

# Kennebunkport Climate Action Plan Executive Summary

*Presented by Kennebunkport Climate Action Plan Task Force*

This plan is designed to ensure Kennebunkport remains viable economically and environmentally in the coming years. The Comprehensive Plan adopted by voters in 2023 and the Climate Goals adopted by the Board of Selectmen in 2020 both served as the foundation for this plan.

Ensuring that businesses thrive while residents and visitors continue to enjoy this unique community will require a long-term commitment. To lighten the workload on town staff, the Task Force recommends forming a long-term volunteer Climate Action Committee, with members who can provide expert support, up-to-date strategies, and community outreach.

**Funding:** An approved Plan will assist the town in accessing State and Federal climate grants.

## **Main goals:**

### **1. Enhance infrastructure resilience:**

Rising ocean waters, more intense storms, and higher temperatures will stress Kennebunkport's infrastructure in new and challenging ways. It is essential to protect and enhance vital infrastructure to ensure:

- Availability of clean water
- Working sewers and drainage systems
- Passable roads and bridges
- A functioning electric grid
- Internet and cell phone access
- Emergency preparedness and response

### **2. Enhance natural protections:**

Keeping these natural assets intact will help protect us from flooding and erosion, and support our tourism and fishing economies:

- Marshland
- Beaches
- Dunes
- Forest cover

### **3. Reduce emissions**

Do our part where possible to reduce carbon emissions in support of the state's *Maine Won't Wait* climate goals.

## **Recommendations were shaped by residents and business owners**

At the very start of this endeavor, the Task Force conducted a town-wide survey to secure baseline data around community attitudes and interest, receiving survey feedback from 381 members of the public. To date they have also met with seven community groups, hosted two well-attended public meetings, and created a 16-member Community Sounding Board, which has met four times. With the Kennebunk CAP Task Force, they also met with a half-dozen Port/Lower Village business/property owners one-on-one and hosted a meeting to hear specific concerns linked to that location.

The leadership at RSU 21 was also consulted to seek its cooperation and support. In addition to input from the two Select Board members on the Task Force, the group met with the Select Board twice for updates and input.

## **A regional effort provides knowledge and efficiencies**

The Southern Maine Planning and Development Council (SMPDC) assisted us throughout, providing a broad and well-researched array of potential strategies. After much deliberation, the list of strategies was whittled down to a smaller number that we felt most important and relevant to our community.

As part of the SMPDC work, we collaborated with three other communities currently creating Climate Action Plans – Kennebunk, Biddeford and Kittery – to learn from each other and consider where regional collaboration would make climate action more effective, as well as financially beneficial.

## **A well-informed community will be key to success**

It is essential that the town, in collaboration with RSU 21, educate residents on an ongoing basis about the impacts of climate change and potential solutions for the community. This plan is not one that will be completed in a few years. It will be ongoing and adaptive.

# BUILD RESILIENCY

## 1. Protect Natural Resources

as a buffer for climate change and to maintain community character.



**Conserve, protect, and restore** areas that provide hazard mitigation and natural resource services.

Partner with regional and local land trusts to protect areas for salt marsh migration. Restore lands as KCT has done in the Meadow Woods Preserve.

**Adopt development policies and regulations** to protect shorelines.

Consider placing restrictions on hard armoring, vegetation removal in buffer areas, and development activities that could exacerbate erosion and/or flood risk.

**Promote and enable** Nature-Based Solutions (NBS) for shoreline protection and carbon sequestration.

Examples of NBS include vegetation, dune restoration, wetland restoration, living shorelines, and soft armoring.

## 2. Create Energy Resilience

to safeguard critical services for residents.



**Electrify municipal and school buildings** and install renewable energy generation on municipal and school properties.

Conduct energy audit to identify opportunities for greater efficiency. Plan for solar energy with battery storage at the Consolidated School and new town hall, and a municipal solar farm. and community solar locations.



**Advocate for improved grid resilience** in partnership with CMP and MPUC.

*\*Potential Regional Strategy*

Work with surrounding towns (and SMPDC) to plan for tree-trimming and to create a reporting mechanism to identify risk.

## 3. Ensure Community Resilience and Disaster Preparedness

to protect residents during extreme weather events.



**Design, establish, maintain, and publicize** Resilience Hubs.

Use an existing community center or facility to create a Hub to provide critical services, including electricity, food, water, shelter during an emergency.

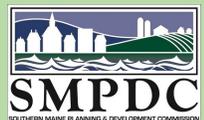
**Review hazard mitigation planning for climate hazards,** including disaster response.

*\*Potential Regional Strategy*

Work with York County Emergency Management Agency on hazard mitigation planning.



**Help Guide Kennebunkport's Climate Action Plan!** The Climate Action Plan (CAP) Task Force has been working to create a CAP focused on changes that will have the biggest impact. Learn more about what they've been up to at: <https://www.kennebunkportme.gov/climate-action-plan-task-force>.



# BUILD RESILIENCY

## 4. Create Resilient Infrastructure to support key community services



**Assess and manage impacts of saltwater intrusion and groundwater rise** on sewers, septic systems and wells. *\*Potential Regional Strategy*

Work with SMPDC and area towns to fund plan for measurement and best practices.

**Improve transportation infrastructure** to better withstand flooding and sea level rise.

Assess vulnerability of transportation infrastructure to the impacts of heat, groundwater rise, and saltwater intrusion caused by sea level rise.



**Protect critical infrastructure:** sewer, water, stormwater, and utilities.

Coordinate with the Water District and Sewer Department to identify critical infrastructure, especially along key waterfronts,

**Plan for maintaining power** at key facilities during power outages.

Identify and back up power solutions at critical municipal and community facilities (e.g. police, fire stations, community centers, and water and wastewater facilities).

## 5. Increase Sustainability and Resilient Development to increase safety of existing properties and ensure new development is adapted to climate change.



**Direct new and re-development** away from areas with high exposure to climate change hazards.

Expand current shoreland protection to deal with rising seas. Consider limiting new development in flood-prone areas.

**Require hazard disclosure** for property transactions.

*\*Potential Regional Strategy*

Advocate for a change to the mandatory hazard disclosure requirements at the town and state level.

**Encourage and streamline processes** for residents and businesses to reduce flood risks by utilizing best practices.

Make tools and resources on climate risks and adaptation options readily available to residents and property owners.

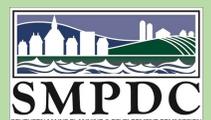
**Consider climate change resilience in development projects** for both public and private lands.

Amend land use and site plan/subdivision ordinances to consider a project's resilience to climate change impacts.

