Climate Action Plan for Winthrop

Working Document

Citizens Advisory Commission on Climate (CACC)
February 4, 2025

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CACC Charter / Mission Statement

Recognizing the immediate need for the creation of a comprehensive, informed, actionable, and dynamic climate resiliency and mitigation strategy to "futureproof" our seaside community of Winthrop, the Citizens Advisory Commission on Climate aims to support the Town of Winthrop ("Town") in accomplishing this task by serving as an advisory board to Town officials through education, awareness, and recommended courses of action with the following goals at the center of its mission:

- Baseline current climate-driven challenges for the Town, including frequent flooding, storm surge, sea level rise, etc., and the resulting financial and other implications for the Town and its residents

- Synthesize recently documented research studies regarding these challenges, and best practice recommendations on how to address them, including but not limited to:

    - "ResilientMass Plan" – 2023 Massachusetts State Hazard Mitigation and Climate Adaptation Plan

    - The climate section of the 2021 "Win2030 Vision" Community Vision for Planning study

    - The 2017 "Resilient Winthrop - Designing Coastal Community Infrastructure for Climate Change" study that identified and prioritized critical vulnerable infrastructure issues and recommended mitigation and adaptation measures the town can take.

    - Plans established and actions taken by other municipalities in the greater Boston and other areas around the country and the world to integrate climate resiliency, mitigation into their bylaws, sustainable zoning and development laws, etc.

- Synthesize existing Federal and State grants and other funding opportunities as well as agencies and other consultative bodies to support action on these best practice options, including but not limited to:

    - Federal Inflation Reduction Act of 2022
    - MA Coastal Zone Management (CZM) Grants
    - MA Municipal Vulnerability Preparedness (MVP) Program and Department of Energy & Environmental Affairs

- Assist and inform the Town Manager, Town Planner and other such leaders in their efforts to work with federal, state and local agencies to secure current and future grants to support our efforts.

CACC Commissioners & 2025 Meeting Schedule

WINTHROP MASSACHUSETTS

Commissioners

- Norm Hyett, Co-Chair
- Ana Tavares Leary, Co-Chair
- Celeste Ribeiro Hewitt, Secretary
- Kim Dimes, Conservation Commission Chair
- John DaRos, Town Councilor Precinct 6
- Pat Costigan, Town Councilor Precinct 1
- Tony Marino, Town Manager
- Tom Derdarian, Town Manager Designee, Tree Warden

Commission email: CACClimate@winthropma.gov

Commission Website:
https://www.winthropma.gov/630/Citizens-Advisory-Commission-on-Climate

2025 Meeting Schedule

- Monday, January 13th
- Tuesday, February 4th
- Tuesday, March 11th
- Tuesday, April 8th
- Tuesday, May 13th
- Monday, June 2nd
- Monday, July 7th
- Monday, August 4th
- Tuesday, September 9th
- Monday, October 6th
- Monday, November 3rd
- Monday, December 1st

* Inaugural CACC Meeting: August 12, 2024

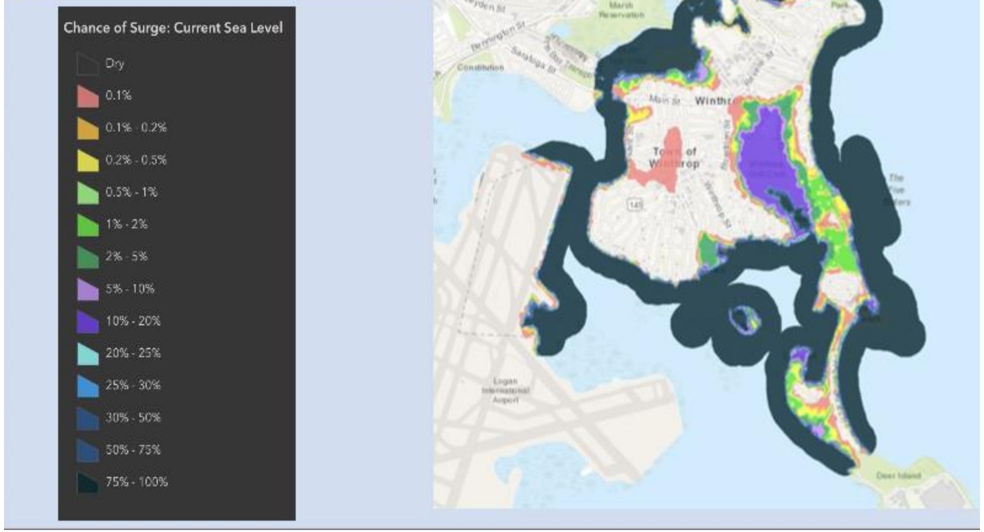
How Climate Change Affects Winthrop Residents

WINTHROP MASSACHUSETTS

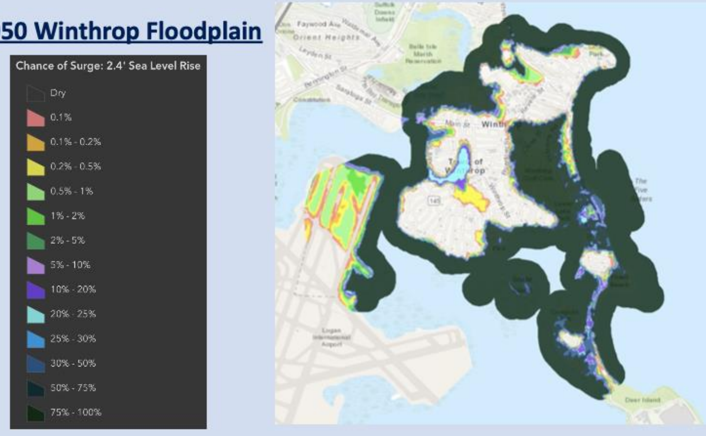
Winthrop's FEMA Floodplain Map zoning were updated in spring 2024 under the mandate of FEMA and its flood insurance program (non-compliance = town would not qualify for federal flood insurance).

