

ResilientWoodsHole Adaptation Pathways

Purpose: Develop phased strategies to increase the coastal resilience of Woods Hole over the short-, mid-, and long-term

Adaptation Themes: Maintain Character
Nature-based Focus
Protect/Connect
Adaptive Realignment

Maintain Character

Goal: Preserve the existing uses, historic character and community resources

Strategy: Leverage moderate and incremental strategies to steward the seaside community and the blue economy village identity

Nature-based Focus

Goal: Use nature-based solutions to enhance resiliency and ecosystem services

Strategy: Where feasible, extend the effectiveness and potential longevity of coastal green infrastructure and open space by facilitating the preservation, restoration, and migration of natural resource systems

Protect/Connect

Goal: Emphasize protection and maintenance of existing infrastructure and ensure vital connectivity

Strategy: Use hard and/or hybrid infrastructure solutions to reduce exposure of important features (municipal infrastructure, waterfront scientific assets, businesses and the residential community) and preserve critical accessways (within Woods Hole and to the waterfront)

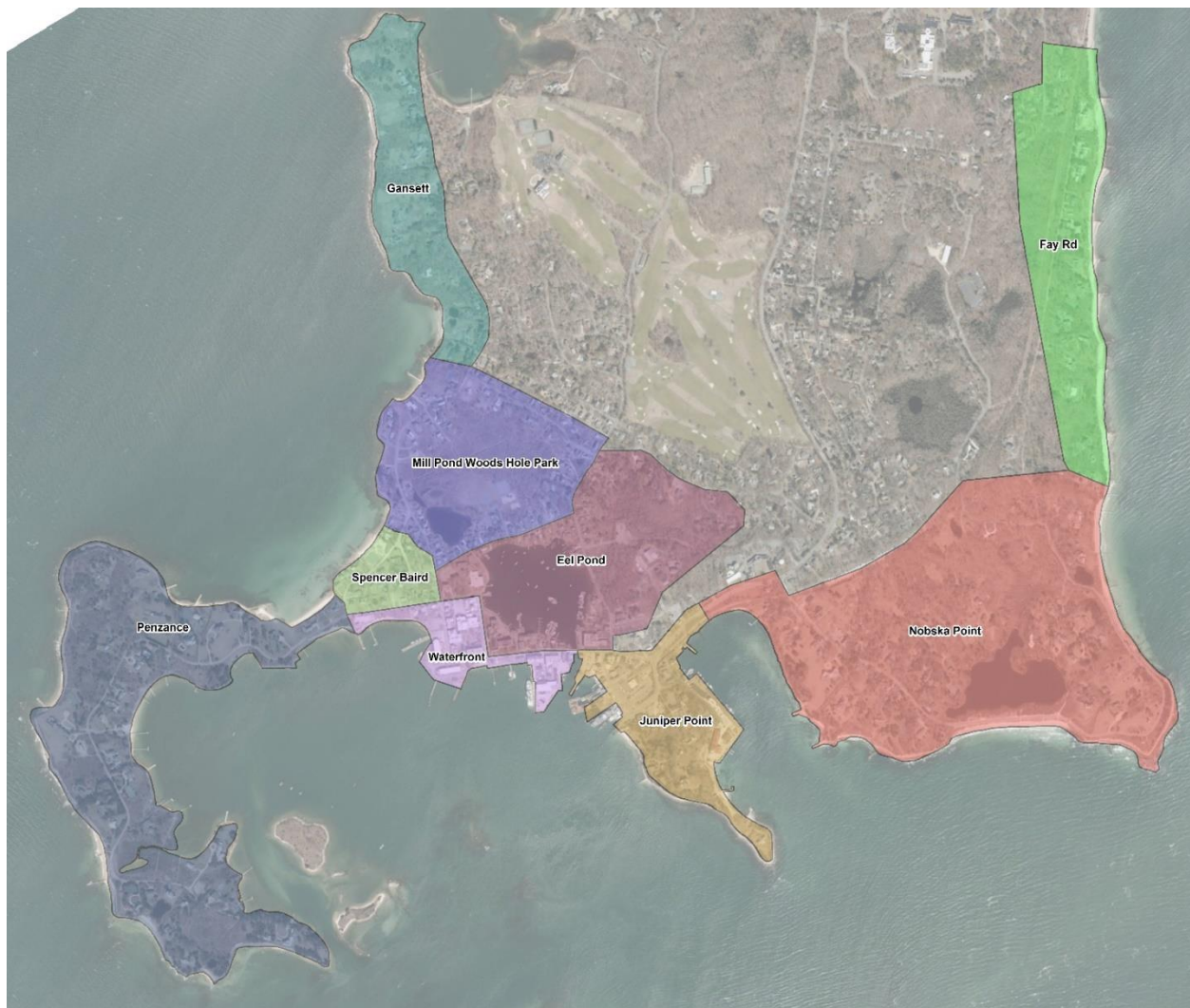
Adaptive Realignment

Goal: Reimagine Woods Hole through the lens of living with water

Strategy: Where existing uses and configurations cannot reasonably continue (increasing cost/risk from daily tides or common storms), develop a multi-phased plan to accommodate water with lateral or vertical relocation based on shared understanding of risk tolerance