**Create and adopt a managed relocation/retreat policy.**

Evaluate evolving best practices for this need. Encourage the State of Maine to create a program (like other states) that could provide funding for relocating climate-vulnerable dwellings.

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# REDUCE EMISSIONS

**1. Build Energy Efficiency** to reduce energy costs and GHG emissions for municipality, citizens, and businesses.



**Promote weatherization incentive programs** for residential, commercial, municipal buildings.

*\*Potential Regional Strategy*

Provide awareness, education, and technical assistance to homeowners about federal tax credits and Efficiency Maine incentives.

**Reduce use of gas-powered small engines in landscaping.**

Encourage use of battery-powered mowers, blowers, trimmers, etc.

Promote sustainable landscape practices.

**Promote building electrification incentive programs.**

*\*Potential Regional Strategy*

A weatherization program could provide awareness, education, and technical assistance to homeowners about federal tax credits and Efficiency Maine incentives.

**Electrify municipal and school buildings** and install renewable energy generation on municipal and school properties.

Plan for solar energy with battery storage at Consolidated School and new town hall. Evaluate and plan for municipal solar farm and community solar locations.



**2. Support Electric Vehicles (EVs) and reduce VMT (vehicle miles traveled)** to make EVs, walking, and biking more convenient for residents and visitors.



**Transition public fleets to EVs.**

*\*Potential Regional Strategy*

This may already be in process for RSU-21 via EPA Clean School Bus program.



**Install public EV charging**, and require chargers in new and renovated developments.

Make EV charging stations available in public parking areas, and schools. Require for new apartment buildings, new affordable housing, and short-term rentals.

**Increase bikeability and walkability** to reduce dependence on cars.

Encourage residential development closer to services. Include bike paths and walking paths in planning for road construction and repair.

**Help Guide Kennebunkport's Climate Action Plan!** The Climate Action Plan (CAP) Task Force has been working to create a CAP focused on changes that will have the biggest impact. Learn more about what they've been up to at: <https://www.kennebunkportme.gov/climate-action-plan-task-force>





## KENNEBUNKPORT CLIMATE ACTION PLAN DRAFT – November 8, 2023

<b>BUILD RESILIENCY</b>		
<b>1. Create Resilient Infrastructure</b> to support key community services	1. Protect critical infrastructure: sewer, water, stormwater, utilities	<p style="text-align: center;"><i>Examples</i></p> <ul style="list-style-type: none"> <li>● Coordinate with the Water District and Sewer Department to identify critical infrastructure, especially along key waterfronts, and create plan to include: Moving sewer lines, assessing salt water intrusions, enlarging culverts, etc., as needed. (Initial work completed by SMPDC.)</li> <li>● Work with SMPDC on broadband coverage via York Region Digital Equity Coalition.</li> </ul>
	2. Improve transportation infrastructure – roads, culverts and bridges – to better withstand flooding and sea level rise, etc.	<ul style="list-style-type: none"> <li>● Create long-term plan and funding for roads and bridges that may need to be raised or moved.</li> <li>● Assess vulnerability of transportation infrastructure to the impacts of heat, groundwater rise, and saltwater intrusion caused by sea level rise</li> </ul>
	3. Assess and manage impacts of saltwater intrusion and groundwater rise on sewers, septic systems and wells - REGIONAL STRATEGY	<ul style="list-style-type: none"> <li>● Work with SMPDC and area towns to fund plan for measurement and best practices</li> </ul>
	4. Plan for maintaining power at key facilities during power outages.	<ul style="list-style-type: none"> <li>● Identify and backup power solutions at critical municipal and community facilities (e.g. police, fire stations, community centers, and water and wastewater facilities).</li> </ul>
<b>2. Protect Natural Resources</b> as a buffer for climate change and to maintain community character	1. Promote and enable nature-based solutions (NBS) for shoreline protection and carbon sequestration.	<ul style="list-style-type: none"> <li>● Examples of NBS include vegetation and/or geotextiles, dune restoration, wetland restoration, living shorelines, and soft armoring. Protect marshes, build buffers for wave energy, vegetate river edges.</li> </ul>

	2. Adopt development policies and regulations to protect shorelines.	<ul style="list-style-type: none"> <li>Consider placing restrictions on hard armoring (in low to moderate energy areas), vegetation removal in buffer areas, and/or development activities that could exacerbate erosion and/or flooding risk.</li> </ul>
	3. Conserve, protect, and restore areas that are vulnerable to climate hazards and those that provide climate and hazard mitigation such as carbon sequestration, flood mitigation, and important habitat.	<ul style="list-style-type: none"> <li>Partner with regional and local land trusts to protect areas for salt marsh migration. Restore lands as KCT has done in Meadow Woods Preserve</li> </ul>
<b>3. Create Energy Resilience</b> to safeguard critical services for residents	1. Electrify municipal and school buildings & install renewable energy generation on municipal and school properties	<ul style="list-style-type: none"> <li>Conduct energy audit to identify opportunities for greater efficiency. Plan for solar energy with battery storage at Consolidated School and new town hall. Evaluate and plan for municipal solar farm and community solar locations.</li> </ul>
	2. Work with CMP & MPUC to advocate for improved grid resilience – REGIONAL STRATEGY	<ul style="list-style-type: none"> <li>Work with surrounding towns (and SMPDC) to plan for tree-trimming and create reporting mechanism to ID risk.</li> </ul>
<b>4. Ensure Community Resilience/Disaster Preparedness</b> to protect residents during extreme weather events	1. Design, establish, maintain, and publicize Resilience Hubs.	<ul style="list-style-type: none"> <li>Use an existing community center or facility to create a Hub to provide critical services, including electricity, food, water, shelter during an emergency.</li> </ul>
	2. Review/enhance hazard mitigation planning for current and emerging climate hazards – including disaster response – REGIONAL STRATEGY	<ul style="list-style-type: none"> <li>Work with York County Emergency Management Agency on hazard mitigation planning. Potential actions include: creating cooling centers, monitoring wildfire risk, creating a team to address climate health and disaster risks.</li> </ul>