As of that time, 2,902 homes in Winthrop were located on a flood plain.

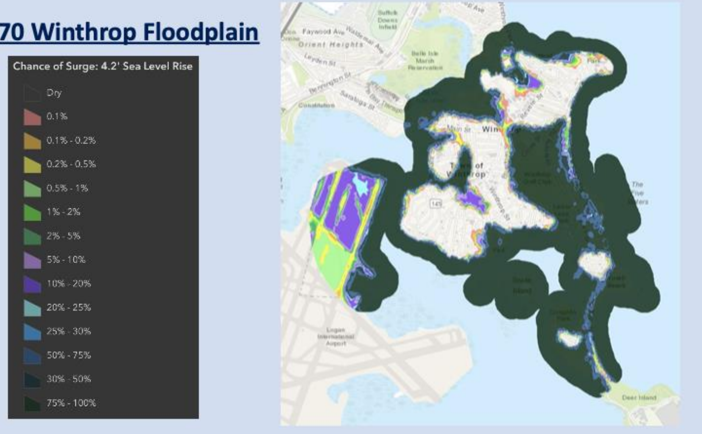
Current Winthrop Floodplain



2050 Winthrop Floodplain



2070 Winthrop Floodplain



How Climate Change Affects Winthrop Residents

WINTHROP
MASSACHUSETTS

The US Army Corps of Engineers is currently studying coastal storm risks on Boston Harbor, which will be completed by 2028. The study could eventually bring hundreds of billions of federal dollars to transform the city's coastline with permanent flood protections, according to Chris Osgood, Boston City Climate Resilience and Infrastructure Director. Army Corps projects could take decades to build. In the meantime, Boston and Greater Boston coastal municipalities are racing to beef up flood preparations. Boston will spend $250,000 on short-term flood protections in 2025.

Flooding & Property Damage / Value Deterioration:

Brought on by increasingly intense and frequent storms, precipitation and sea level rise, flooding is damaging homes and property, causing stress, anxiety and financial pain for residents in at least 7 locations across town who worry "when are we getting hit next?"

According to the State website Resilient MA, in Winthrop there will be between 1.4 and 2.4 ft. of sea level rise by 2050 and between 4 ft. and 7.6 ft. of sea level rise by 2100. Per the existing 2014 Winthrop Hazard Mitigation Plan (HMP) (update coming in June 2025) between 2006 and 2014, 16 coastal flood events occurred, resulting in $3.11M in property damage; 40 heavy snowfall events occurred 1996-2014, resulting in $9.6M in property damage.

Flood Insurance Rate Map (FIRM) issued by FEMA in 2016 which identify properties required to obtain flood insurance show 45% of Winthrop within the "1% annual chance flood" zone (aka "The 100 Year Storm").

Existing High Tide in Winthrop is 9-10 feet. Per Woods Hole Consulting and the ClimateCentral.org flood prediction maps, the chance of an annual flood reaching 7 feet above the high tide line will increase ~50% in the next ~50-70 years.

"King Tides" - the highest annual predicted tide of the year along Winthrop's shore and harbor lines - are currently 1-2 feet higher than existing high tide. High Tide is expected to rise 6+ inches in next 15 years; 3+ feet in next 50 years (catastrophic).

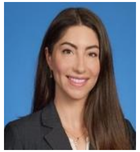
How Climate Change Affects Winthrop Residents

Flood Insurance: Property owners are required to purchase flood insurance if their property falls within the SFHA FEMA floodplain. The Town of Winthrop participates in FEMA's National Flood Insurance Program (NFIP) with 1,055 policies in force as of July 2, 2020, allowing property owners, renters, and businesses to purchase flood insurance and receive assistance following flood events. Maximum NFIP available coverage limits: $500,000 Direct Physical Damage + $500,000 Personal Property.

As defined by FEMA, a repetitive loss property is any property for which the NFIP has paid two or more flood claims of $1,000 or more in any given 10-year period since 1978. There are 380 repetitive loss structures in Winthrop, the majority of which are single-family homes, although flooding in Winthrop has impacted many multi-family and several commercial structures. These repetitive loss properties had a total of 562 losses between 1978 and 2020, totaling over $4 million in damages.

Due to its coastal location and flood plain footprint, Winthrop's average flood insurance policy annual premium is well above the $1,045 MA state average and climbing. Without climate resiliency and mitigation, Winthrop is in danger of being on a path to "uninsurability" as is seen in other parts of the country like Florida.

Fixes: Dozens of flood protection projects (berms, sea walls, stormwater drainage systems, etc.) are needed by 2030 to protect low-lying areas from flooding during severe storms.



