



**RESILIENT  
SWAMPSCOTT**  
CLIMATE ACTION FOR OUR COMMUNITY

**Projects Supporting Resiliency in Swampscott  
February 2024**

# Plans and actions to improve Resiliency

## 2 major ways to address Climate Change

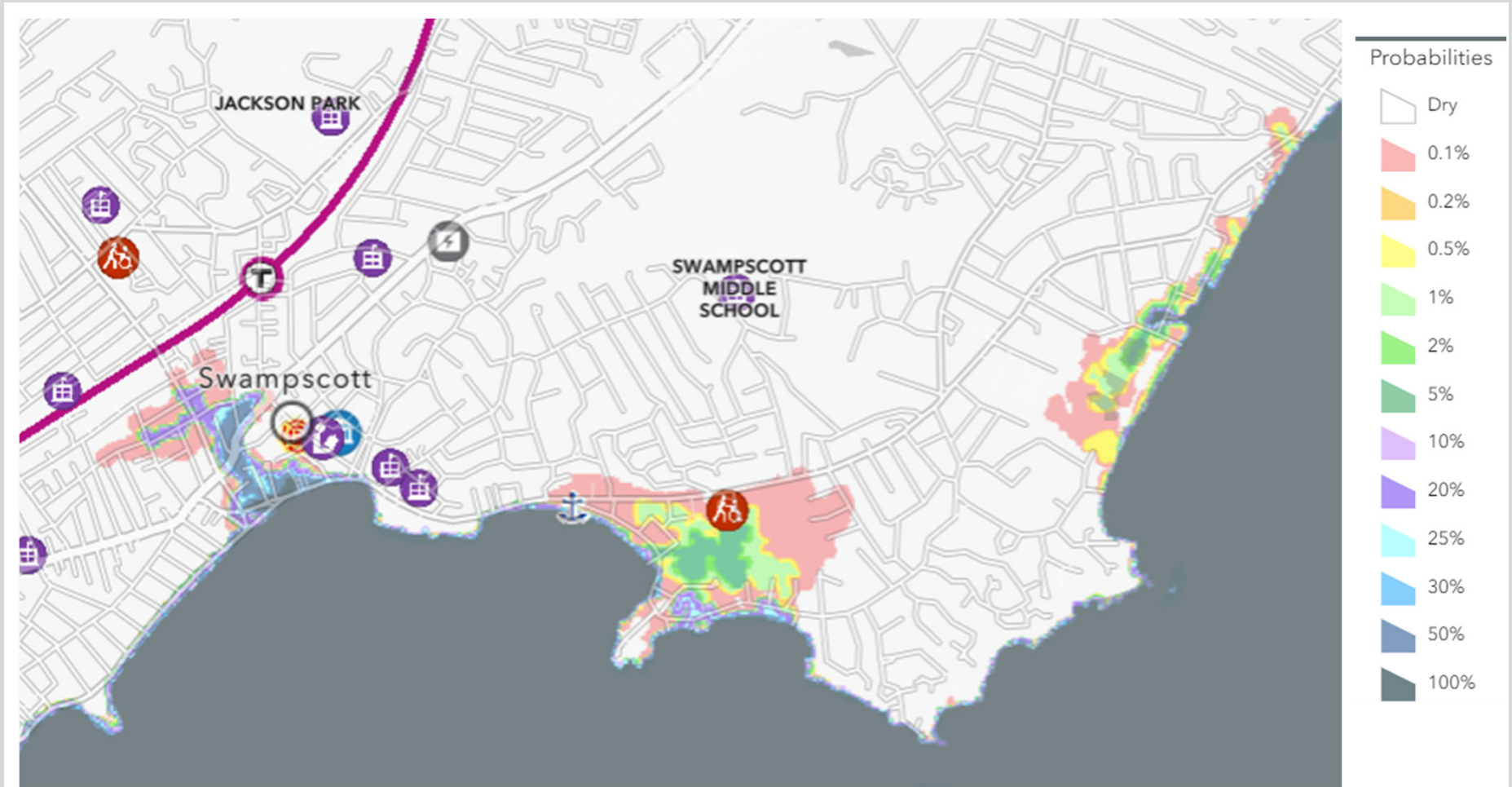
### Reduce our Greenhouse Gas Emissions – Plans, Committee, Actions