<b>5. Increase Sustainability and Resilient Development</b> to increase the resiliency and safety of existing properties and ensure new development is adapted to climate change.	1. Direct new and re-development away from areas with high exposure to climate change hazards.	<ul style="list-style-type: none"> <li>Expand current shoreland protection to deal with rising seas. Consider limiting new development in flood-prone areas.</li> </ul>
	2. Encourage and streamline process for residents and businesses to reduce flood risks by utilizing best practices.	<ul style="list-style-type: none"> <li>Make tools and resources on climate risks and adaptation options readily available to residents and property owners.</li> </ul>
	3. Consider climate change resilience in development projects for both public and private lands.	<ul style="list-style-type: none"> <li>Amend land use and site plan/subdivision ordinances to consider a project's resilience to climate change impact (including forest protection).</li> <li>Remove at-risk development from hazard areas over time and convert the land to public open space and coastal access</li> <li></li> </ul>
	4. Create and adopt a managed relocation/retreat policy – consider buy-out programs to remove properties from areas at high risk of coastal climate hazards.	<ul style="list-style-type: none"> <li>Encourage the state of Maine to create a funding program (like other states) that could provide funding for relocating climate vulnerable dwellings.</li> <li>Evaluate evolving best practices for this future need: Sample: <a href="https://smpdc.org/index.asp?SEC=EB353312-031E-4651-8CE5-4B482BABB42A&amp;DE=610B6C36-DB91-4ED7-BD39-96F98BC9EE91">https://smpdc.org/index.asp?SEC=EB353312-031E-4651-8CE5-4B482BABB42A&amp;DE=610B6C36-DB91-4ED7-BD39-96F98BC9EE91</a></li> </ul>
	5. Require hazard disclosure for property transactions – REGIONAL STRATEGY	<ul style="list-style-type: none"> <li>Advocate for a change to the mandatory hazard disclosure requirements at the town and state level.</li> </ul>
<b>REDUCE EMISSIONS</b>		
<b>6. Build Energy Efficiency</b> to reduce energy costs and GHG emissions for	1. Promote weatherization incentive programs for residential, commercial, municipal buildings - REGIONAL STRATEGY	<ul style="list-style-type: none"> <li>A weatherization program could provide awareness, education, and technical assistance to homeowners about federal tax credits and Efficiency Maine incentives.</li> </ul>

municipality, residents citizens, and businesses	2. Promote building electrification incentive programs - REGIONAL STRATEGY	<ul style="list-style-type: none"> <li>• Convert homes and larger buildings from fossil fuels to all-electric heating and cooling via air-source and ground-source heat pumps and electric appliances.</li> </ul>
	3. Electrify municipal and school buildings & install renewable energy generation on municipal and school properties	<ul style="list-style-type: none"> <li>• Plan for solar energy with battery storage at Consolidated School and new town hall. Evaluate and plan for municipal solar farm and community solar locations.</li> </ul>
	4. Reduce use of gas-powered small engines used in landscaping	<ul style="list-style-type: none"> <li>○ Encourage use of battery-powered mowers, blowers, trimmers etc.</li> <li>○ Promote use of sustainable landscape practices</li> </ul>
7. Support EVs and reduce VMT (vehicle miles traveled) to make EVs, walking, and biking more convenient for residents and visitors	1. Transition public fleets to EVs - <i>Potential RSU 21 Partnership</i>	<ul style="list-style-type: none"> <li>• NOTE: This may already be in process for RSU-21 via EPA Clean School Bus program.</li> </ul>
	2. Install public EV charging, and require chargers in new and renovated developments.	<ul style="list-style-type: none"> <li>• Make EV charging stations available in public parking areas, and schools. Required for new apt. buildings, new affordable housing, short-term rentals.</li> </ul>
	3. Increase bikeability and walkability to reduce dependence on cars	<ul style="list-style-type: none"> <li>• Encourage residential development closer to services. Include bike paths and walking paths in planning for road construction and repair.</li> </ul>
<b>ENABLE ACTION</b>		
8. Community Outreach - Actively engage the community in local climate, sustainability, and resilience issues to help residents and businesses protect themselves, their properties, and	<ol style="list-style-type: none"> <li>1. Collaborate with RSU-21 schools to incorporate climate change, resilience, and sustainability into school curricula. <i>Potential RSU 21 Partnership.</i></li> <li>2. Promote climate education in the community at large</li> <li>3. Create a shared “Community Vision” around climate resilience for Kennebunkport’s future</li> <li>4. Create a “Climate Commission” or other volunteer committee to help implement community outreach projects and support town staff and boards</li> </ol>	<ul style="list-style-type: none"> <li>• See above re. installation of renewable energy capacity at the schools.</li> <li>• Work with high schools to implement some of the free curriculum created by The Climate Initiative.</li> <li>• Implement visible, short-term demonstration projects that engage community members</li> <li>• Create guidelines/parameters for Climate Commission’s responsibilities</li> </ul>

<p>their pocketbooks against climate change</p>		
<p><b>9 Enable Municipal Operations and Funding</b> to support the Climate Action Plan ensuring equal access to services and resources</p>	<p>1. Incorporate climate resilience and GHG emissions criteria – along with equity considerations - into municipal budgeting, policy and staffing decisions.</p>	<ul style="list-style-type: none"> <li>● Restructure existing jobs, or hire new staff to support climate action plan. Consider co-hiring with the town of Kennebunk.</li> </ul>
	<p>2. Investigate opportunities to diversify sources of revenue to decrease over-reliance on taxes from high-value residential coastal properties</p>	<ul style="list-style-type: none"> <li>● As a first step, assess sources of tax revenue that may be jeopardized by climate change impacts. Example here: Economic Resilience Assessment for Coastal York County. See Kennebunkport's profile sheet here: <a href="https://smpdc.org/vertical/Sites/%7B14E8B741-214C-42E2-BE74-5AA9EE0A3EFD%7D/uploads/Kennebunkport_TownProfile.pdf">https://smpdc.org/vertical/Sites/%7B14E8B741-214C-42E2-BE74-5AA9EE0A3EFD%7D/uploads/Kennebunkport_TownProfile.pdf</a></li> </ul>
	<p>3. Conduct a review of ordinances and policies to identify necessary changes to reduce emissions and runoff and build resiliency, including streamlining approval processes and reducing barriers.</p>	<ul style="list-style-type: none"> <li>● Using SMPDC Model Coastal Resilience Ordinance Language, revise land use ordinances to enhance resilience and help home and business owners protect property. Model Coastal Resilience Ordinance Language developed by SMPDC and other towns: <a href="https://smpdc.org/index.asp?SEC=EB353312-031E-4651-8CE5-4B482BABB42A&amp;DE=610B6C36-DB91-4ED7-BD39-96F98BC9EE91">https://smpdc.org/index.asp?SEC=EB353312-031E-4651-8CE5-4B482BABB42A&amp;DE=610B6C36-DB91-4ED7-BD39-96F98BC9EE91</a></li> </ul>