"Sea level rise and storm surge due to climate change is the defining issue of our time."
- Coletta Zapata, Boston City Councilor

"Making Boston 'climate ready' will cost billions."
- Julia Carlton McKay, Director of Community Resilience, Conservation Law Foundation

"We don't want to take reserve funds and drain them down to do large projects it is a drop in the bucket and won't cover it and also impacts our bonding." - Tony Marino, Winthrop Town Manager

How Climate Change Affects Winthrop Residents

Salt Marsh Deterioration

As Boston Harbor sea level rises and storm surge intensifies along Short Beach, Belle Isle Marsh's existence is threatened.

The Marsh serves as a natural storm water "sponge" and filtration, a key tool for climate resiliency. We need to ensure that the Marsh is enhanced and sustainably expanded without turning into a bay, threatening its wildlife habitat along the way.

Beach Erosion

Several steps taken in recent years to provide resiliency at Winthrop Beach have been successful, including the sea wall and jetty construction, as well as protective stone wall distribution on a portion of the beach, preserving the sandy beach and preventing flooding of the beach streets.

At Yirrell Beach, however, erosion in occurring in part due to the massive sea wall constructed alongside MWRA, redirecting tides and currents with an erosive effect.

Stormwater Drainage & Sewer Pumps

Among the 16 critical public infrastructure locations in Winthrop now experiencing coastal flooding, sewer pump stations at Pico Beach, Revere Street and Pleasant Court, as well as Pressure Reducing Valve Stations at Bayview Ave, Revere Street, and Underhill Street are all in need of immediate repair.

Evacuation Routes

Flooding occurs on critical path evacuation routes, including Main Street, Shirley Street, Washington Street and Pleasant Street, creating a public safety issue.

Climate Action Plan Goals & Objectives

WINTHROP MASSACHUSETTS

Short-Term 2025-2026	Medium-Term 2027-2028	Long-Term 2029-2030

Short-Term 2025-2026

1. **Identify Problem Area "Hot Spots"** around Winthrop currently experiencing consistent climate-driven impacts such as flooding, storm surge, beach erosion, sea wall deterioration. Focus Areas: Morton/Banks, Pico/Fisherman's Bend, Tileston/Girdlestone.

2. **Research and Describe Resiliency Solution Options** for each hot spot, including required investment estimates and timeframes, asking Town Council / Town Manager to hire consultants as needed.

3. **Update & Publicize Hazard Mitigation / Emergency Management Plan for FEMA Approval** (expected completion June 2025)

4. **Identify Potential Funding Sources** working with federal, state and regional partners; apply for grants, starting with MVP this spring

5. **Integrate Plan into Town 5-Year Capital Plan starting FY'26**

Medium-Term 2027-2028

6. **Expand Resiliency Focus to Other "Hot Spots"** including: Short Beach/Revere Street, Yirrell Beach/Point Shirley, CBD/Ingleside Park, Shirley Street/Delby's Corner, Lewis Lake/Golf Course, Lower Nahant Avenue.

7. **Coordinate Efforts with Existing Agencies** and Climate Action Groups, including Friends of Belle Isle Marsh, North Suffolk Office of Resiliency & Sustainability (NSORS), Nature Conservancy, Coastal Zone Management (CZM), City of Boston/Brian Swett, MA Climate Office/Nick Black, City of Revere, Town of Hull/Ian McDonald, DCR/Brian Arrigo, MWRA, MassPort, Katherine Clark (liaison Wade Black), Ed Markey (liaisons Jim Cantwell & Liam Horseman).

8. **Incorporate Decarbonization Initiatives** to tackle the root of the problem, working with local, regional, state and federal organizations including Mothers Out Front

Long-Term 2029-2030

7. **Address Any Remaining Urgent Hot Spot Issues** to ensure those most affected are experiencing minimal impact.

8. **Assess and Measure Success/Challenges** in securing funding, implementing solutions, adjust as needed.

9. **Ensure Climate Action Becomes a Fully-Integrated Part of Town Planning, Budgeting and Success Metrics** for Town Council, Town Manager and Relevant Town Departments

NOTE: *Boston and other cities put climate change and sustainability into their zoning / development bylaws and use a plug-and-play template to apply for grants. Kim Dimes is familiar.*

Coastal Resiliency Solution Options that Work

SAVE THE HARBOR
SAVE THE BAY

Climate Resiliency Solution #1 - Managed Retreat

Definition: "the movement of infrastructure, people, and/or property out of vulnerable coastal areas through processes and programs such as voluntary buyouts, relocation of roads, and zoning overlay districts"