- Climate Action Plan Committee (Resilient Swampscott Plan)
- Renewable Energy Committee (Town-wide Energy Efficiency and Emissions Reduction)
- Green Communities Grants and Projects (Municipal)
- Community First Grant (Residential and Small Business, Underserved communities)

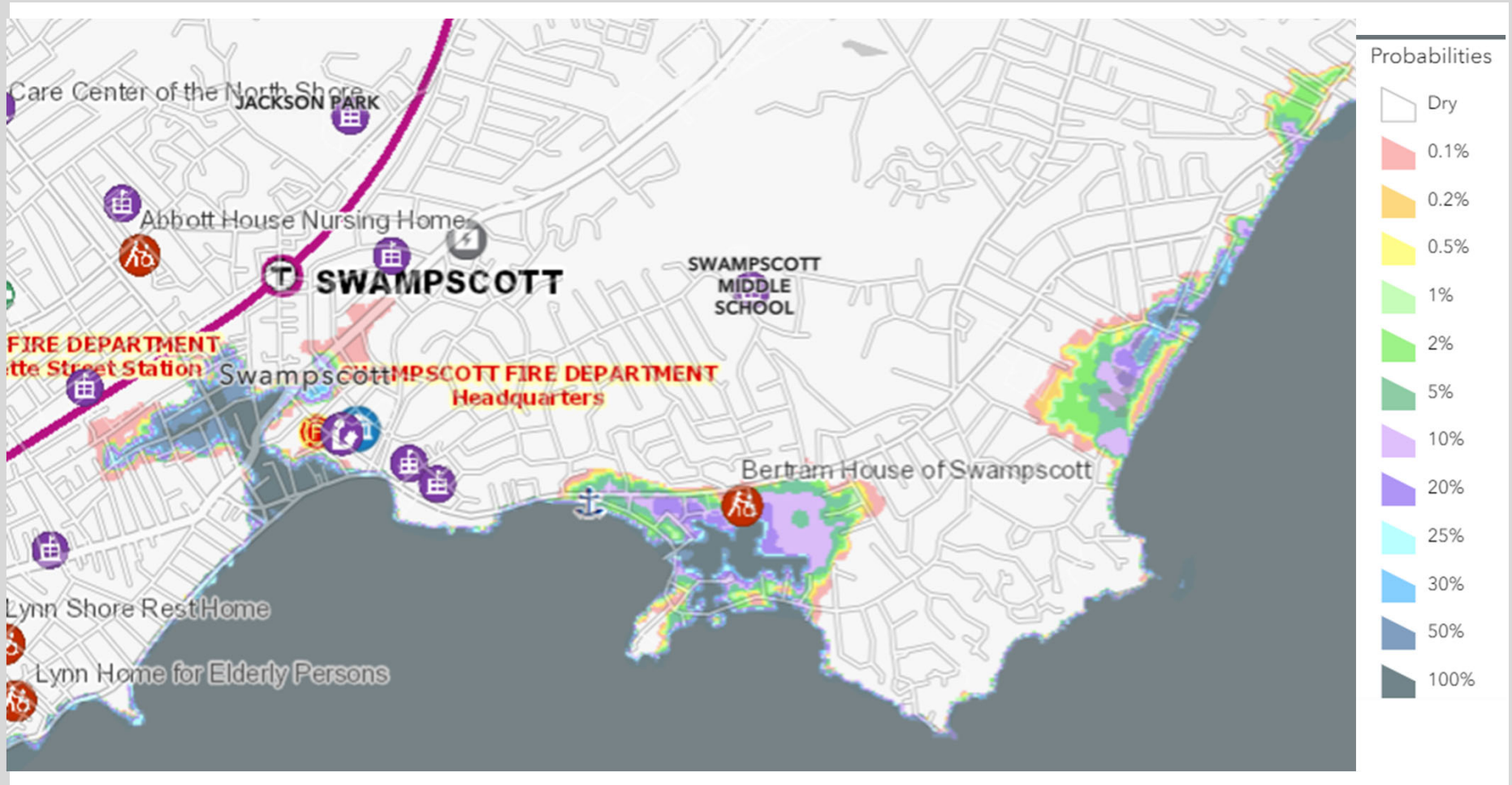
### Mitigate impacts of Climate Change – Plans, Committees, Actions