# Kennebunkport, ME Comprehensive Plan 2023 Volume 1

(Bullets highlighted in green align with draft Climate Action Plan)

Page	Section	Statement
16	Plan Summary	<ul style="list-style-type: none"> <li>● “Climate resiliency is key to sustainability.”</li> </ul>
21	Community Resilience	<ul style="list-style-type: none"> <li>● “This Comprehensive Plan integrates climate across all planning sectors and explores climate change, impacts, and opportunities to increase resilience. Alignment with the Maine Climate Council’s recommended sea level rise planning scenarios makes the plan particularly relevant.”</li> <li>● “Reducing greenhouse gas (GHG) emissions is critical to minimizing the magnitude of climate change. Reducing the energy consumed by Town facilities and vehicles, encouraging green building, supporting, and regulating solar farms are examples of ways to reduce emissions locally.”</li> </ul>
23	Collaboration	<ul style="list-style-type: none"> <li>● “[A] climate-related instance of Kennebunkport’s collaborative approach is reflected in this Comprehensive Plan where a conscious effort was made to align the municipal plan with the goals and policies advocated by Maine’s bold new climate action plan, published in December 2020.”</li> </ul>
28	Strategies - Welcoming	<ul style="list-style-type: none"> <li>● “Consider amending the LUO to reduce minimum lot size requirements and increase allowable density within Growth Areas.”</li> <li>● “Encourage connecting streets, a pedestrian-friendly environment, and small-scale, neighborhood commercial services that are geared toward serving local residents.”</li> </ul>
28	Strategies – A Steward	<ul style="list-style-type: none"> <li>● “Conduct monitoring to evaluate the impact of pesticides and herbicides on natural resources and water resources and identify strategies to minimize impacts.”</li> </ul>

29	Strategies - Resilient	<ul style="list-style-type: none"><li>● "Work with the Silver Jackets and other experts to devise a plan to protect Dock Square buildings from sea level rise."</li><li>● "Educate property owners about impacts of climate change, such as extreme heat, drought, flood vulnerability, and changes in precipitation on habitats and species."</li><li>● "Investigate the vulnerability of public and private wells to sea level rise induced groundwater rise and to drought."</li><li>● "Adhere to the Maine Climate Council's recommendation to locate new critical infrastructures, such as pump stations and other wastewater infrastructure, away from areas that are at-risk from sea level rise and flooding."</li><li>● "Plan for the possibility that some town roads or segments of town roads may require elevation to avoid inundation due to sea level rise."</li><li>● "Identify undeveloped land that is vulnerable to sea-level rise and make recommendations on acquisition to act as flooding buffer."</li><li>● "Develop standards for new development in areas that are vulnerable to sea level rise (SLR) and ground water rise that is induced by sea level rise."</li><li>● "Identify opportunities to lead, participate, and build from regional climate adaptation efforts."</li><li>● "Identify locations for electric vehicle charging stations, according to Maine Clean Community recommendations, that would benefit the community."</li><li>● "Measure and monitor greenhouse gas emissions from municipal operations, and community wide."</li></ul>
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		<ul style="list-style-type: none"> <li>• "Develop a town-wide climate action plan."</li> <li>• "Educate community members about steps they can take to reduce emissions and become more resilient."</li> <li>• "Continue to budget and plan for long-term energy efficiency equipment upgrades."</li> <li>• "Review the potential to install and operate renewable energy systems at municipal facilities."</li> <li>• "Review LUO for hinderances to renewable energy systems and recommend amendments."</li> <li>• "Ensure that the maintenance of aging sewer infrastructure is a priority."</li> <li>• "Integrate sustainability criteria into capital planning."</li> </ul>
30	Strategies - Connected	<ul style="list-style-type: none"> <li>• "Prioritize carbon emissions reduction when purchasing new vehicles."</li> <li>• "Develop a long-term vision for a network of bicycle routes to serve the community and link to routes and facilities in neighboring communities."</li> <li>• "Conduct a comprehensive transportation vulnerability assessment to identify vulnerable assets and loss of connectivity due to sea level rise."</li> </ul>
30	Strategies - Collaborative	<ul style="list-style-type: none"> <li>• "Partner with regional entities and communities to enhance evacuation route planning and community education on evacuation routes."</li> </ul>

# Crosswalk Between BOS (16Oct2020) Climate Goals & CAP Draft Strategies Table

**How to interpret the three colors in the tables below:**

- **GREEN** - These are **BOS** goals that are included in the **CAP** top priority strategies,
- **GREY** - These are **BOS** goals that are not (currently) included in the **CAP** top priority strategies,
- **BLUE** - These are **CAP** top priority strategies that were not included on the **BOS** list.

## Reduce Emissions

### Building Energy Efficiency

- Install and operate renewable energy systems at municipal facilities or serving municipal facilities
- Collaborate with other municipalities to install and operate renewable energy systems for municipal energy / community energy use
- Facilitate the adoption of renewable energy technologies (i.e. solar, geothermal) by adapting building and zoning codes
- Track and benchmark building energy consumption and seek ways to improve energy efficiency in all facilities
- Adopt codes and permitting practices that support renewable energy systems in the community
- Measure and Monitor GHG Emissions Community Wide
- Measure & Monitor GHG Emissions from Municipal Operations
- Collaborate with utilities and other agencies to upgrade streetlight equipment *(already doing this)*
- Utilize energy saving performance contracts (ESPC) to finance large energy efficiency projects *(too specific)*
- Achieve LEED certification for public building projects *(out dated)*
- Procure locally produced, renewable energy for public facilities using bundled or unbundled RECs *(too specific)*

## Protection of Natural Resources

- Increase native and sustainable landscaping within the community and on municipal properties
- Educate city staff about forest, wetlands, and ecosystem best management practices
- Optimize tree planting and protect existing trees for maximum carbon storage/sequestration and energy savings
- Conserve, protect and restore areas vulnerable to climate hazards and provide hazard mitigation services

## Enable Action

### Community Outreach

- Educate the community about steps they can do to reduce emissions and become more resilient
- Educate the community about clean energy options
- Educate the community about the value of trees, native and sustainable landscaping
- Promote native and sustainable landscaping initiatives community wide by connecting residents to plants and information
- Collaborate with local schools to incorporate climate change, resilience, and sustainability into school curricula
- Educate the community on recycling and composting practices *(already doing this)*
- Educate the community to reduce waste by consuming less and reusing *(already doing this)*

