

# Regulatory Tools for Coastal Floodplain Resiliency

Nantucket Coastal Conference

June 10, 2025



CAPE COD  
COMMISSION



Sea Grant  
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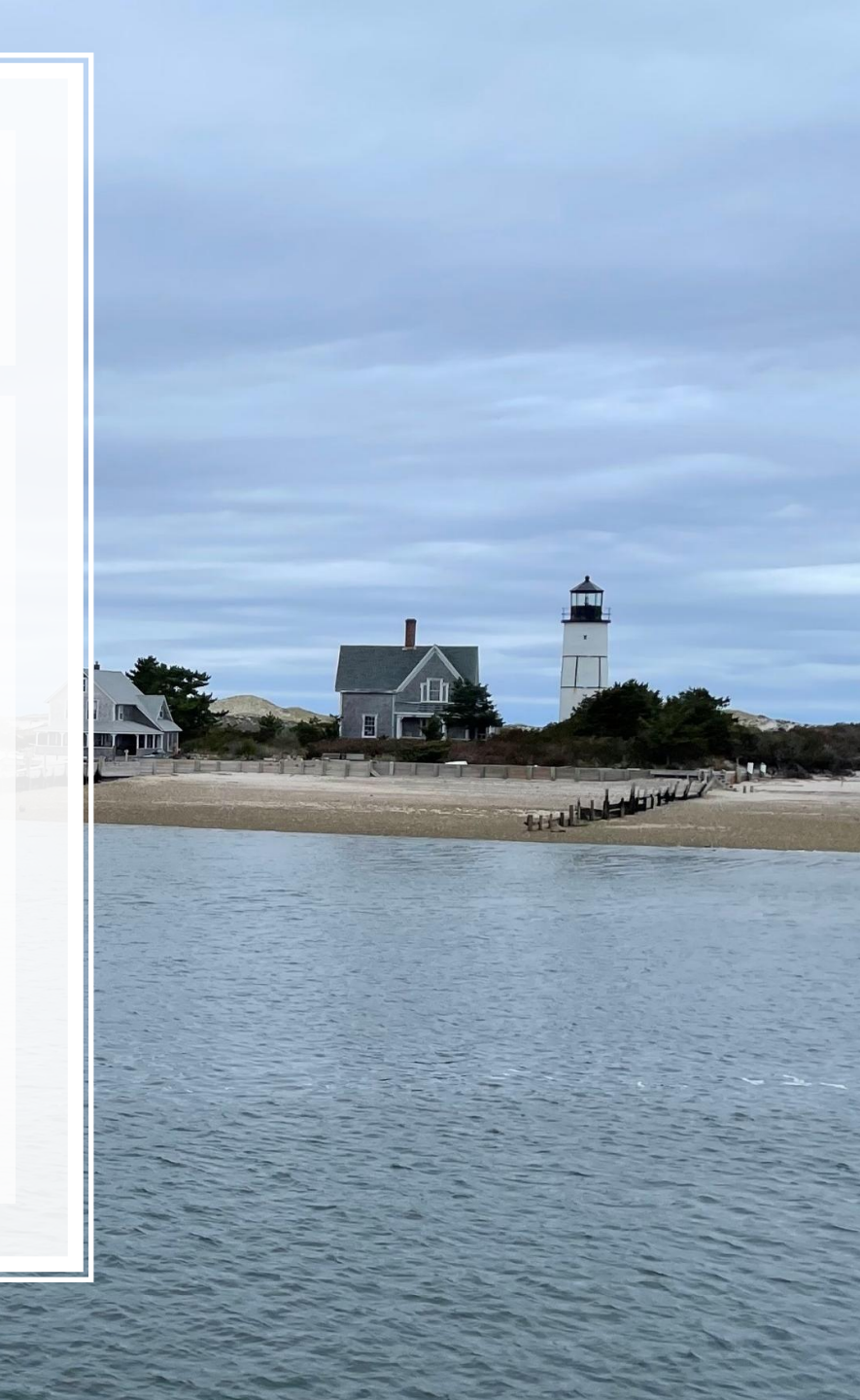
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# Cape Cod Model Resiliency Bylaws and Regulations