ResilientWoodsHole Adaptation Pathways Coastal Management Areas

- Fay Road
- Nobska Point
- Juniper Point
- Waterfront
- Penzance Point
- Spencer Baird
- Eel Pond
- Mill Pond / WH Park
- Gansett



Potential Adaptation Actions - Fay Road

| Management Area | Potential Adaptation Action | Theme | | | |
|------------------|--|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Fay Road (north) | Deployable flood protection strategies for homes | X | | | |
| | Wet floodproofing for homes | X | | | |
| | Beach nourishment and dune enhancement | | X | | |
| | Landscape berm/terracing | | | X | |
| | Elevate roadway | | | X | |
| | Elevate low lying homes | | | | X |
| Fay Road (mid) | Deployable flood protection strategies for homes | X | | | |
| | Wet floodproofing for homes | X | | | |
| | Beach nourishment and dune enhancement | | X | | |
| | Elevate roadway | | | X | |

Potential Adaptation Actions - Nobska Point

| Management Area | Potential Adaptation Action | Theme | | | |
|--------------------|--|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Nobska Point | Deployable flood protection strategies for low lying homes | X | | | |
| Nobska Point East | Beach nourishment and dune enhancement | | X | | |
| | Elevate Nobska Rd | | | X | |
| | Wet floodproofing for low lying homes | X | | | |
| | Elevate low lying homes | | | X | |
| | Elevate and move Nobska Rd landward | | | | X |
| Nobska Point West | Beach nourishment and dune enhancement | | X | | |
| | Elevate Nobska Rd | | | X | |
| | Wet floodproofing for low lying homes | X | | | |
| | Elevate low lying homes | | | | X |
| Little Harbor East | Elevate or move low lying outbuildings landward | | | | X |
| | Deployable flood protection strategies for low lying homes | X | | | |
| | Wet floodproofing for low lying homes | X | | | |
| | Elevate bikepath | | | X | |

Potential Adaptation Actions - Juniper Point

| Management Area | Potential Adaptation Action | Theme | | | |
|--|--|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Juniper Point | Deployable flood protection strategies for low lying homes | X | | | |
| | Deployable flood barrier at bikepath under Crane St overpass | X | | | |
| | Wet floodproof low lying homes | X | | | |
| | Elevate low lying homes | | | X | |
| Juniper Point East | Floodwall and deployable barriers - Little Harbor Rd and Hinckley Rd | | | X | |
| | Beach nourishment and dune enhancement - Hinckley Rd | | X | | |
| | Increase height of seawalls | | | X | |
| | Dry floodproof USCG buildings | X | | | |
| | Elevate USCG buildings | | | X | |
| | Elevate USCG bulkhead | | | X | |
| | Elevate Little Harbor Rd and Hinckley Rd | | | X | |
| Reroute Little Harbor Rd and Hinckley Rd | | | | X | |
| Juniper Point West | Dry floodproof commercial buildings west of Luscombe Ave | X | | | |
| | Dry floodproof commercial buildings east of Luscombe Ave | X | | | |
| | Deployable barriers at Luscombe and Railroad Ave | X | | | |
| | Elevate commercial buildings west of Luscombe Ave | | | X | |
| | Elevate Steamship Authority bulkhead | | | X | |

| Management Area | Potential Adaptation Action | Theme | | | |
|-----------------|---|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| | Pull development from waterfront back to Luscombe Ave and created tiered resilient open space on water side | | | | X |
| | Elevate Luscombe Ave and Railroad Ave | | | X | |

Potential Adaptation Actions - Waterfront

| Management Area | Potential Adaptation Action | Theme | | | |
|-----------------|---|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Waterfront | Land/Streetscaping and deployables to reduce inundation on Water St and Albatross St | | | X | |
| | Elevated seawall | | | X | |
| | Dry floodproofing of facilities | X | | | |
| | Move facility mechanical equipment above first floor | | | | X |
| | Facility first floor reprogramming and retrofit to accommodate flooding | | | | X |
| | Integrate flood protection strategies for CWATER | | | X | |
| | Elevate NOAA bulkhead | | | X | |
| | Rebuild/elevate Waterfront Park with connection to NOAA | | | X | |
| | Living shoreline along Bar Neck Rd | | X | | |
| | Landscape terracing seaward of Bar Neck Rd | | | X | |
| | Elevate Water St and Albatross St | | | X | |
| | Dry floodproofing at Water St Sewer Lift Station | X | | | |
| | Move non-water dependent research/offices to upland facilities | | | | X |
| | Develop integrated elevated open space along Water St as non-resilient and non-water dependent facilities reach end of life | | | | X |

