



TREMONT COMMUNITY

RESILIENCE PLAN

INTRODUCTION

In 2021, in response to citizen efforts, Tremont passed a climate resolution, recognizing its status as one of 20 towns in Maine that will be most impacted by the effects of climate change, including sea level rise, increased storm activity, impacts to domestic water sources, and impacts to the fishing industry. The resolution celebrated the activities Tremont has already taken to mitigate climate change and build community resilience while also calling upon the town to complete specific steps to shape a more vibrant future. Recognizing that a more strategic and coordinated approach would be essential to successfully navigate the challenges ahead, as part of the town's membership in the Maine State [Community Resilience Partnership](#), Tremont applied for and received a grant in September 2022, to fully fund the development of a Community Resilience Plan at no cost to the Town. After the Select Board voted to move forward with the planning process with A Climate to Thrive's support, work began in March of 2023 and concluded in March 2024.

The insights, priorities, and goals of community members played a central role in plan development, with over 318 comments collected from over 86 different stakeholders within the Tremont community with knowledge of needs and priorities associated with small businesses, education, construction, the working waterfront, and more. These insights, gathered through listening sessions, participation in community events, virtual surveys and dialogues, written bulletin boards, and more, drove the plan's direction and strategies.



Tremont's Community Resilience Plan is a flexible, practical roadmap designed to:

- Provide specific focus on climate-related resilience, while being integrated with the comprehensive plan, and serving as a path to collaborative planning with other coastal towns;
- Support the town in energy plans that meet residents goals and provide residents with maximum benefits;
- Reduce cost and maximize access to funding opportunities by allowing the town to plan around the availability of grants and other support from the state and federal government;
- Establish a strategic and coordinated approach to dealing with pressing concerns that allows the town to be proactive and lightens the load on town staff by providing consolidated information and resources aligned with actionable next steps rooted in community priorities.

COMMUNITY PRIORITIES: VULNERABILITIES AND VALUES

The most prevalent concerns related to the Town's resilience raised by residents during plan development were:

1. Sea level rise/flooding risk (to infrastructure & properties)
2. Energy reliability and cost
3. Transit availability and safety (roads, walkability & bikeability)

The sources of value, strength, and resilience that residents identified as most valued within the Town during plan development were:

1. The working waterfront
2. Town institutions (government, school, library, involved citizens)
3. Town character (rural, natural beauty, independent spirit)

TREMONT'S VISION FOR A RESILIENT FUTURE

Tremont seeks to meet challenges and seize opportunities associated with coming changes by supporting the town's working waterfront, protecting its coast and key infrastructure, ensuring critical services, proactively seeking energy solutions, and sustaining a vibrant, connected year-round community.

Grounded in the community priorities listed above, the town lays out its pathway to a resilient future with the following goals in mind.

Support the town's working waterfront and protect the coast through coming changes:

- Provide resources and education on diversifying fisheries and livelihoods through pathways aligned with Tremont's way of life & independent spirit;
- Create support for local exploration of small-scale operations in spaces such as scallops, kelp, shellfish, and other aquaculture initiatives and explore options for increased local food processing;
- Plan to protect and enhance the long-term health of the watershed, and implement nature-based solutions to erosion and flooding.

Protect key infrastructure & maintain critical services:

- Identify and plan for the protection of roads and bridges vulnerable to sea level rise, erosion, or flooding;
- Ensure that key centers for critical services (including the Tremont Consolidated School) are equipped to serve the community during severe weather events and power outages;
- Encourage energy resilience strategies to reduce high heating and electricity costs and cope with an electrical grid that currently fails to meet community needs.
- Protect safe and plentiful access to clean drinking water and proactively plan to manage the impact of the Town's aging septic systems

Build a vibrant, connected, sustainable year-round community:

- Provide resources for workforce development initiatives to equip Tremont residents for careers in high-growth industries;
 - Bolster a year-round population of diverse income and occupation by supporting neighbors during disasters, addressing the lack of affordability in island housing, and maintaining and growing a sense of community care and connection;
 - Encourage and support the expansion and diversification of sustainable local businesses oriented toward year-round residents;
- Support town leadership with the tools, vision, and resources needed to plan ahead for coming changes and opportunities.

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PLAN ORGANIZATION

Grounded in Tremont's vision for a resilient future, this plan discusses anticipated changes and challenges the town will face and proposes practical strategies the town can implement in the near term, supported by funding opportunities and partnerships across the state and beyond.

The plan is organized into working areas that support the goals outlined above. Goal 1 is supported by "Working Waterfront & Economic Resilience" and "Natural Resources & Solutions"; Goal 2 is supported by "Infrastructure & Transportation", "Critical Community Services", and "Homes & Properties", and Goal 3 is supported by "Healthy Community", and "Leadership, Governance, & Funding". Many issues cut across sections.

Each key working area includes a description of the challenges Tremont currently faces paired with strategies to meet those challenges, focused on near-term practical actions (to be completed within 3-5 years), as well as some longer-term goals (with an outlook to 5-10 years). Some strategies are either already underway or have funding already earmarked for work in this area. In these cases, the strategies are denoted as such. Some strategies are shared between this document and the town's 2023 Update to its Comprehensive Plan, and these are also noted for this overlap. Each strategy recommended is supported by an implementation guide, which includes a more detailed timeline, responsible parties, potential funding sources, and additional supportive resources. The implementation guide is not included in this community-facing version of the plan, since it is intended to be useful to town staff and other policymakers implementing plan actions. Those interested in viewing this more technical document can access it online on the Town's website under the Sustainability Committee's page.

Each strategy was selected and/or prioritized because of its direct linkages to a hazard that community members desire to address, or a goal they seek to realize. Rather than adopting generic strategies focused on expected goals, this plan leverages the insights of those who know this place best to adapt innovative insights into a framework that will work for Tremont.



Photo from the Tremont Community Resilience Plan Workshop

At this unprecedented moment, there is a bounty of resources available to support rural towns in taking action to achieve ambitious targets in resilience-building, focused on energy security, mitigating damage from sea level rise, and creating opportunities for economic growth and increased community connectivity. Tremont is well-positioned to seize these opportunities and to continue as a leader on Maine's coast, ensuring year-round community thriving well into the future.

This plan is designed to allow the town to realize its vision of a thriving future in the context of present and future impacts linked to a changing climate. The Natural Resources Council of Maine has identified Tremont as one of the twenty towns in Maine most vulnerable to sea level rise, and other ecological changes are already beginning to alter the natural resources and weather patterns that are intimately linked to the town's character and prosperity. Weather and climate significantly impact the quality of life and safety of communities, exacerbating existing economic and health challenges faced by at-risk populations, and threatening the infrastructure that connects residents to key social and emergency services, both in town and throughout Mount Desert Island.