### Municipal Operations and Funding

- Budget and plan for long-term energy efficiency equipment upgrades
- Incorporate climate resilience and GHG emissions criteria into municipal budgeting, policy and staffing decisions
- Ensure municipal departments have the capacity, guidance, and support to advance local climate mitigation and adaptation strategies
- Review of land use ordinances and policies for necessary changes to incorporate resilience and sustainability measures and standards
- Establish local funding mechanisms to financially support climate resiliency and sustainable projects on an ongoing basis
- Enact policies to preserve dark skies
- Create and promote a community brand featuring natural resources or cultural characteristics of community
- Manage special events sustainably *(too specific)*
- Establish and strive for a residential recycling goal *(already doing this)*

# Build Resiliency

## Resilient Infrastructure

- Develop a local climate action plan
- Assess all other non-coastal vulnerabilities to create a comprehensive picture of current and future climate change impacts
- Complete the Maine Flood resilience Checklist to assess coastal vulnerabilities
- Integrate sustainability into capital planning
- Partner with other local governments to plan and achieve sustainability
- Protect critical infrastructure for climate change hazards -sewer, water, stormwater
- Improve resilience of transportation infrastructure (roads, culverts, etc.) to better withstand flooding, sea level rise, and other climate hazards
- Assess and manage impacts of saltwater intrusion and groundwater rise on septic systems and wells
- Assess vulnerability of transportation infrastructure to heat, groundwater rise, and saltwater intrusion caused by sea level rise
- Diversify the community forest for long term resilience

## Protection of Natural Resources

- Enact and enforce land use policies that protect valuable natural assets and support resiliency
- Increase the amount of sustainable landscaping in the community through subdivision and development codes
- Promote and enable nature-based solutions for shoreline protection
- Plant trees in locations where they make a direct, positive impact on the community or act as a buffer to filter air and water, limit storm runoff, and stabilize soil (*too specific*)

## Energy Resilience

- Promote and enable nature-based solutions for shoreline protection
- Install renewable energy generation on municipal and school properties
- Develop and implement a plan for maintaining power at critical facilities during power outage

## Community Resilience/Disaster

- Design, Create, and Support Resilience Hubs
- Develop or enhance hazard mitigation planning including disaster response as well as current and emerging climate hazards

### **Sustainability and Resilient Development**

- Direct new development away from areas that have high exposure to climate hazards, including sea level rise, erosion, and inland flooding
- Require consideration of climate change resilience in development project applications
- Consider managed relocation/retreat policies and buy-out programs to remove properties from areas a high risk of coastal climate hazards.
- Require hazard disclosure for property transactions



# Kennebunkport **Climate Action Plan**



## **TASK FORCE**

*Ad Hoc committee appointed by Board 2022*

Pam Morgan, chair

Jen Armstrong, vice-chair

Fred Stafford

Harvey Flashen

Ella Boxall

Steve Kaagan

Jon Dykstra

Mike Weston



# PURPOSE of CLIMATE ACTION PLAN

- Ensure Kennebunkport will remain economically and environmentally viable in the decades to come
  - Protect health and vitality of the town
  - Position the town to receive state and federal climate grants now and ongoing
  - Prioritize existing funds strategically
- 

# What is the Plan based on?

- Our **Comprehensive Plan**
- 2020 **Select Board Climate Goals**
- 75 wide-ranging **strategies** researched by SMPDC
- Feedback from **hundreds of community members**
  - Survey - 381 responses
  - Community Sounding Board Meetings - 16 members
  - Presentations/discussions with Rotary, GRBAC, KCT, Chamber, High School students, Public Health
  - Public Meetings at Graves Library - 2
  - Individual interviews (6) with business /property owners
  - Joint meeting with Port and Lower Village business owners - significant interest and feedback
  - Ongoing meetings with RSU 21 officials

# What is the Plan based on?

## Vulnerability Assessment

## Greenhouse Gas Emissions Study

AUGUST 2023

**Introduction**

One of the first steps to understanding how communities can plan for and address climate change impacts is to assess climate hazards that are projected to impact an area as well as the things, people, and places that are vulnerable to those hazards. **Climate vulnerability is commonly defined as the product of exposure to climate hazards, sensitivity of the built, social, and natural systems to those hazards, and the adaptive capacity of those systems for responding to change and stressors.** The more sensitive something or someone is to a hazard and the lower their adaptive capacity to respond to the hazard, the greater their vulnerability. Vulnerability also increases as exposure to the hazard does. Evaluating vulnerabilities, including what will be impacted by climate hazards, and to what extent those impacts will occur, provides a baseline for developing targeted strategies, measures, and solutions for reducing vulnerabilities.

**ELEMENTS OF VULNERABILITY**

- EXPOSURE**: What is exposed to the hazard and to what extent is it exposed
- SENSITIVITY**: Degree of impact if in contact with the hazard
- ADAPTIVE CAPACITY**: Ability to respond to the hazard

**Vulnerability Classification**

	High	Medium	Low	
Sensitivity	High	Medium Vulnerability	High Vulnerability	High Vulnerability
	Medium	Low Vulnerability	Medium Vulnerability	High Vulnerability
	Low	Low Vulnerability	Low Vulnerability	Medium Vulnerability
Exposure		High	Medium	Low
		Adaptive Capacity		

*Figure adapted from NOAA. 2022. Implementing the Steps to Resilience: a Practitioner's Guide.*

This draft vulnerability assessment summary presents an overview of climate hazards and associated impacts and vulnerabilities for the community of Kennebunkport. The assessment uses local, regional, state, and national data pertaining to climate hazards, historical conditions, trends, and future projections to assess impacts of and local vulnerabilities associated with the following:

- Flooding from sea level rise and storm surge

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**Summary of Baseline Greenhouse Gas Emissions & 2030 Forecast**

*Kennebunkport*

**2019 Baseline Greenhouse Gas Inventory**

One of the first steps in developing emissions reduction goals, targets, and strategies is selecting a baseline year against which future greenhouse gas (GHG) emissions will be compared. For this climate action planning process, 2019 will serve as the baseline year. The baseline GHG inventory identifies the major sources of emissions in Kennebunkport, enabling the town to identify areas to focus emissions reduction efforts, establish goals and track progress towards those goals, and facilitate decision-making about future policies and strategies.