\*Cape Cod Commission is lead on all projects\*

- Zoning Bylaw
- Wetlands Bylaw
- Performance Standards (regulations) for “Land Subject to Coastal Storm Flowage” aka the floodplain within Wetlands/Conservation Commission jurisdiction
- [capecodcommission.org/our-work/regulatory-tools-for-coastal-floodplain-resiliency](https://capecodcommission.org/our-work/regulatory-tools-for-coastal-floodplain-resiliency)





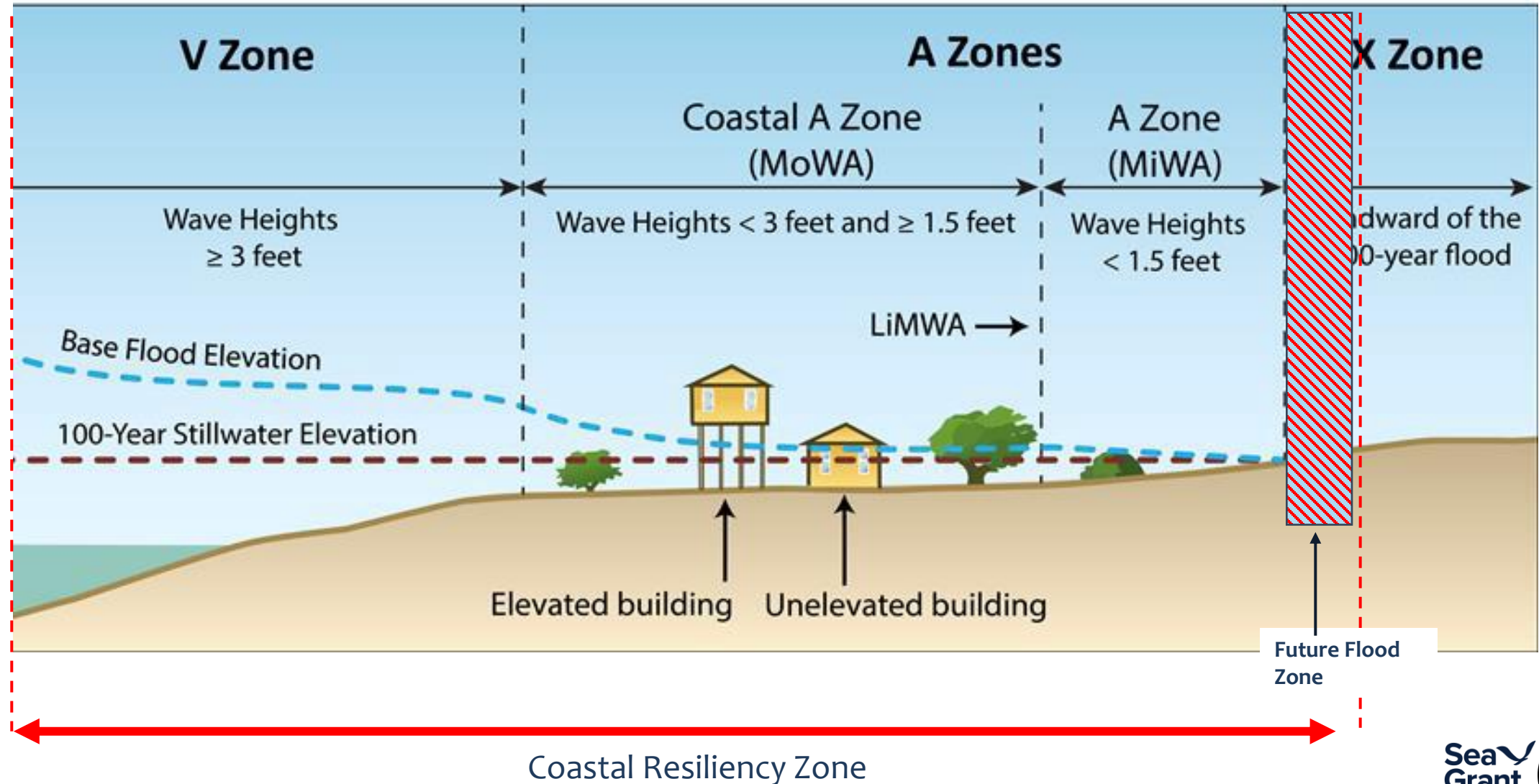
# MODEL REGULATIONS

## Key Aspects

- Response to requests from community staff and boards to provide regulatory guidance to address coastal resilience concerns
- 3 independent projects are coordinated
- Designed to limit further investment in high-risk areas; recommendations vary by V, Coastal A, A, and “Future” Zones
- Special Transition Areas allow for migration of wetlands
- Intended to be added to existing bylaws and allows for adapting the new standards a la carte to local needs
- Expands regulatory jurisdiction beyond floodplain (horizontally and vertically) by creating Coastal Resilience Zone (CRZ)/Future Flood Zone
  - *Land subject to 1% annual storm per **Best Available Coastal Flooding Model** [model adopted by Town, such as Massachusetts Coastal Flood Risk Model] for **Target Year** [e.g. 2050, 2070]*



# Coastal Resiliency Zone





View One: Property flood risk

View Two: Design flood elevations

## Layers and legend

### FEMA floodplain

#### 1% annual chance flood extent

- Velocity Zone
- Coastal A Zone
- A Zone (non-coastal A, AE or AO)
- Outside 1% annual chance flood

### MCFRM floodplain

#### 1% annual coastal flood extent

- 2050
- 2070
- Outside 1% annual coastal flood

### Building footprints (MCFRM floodplain)

- 2050
- 2070
- Outside 1% annual coastal flood





View One: Property flood risk

View Two: Design flood...