The Gulf of Maine Research Institute recently completed a Vulnerability Assessment for the town, to equip local decision-makers and communities with the information they need to identify areas and populations that are most susceptible to climate impacts and leverage that knowledge to inform planning horizons and community priorities. This vulnerability assessment examines the impacts of sea level rise and flooding on private and public property and infrastructure in Tremont including wharves, roads, and bridges. It also sheds light on potential impacts from warming temperatures; changes in precipitation; changes to the Gulf of Maine's marine environment; vector-borne diseases; saltwater intrusion into coastal aquifers; and wildfires. In addition to qualitative data, other quantitative risks are taken into account, such as housing stock, municipal tax base, and employment data to shed light upon the ways in which climate change might interact with Tremont's social and economic conditions. This assessment leverages community knowledge, including oral anecdotes and photographs, to create a localized understanding of what at-risk infrastructure and services are a priority for the town and its "hazards of place" - the location of climate hazards relative to the location of community infrastructure, assets, and populations. This assessment will support Tremont in identifying and prioritizing adaptation actions by identifying when the community will experience specific impacts under a range of climate change scenarios. The insights from the Vulnerability Assessment are integrated into this plan and guide strategy choice and prioritization. For a more in-depth portrait of expected impacts addressed in detail, residents can review the full Vulnerability Assessment completed by the Gulf of Maine Research Institute, now on the Town's website.



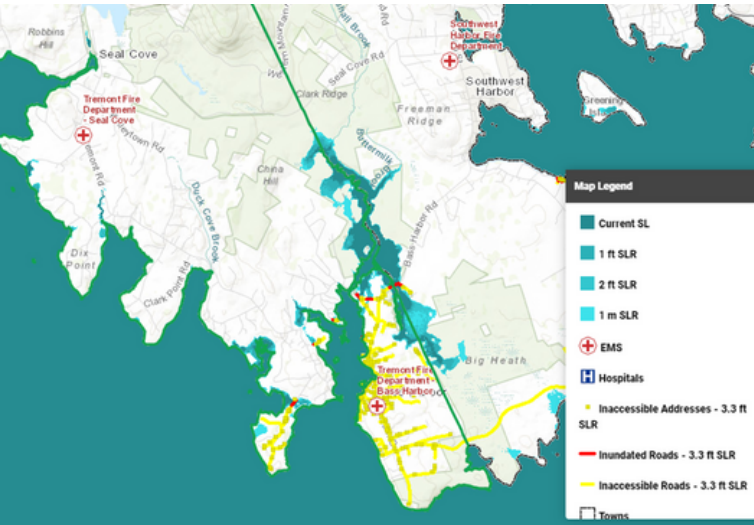
JANUARY 2024 STORMS

Only eleven storms have produced storm surges over 3 feet on MDI since 1947. Two of them occurred back-to-back on January 10 and 13, 2024. Southeasterly winds caused severe impacts on southeast-facing shorelines such as Ship's Harbor, Lopaus Point, Nutter Point, and Dix Point. Lopaus Point Road was inundated and impassable at high tide, isolating residences on Lopaus Point, and the road sustained damage. The Bernard town landing was damaged and remained closed for around a week, with repairs lasting for several weeks after the storms. The road to the Bass Harbor Ferry Terminal, Little Island Marine, Route 102 near Archie's, and Cape Road near the Seal Cove Picnic Area were also all inundated. The January 13 storm led to the highest water level recorded at the Bar Harbor tide gauge since it was installed in 1947. Storms with similar impacts are expected to grow more common in the coming years.

INFRASTRUCTURE & TRANSPORTATION 5

"Driving over the bridge by Kelley Farm Preserve at high tide these days, it always seems to be a particularly high tide. I'm concerned about what happens when one of those high tides coincides with a rainstorm; could it mean that many residents get stuck? They have to go all the way around, or what if that's impassable too?"

"I don't feel safe walking or biking here any more. We live so close to the park fire road, but still jump in the car to go because I won't let my kids bike or walk even the brief distance."

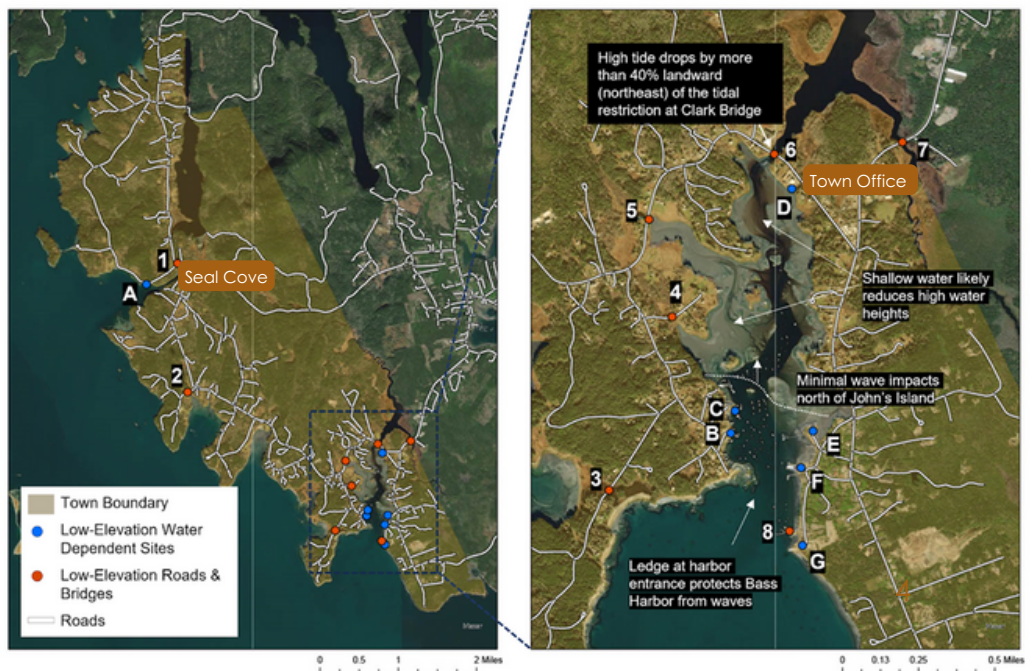


Tremont's infrastructure is a patchwork of state, town, and privately owned roads, bridges, and surfaces. With projected impacts from sea level rise and flooding events, accessing homes in parts of Tremont will become more challenging for both residents who live there as well as first responders and other service providers, particularly those behind choke points on Lopaus Point and in Bass Harbor. If no action is taken, an estimate of 174 addresses in Tremont, concentrated in Bass Harbor, are predicted to become inaccessible to emergency services in the Intermediate scenario for sea level rise by the mid-to-late century.