**Key Terms**

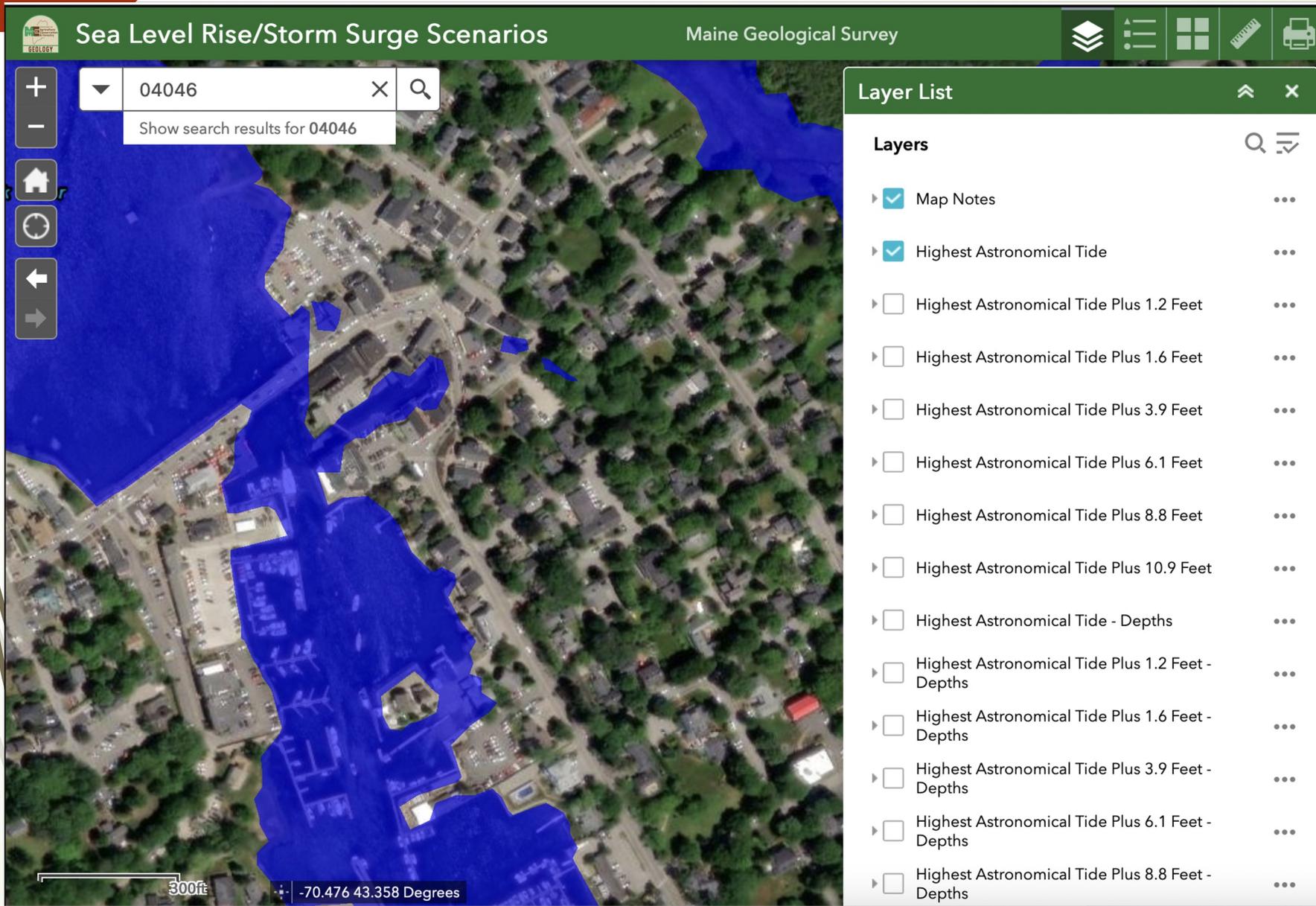
- **Community-wide GHG Inventory:** Accounts for GHG emissions produced by Kennebunkport's residents, workforce, visitors, and the economy. Municipal emissions are included in the community-wide inventory.
- **Municipal GHG Inventory:** Accounts for GHG emissions produced by the Town of Kennebunkport's municipal operations which include municipal buildings, vehicles, and employee activities. Municipal GHG emissions are a component of community-wide emissions.
- **MTCO<sub>2e</sub>:** Metric tons (MT) of carbon dioxide equivalent (CO<sub>2e</sub>) is a metric used to compare the emissions from various GHGs based on their global-warming potential, by converting amounts of other GHGs to the equivalent amount of carbon dioxide with the same global warming potential.

**Emissions Sources**

In Kennebunkport, GHG emissions are produced by three sectors, each of which can be broken down into specific subsectors.

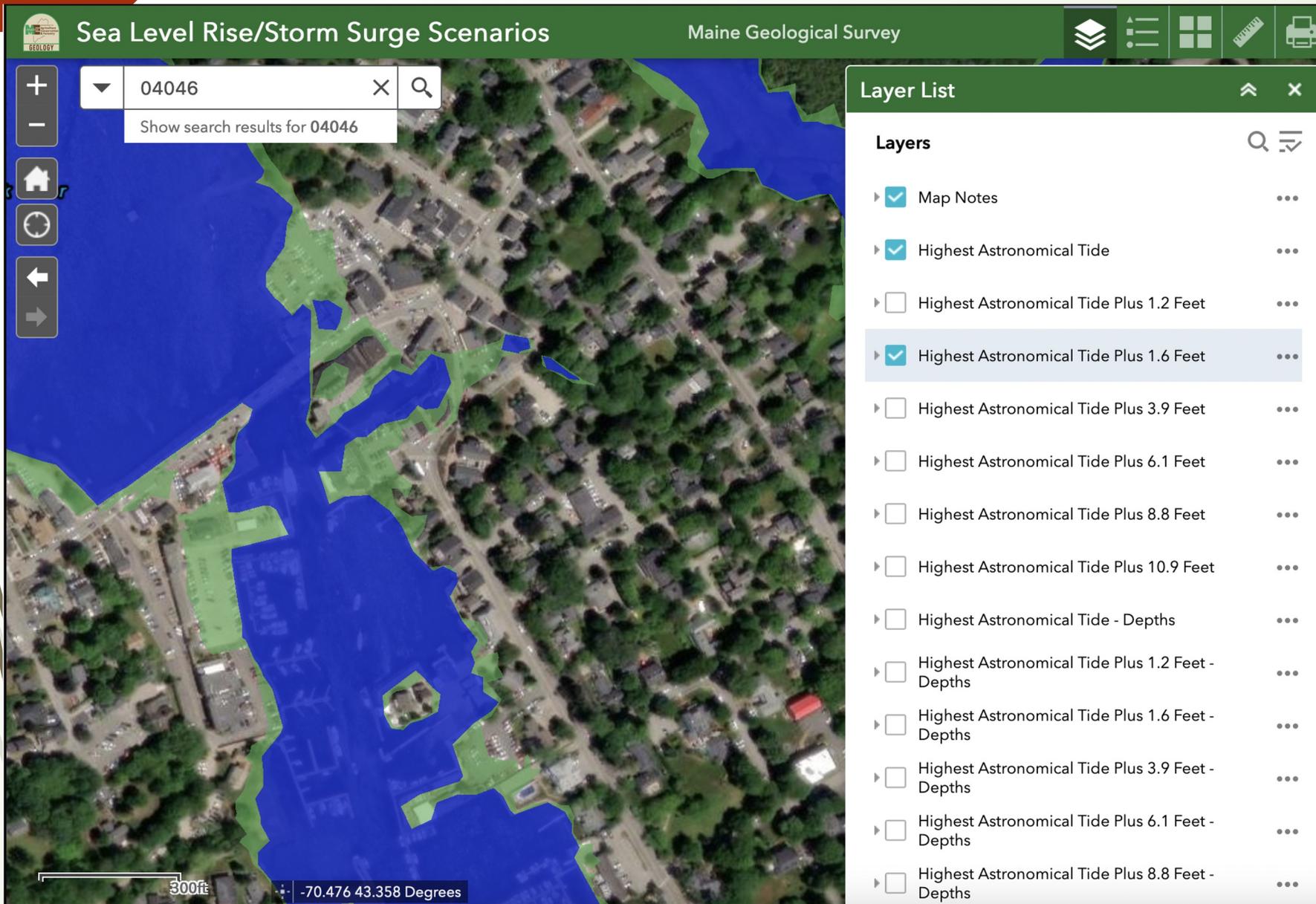
- **Transportation:** Includes emissions from all on-road transportation sources, including passenger