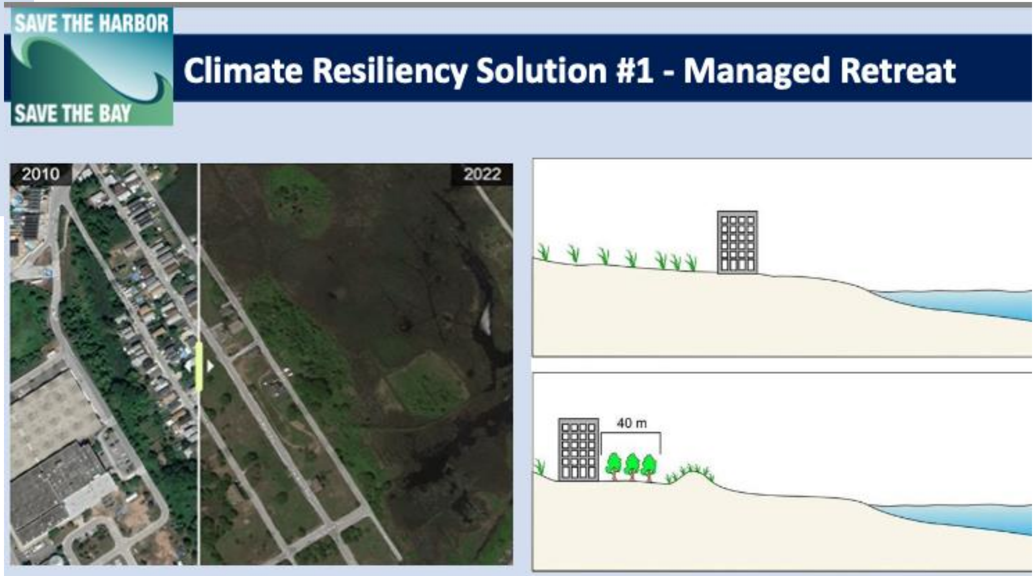
Example: Long Island Property Buy Back Program

Pro:

1. **Provides large natural barrier between immediate coastlines and development**
2. **Long term solution**

Con:

1. **Requires cooperation of all stakeholders (state, city, local, landowners)**
2. **Costly for stakeholders**
3. **May be harder for dense urban areas**



Coastal Resiliency Solution Options that Work

Climate Resiliency Solution #2 - Beach Nourishment

Definition: The adding of sediment onto or directly adjacent to an eroding beach that allows sand to shift and move with waves and currents

Example: Salisbury Beach, MA

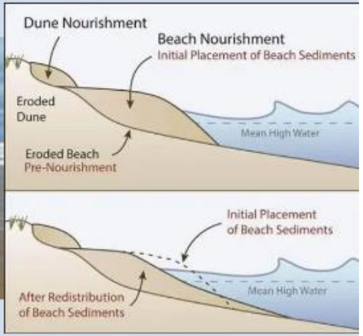
Pro:

1. **Prevents furthered erosion of nourished beach**
2. **Sediment acts as physical barrier**

Con:

1. **Short term solution as re-nourishment often will need to occur**
2. **Costly solution**
3. **Can cause erosion in area where sediment was sourced**

Climate Resiliency Solution #2 - Beach Nourishment



Coastal Resiliency Solution Options that Work

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Climate Resiliency Solution #3 - Hardscape Seawall/Revetment

SAVE THE HARBOR
SAVE THE BAY

Definition: Seawalls are vertical walls that are typically constructed of concrete or stone, while revetments are sloping structures typically composed of rock. Seawalls and revetments provide a physical barrier that directly protects inland areas storm damage protection and erosion control from waves, tides, currents, and storm surge

Example: Revere Beach, MA

Pro:

1. **Prevents erosion of land being protected behind seawall**
2. **Provide mid-term to long-term coastal protection**

Con:

1. **Once sea level rise exceeds seawall capacity, it must be rebuilt**
2. **Can exacerbate erosion in where seawall meets bottom ground where the water meets the wall**

Climate Resiliency Solution #3 - Hardscape Seawall/Revetment

SAVE THE HARBOR
SAVE THE BAY

This concrete seawall was built to protect the homes and infrastructure behind it. This seawall has a curved face built into the top of the wall, which redirects some of the reflected water and waves away from the wall. (Photo: CZM)

Water overtopping this seawall in a storm eroded the lawn and sediments behind it. Replacing the sediment and planting salt-tolerant vegetation may help to reduce erosion in future storms. (Photo: CZM)

Coastal Resiliency Solution Options that Work

WINTHROP MASSACHUSETTS

SAVE THE HARBOR SAVE THE BAY

Climate Resiliency Solution #4 - Nature Based Solutions - Cobble Berm

Definition: A mound of cobble-sized sediment typically constructed at the base of a coastal bank or along a coastal dune to reinforce and protect it from erosion caused by waves and storms by preventing impact of wave energy by absorption

Example: Duxbury Beach Reservation, MA

Pro:

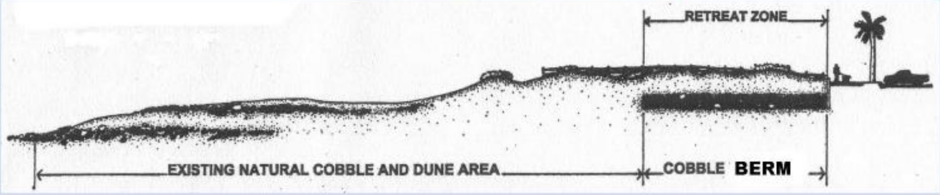
1. **Relatively simple construction because of gravel/stone use**
2. **Can be less expensive than other similar solutions**

Con:

1. **Current ongoing research occurring**
2. **Needs maintenance/replacement of cobble**

SAVE THE HARBOR SAVE THE BAY

Climate Resiliency Solution #4 - Nature Based Solutions - Cobble Berm



Coastal Resiliency Solution Options that Work

SAVE THE HARBOR SAVE THE BAY

Climate Resiliency Solution #4 - Nature Based Solutions - Stormwater Parks

Definition: Stormwater parks are recreational spaces that are designed to flood during extreme events and to withstand flooding. By storing and treating floodwaters, stormwater parks can reduce flooding elsewhere and improve water quality.