As of 2023, the Tremont Vulnerability Assessment found that Lopaus Point Road, Crockett Point Road, Marsh Bridge, the MaineDOT Bass Harbor Ferry Terminal bridge, and the lowest-elevation section of the Route 3 Bridge connecting MDI to Trenton are vulnerable to flooding during storm events that coincide with high tides. Lopaus Point Road and the ferry terminal bridge are also

A	Seal Cove Boat Ramp
B	Tremont Town Wharf
C	F.W. Thurston Company
D	Archie's Lobster
E	Little Island Marine
F	C.H. Rich Company
G	Former Bass Harbor Boat
1	Seal Cove Bridge
2	Dix Point Road Bridge
3	Lopaus Point Road
4	Crockett Point Road
5	Cousins Creek Bridge
6	Clark Bridge
7	Marsh Bridge
8	Bass Harbor Ferry Terminal

exposed to higher water levels and erosion from wave impacts. Beginning between 2050 and 2080, each of these locations is expected to experience flooding multiple times each year under both the intermediate and high sea level-rise scenarios.



Top Near-Term Strategies to Address Threats to Infrastructure

Strategy I. Prepare culvert system to protect key roads and bridges

- A. Inventory road culvert system for volume capacity to allow for systematic gradual replacement of undersized culverts that may heighten chances of inundation or damage. When a culvert needs replacing, upgrade the diameter if warranted by the size of the upstream drainage area. Increasing the size of culverts to accommodate higher precipitation levels to avert road damage is far more cost-effective than repairing washouts, and forward-looking planning informed by current data will save the town money in the long run and avoid hazardous conditions for residents.
- B. Increase the town budget allocated for pre-emptive road maintenance, especially for appropriately sizing culverts when they are due to be replaced.

Strategy II. Proactively protect ferry terminal infrastructure

- A. Collaborate with Maine DOT to recommend they act to raise electrical infrastructure at the Ferry Terminal at the end of its working life, aligned with the timeline informed by the Town's Vulnerability Assessment. All electrical boxes are high enough to avoid inundation under current conditions, but the Assessment found that several boxes should be elevated before 2050 to ensure they remain operational.

Strategy III. Leverage natural interventions to reinforce vulnerable shorefront roadways

- For town-owned roadways vulnerable to shorefront erosion, consider appropriate natural interventions (for example, erosion-controlling native shoreline plants) to minimize damage from wave action and flood water to roads at current sea levels and from anticipated worsening impacts.
 - A pilot for this strategy is eligible for a no-match ShoreUp grant from Island Institute.



- Continue to cooperate with the Gulf of Maine Research Institute to engage community members to carry out a standardized protocol for documenting flood impacts and high tide conditions at their recommended monitoring sites at the Tremont Consolidated School, Seal Cove Park and Boat Landing, Kelley Farm Preserve, Town Wharf (Bernard Public Boat Launch), Lopaus Point Rd and Beach area, and Bass Harbor Ferry Terminal. At each site, a QR code will provide information on the protocol and a link to the data collection platform. The data collected will support the town's decision-making and goals around emergency management, planning, and more, and is part of a project funded by the NSF. This will support the town's case for grants and other funds directed towards these major infrastructure projects. TCS students are already engaged in this work.

Photo on the left depicts a "Coast Lines MDI" visualization of future sea level rise at Kelley Farm Preserve during a 2023 king tide.

Other infrastructure concerns in addition to coastal flooding are present for Tremont. Along much of Route 102, a lack of a shoulder and other factors contribute to residents reporting feeling unsafe walking or biking even short distances. Except for a brief stretch by the Tremont Consolidated School and a few mixed-use pathways unconnected to roads, Tremont has no dedicated bike or pedestrian infrastructure. For residents who bike or walk for everyday transit and tourists seeking to bike or walk for pleasure, unpaved shoulders and unsafe roads constitute a real vulnerability. The walkability and/or bikeability of the town was one of residents' strongest desired areas for improvement. Walkable and bikeable communities contribute to resilience in many ways: by increasing possibilities for connectedness and healthy activity, by easing the fiscal strain of needing access to a car to reach key services, and by decreasing the pollution and emissions associated with excessive single-car trips.

For similar reasons, strengthened public transit is another area where residents would welcome growth. The existing service from the Island Explorer (which theoretically allows residents to connect to other Downeast Transportation service lines) is seasonal and oriented towards visitors, serving popular destinations such as Thurston's or park-and-ride locations such as the stop near the elementary school. While this is appreciated for its role in driving visitation while decreasing crowding, it is not necessarily a functional service for resident use. Exploring practical, cost-effective steps that could serve Tremont's growing needs for transportation infrastructure that is reliable and future-proofed can also leverage significant state and federal grant opportunities.

Strategy I: Enhance walkability, bikeability, and recreational access:

- Pursue low-cost, immediately actionable changes to increase safety for those walking/biking in key high-traffic areas. For example:
 - Request signage from the DOT (provided to municipalities at no charge) to remind drivers to share the road and watch for other users.
 - Add vibrating 'rumble strips' to the exterior white line marking the boundary of paved shoulders in key high-traffic areas to prompt drivers not to drift onto the shoulder and endanger other road users.
 - Additional steps outlined in the 'Healthy Community' section
- For roads that are not owned or managed by the Town, ensure that community desire for increased walkability/bikeability is incorporated into conversations about future road planning with the Maine DOT, particularly when it comes to opportunities to pave shoulders.

Strategy II: Expansion of Tremont's EV Charging Infrastructure:

- Continue ongoing work to site electric vehicle charging stations in places best positioned to serve year-round residents making use of Town services and amenities. Collaborate with and share insights with local businesses or other partners in Tremont who are interested in installing EV charging stations and share information about available rebates and potential economic benefits.

Longer-Term Strategies:

- Discuss potential expansion of the routes and stop frequencies of existing public transit (Island Explorer buses) to more effectively serve Tremont's year-round population and provide a reasonable alternative way of accessing key services without access to a vehicle.
- Explore the feasibility of and evaluate potential grant funding opportunities for a network of bike lanes and/or multi-use pathways in collaboration with neighboring towns (particularly Southwest Harbor).

“Tremont is still a fishing community -- one of the last real working harbors. Maintain the working waterfront!”

“We know the Gulf of Maine is warming faster than any other body of water. That means lobsters farther out because of warming waters, not as many baby lobsters. We’re currently experiencing good conditions that might unfortunately not last as the species continue to move, like we saw happen down the coast.”

Tremont's working waterfront is at the heart of the community's history and present and is pivotal to its future. With a rich legacy of lobstering, boatbuilding, and other ways of living centered around the coast, Tremont has strong cultural and economic ties to its waterfront. Identified by the Island Institute as one of the 30 communities in Maine with the highest percentage of lobstering licenses per capita, interest in participation continues to outpace available slots, with multi-year wait times for floats. Despite its small population, in 2019 and other years in recent decades, [Maine DMR data](#) shows that Tremont ranked among the ten Maine ports bringing in the highest value of lobster, with commercial landings valued at 13.44 million dollars. Various intersecting changes in both ecological and political spheres pose challenges to the lobster fishery and other key species, which could face growing uncertainty and volatility. Diversification of waterfront incomes can be a beneficial way for participants in Maine's coastal economy to retain their unique and valuable way of life while enjoying increased flexibility, protecting themselves from fluctuations, and supplementing their income.