2070 MCFRM  
design flood  
elevations



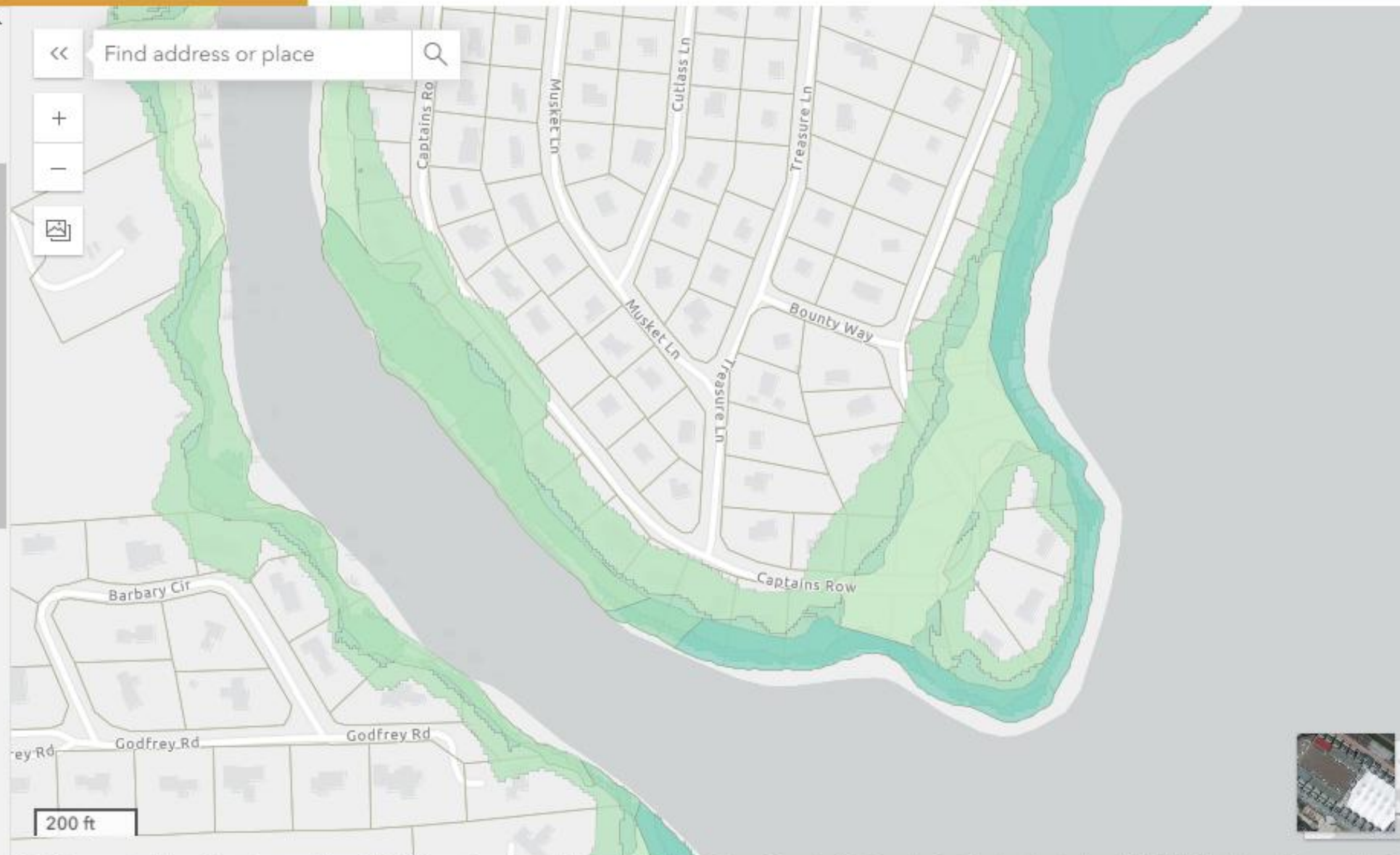
2050 MCFRM  
design flood  
elevations



Elevation (ft NAVD 88)



Find address or place



View One: Property flood risk

View Two: Design flood elevations

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New State Building Code design flood elevations

