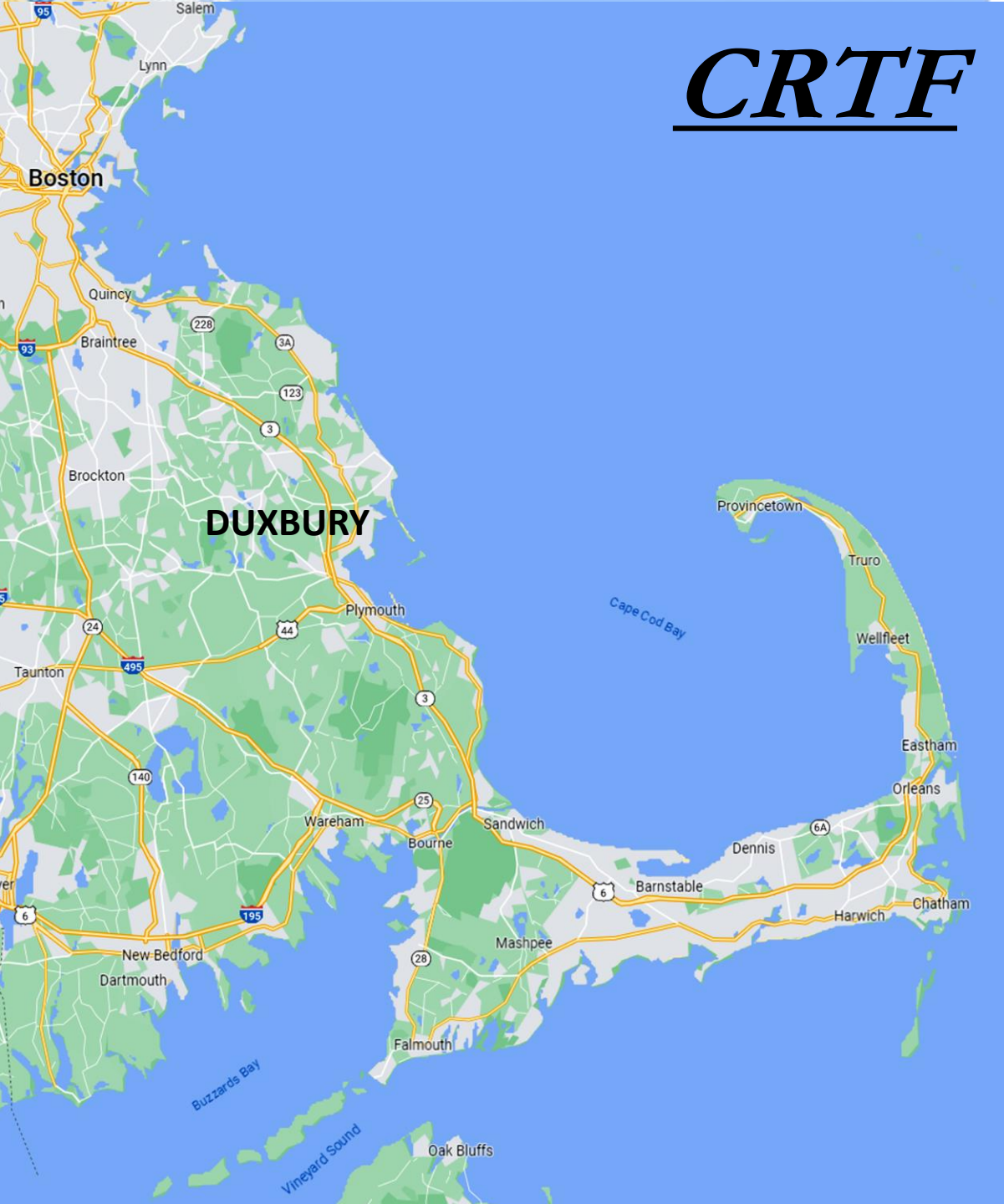
- Identify Town assets, infrastructure, and roadways that are vulnerable to sea level rise and storm surge
- **PRIORITIES:** which are the most vulnerable, what goals and actions are to be implemented first. Recommend adaptation priorities to Selectboard
- **Seek input from and collaborate with stakeholders who may hold specific expertise, interest, and experience with coastal resiliency**