While a sardine factory historically employed many Tremont residents, besides a few long-standing local operations, there are now few opportunities to process catch locally. Local processing is one prospect community members have expressed interest in which would allow for income diversification. Another is the possibility for lobstermen and fishermen to expand their operations to explore scallops, oysters, kelp, or other cultivated products harvested on the water. Other working waterfronts in the state, including neighbors on the Cranberry Isles, have seen a beneficial rise in these small-scale, thoughtfully-sited aquaculture operations which typically supplement existing incomes from fishing or lobstering. There are currently no such operations permitted or with permit applications under consideration for Tremont.

The physical infrastructure that sustains Tremont's working waterfront also faces challenges at water-dependent sites both public and private. The deck of the Town Wharf and the lowest areas of the lower parking lot have already experienced inundation and sustained damage during recent storms, and by 2070, both locations will be inundated at the highest predicted tide even in the absence of storm surge under both the Intermediate and High sea level rise scenarios. The Bernard ramp is currently only submerged during the few highest observed water levels of the year, but it will be submerged at average high water within 50 years under both the Intermediate and High sea level rise scenarios, representing a significant disruption to water access at high tide. The public ramp at Seal Cove, due to its higher elevation, is not expected to face similar impacts.

In addition to Town infrastructure, four working waterfront properties are currently below water levels that occur when high tides coincide with storm surge: F.W. Thurston Company, Archie's Lobster, Little Island Marine, and C.H. Rich Company. All except Archie's Lobster face additional risk from wave exposure. These properties will all be flooded at the highest predicted tide, occurring multiple times per year, by the mid-to-late century under both sea level rise scenarios.

Strategy I. Maintain key access to the working waterfront at Town Wharf

Utilize funding resources to proactively imagine the future of the Town Wharf & Landing, with support from the Gulf of Maine Research Institute's Climate Smart Working Waterfront work.

Town Actions:

1. Elevate wharf electrical infrastructure at the end of its service life to prevent damages and interruptions to access. Except for one outlet, equipment (outlets, an electrical box, and the lift switch) is high enough to avoid damage under present-day conditions. However, all utilities except the lift switch will be impacted by 2070 and should be elevated when they reach the end of their service life and need to be replaced.
2. In collaboration with partners at FEMA and MEMA, continue to prepare to submit an application for federal [Building Resilient Infrastructure and Communities](#) (BRIC) funds to raise the town wharf, potentially supported by GMRI's Climate Smart Working Waterfront initiative in planning and implementation.*
 - a. Explore other funding sources to cover the town's expected cost-share, in the event a BRIC grant is received, such as the [Coastal Community Grant Program](#) from the Maine Department of Agriculture, Conservation and Forestry Municipal Planning Assistance Program.

Strategy II: Education & Support for Small-Scale, Thoughtfully-Sited Aquaculture:

Oysters, mussels, kelp, and other aquaculture endeavors are a rapidly growing part of Maine's working waterfront, and provide a way for fishermen and lobstermen to diversify income amidst uncertain futures. These species, particularly mussels and kelp, also serve as filters, potentially mitigating ocean acidification alongside providing economic benefits. Examples of responsible, small-scale diversification opportunities the town could play a role in supporting include:



- Kelp farming: Kelp farms, which can be started from seedlings grown in Maine nurseries and tended with equipment those on our working waterfront already have, grow countercyclically to the lobster and ground fishing season, which makes them a great fit for diversifying incomes. The market for seaweed in Maine has grown twenty-fold in five years, from 45,000 pounds in 2017 to over 1 million pounds in 2022, according to a financial benchmarking report by the Maine Aquaculture Association. Maine's working waterfront communities grew more than 85% of the cultivated seaweed in the U.S. in 2021, allowing many to continue to earn a reliable living on the water in nearby communities like Frenchboro, Gouldsboro, and Islesboro. Tremont Consolidated School's science students are already learning about and growing kelp through a program with the Boothbay Sea and Science Center and studying how this crop can connect to markets for products made in Maine.
- Oyster farming: In 2021, Maine's oyster industry brought in more than \$10,143,000; oyster farming is currently the fourth most valuable marine resource in the state. Similarly to kelp farming, small-scale oyster farming operations are co-run with active lobstering operations, and, like kelp, make use of much of the same equipment. Because of the tidal needs for ideal sites for oyster rafts, Tremont's waters provide a particularly good opportunity for this kind of diversification of the working waterfront.

Town Actions

1. Distribute resources and connect interested individuals to financial and logistical support available through programs like the [Island Institute's Aquaculture Business Development Initiative](#) (which has funds that can support the purchase of gear, etc. for successful applicants) and PROPEL Aquaculture mini-grants ([from FOCUSMaine through the DMR](#)), and [the SEAMaine marine economy action plan](#).
2. Host an annual educational event, in partnership with Island Institute, GMRI, and/or Maine Coast Fishermans' Association, for those interested in exploring the kelp, oyster, or other aquaculture markets and relevant working waterfront key players and make a recording of the event available on the town's website for reference.
3. Support those navigating the process of leasing sites for kelp, oyster, and other small-scale aquaculture and seeking DMR approval of permits by making resources available on the Town website and facilitating connections between residents and agency staff.

Strategy III. Conserve key coastal habitats that serve as nurseries & flood buffers:

Lobster, groundfish, shellfish, and other species rely on coastal, brackish, or marsh habitats. These habitats also provide key buffers during flooding events and as seas rise. In Tremont, many key landscapes expected to be inundated regularly during future high tides are already held in conservation, especially at Kelley Farm Preserve, private easements in Bernard, park service easements near Dodge Point, and Acadia National Park easements surrounding the Bass Harbor Marsh off 102.

Town Actions:

1. Maintain and enforce existing ordinances that protect wetland and shoreland areas and keep easements for flood-impacted parcels in place, such as the Floodplain Management Ordinance and its established system for Flood Hazard Development, as well as the suggested modifications in the 2023 Comprehensive Plan Update.
2. In particular, limit development in Bass Harbor Marsh for the sake of the marsh, the prospective property that would experience repeated flooding were it to proceed, and the key species that rely on the services it provides.
3. Carefully monitor and seek to phase out (where possible) the 19 existing overboard discharge permits to minimize the negative impact on the health of harbor waters, exploring collaborating with volunteers from the University of Maine or MDI Bio Lab to conduct water quality testing in areas of concern.
4. Retain the integrity of existing extensive protected areas through collaborative management with partners (Maine Coast Heritage Trust, Acadia National Park, The Nature Conservancy, private landowners, and others) and support research and restoration efforts focused on protecting and bolstering salt marshes.



Photo of Mitchell Marsh from Maine Coast Heritage Trust

“It’s hard for young people to afford to live and work here. We want young families to be able to thrive far into the future.”