Example: Rain Garden in Mary Ellen Welch Greenway, MA

Pro:

1. **Beautification feature, wildlife area, and climate resiliency tool**
2. **Can be cost effective**

Con:

1. **Requires large amounts of space for implementation**
2. **Residents' concerns about stormwater contamination**

SAVE THE HARBOR SAVE THE BAY

Climate Resiliency Solution #4 - Nature Based Solutions - Stormwater Parks

Coastal Resiliency Solution Options that Work

SAVE THE HARBOR
SAVE THE BAY

Climate Resiliency Solution #4 - Nature Based Solutions - Oyster Reef

Definition: Oysters are often referred to as "ecosystem engineers" because of their tendency to attach to hard surfaces and create large reefs made of thousands of individuals. In addition to offering shelter and food to coastal species, oyster reefs buffer coasts from waves and filter surrounding waters.

Example: Chesapeake Bay, Maryland and Virginia

Pro:

1. **Improves water quality**
2. **Can provide habitat for other species**

Con:

1. **Balancing oyster reef creation with the present natural environment**

SAVE THE HARBOR
SAVE THE BAY

Climate Resiliency Solution #4 - Nature Based Solutions - Oyster Reef

Chesapeake Bay: Exposed oyster reefs in Virginia's Elizabeth River serve as a breakwater to prevent shoreline erosion.

Oyster shells along the Gulf Intracoastal Waterway

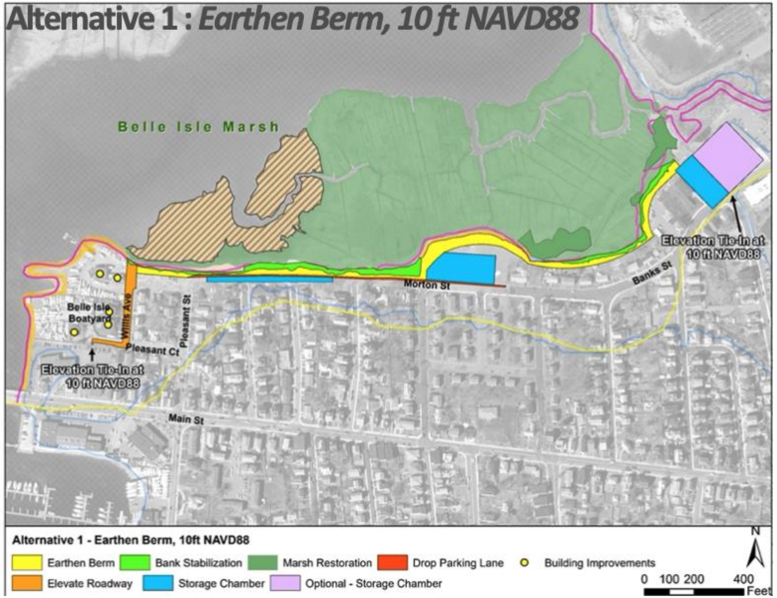
Hot Spot #1 – Morton & Banks Streets

WINTHROP MASSACHUSETTS

Project Phase | Investigation / Solution Vetting (~60 Days) | Initial (30%) Solution Design & Cost Estimate (~120 Days) | **Funding Grant / Debt Exclusion (~60-90 Days)** | Final Design, Engineering & Permitting (~180 Days) | Construction (~2 Years)

SITUATION

- Marsh shoreside and nearby residential and commercial property flood multiple times per year due to both storm surge and rainfall
- Increasing risk through 2070 with potential of Marsh transforming into a bay, destroying a key storm surge absorption buffer and wildlife habitat
- Approximately 70 homes impacted/at risk - most/all could be saved by the proposed mitigation(s)



DESIRED OUTCOMES

- Reduce risk to sea level rise, storm hazards and rainfall flooding
- Minimize erosion
- Enhance and expand existing wetlands resources
- Increase water quality, stormwater capture and infiltration
- Manage Flood Insurance Costs

(Note: Per Heather O'Brien, Friends of Belle Isle Marsh Community Advisory Manager, having our berm become a "Certified Levy System" by the Army Corps of Engineers removes flood insurance requirement (?))

Hot Spot #1 – Morton & Banks Streets

WINTHROP MASSACHUSETTS

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SOLUTIONS

Morton St residents want three (3) things from the Town:

1) Close the road before it floods
2) Provide sandbags
3) Install "duckbills" on the storm drains

Banks St residents generally support a berm in their backyard

- Impacts of raising Banks St are not feasible
- Outfalls in need of check valves/flap gates
- Residents are interested in temporary mitigation measures
- Many residents considering moving, open to buyouts

Recent resident suggestions:

- Ask Massport to reinforce the rock walls along the Marsh shoreline.
- Research and perhaps duplicate recent “living seawall” installed in front of new waterfront residences in East Boston (see November 2024 article in Boston Globe).

IN-FLIGHT

- Installed sandbags in mid-January around the foundation perimeter of the ten most impacted homes along the marsh.
- Long term fixes:

1. Add backflow prevention to the existing pipes to stop the high tides from coming up through the catch basins (pipe is currently buried in the ground)
2. Enlarge existing pipes and storage capacity
3. Earthen Berm & Bank Stabilization (recommended by Wood’s Hole): Install an earth berm along the walkway. Will require easements or takings of existing homes backyards to complete. Berm will be a 2-3 foot earthen mound located inland of wetland resources. Impermeable core required to protect against seepage and erosion.