- Climate Action Plan Committee (Resilient Swampscott Plan)
- Hazard Mitigation Plan (Municipal)
- Coastal Climate Change Study by Kleinfelder (Municipal)
- Municipal Vulnerability Preparedness (MVP) Grants and Projects
- Harbor & Waterfront Advisory Committee (Plans and Grants)
- Conservation Commission
- Open Space and Recreation Plan Committee
- Tree Committee

# 2030 MA Flood Risk Model

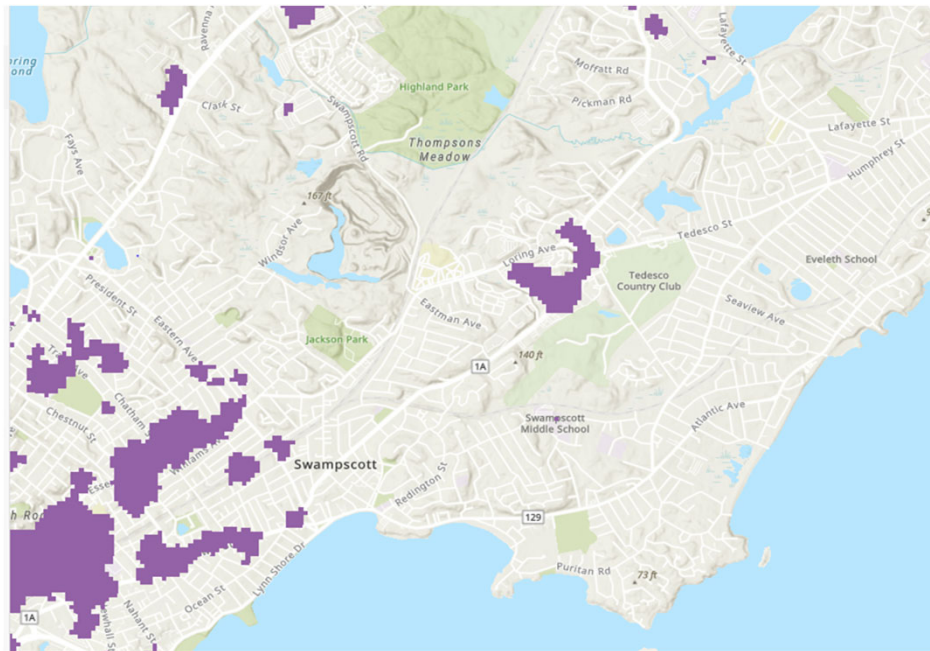


# 2050 MA Flood Risk Model



# Heat Island Map

Areas highlighted in purple show land commonly known as “heat island effect” that is caused when an abundance of buildings and pavements result in conditions that cause land surface temperature to exceed air temperature.



# Other Resilience-focused plans

- Swampscott's Hazard Mitigation Plan
  - Grant awarded, update in process
    - Include recommendations from the Coastal Climate Change Study and other Climate mitigations
- Resilience & Vulnerability Focus Area of Resilient Swampscott Plan:
  - Prepares the community for climate-driven emergencies through critical infrastructure improvements and strengthened natural and social systems
  - Goals and Strategies:
    - 1.1 Enhance critical infrastructure to be resilient to extreme weather and coastal flooding.
    - 1.2 Prepare Swampscott's assets for anticipated sea level rise and increasing extreme weather events.
    - 2.1 Expand reach and effectiveness of climate preparedness and response resources.

# Green Communities

## *Grants for local initiatives that improve energy efficiency and implement clean energy solutions*

- Grants we have received since 2010
  - 2010-2021: \$1.301M in energy conservation measures on municipal property
  - 2023: \$61.626 in 2023 to fund unit ventilator controls and administrative assistance in municipal facilities including Middle School
- Potential grant in 2024 for the following:
  - -SMS Exhaust Fans Controllers, Additional SMS Univents onto BMS, Weatherization of Field House
- So far, efforts have been focused on energy efficiency
- New! Green Communities 2.0, a program focused on emissions reduction
  - Opportunity to step up and be designated as “Climate Leader”,
  - Annual grants up to \$200K and intermittent \$500K grants for big decarbonization grants
  - Requirement
    - Town adoption of “Specialized” Energy Code, and
    - Creating a Municipal Decarbonization Roadmap

# Municipal Vulnerability Program Grants

*Support to cities and towns focused on building resilience to climate change  
Planning and Action Grants*