Current State Building Code design flood elevations

2070 MCFRM design flood elevations

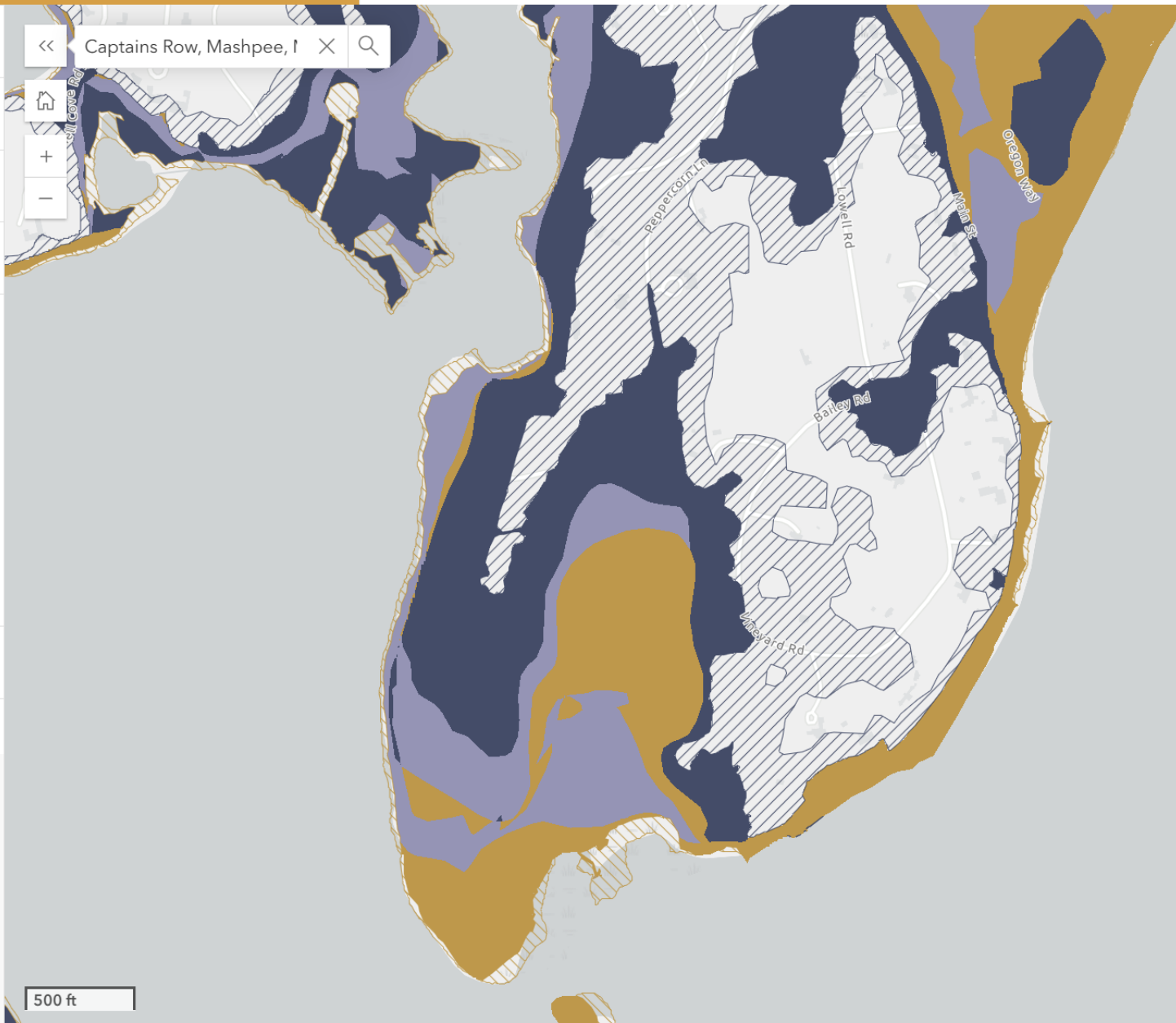
2050 MCFRM design flood elevations

2070 MCFRM vs new building code elevations

2050 MCFRM vs new building code elevations

Parcels

- building code elevation is higher
- elevations are equal
- MCFRM elevation is higher
- building code elevation only
- MCFRM elevation only







# Zoning

- Land use and some provisions that don't fit well elsewhere
- Address frequent challenges with building code enforcement; close loopholes
- Cannot be stricter than the building code, so does not incorporate some key provisions





# Wetlands/ Conservation Commissions

- Already have jurisdiction over FEMA floodplain, but no regulations (aka “Performance Standards”)
  - Can only take sea level rise into account vertically (increasing DFE) and not horizontally by expanding the floodplain
- Updating the bylaw would allow for horizontal expansion of the floodplain to include a new area within ConCom’s jurisdiction PLUS regulations



# Summary of Primary Higher Standards



- Cannot redirect or channelize floodwaters or increase elevation or velocity, must restore natural features where possible
- Limitations/prohibitions on development by flood zone
  - No new development in V and Coastal A
  - No structural expansion in V and Coastal A
  - Limits on fill and engineering analyses required
- Prohibition on storage of hazardous materials
- No rebuilding after two Substantial Damage determinations
- Elevation of Substantial Improvements/raze and replace based on best available flood/sea level rise data
- Building height baseline measured from DFE
- Clarifications and closing of loopholes from the building code
  - Using a LOMR-F to enable a basement
  - How to handle qualifying historic structures
  - Non-conversion agreements
  - Assessed value for SI/SD
  - Accessory structures



Status: Has anyone adopted these yet?

NOPE!



# Status: Has anyone adopted these yet?

- Town Meeting restrictions
- In conversations with town staff and board members in 9 Cape Cod towns, Nantucket, and 4 towns on Martha's Vineyard
- Several meetings required to fully understand the floodplain concepts and bylaws vs. regulations
- Important to note: Chatham





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# Communications Framework

## Overview



<https://capecodcommission.org/our-work/regulatory-tools-for-coastal-floodplain-resiliency>

# Thank you!

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