In addition to the working waterfront, Tremont has a rich history of skilled trade work and supports many owner-operated contracting, construction, landscaping, mechanical, and other small businesses and an increasingly diverse economic landscape of resident occupations. However, several challenges and vulnerabilities exist for Tremont’s economy. Without reliable and pervasive availability of broadband connectivity, Tremont residents face challenges obtaining the reliable internet access and digital literacy that is key to navigating many resources, including government assistance programs, regulatory reporting for landings through the Department of Marine Resources, and accessing telehealth care. Residents or would-be residents who seek to work, attend continuing education programs, or earn certificates remotely may not be able to do so. The findings of the Comprehensive Plan indicate that many residents are commuting to work in other towns on or off the island, indicating challenges with finding appropriate, profitable opportunities in the town where they live. The aging nature of the community also poses challenges. Though school enrollment is robust, community members have identified young people and young families as among the groups facing the most economic challenges, from housing to employment. Although Tremont’s economic diversity is growing (with more residents than ever working remotely in a wide array of fields in addition to the trades and on the working waterfront), it remains vulnerable to changes and threats outside of its control, including climate, fishery regulations, market fluctuations, seasonality, and population changes.

Impacts on the working waterfront have already been addressed, but their importance to the town’s economy is a key dimension to their significance for the town as a whole. Through pursuing strategies that enhance economic resilience, Tremont can take a proactive approach to preparing for a future as a prosperous, resilient year-round community. This includes understanding options for the fishing industry to continue to thrive under external threats and challenges, creating opportunities for compatible and even possibly alternative markets, and understanding other economic opportunities for businesses, workers, and residents.

ECONOMIC RESILIENCE STRATEGIES (CONT)

Strategy I. Cultivate local workforce in trades key to coming transitions:

Maine is experiencing workforce shortages that are especially acute in fast-growing sectors. Demand for skilled workers is set to grow rapidly as households, businesses, and other operations increasingly look to electrify, weatherize, and adopt renewable energy. According to the Governor’s Energy Office’s [2022 Workforce Report](#), Maine is on track to double the amount of residents employed in the clean energy sectors. [Challenges with training workforce participants](#) as electricians, weatherization contractors, and more can be bridged by collaborations between municipalities, businesses, and educational institutions. In Tremont, the opportunity exists to boost local economic vitality while addressing workforce shortages through supporting apprenticeship programs and creating opportunities for graduating high school students or those undergoing a career transition to move into these well-paying, stable, and growing industries.

Town Actions:

1. Explore partnerships with Hancock County Technical School, Ellsworth Adult Education, and the Maine Community College system to drive enrollment in key workforce development programs, and consider providing support for students who are Tremont residents through small competitive scholarships.
 - a. Current and forthcoming opportunities, many of which can be completed entirely or primarily remotely for little to no cost at these institutions [as part of state workforce training programs](#) include:
 - i. [Micro-credentials for working on electric outboard motors](#)
 - ii. [Earning a Commercial Driving License](#)
 - iii. [Electric & Hybrid Automotive Technician Training](#)
 - iv. [Electrician's Technology Program](#)
 - v. [Remote Work in Health Occupations](#)
2. Partner with the Acadia Chamber to facilitate connections between local businesses looking to hire and train employees and those beginning or transitioning their careers, who would benefit from mentorship or more formal apprenticeship opportunities.
3. Support ongoing efforts to bring [Remote Work for Maine](#) training initiatives to MDI, in collaboration with the Jackson Lab, one of the program partners.
 - a. This includes two options: one pathway for Mainers interested in becoming remote workers with Maine-based companies, and one for businesses looking to leverage a remote workforce to address recruitment or other challenges.
4. Feature early educational programming about these diverse opportunities for middle school students at Tremont Consolidated School and [distribute informational fliers](#) about existing training programs described above through the town office, library, and at any relevant community events.
5. Continue to support participation in Middle School CTE by Tremont Consolidated School students (30 students participated in offerings from Hancock County Technical Center in 2021). Additionally, take community desire for increased hands-on CTE opportunities into consideration as the Tremont Consolidated School redesign process continues, exploring opportunities to increase the potential for on-site hands-on learning.

Strategy II. Support work towards broadband access and digital equity.

Connecting Tremont households and businesses to high-speed high-quality broadband opens up possibilities for remote education, remote work, and access to telehealth. It also makes it possible for residents to access government portals and other key services that are becoming increasingly digital, supporting residents in navigating the changing landscape of how information is exchanged and how business is conducted. From DMR forms and reporting to accessing community college classes or specialist health consultations, affordable and reliable internet connection paired with support building digital literacy and navigating new challenges is critical.

Town Actions:

1. Through the Broadband Committee and town capacity, continue to support island-wide efforts to explore options for infrastructure upgrades.
2. Recommend that at least one staff member at the Bass Harbor Memorial Library complete a free training certifying them to serve as a “Digital Navigator” from the Maine-based [National Digital Equity Center](#) so that their free, open-to-the-public classes to build digital literacy and skills can be offered locally with in-person support to ensure participant success.
 - a. Publicize the availability of the Digital Navigator to offer support to residents who need to access online forms, portals, courses, or other processes where they’re currently facing barriers.
3. Partner with Island Institute to explore opportunities to leverage Maine Connectivity Authority funding to support bringing broadband to spaces that will serve the town and build digital literacy and equity amongst residents.

Longer-Term Strategy:

Cultivate partnerships and prepare to develop a Connectivity Hub for the Town of Tremont.

A Connectivity Hub, which would make use of an existing community space to provide reliable and no-cost access to both high-speed internet connection and effective devices, could be paired with in-community Workforce and Digital Navigators who are available to help residents navigate online portals, access telehealth services, gain digital skills to become more effective volunteers or employees, or explore pathways available to meet their goals for career transition and more. [Robust no-match funding for these initiatives](#) is available as part of Maine’s Digital Equity Plan. The Programs in Stonington and St. George (both fellow working waterfront communities facing similar challenges to Tremont’s) can serve as a model for what a successful program might look like. Stonington’s [Project Launch](#), initially focused on helping to provide youth with opportunities from college pathways to skilled trade training, has expanded to include residents of all ages.



Adult students learn from instructors at a digital literacy workshop in Saint George, Maine. (Photo by Carolyn Campbell)

CRITICAL COMMUNITY SERVICES (ENERGY RESILIENCE, WATER RESOURCES, & FOOD SYSTEMS)

Protecting the safety and well-being of Tremont residents is the core purpose of resilience planning. This section provides strategies that address impacts that threaten to compromise critical services, or, in other words, access to clean water, food, health care, electricity, and emergency response.

Water Resources & Food Systems

"I'm worried we'll see saltwater intrusion in our wells. The outer islands are already seeing it."

"We have so many aging septic systems. Who's keeping track of that, and what happens when they start to cause problems?"

Tremont's water resources are both valued and vulnerable. Without town water or sewer, Tremont residents are reliant on their wells and septic systems, many of which are aging and which may face threats from saltwater intrusion and other changes in the water table as the coastline changes in the coming years. With the exception of rich seafood offerings, many residents feel Tremont lacks a robust ability to access other local food. Despite the offerings of a few highly-valued local stores and small farms or community gardens, local food systems are not currently equipped to meet the needs of all residents.