Hot Spot #1 – Morton & Banks Streets

WINTHROP MASSACHUSETTS

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Construction Estimate ($)

Item	Quantity	Unit	Unit Cost	Total Cost	Total Cost + 40% Contingency
Alternative 1					
Mobilization	1	Lump Sum	$320,000	$320,000	$448,000.0
Roadway Elevation & Improvements	1	Lump Sum	$480,014	$480,014	$672,019.6
Earthen Berm & Bank Stabilization (10ft NAV88)	2,650	Linear Feet	$800	$2,120,000	$2,968,000.0
Stormwater Storage Systems (3)	1	Lump Sum	$5,944,600	$5,944,600	$8,322,440.0
			Alternative 1 Total	**$8,864,614**	**$12,500,000**

**NOTE*: *Woods Hole original estimate on the left, edited down to the three steps on the previous page – adjusts estimated investment required down to around $5M.*

REQUIRED PERMITTING

- MEPA Expanded ENF & Single EIR
- ConCom Notice of Intent

FUNDING STATUS

- $1.047M in MVP grants received over the past decade for climate action planning, including grant awarded last spring used to hire Conor/Woods Hole for Morton/Banks
- $1.2M MVP grant for engineering and permitting denied on 10/16/24, citing need for clarity that Earthen Berm is clearly Winthrop's intent.
- Researching other options, including National Fish & Wildlife Foundation (NFWF) and FEMA Building Resilient Infrastructure & Communities Fund (need to be shovel-ready).

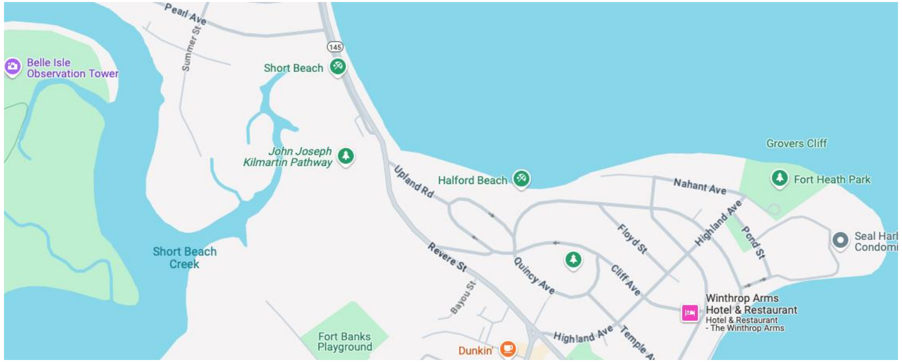
Hot Spot #2 – Short Beach / Revere Street

WINTHROP MASSACHUSETTS

Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

SITUATION

- Frequent storm surge causing egress closure & damage to existing sea wall and Revere Street roadway
- Dated vulnerability assessment needs updating to ensure plan sufficiently supports both resident evacuation out of town, and delivery of aid and first responders into the town.



DESIRED OUTCOMES

- Ensure roadway is operable during moderate storms; gate is only closed when absolutely necessary during the most severe storms (depending upon solution, eventually gate may not be necessary at all).
- Ensure water re-direct from the sea wall doesn't negatively impact Lower Nahant Avenue.
- Take advantage of the "sponge" of Belle Isle Marsh to absorb the stormwater, while ensuring Marsh doesn't flood – need to research options for water egress on other sides of the Marsh.

Hot Spot #2 – Short Beach / Revere Street

WINTHROP MASSACHUSETTS

Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

SOLUTIONS

- The Woods Hole Group with Conor as the lead is currently looking at long term options to stop the flooding and allow for access to and from Winthrop during flooding events.

Two Options Under Consideration (DCR):

- 1. Repair and raise Short Beach seawall (most likely solution), or
- 2. Replace roadway with a new bridge (more costly and less likely to be considered)

Also looking at nature-based solutions as alternatives or supplements, including a Five Sisters-style breakers.

Berm on the ramp to the bridge at Winthrop Pkwy also need to be replaced.

IN-FLIGHT

- **Current Conceptual Phase:** In consultation with DCR whose priority is protecting the evacuation route.
- Need environmental impact analysis to consider implications for Belle Isle Marsh and its neighboring communities East Boston/Bennington and Revere

REQUIRED PERMITTING

- TBD

FUNDING STATUS

- TBD

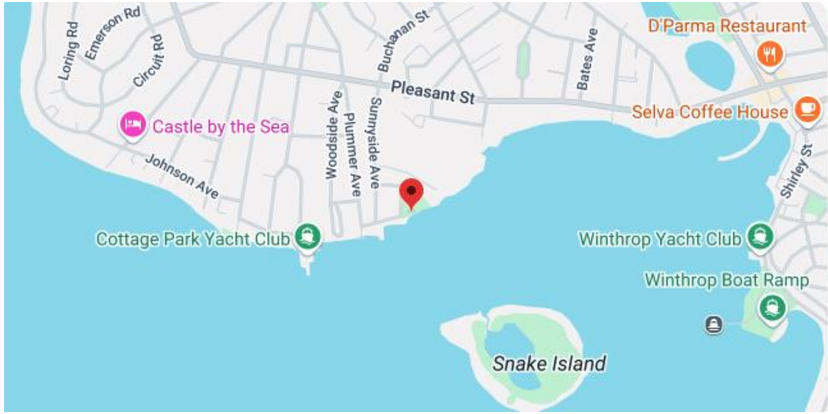
Hot Spot #3 – Pico Beach / Fisherman’s Bend

WINTHROP MASSACHUSETTS

Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

SITUATION

- Current 8” pipes not adequate, cracked and broken, brick structures failing
- Outflow of stormwater was buried in the sand, causing backup.
- Problem persists because the capacity of the system itself is insufficient, inefficient, and leaking
- Engineering work for the stormwater fix to include the seawall extension is needed for this neighborhood. Stormwater storage is key. Permitting cost estimate pending.