- Grants received:
  - 2020: \$375,521 in Municipal Vulnerability Preparedness Program (MVP) funding for beach access resilience project
- MVP Action Grants - provide financial resources to address climate change impacts resulting from extreme weather, sea level rise, inland and coastal flooding, severe heat, and other climate impacts
- MVP2.0 Planning Grant that builds on work done to date, supports communities with new processes, tools and resources for building resilience



# Municipal Projects

Additional Projects that we have funded out of capital or operating not covered above

## Seawall status

- Spent to date on seawall repair: A total of \$2,201,890.30 spent
- How much requested in 2025 capital plan:
  - \$300K has been requested for FY'25 for repairs to the Eisemans Beach Seawall.
- Kings Beach is the only seawall that will be completed.
- Seawalls to be completed: Fisherman's, Whales and Eisemans/New Ocean.

## Other municipal infrastructure at risk

- Fish House, Pump Station, Police Station, Hawthorne Property

# Climate Action Plan Committee

## Mission:

The Climate Action Plan Committee maintains Resilient Swampscott, the Climate Action Plan for the Town of Swampscott. CAPC advocates for projects that reduce emissions and mitigate impacts of climate change in our community.



BUILDINGS  
& ENERGY



SOLID WASTE  
& RECYCLING



NATURAL  
RESOURCES



RESILIENCE  
& VULNERABILITY



TRANSPORTATION

## Current Activities include the following:

### Resilience & Vulnerability

- Support the MVP Grant proposal
- Work with Conservation Commission to create a floodplain brochure (*Action Resilience & Vulnerability 1.2.A*)
- Update the Town's Hazard Mitigation Plan (*Action Resilience & Vulnerability 1.2*)

### Natural Resources

- Support Open Space and Recreation Planning Committee in acquiring conservation restriction on public land (*Action Natural Resources 2.1.B*)
- Support the Trees Committee to preserve tree canopy (*Action Natural Resources 1.1.C*)

# Renewable Energy Committee

## Mission:

Evaluate, make recommendations and support energy conservation, energy efficiency, and/or conversion to greener energy sources.

REC supports actions in Resilient Swampscott Climate Action Plan

Current activities include the following:

### Buildings & Energy

- Swampscott Community Power 100% New England Green Campaign (Action: *Buildings & Energy 1.1.A*)
- Community First Program, campaign for energy efficiency, prioritizing low-income residents. (Action: *Buildings & Energy 2.1.A*)
- Propose town adoption of the Municipal Opt-in Specialized Energy Code. (Action: *Buildings & Energy 2.2.A*)

### Transportation

- Identify/support grants for additional publicly available EV charging stations. (Action *Transportation 2.2.A*)

# Open Space & Recreation Plan Committee

## Mission:

Responsible for the development and maintenance of the Town's Open Space and Recreation Plan (OSRP).

The OSRP established six (6) goals:

1. Maintain Open Spaces and Recreational Facilities
2. Preserve the Scenic Character of the Town
3. Expand and Improve Open Spaces & Recreational Facilities to Meet Needs
4. Strengthen Environmental Protection
5. Improve Public Access and Awareness
6. Establish a Green Corridor Network

The OSRP supports actions in the RS “Natural Resources” Focus area.

# Tree Committee

## Goals:

- Protect and promote the health of the Town's public trees
- Plan planting of trees to improve diversity and expand the Town's tree canopy
- Seek recognition from Arbor Day Foundation as a Tree City

The Tree Committee supports actions specified in the “Natural Resources” Focus Area of Resilient Swampscott, our town’s Climate Action Plan. Actions in RS reflect a requirement for green spaces and biodiversity, inclusive of trees.

## Accomplishments:

- \$50,000 every 3 years invested in new tree plantings??

# Additional Major Grant Opportunities

## Bipartisan Infrastructure Law

<https://www.markey.senate.gov/imo/media/doc/BIL%20Factsheet%20Local%20Competitive%20Funding.pdf>

## Federal Financial Assistance Programs for Resilience Activities

[Federal Financial Assistance Programs for Resilience Activities | Department of Energy](#)

## Infrastructure (+IRA) Funding Tracker

[Infrastructure \(+IRA\) Funding Tracker | Infrastructure \(+IRA\) Tracker | Substack](#)

