List of Potential Funding Mechanisms for Coastal Resilience Projects

- Needs to be a constant sustainable fee like the Land Bank fee
- Component of a stabilization fund
- Increase beach sticker price and a percent goes into a coastal resilience fund and/or have a box for applicants to check to donate money for coastal resiliency
- Betterments
- Create a resilience fund with the Community Foundation
- Leverage private-public partnerships and make it easier/streamlined
- Explore increasing embarkation fee and/or allocate fees for coastal resilience projects
- Explore increasing tax by small % to fund coastal resilience projects
- Explore selling excess sand and use $ for coastal resilience projects
- Explore how to use Ch.91 license fees and fines for coastal resilience projects
- Shift beach fund allocations so more money can be used for resilience projects/dune/beach nourishment

## List of CRAC's Suggestions for Updating Nantucket's Zoning and Land Use Regulations incorporating Shannon Hulst's comments

**From the CRP:**

- Adopt the provisions included in the Massachusetts 2020 model floodplain by-law in order to continue participation in the National Flood Insurance Program (NFIP)
- Adopt Model Floodplain Overlay District Zoning Bylaw-Optional Higher Standards (June 2024) to:

    A. Update Flood Hazard Overlay District to consider predicted climate changes such as sea level rise and more frequent and intense storm events

    B. Expand the Nantucket Flood Hazard Overlay District to an inland geography that incorporates the future floodplain including sea level rise.

    C. Incorporate a requirement that project proponents subject to Town approvals must demonstrate how their building and site plan will manage a 1% annual chance flood elevation including wave action with sea level rise expected as soon as 2070 or 2100 depending on the type and anticipated life of the structure

    D. Establish recommended Design Flood Elevations (DFE) based on a selected sea level rise increment above the minimum elevations required by Massachusetts Building Code. The DFE would represent the new minimum for lowest occupiable floor and critical systems for residential uses or flood proofing for non-residential structures
- Excluding necessary flood protection elements, required access to elevated buildings, structures for elevated mechanicals, setbacks, and other resilience measures, from gross floor area and lot coverage calculations
- Changing the definition of building height to exclude uninhabited space used for flood risk mitigation, such as wet floodproofing or measure height from Design Flood Elevation instead of Base Flood Elevation
- Disallowing or imposing Special Permit restrictions on essential/critical Facilities and high-risk structures, such as hospitals, schools, assisted living facilities, and Town administrative offices in areas subject to the 1% annual chance flood with sea level rise expected as soon as 2070 or 2100 depending on the type and anticipated life of the structure
    a. Use Design Flood Elevation from adjacent 0.2% chance flood zone or the Maximum Wave Crest from the Massachusetts Coast Flood Risk Model or other best available flood models
- Where development review or approval is required, establish protocol for Planning staff and Planning Board review of development proposals within Priority Action and High Coastal Risk Areas for consistency with long-term planning goals of reduced density and development
- In Priority Action (i.e. faces extreme coastal risk now-2030) and High Coastal Risk Areas (i.e. faces coastal risk now-2050)
    a. make all structures obtain special permit,

b. Increasing minimum lot size to encourage aggregation of lots and reduce overall residential density within an area,
c. in coordination with local wetland regulations, require maximum practical setbacks from mean high water,
d. impose reporting requirements that the property is located in an area of high coastal risk and that residential retreat is likely in the future
e. Limiting lot coverage for overall development to the greatest extent practical, ideally below 20%.
f. Prohibiting accessory uses that increase impervious cover including pools and other outbuildings

- Create a Special Coastal Risk Overlay District that incorporates Priority Action (i.e. faces extreme coastal risk now-2030) and High Coastal Risk areas (i.e. faces coastal risk now-2050)
- Explore the designation of Districts of Critical Planning Concern. This tool has been used on Cape Cod and Martha's Vineyard to pause certain types of development in specified areas. Nantucket could use this tool to temporarily limit development in areas of high coastal risk and allow time for further land use planning.
    a. May be accomplished if adopt Model Bylaw- Higher Standards
- Join the Community Rating System

**Other Suggestions:**

- Explore hold harmless agreement in at risk areas and sign a waiver for responsibility
- Create a zoning overlay district to help give the zoning board guidance, that takes coastal resilience concerns into account while interpreting the zoning bylaw and maintenance and continuation of utilities is not guaranteed
- Create incentives for implementing resiliency strategies on properties like design and engineering strategies that are adaptable to the need for future height changes
- Update definitions section in zoning by-law
    a. Flood Hazard Overlay District (FHOD) definition can be expanded in any way that enables it to include the insurances rates as well as considering metrics such as depth to groundwater, land subject to coastal storm flowage designation and any other aspects that would facilitate limiting further building in areas where the Town will be challenged by the requirement to improve and maintain access
- Explore road discontinuous and other options
- Adopt the Model Floodplain Overlay District Zoning Bylaw- Optional Higher Standards produced in June 2024

**Commented [LH1]:** Model Floodplain Overlay District Zoning Bylaw-Optional Higher Standards may cover this

**Commented [LH2]:** This is included in the scope for Retreat and Relocation Plan

**Commented [LH3]:** Model Floodplain Overlay District Zoning Bylaw-Optional Higher Standards would include this

**CRAC Responses to Homework**

**Matt Fee:**

CRAC doesn't have enough information or input from town departments to rank best way to do so.

The town has so many competing expenses, a key to getting project completed in a timely manner, and to set up proper incentives, is adoption of value capture principles like betterments etc.