DESIRED OUTCOMES

- Minimize flooding and erosion
- Manage mosquito problem experience by nearby residents
- Addressing backed up drainage / pump systems could solve both

Hot Spot #3 – Pico Beach / Fisherman's Bend

WINTHROP MASSACHUSETTS

Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

SOLUTION

- Increase capacity of stormwater pipes, backflow prevention (two options – duckbill valves, flapper valves)
- Extend sea wall
- Ask NE Mosquito Control to dredge out ditches at FB (Army corps backlog up to 18 months)
- Address the flooding from the marsh, similar to Belle Isle
- Replace and move current 75-year old water mains to accommodate the new pipes

IN-FLIGHT

- Town Council approved $60K last spring to survey all flooding issues for Pico, Tileston & Girdlestone as beginning of phased approach to address issues. Another $80K for phase one of engineering (basline mapping, preliminary design).

- Starting in February 2025 we'll be updating our 5-year capital plan. We'll need to put all these projects into the plan for construction phase. We'll need to make some tough choices. It's important for the public to weigh in as we prepare that plan.

REQUIRED PERMITTING

- TBD

FUNDING STATUS

- Town Manager is due to provide us with an update for the next $158,500 required to get us to the permitting phase.

- Another round of MVP application (~$400K) to manage the marsh. Original grant application in 2024 was denied.

Hot Spot #4 – Tileston & Girdlestone Streets

Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

SITUATION

Flooding from stormwater and heavy precipitation on a regular basis

DESIRED OUTCOMES

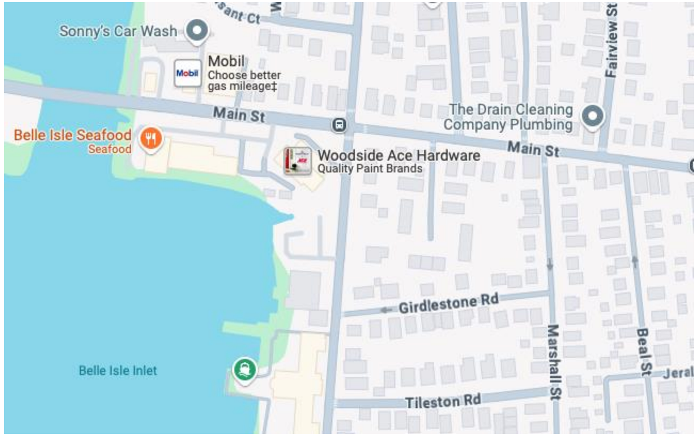
Minimize flooding, focusing on improving pumps and drainage

SOLUTION

Enhanced pumps and drainage; catch basin repair/replace; backflow prevention

IN-FLIGHT

- Pumps secured and implemented last spring.
- 1/3 of the engineering work has been completed (~$150K out of the ~$500K total)
- Motion from Town Manager Marino to Town Council to approve funding for remainder of engineering, design and permitting work for Morton, Pico and Tileston/Girdlestone.



REQUIRED PERMITTING

- TBD

FUNDING STATUS

- TBD

Hot Spot #5 – Yirrell Beach / Point Shirley

WINTHROP MASSACHUSETTS

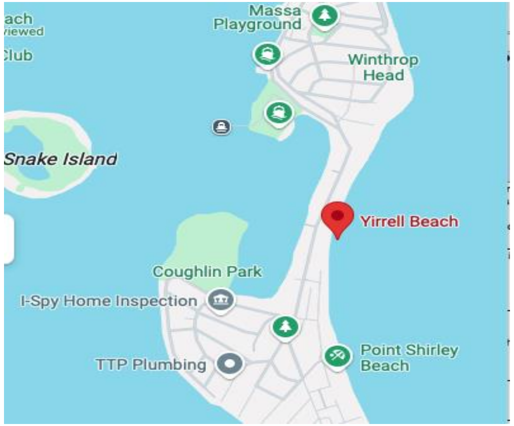
Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

SITUATION

- Sand, rocks, cobble have filled in the front of seawall, reducing the seawall to about 2 feet. DPW rakes the beach every year to help this.
- A berm was built, then DEP issued a stop work order (Wetlands Compliance Act). Consultant reviewed this for us. Beach has 1 year of no berm maintenance, leaving minimal protection. No homes have flooded yet, but likely will if no action taken.

SOLUTION

- DEP is classifying Yirrell as a coastal dune vs. a barrier beach, which places limits on what we can do.
- Precinct 3 constituents are upset because DEP and others are focused on the wildlife protection and MWRA protection and not homeowner protection.
- Planted dune 25' in front of the existing seawall will need to be installed in compliance with the Administrative Consent Order (ACO) that we are working under with DEP. Send sand samples for testing, then dune building will start in the spring of 2025.
- Some homeowners' stairs going down to the beach will have to be removed. Town will install 5 access points.
- Eventually, 2-3 feet needs to be added to the Yirrell sea wall and a berm (~2,000 cubic yard?) needs to be built.