Strategy I. Address threats to water resources from septic systems

- Conduct a town-wide survey of aging septic systems, accounting for sea level rise and more intense rainfall events, to ensure safe drinking water. +
- Consider implementing a version of a policy adopted by the Town of Mount Desert in 2004 called the Rural Wastewater Treatment Support Program, which provides a small tax benefit set annually at Town Meeting to residents who apply for the program and demonstrate that they have had their septic system inspected regularly and treated/pumped as necessary to maintain the health of the system and prevent harmful leakage and other adverse impacts on the town's soil and water. This incentivizes and helps support year-round residents to not defer maintenance. Note that this benefit as implemented by Mount Desert is only available to year-round primary residences, in recognition of the fact that seasonal residences place less strain on these systems and require less frequent servicing.

Strategy II. Gather data and educate community on drinking water hazards

- Utilize town channels to expand awareness of the importance of well testing. Work with MDI Bio Lab's existing program (pictured bottom left) to distribute well test kits to

residents, with special attention to arsenic and saltwater intrusion. Promote the availability of tests available for PFAS, and collaborate with institutions to share results among residents and with the Town to support future grant applications for mitigation.

- Conduct well testing at all town-owned facilities by the end of 2024 and work with the Tremont Consolidated School to involve students in participatory science around safe drinking water.



Strategy III. Maintain the long-term water quality of Seal Cove Pond, which has been used as a public water supply in the past, as outlined in the 2023 Comprehensive Plan update.

Strategy IV. Support Local Food Production through Town Ordinances:

1. Develop town ordinances to support local food production by first looking at ordinances enacted by similar communities that could be adopted in Tremont, gathering info from those on the working waterfront and other relevant stakeholders as well as drawing on the insights of Maine Farmland Trust, Maine Fisherman's Association, the Island Institute, and others to collect relevant information for ordinance drafting.
2. Align any ordinance with the Comprehensive Plan and workshop the contents with Town leadership, hosting educational events to collect further community feedback, as well as events to support potential ordinance passage. Funding for both 1 and 2 has already been received through the state's Community Resilience Partnership.

Energy Resilience

“Rates just keep going up and up and up, and reliability goes down. It's hard to keep up with the costs.”

The high and unpredictable cost of energy that Tremont residents face to power and heat their homes is a burden that grows every year. Electricity costs are rising rapidly, with rate hikes of 20% or more in recent years and more projected in the future. Tremont residents face a higher energy cost-to-income ratio [than 95 percent of other municipalities](#) across the United States. In addition to burdensome energy costs, Tremont also faces a grid that is aging and unreliable, vulnerable to Nor'easters and coastal storms that are becoming more frequent and severe due to climate change, threatening underserved distribution infrastructure with high winds and driving outages. Because the island lies at the end of its distribution system, its vulnerability to outage events is more acute. This also impacts the outer islands that access the mainland in Tremont, including Swan's Island and Frenchboro. Such outages are not equitably spread across Mount Desert Island, due to a partial grid upgrade that took place several years ago on the east side of the island.



Additionally, the “legacy grid” (as the utility refers to it) in Tremont means that residents who pursue photovoltaic solar systems, which are increasingly effective at lowering energy costs, are often faced with high and unpredictable costs and wait times for interconnection (the process through which arrays are connected to the grid). Tremont risks being left behind and missing out on key benefits associated with the transition to renewable energy. **Affordable, reliable energy is central to community well-being and economic development.**

“Frequent outages, for those without generators, are hazardous, which means our experiences of energy safety are tied to wealth.”

“We need a shelter for blackout and other emergency events– a place for people to go to charge their phone, get water, get warm, not have to go to hotels.”

The vulnerability of Tremont’s electrical grid compromises residents’ ability to access critical services. Critical services here are defined as those whose interruption would pose a risk to the health and safety of the community. The critical service vulnerability many are most familiar with occurs during power outages. Critical infrastructure, such as fire and police stations across MDI, have backup diesel generators, but they are not always reliable. For example, during at least one recent outage on the west side, the generator at Southwest Harbor’s Police Station (which also serves Tremont) failed to turn on. The police station went without power for multiple hours until maintenance could fix the generator. Such events represent clear public safety concerns, especially as climate disruptions become more pervasive.

No emergency communication system currently exists to serve Tremont residents. The Town or key service providers will sometimes communicate with residents via town social media channels to relay important information and expectations, but this system is not standardized at this time, and residents who cannot access the internet during an outage will not be effectively reached.

With projected impacts from sea level rise and flooding events, accessing homes in parts of Tremont will become more challenging for first responders and other service providers, particularly those on Lopaus Point, Crockett Point, Ann’s Point, and throughout Bass Harbor. In addition to private homes, other key Town infrastructure will be impacted by flooding affecting the low-lying roads identified, with the school, healthcare providers, and town office all becoming more difficult or even impossible to access by the end of the century under the Intermediate scenario. The Gulf of Maine Research Institute’s Vulnerability Assessment quantified these impacts as “service areas” - or, the percentage of residences that can access a given service within a certain driving time. Tremont’s two fire stations are essential to community safety and are already experiencing strain. Currently, most Tremont buildings fall within a 0-5 minute drive of at least one of the two volunteer fire stations in

Tremont. However, impacts from recent storms coinciding with high water have made it clear that coastal flooding may have significant implications for response times. These “hundred-year” water levels, known as the “1% annual chance stillwater elevation” are projected to have increasingly severe impacts on Tremont’s ability to be served by first responders, even under the Intermediate scenario for sea level rise, with approximately 6% of addresses (112) completely cut off from road-based first response by 2050, a figure which rises to 21% (351) by 2100.

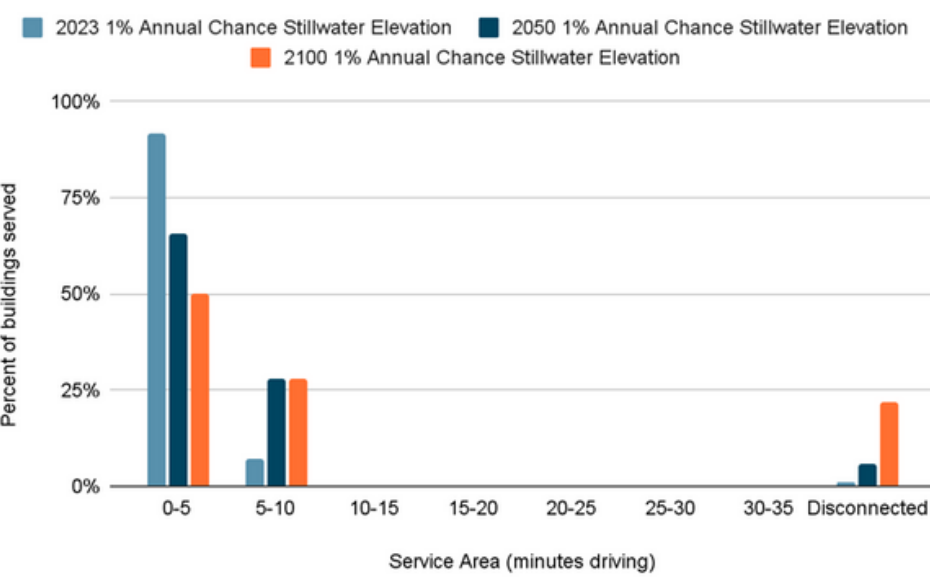


Chart from GMRI’s Vulnerability Assessment for Tremont (2023)

Existing challenges facing Tremont residents' access to healthcare will also be affected by coastal flooding, particularly during storm events, with flooding on Lopaus Point Road, Crockett Point Road, Dix Point Road Bridge, and Cousins Creek Bridge rendering 14% of buildings completely isolated from road-based access to healthcare facilities during storm conditions in 2050 under the High sea level rise scenario. By 2100, additional inundation on the Marsh Bridge and Clark Bridge is anticipated to increase that percentage to 44%.