# Sea Level Rise: Ignore or Plan?



**Current  
conditions**

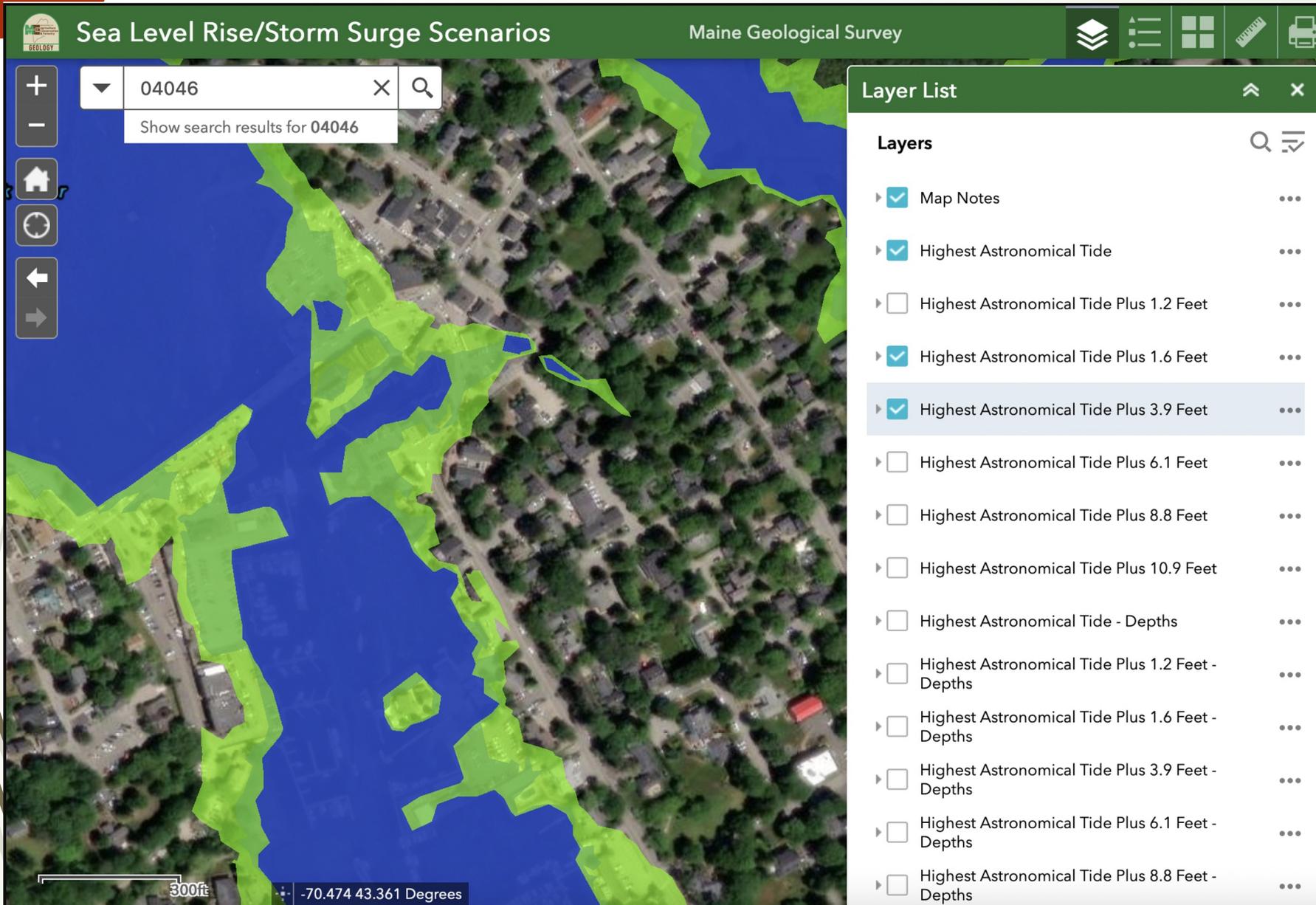
# Sea Level Rise: Ignore or Plan?