Way better explanation of the many varied options start about page 30.
https://go.lincolninst.edu/Goytia_WP25CG1.pdf?_gl=1*bp2ttq*_ga*NTI2OTI3MTMwLjE3MjkxNzc3OTI.*_ga_26NECLE3MM*MTczMjU0MjMyMC41LjAuMTczMjU0MjMyMC4wLjAuMA..

Thanks

Matt

## List of CRAC's Suggestions for Updating Nantucket's Zoning and Land Use Regulations incorporating Shannon Hulst's comments

**From the CRP:**

#1
- Adopt the provisions included in the Massachusetts 2020 model floodplain by-law in order to continue participation in the National Flood Insurance Program (NFIP).

*"The absolute first thing that needs to be done is adopting the Statewide Model Floodplain Bylaw – S. Hulst*

#2
- Adopt Model Floodplain Overlay District Zoning Bylaw-Optional Higher Standards (June 2024) to:
  a. Update the language of the Nantucket Flood Hazard Overlay District to align with Floodplain Overlay District Zoning Bylaw-Optional Higher Standards (June 2024), to consider predicted climate changes such as sea level rise, groundwater rise, and more frequent and intense storm events.
  b. Expand the Nantucket Flood Hazard Overlay District to include inland geography that incorporates the future floodplain and land subject to coastal storm flowage (LSCSF).
  c. Incorporate a requirement that project proponents subject to Town approvals must demonstrate how their building and site plan will manage a 1% annual chance flood elevation including wave action with sea level rise expected as soon as 2070 or 2100 depending on the type and anticipated life of the structure.
  d. Establish recommended Design Flood Elevations (DFE) based on a selected sea level rise increment above the minimum elevations required by Massachusetts Building Code. The DFE would represent the new minimum for lowest occupiable floor and critical systems for residential uses or flood proofing for non-residential structures.

#4a
- Exclude necessary flood protection elements, required access to elevated buildings, structures for elevated mechanicals, setbacks, and other resilience measures, from gross floor area and lot coverage calculations.

#4b
- Change the definition of building height to exclude uninhabited space used for flood risk mitigation, such as wet floodproofing or measure height from Design Flood Elevation instead of Base Flood Elevation

#4c
- Disallow or impose Special Permit restrictions on essential/critical Facilities and high-risk structures, such as hospitals, schools, assisted living facilities, and Town administrative offices in areas subject to the 1% annual chance flood with sea level rise expected as soon as 2070 or 2100 depending on the type and anticipated life of the structure.
  a. Use Design Flood Elevation from adjacent 0.2% chance flood zone or the Maximum Wave Crest from the Massachusetts Coast Flood Risk Model or other best available flood models
- Where development review or approval is required, establish protocol for Planning staff and Planning Board review of development proposals within Priority Action and High Coastal Risk Areas for consistency with long-term planning goals of reduced density and development.

#3a
- In Priority Action and High Coastal Risk Areas *(clarify how this differs from other overlays)*
  b. Require all structures to obtain special permit
  c. Increase minimum lot size to encourage aggregation of lots and reduce overall

#3a

residential density within an area. *(for discussion: consider implications for affordable housing)*

d. In coordination with local wetland regulations, require maximum practical setbacks from mean high water.
e. Impose reporting requirements if the property is located in an area of high coastal risk and that residential retreat is likely in the future.
f. Limit lot coverage for overall development to the greatest extent practical, ideally below 20%. *(for discussion: consider implications for affordable housing)*
g. Prohibit accessory uses that increase impervious cover including pools and other outbuildings.

#3b

- Create a Special Coastal Risk Overlay District that incorporates Priority Action and High Coastal Risk areas. *(see note below)*
- Explore the designation of Districts of Critical Planning Concern. This tool has been used on Cape Cod and Martha's Vineyard to pause certain types of development in specified areas. Nantucket could use this tool to temporarily limit development in areas of high coastal risk and allow time for further land use planning. *(for discussion: clarify how 'District of Critical Planning Concern' differs from 'Priority Action and High Coastal Risk Areas', 'Model Floodplain Overlay District' and 'Special Coastal Risk Overlay District'. Can new and existing districts be streamlined/simplified?)*
  h. May be accomplished if adopt Model Bylaw- Higher Standards
- Join the Community Rating System

**Other Suggestions:**

#5a

- Explore hold harmless agreement in at risk areas and sign a waiver for responsibility *Goal: property owners assume risks for developing in at-risk areas ("buyer/builder beware"). Include language that limits town liability for maintaining access/utilities.*
- ~~Create a zoning overlay district to help give the zoning board guidance, that takes coastal resilience concerns into account while interpreting the zoning bylaw and maintenance and continuation of utilities is not guaranteed.~~ *(this is covered above)*
- Create incentives for implementing resiliency strategies on properties like design and engineering strategies that are adaptable to the need for future height changes
- Update definitions section in zoning by-law
  *a.* Flood Hazard Overlay District (FHOD) definition can be expanded in any way that enables it to include the insurances rates as well as considering metrics such as depth to groundwater, land subject to coastal storm flowage designation and any other aspects that would facilitate limiting further building in areas where the Town will be challenged by the requirement to improve and maintain access *(while meeting requirements of the National Flood Insurance Program.)*

#5b

- Explore road discontinuations in at risk areas ~~and other options.~~
- ~~Adopt the Model Floodplain Overlay District Zoning Bylaw- Optional Higher Standards produced in June 2024~~ *(this is covered above)*