Though not traditionally considered a “critical service”, defined as necessary to survival, the Tremont Consolidated School is one of the most important and valued parts of the Tremont community, and because of its location between two roadways which are projected to face inundation, 92% of residences in Tremont will be disconnected entirely from access to the school during highest predicted tides, even in the absence of storm surge. In the Intermediate scenario for sea level rise, this is estimated to occur regularly during the highest predicted tides by 2100 at the latest.

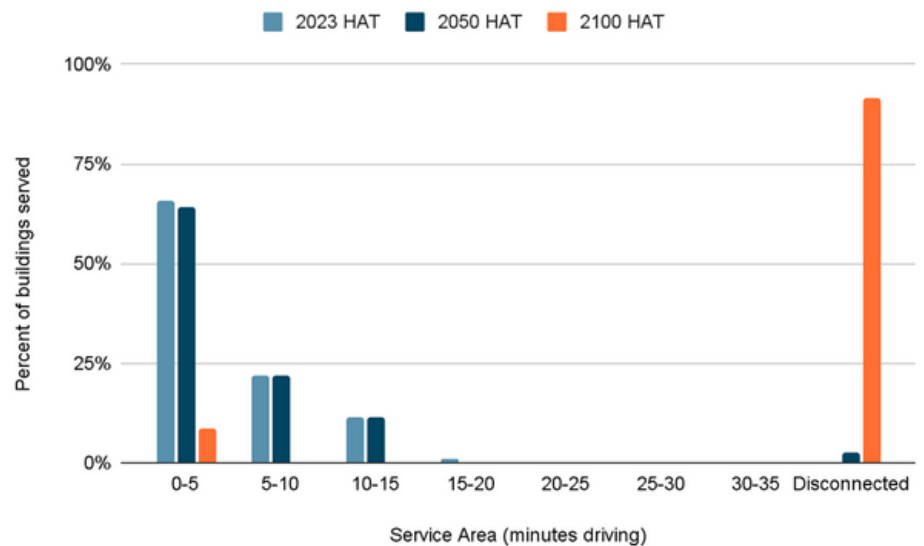


Chart from GMRI's Vulnerability Assessment for Tremont (2023)

ENERGY RESILIENCE & CRITICAL SERVICES STRATEGIES

Strategy I: Creation of a Resilience Hub:

Establish a town-owned facility equipped with solar and battery storage to serve as a warming center and hub for emergency services, funded by federal grant opportunities. To ensure that the Hub is accessible to as many residents as possible, site the hub in an area where road access is not expected to be compromised by inundation.

- One proposed option for this Resilience Hub, which has advanced to the second round as a candidate for federal funding, is the Town Office building, which would remain accessible to a majority of residents within Tremont until the end of the century even under High sea level rise projections. The solar and battery storage on-site would also be able to power the planned Public Safety Facility that is set to be built on an adjoining lot within three years.
 - This would also have the added benefit of upgrading the electrical grid in the surrounding area, helping the “triangle” and nearby homes become less susceptible to outages.
- Rather than one large hub, depending on funding availability, this strategy may shift to include a network of smaller “hubs” that make use of existing community spaces with energy upgrades funded by state and federal grants. Examples include Pacific Hall, the Bass Harbor Memorial Library, Tremont Consolidated School, disused church spaces, and other community-identified key sites for gatherings.
 - This strategy is also closely tied to and supported by the Peer-to-Peer Check Network described in the Healthy Communities section.

Strategy II: Potential Purchase of Town Solar Array:

- In 2027, at the end of its current Power Purchase Agreement, the town will have the option to purchase the array on its landfill at a favorable price and terms. This purchase would solidify Tremont's clean energy ownership for the future and allow the town to reap benefits associated with building equity through the array
 - Pending the installation of a new substation on a town easement near the array, the grid may soon be equipped to handle a potential expansion of the array, which had been cost-prohibitive previously due to high interconnection costs.

Strategy III: Adoption of a Solar Ordinance:

- Craft and pass an ordinance that ensures that town policies allow responsibly sited small to medium-sized solar arrays installed by residents and local businesses, and ensure any town-driven new construction is solar-ready.

Strategy IV: Critical Facility Backup Power & Service Enhancement:

- Outside of the Resilience Hub, identify a list of critical facilities that could most benefit from backup power; assess critical power loads for those facilities; and identify cost and technology options to meet those power needs.
 - No-cost Technical Assistance to support this work is available from the National Renewable Energy Laboratory and other agencies.
- Once backup power is secured for identified key facilities, and necessary improvements are made where appropriate, incorporate warming and cooling center functionalities in these buildings on an as-needed basis during crisis events.

Strategy V: Evacuation and Emergency Planning for Vulnerable Residents:

- Collaborate with Southwest Harbor and Mount Desert on evacuation planning efforts (particularly focused on strategies for residents in areas behind inundated roads, or, "choke points"), for instances in which emergency services are required by those unreachable by road. Residents beyond choke points should be made aware of the risks they face, to inform their decision-making and emergency preparedness planning. See also strategies contained in the next section, Healthy Communities.
- Work with the State DOT to ensure that current signage that indicates evacuation routes is up to date and accurate.



Community member photos from inundations during January 2024 storms near the Tremont Consolidated School and Lopaus Point

“My hope for the future is clean water, roads, environment, and neighbors collaborating to clean it up while building community!”

Alongside many Maine communities, Tremont faces challenges associated with an aging population and health-related vulnerabilities. Response times for calls to law enforcement, ambulances, and other first responders can be long, especially during challenging weather conditions, with the potential to worsen as the town feels the impacts of climate change. Currently, Tremont residents rank in the 65th percentile nationally for rates of asthma and the 72nd for heart disease. Not all older residents (many of whom have limited mobility) have local support systems to rely on. For Tremont residents of all ages, despite offerings of a few highly-valued local stores and small farms or community gardens, access to fresh and affordable foods requires travel to another town. Beyond questions of food access, their inability to access key services without access to a car poses challenges to residents with fewer resources. Solid waste management, too, is an area where improvement is desired, with residents seeking solutions that are more cost-effective, generate fewer emissions, and provide more flexibility, especially when it comes to compost.