*Maine Won't Wait*  
**commit to  
manage for  
1.5 feet of  
relative sea-  
level rise by  
2050**

[https://www.maine.gov/dacf/mgs/hazards/slr\\_ss/index.shtml](https://www.maine.gov/dacf/mgs/hazards/slr_ss/index.shtml)

# Sea Level Rise: Ignore or Plan?

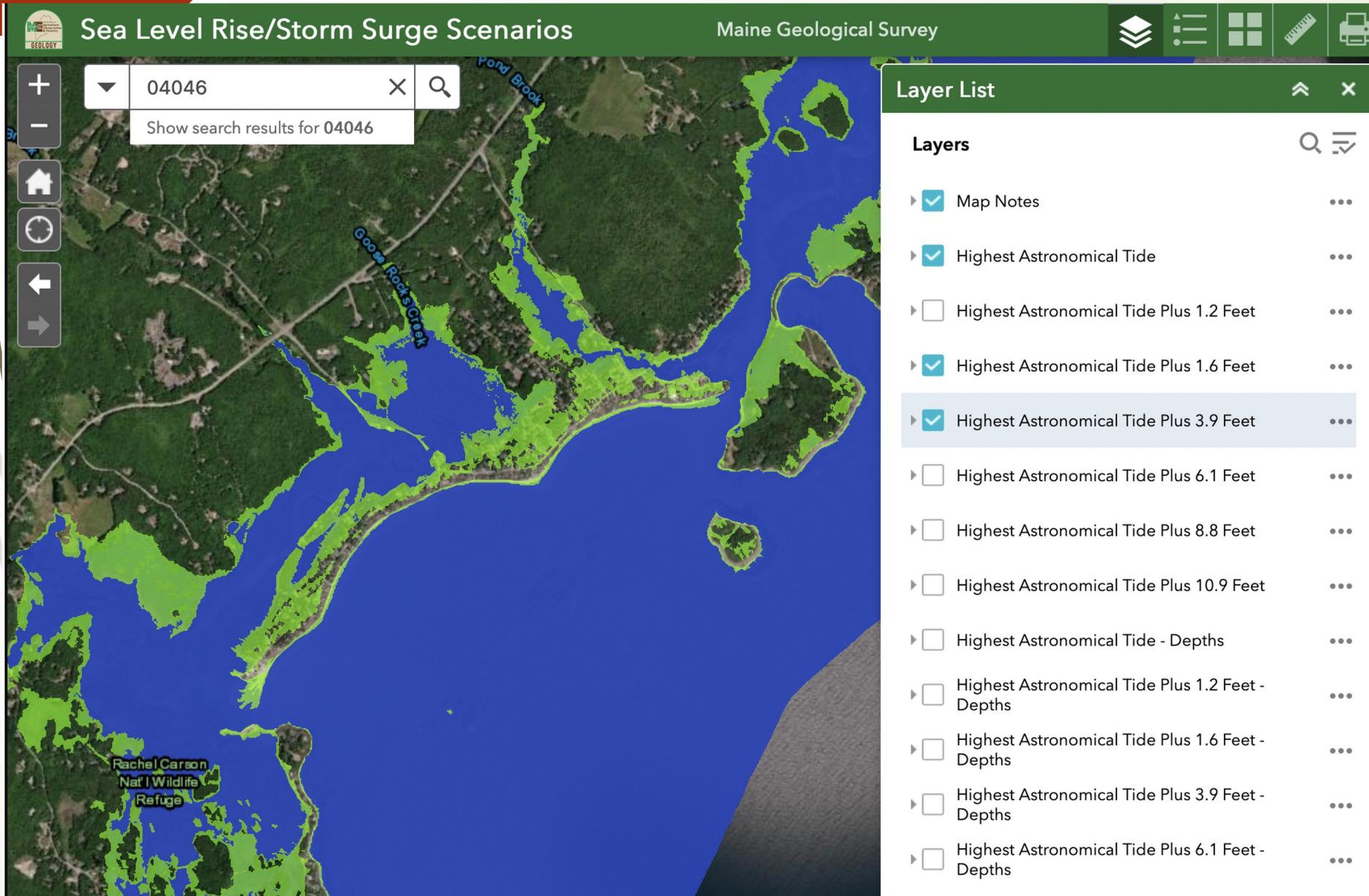


*Maine Won't Wait*

***commit to  
manage for  
3.9 feet by  
2100***

***prepare to  
manage for 3  
feet of relative  
sea-level rise  
by 2050 and  
8.8 feet by  
2100.***

# Sea Level Rise: Ignore or Plan?



*Maine Won't Wait*

***commit to manage for 3.9 feet by 2100***

***prepare to manage for 3 feet of relative sea-level rise by 2050 and 8.8 feet by 2100.***



# Biggest Community Concerns (survey)

- ❖ **Natural and built environment** - Our beaches, marshes, riverfront, roads, waterfront houses and businesses are at risk
- ❖ Our **critical infrastructure – water, sewer as well as power and internet** - is at risk to damage from sea level rise *and* increasing storm severity and frequency
- ❖ Our **local economy** (especially tourism and fishing) is or will be changing
- ❖ Our **public services will be strained** to keep community safe in more extreme weather

# Overall Takeaways: Public Engagement

- ❖ *Our **environment/landscape** are the basis for the tourist industry – and its why people want to live here. The Town needs to understand this and act to protect it.*
  - ❖ *We must manage and reduce development that threatens dunes, marshland, water sources, and forest*
- ❖ **Education and community involvement is key.**
  - We need to prepare better, have better education as to what to expect
  - Show how actions now will save money over the long term
  - **Expand discussion beyond coastal change: freshwater flooding, drought**





## Community quotes and concerns

“Protect[ing] Natural Resources is most important because erosion is a serious problem and if we do not deal with it will continue to evolve.”

“Creating hard armoring (solid surfaces, walls) is a bad policy as it makes erosion worse. We should encourage vegetation, natural solutions, as these retain sand and help reduce the amount of damage along coastlines.”



## Community quotes and concerns

“I am concerned about salt water intrusion on our well and on our septic system.”

“It is important to regulate and change policies SOON for some ‘doable’ change.”



## Community Concerns: Quotes from businesses

- **The economic piece is going to dictate how long businesses stay in their current locations.** Cannot raise the building without other buildings, sidewalk, going higher too.
- **Businesses don't know what to do beyond the obvious.**
- **Understanding options and specific plans on various ways to respond** to this crisis would be helpful - actual strategies to address challenges to flooding in Dock Square, and possible options for businesses to choose from to mitigate.



# The Strategies

1. Build Resiliency
2. Reduce Emissions
3. Enable Action

# Build Resiliency



Infrastructure resilience  
& Disaster preparedness



Energy resilience

# Build Resiliency



Marshes, Forests,  
Wetlands

# Reduce Emissions



Support electric vehicles



Build energy efficiency  
e.g. weatherization  
incentives

# Enable Action



Create a Climate  
Committee



Enable municipal  
operations and funding



# Implementation

- Climate Action Plan consists of recommendations
- Strategies that require town funding will go for budget review
- Strategies that require ordinance revision go to Selectboard - and to voters - for approval
- Volunteer Climate Action Committee to support public outreach and implementation process



# Next Steps

- BOS feedback on strategies
- Final Community Presentation to gather more input
- Feedback will also be gathered via town's website
- **Selectboard to vote on Climate Action Plan in March**