# Kleinfelder 2016 Report Recommended Actions

- a) Fisherman's Beach access: install temporary flood barrier systems to withstand wave action; these are suggested on boat ramps to beach & at Cassidy Park in parking area & upland.; also install outfall back-flow devices on outfalls in these areas (pg 34 - 38 of 83)
- b) Fisherman's Beach seawall: raise elevation of seawalls. (pg 38 of 83)
- c) Acquire privately owned seawalls; maintain and raise elevation of them. (pg 39 of 83)
- d) Alternative to purchasing private seawalls, create flood barriers by raising roadway or installing permanent (or temporary) flood wall on sidewalk or down center of roadway. (pg 40 of 83)
- e) Whales Beach boat ramp & Poulisson Park: install temporary or permanent flood barrier & raise seawall along ocean-side of park. (pg 41 of 83)
- f) Eiseman's Beach & Johnson Park: raise seawall elevation along Eiseman's Beach. (pg 42-43 of 83)
- g) Fish House: raise elevation of structure above flood levels (pg 48 of 83)
- h) Police Station: this report states that "important building equipment (HVAC, electrical) are located around the building; likely in flood prone areas so should be raised in elevation above flood levels. (pg 49 of 83)
- i) Humphrey Street Pumps Station: this report states that most of this building is okay for floods up to 2070; raise in elevation emergency generator, as it could experience flooding. (pg 53 of 83)

# Kleinfelder 2016 Report Recommended Actions

- j) Protect Palmer Pond as natural resource area that protects inland properties: implement dune restoration & enhancements naturally (plantings, beach nourishment) along with pedestrian signage & beach mats to prevent further dune damage, also install outfall back-flow device on outfall from pond. (pg 55-57 of 83)
- k) Preston Beach: raise elevation of ramp access to this area, use of beach mats for pedestrians access & install flood barrier across beach access way; also install outfall back-flow device on outfall in these area. (pg 58-59 of 83)
- l) Kings Beach: raise seawall elevation at a minimum to elevation of adjacent (Lynn) seawall & raise grassy area between seawall & street. (pg 61-64 of 83)
- m) At Stacy Brook Outfall: install flood gate to prevent storm surge from backing up into drainage system; install metal collars around drainage system openings; modify open spaces (grassy areas) for temporary storage of flood waters (pg 65 of 83)
- n) Humphrey Street at New Ocean Street: raise road elevation of Humphrey Street in flood-prone areas. (pg 67 of 83)
- o) Construct breakwaters in Swampscott Harbor to reduce the impacts of wave run-up & overtopping at Kings Beach (?) & Fisherman's Beach. (pg 64 of 83)
- p) Calgon Chlorination Station: raise equipment or build low flood wall. (pg 68 of 83)
- q) Consider acquiring land adjacent to coastal resource areas (Palmer Pond) to accommodate changing conditions of natural resource areas (pg 80 of 83)
- r) Investigate possibility of rolling easements program (town purchases easement from property owner today in exchange for promise to surrender property to town once it is substantially damaged by flood event) – there are 37 such properties in town (pg 80 of 82)
- s) Develop policies for public projects that incorporate anticipated effects of climate on long-term sea level rise (pg 81 of 83)
- t) Consider installing automated tide gauge in Swampscott Harbor to monitor actual seal level rise and storm surge locally. (pg 83 of 83)



# Hazard Mitigation Plan 2015

## HAZARD MITIGATION GOALS

1. Ensure that critical infrastructure sites are protected from natural hazards.
2. Protect existing residential and business area from flooding.
3. Prevent and reduce the damage to public infrastructure resulting from all natural hazards.
4. Continue to enforce existing zoning and building regulations.
5. Educate the public about zoning and building regulations, particularly with regard to changes in regulations that may affect tear-downs and new construction.
6. Encourage future development in area that are not prone to natural hazards.
7. Educate the public about natural hazards and mitigation measures.
8. Make efficient use of public funds for hazard mitigation.
9. Protect the Town's ability to respond to various natural hazard events.

# Hazard Mitigation Plan 2015

## b) HIGHLIGHTED POTENTIAL HAZARD MITIGATION ACTIONS:

1. Upgrade Ocean Avenue outfall to prevent coastal surge and backflow.
2. Identify where utility lines, drainage outfalls and houses can be elevated above flooding areas along Puritan Road between Lincoln House Point and Smith Lane.
3. Purchase front-end loader with grapple for emergency tree and debris clearance..
4. Complete Preston Beach outfall upgrade
5. Complete and adopt new stormwater regulations