Potential Adaptation Actions - Penzance Point

| Management Area | Potential Adaptation Action | Theme | | | |
|-----------------|---|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Penzance Point | Deployable flood protection strategies for low lying homes | X | | | |
| | Beach nourishment and dune enhancement or living shoreline sideslope treatments for low lying segments of Bar Neck Rd and Penzance Rd | | X | | |
| | Wet floodproof low lying homes | X | | | |
| | Elevate low lying homes | | | X | |
| | Elevate low lying segments of Bar Neck Rd and Penzance Rd | | | X | |
| | Move low lying outbuildings away from tidal inundation zone | | | | X |

Potential Adaptation Actions - Spencer Baird

| Management Area | Potential Adaptation Action | Theme | | | |
|-----------------|--|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Spencer Baird | Deployable flood protection strategies for low lying homes, identify location for communal storage | X | | | |
| | Beach nourishment and dune enhancement at Stoney Beach | | X | | |
| | Wet floodproof low lying homes | X | | | |
| | Elevate low lying homes | | | X | |
| | Elevate existing Buzzards Bay seawalls | | | X | |
| | Elevate low lying parcels and rebuild homes | | | X | |
| | Elevate Gosnold Rd, Spencer Baird Rd and Albatross St | | | X | |
| | Relocate low lying homes out of tidal inundation zone, repurpose land for flood storage and resilient open space | | | | X |

Potential Adaptation Actions - Eel Pond

| Management Area | Potential Adaptation Action | Theme | | | |
|-----------------|--|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Eel Pond | Land/Streetscaping and deployables to reduce inundation on Water St and Albatross St | X | | | |
| | Increase height of existing Eel Pond bulkheads to address near-term pathways | | | X | |
| | Raise Millfield St | | | X | |
| | Deployable flood protection strategies for low lying Millfield St homes, identify location for communal storage | X | | | |
| | Wet floodproof low lying homes | X | | | |
| | Dry floodproofing of facilities and businesses | X | | | |
| | Move facility mechanical equipment above first floor | | | | X |
| | Elevate corner of MBL St and North St | | | X | |
| | Facility first floor reprogramming and retrofit to accommodate flooding | | | | X |
| | Elevate low lying homes | | | X | |
| | Tiered elevated pond edge treatment at MBL (Swope/Lillie) and Bell Tower Park | | | X | |
| | Elevate School St and increase culvert size, undevelop drive/parking east of Vincent House for marsh migration, move parking to Maury Ln | | X | | |
| | Move non-water dependent research/offices to upland facilities | | | | X |
| | Elevate low lying Millfield St parcels and rebuild homes | | | X | |

| Management Area | Potential Adaptation Action | Theme | | | |
|-----------------|---|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| | Elevate Water St and businesses | | | X | |
| | Construct flood control barrier at Eel Pond Channel | | | X | |
| | Relocate low lying Millfield Rd homes out of tidal inundation zone, repurpose land for flood storage and resilient open space | | | | X |

Potential Adaptation Actions - Mill Pond / WH Park

| Management Area | Potential Adaptation Action | Theme | | | |
|---------------------|--|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Mill Pond / WH Park | Raise Millfield St and Gardiner Rd | | | X | |
| | Deployable flood protection strategies for low lying homes, identify location for communal storage | X | | | |
| | Wet floodproof low lying homes | X | | | |
| | Raise seawall at Gardiner Rd | | | X | |
| | Dry floodproof and/or elevate Park Rd Sewer Lift Station | | | X | |
| | Beach nourishment and dune construction modification to seawall at Gardiner Rd | | X | | |
| | Modify seawall at Gardiner Rd to enhance post-storm drainage | | | | X |
| | Landscape berm or elevated bulkheads system in backyards along Mill Pond and Woods Hole Park | | | X | |
| | Improve tidal connection between Eel Pond and Mill Pond for future salt marsh migration and drainage | | X | | |
| | Elevate low lying homes | | | X | |
| | Elevate low lying parcels and rebuild homes | | | X | |
| | Relocate low lying homes out of tidal inundation zone, abandon part/all of Gardiner/Millfield, repurpose land for flood storage and resilient open space | | | | X |
| | Transition Woods Hole Park to natural open space and resilient park | | X | | |

| Management Area | Potential Adaptation Action | Theme | | | |
|-----------------|---|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| | Relocate Park Rd Sewer Lift Station | | | | X |
| | Convert Park Rd Sewer service area to grinder pumps | | | | X |

Potential Adaptation Actions - Gansett

| Management Area | Potential Adaptation Action | Theme | | | |
|-----------------|--|----------|--------|---------|---------|
| | | Maintain | Nature | Protect | Realign |
| Gansett | Raise seawall at lower Gansett Rd landing and tie back to high ground | | | X | |
| | Beach nourishment and dune enhancement at lower Gansett Rd landing | | X | | |
| | Raise parking lot and road at lower Gansett Rd landing and tie back to high ground | | | X | |
| | Deployable flood protection strategies for low lying homes on upper Gardiner Rd | X | | | |
| | Landscape berms for low lying homes on upper Gardiner Rd | | | X | |
| | Beach nourishment and dune enhancement along cove at upper Gardiner Rd | | X | | |