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Scope

- * Vulnerability Assessment & Adaptation Implementation
- * Coastal Resiliency Recommendations
- * Public Outreach & Education
- * Municipal & Citizen Planning Efforts
- * Grants & other Funding
- * Stakeholders



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Stakeholders

- People & organizations with a stake or interest in resiliency planning
- Municipal Departments, Boards, Committees, and Organizations
- A resident, business owner, property owner, or with any other role or interest in strengthening our coastal resiliency
- Share with us your concerns - overall coastal resiliency or specific priority

CRTF Coastal Tour



CRTF Barrier Beaches



- Help protect landward areas including Duxbury Harbor and surrounding upland areas
- Buffer storm waves and sea levels elevated during storms
- Undergoing a land migration in Massachusetts
- Maintained by the longshore movement of beach sediment

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Recent Coastal Resiliency

- Commitment to Resilience
- New seawalls to protect infrastructure and real estate
- Extensive barrier beach nourishment and sacrificial dunes to enhance Duxbury Beach as the most critical asset to the preservation of our community



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Current Priorities

I

Protect Duxbury Beach

- Support Duxbury Beach Reservation (DBR) and Town efforts along Gurnet Road north to Marshfield to enhance the Barrier Beach



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Current Priorities

II

The Selectboard voted unanimously to support hiring a Resiliency Planner to assist the Planning Director:

- Environmental planning
- Coordinate municipal planning
- Sustainability coordination
- Implement resiliency plans
- Environmental site plan review
- Land use regulations
- Grant writer / administrator



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Current Priorities

III

The Selectboard voted unanimously for the first roadway project priority:
Powder Point Avenue

PRELIMINARY concept to raise the roadway 2.5 feet to preserve critical connections – and here a bit of our history is underwater:

“We are all parts of one stupendous whole, Life is Nature, and God, the soul. Here lies buried Honest Dick.”



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What Lies Ahead



- Infrastructure & Priority Recommendations 2021/2030
- Protecting community business, transportation, & natural assets
- Impacts of Periodic Flooding – road closure, emergency access, infrastructure & property damage
 - Snug Harbor
 - Gurnet Road

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What Lies Ahead



- Marshall Street Bridge
- Curate Marsh Migration:
*Restoration for
Protection and Carbon sink*
- Land Use Regulations



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Land use tools and policies such as zoning ordinances, site plan review, and resilient design guidelines can help prepare a municipality long-term for the impacts of climate change.

MAPC

CRTF Land Use Regulations

Floodplain
Overlay
Districts



Stormwater
Regulations



Wetlands
Regulations



Site Plan
Review



Water
Conservation
Regulations



Tree
Protection
Regulations



Design
Standards &
Guidelines



Other Zoning
Districts



Special
Permits



Land use
regulations
can be a powerful
tool
to provide climate
[and coastal]
resilience.

MAPC

A map of Cape Cod and surrounding areas, including parts of Massachusetts and Rhode Island. The map shows major roads, towns, and bodies of water. The word "DUXBURY" is prominently displayed in the center-left area of the map. The map is oriented with North at the top.

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CAPTF Climate Action Plan Task Force

Coordinate CRTF, CAPTF, and other environmental efforts to tackle resiliency and sustainability

- Per Town Meeting, CAPTF charge is to facilitate ways mitigate impact of our activity on the environment
- Facilitate transition from municipal and private use of fossil fuels to alternative renewable energy

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Next Steps



Based on information gleaned from this Kick-off meeting, the Task Force will create a Stakeholders Matrix with information about each member and their capacity to assist with shaping the Task Force's recommendations to the Selectboard. The objective is to achieve key stakeholder ownership of Duxbury's commitment to Resilience.

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All Hands On Deck