DESIRED OUTCOMES

- Homeowner flood protection
- Minimize beach erosion
- Manage flood insurance costs

REQUIRED PERMITTING

- TBD

FUNDING STATUS

- CZM grant received in 2019, used for Coughlin Park shoreline

Hot Spot #6 – Central Business District / Ingleside Park

WINTHROP MASSACHUSETTS

Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

SITUATION

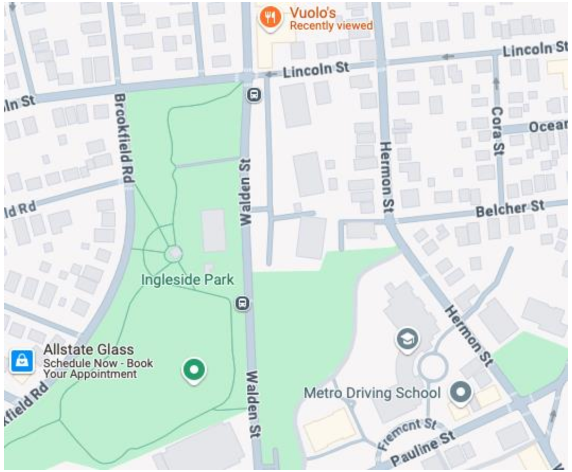
- Walden Street floods with any significant amount of rain, particularly at intersection with Lincoln (near Vuolo's)
- Ingleside Park stormwater outflow drainage still a central issue – narrow pipe under the park chokes off stormwater drainage
- Ingleside drainage project in Winthrop Center never finished - $15M need

SOLUTION

- Replace and upsize pipe running under the park.
- Replace outfall pipe and chamber / increase capacity at Donovan Beach

DESIRED OUTCOMES

- Homeowner and business owner flood protection



REQUIRED PERMITTING

- TBD

FUNDING STATUS

- Approach State Revolving Fund (SRF)

Hot Spot #7– Shirley Street / Delby's Corner

WINTHROP MASSACHUSETTS

Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

SITUATION

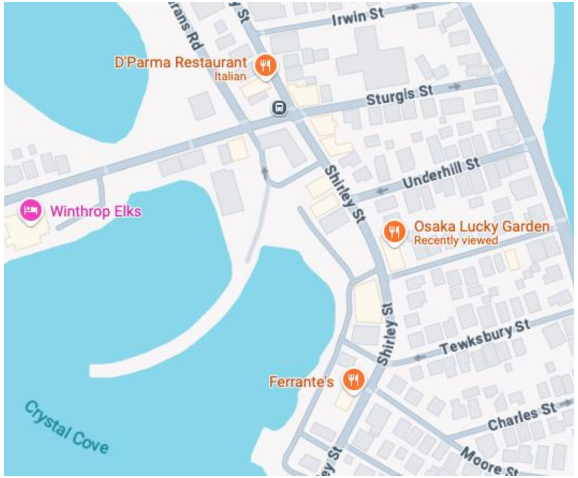
- Shirley Street floods with any significant amount of rain, particularly at intersections with Sturgis and Underhill

SOLUTION

- Pipe sleeve put in on Pleasant Street so pipes can be connected easier and not shut down the road.

DESIRED OUTCOMES

- Homeowner and business owner flood protection



REQUIRED PERMITTING

- TBD

FUNDING STATUS

- TBD

Decarbonization Initiatives – Addressing Root Cause

WINTHROP
MASSACHUSETTS

Project Phase	Investigation / Solution Vetting (~60 Days)	Initial (30%) Solution Design & Cost Estimate (~120 Days)	Funding Grant / Debt Exclusion (~60-90 Days)	Final Design, Engineering & Permitting (~180 Days)	Construction (~2 Years)

- **Future of Clean Heat Initiative –** Conversion from Natural Gas to Networked Geothermal; Pursuing potential pilot program with National Grid, similar to Framingham and Lowell
- **Electricity Aggregation –** Good Energy Program Adoption
- **Air Quality & Noise Pollution Reduction** – Oppose Private Jet Expansion at Logan; Stay Tuned to MassPort Environmental Quality Study and Related Commitments
- **Composting** – Expansion of Good Earth program; pursue trash fee credits for participants
- **Green Communities Program** – Winthrop has received $2M+ since the passing of the 2008 Green Communities Act. $200K received last year used for rooftop electrification for heating and A/C. Going for another $200K grant in the fall for more fossil fuel reduction.

Asks of the Community

WINTHROP MASSACHUSETTS

✓ **Stay Informed:**
Commission Website: https://www.winthropma.gov/630/Citizens-Advisory-Commission-on-Climate

✓ **Stay Engaged, Offer Suggestions & Perspectives**
Commission email: CACClimate@winthropma.gov
Town Council email: towncouncil@town.winthrop.ma.us
Town Manager email: amarino@winthropma.gov

✓ **Attend future monthly meetings**

- Tuesday, March 11th
- Tuesday, April 8th
- Tuesday, May 13th
- Monday, June 2nd
- Monday, July 7th
- Monday, August 4th
- Tuesday, September 9th
- Monday, October 6th
- Monday, November 3rd
- Monday, December 1st