The town treasures its history and traditions, but newcomers can find it challenging to access community spaces, connect with neighbors, and form support networks. This “social infrastructure” becomes even more critical when navigating disasters or challenges associated with extreme weather events. Many community members expressed the desire for a more robust “social infrastructure”: more gathering spaces and opportunities for connection to supplement existing cherished mainstays such as the Lobster Boat Races, library events, town meetings, and Oktoberfest. Challenges facing Tremont’s aging population, alongside high housing costs and local employment challenges, threaten the town’s goal of remaining a place where people of diverse ages, especially families, can live, work, and thrive.



Photo of Tremont's 175th anniversary

HEALTHY COMMUNITY STRATEGIES

Strategy I. Community Check-In Network Formation:

- Develop a peer-to-peer community check-in network to support vulnerable neighbors during blackouts and extreme weather events. This volunteer network will work to collaboratively identify those in need of support.
 - Connect and involve first responders, including fire and police, in this network’s operation, so that members can escalate the support required if necessary (for example, for a formal wellness check).
 - Funding for this action has already been secured and preliminary work is underway.
- For blackouts or extreme heat events, create a list of basements and/or air-conditioned spaces that can serve as cooling centers.

Strategy II. Work Towards Early Warning System for Emergencies:

- Advocate for a county-level early warning system managed through Hancock County Emergency Management Agency to notify residents during storm and flooding events so that residents can prepare to safely endure these events occurring at higher frequencies and severities.
- In the absence of a county-level early warning system, create an opt-in communication list, modeled after programs used in Bremen and Hallowell, where residents can sign up to receive notifications on severe weather events or other key town happenings. Residents can be prompted to join this when they register their vehicles or do other tasks at the town office.
- Continue to utilize social media and other informal channels to communicate with residents.

Strategy III. Recreation Revitalization & Committee Formation:

Establishing an “Activities & Events” Committee for the town to create and maintain momentum on projects related to outdoor recreation and community building such as:

- Support the town in taking the steps towards a more walkable/bikeable community outlined in the Transportation section.
- Seek philanthropic contributions to create or revitalize town recreation infrastructure (such as the ball field, an ice rink, etc.)
- Work towards re-establishment of defunct trails and/or water access points previously commonly used by the community and familiar to long-time residents.
- Serve as community ambassadors to educate residents and visitors on the existing recreational opportunities in Tremont.
- Consider pursuing a small grant to implement an 'imagine people here' installation from Bicycle Coalition of Maine, a low-cost demonstration of infrastructure change's effect on traffic patterns and pedestrian/cyclist safety.

This is a shared recommendation with the 2023 Tremont Comprehensive Plan Update .

Strategy IV. Raise tick and Lyme disease awareness:

- Post signage at hiking kiosks, on conserved land, and at other wooded sites where people commonly recreate, including this Deer Tick Habitat Caution Sign.
- Provide outreach about ticks and Lyme disease risk when residents register dogs or for hunting licenses at the Town Office.



Strategy V. Explore Solid Waste Solutions:

- Review the status quo of waste management in Tremont and implement solutions that bring down cost, increase convenience, and decrease waste. (Dedicated time for this task is already funded as of a 2023 CRP Grant).
- Publicize the availability of composting, Clynk, and or other voluntary alternate waste management programs with residents.

Strategy VI. Consider School Sidewalk Expansion:

- Consider expanding existing sidewalk infrastructure near Tremont Community School to facilitate safer transit to school, recreational access to the marsh, and greater connectivity between Bernard and Bass Harbor. Pedestrian or cyclist infrastructure near schools is currently eligible for federal and state funding, including the “Safe Routes to School” initiative pictured below.



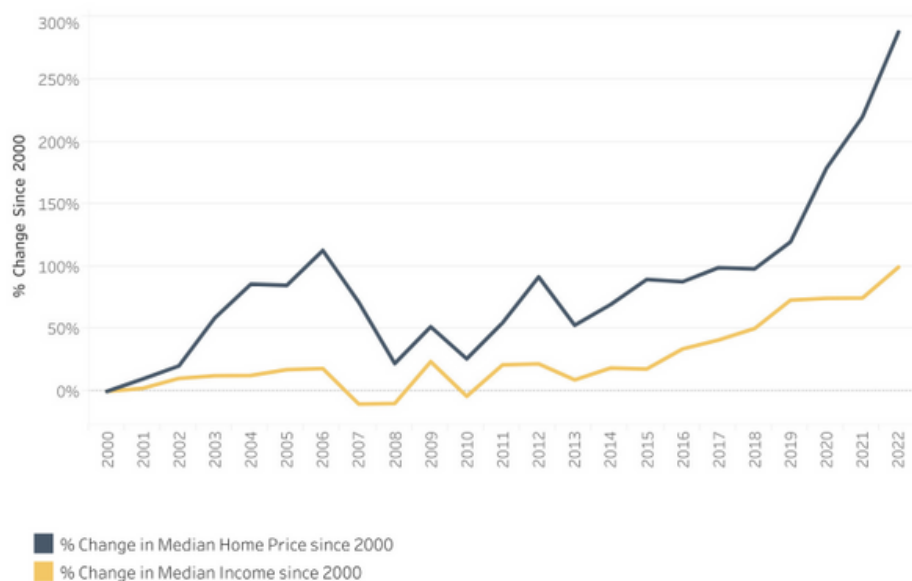
“People can’t afford to live here. This has real consequences– like not being able to get enough volunteers for the fire department, like for the school.”

Housing prices have risen disproportionately to incomes in Tremont over the past decades. In 2022, the median income in Tremont was \$68,643, and the median price for a home was \$529,500, a figure only affordable, according to federal standards, for residents making \$159,557 or more annually. This means that 89.5% of Tremont residents are unable to afford a home of median price. Only one (of eighteen total) homes sold in Tremont in 2022 was within an affordable price range for a resident making an average income. Rental properties are sparse in Tremont, particularly year-round rentals, and across Hancock County, the disparity between incomes and rental prices means that 67.6% of renters are unable to afford the average two-bedroom rental as of 2022. Furthermore, unwinterized seasonal dwellings sit vacant for much of the year, and short-term rentals have experienced rapid growth, contributing to housing shortages.

High bills for electricity, heating oil, and other energy costs also play a role in high housing-related costs. Many buildings in Tremont lack proper insulation and weatherization and rely on older, less efficient appliances, heating technologies, and devices. Maine’s buildings also generate around 30% of its greenhouse gas emissions, wasting money and energy. Accessible, affordable improvements in weatherization and heating systems can help create more efficient, lower-cost spaces equipped to be resilient to the Maine weather. For example, the town office is already equipped with heat pumps, is well-weatherized, and derives its energy from solar. However, not all town facilities are in a similar position, and even with the existing (and rapidly growing) incentives from Efficiency Maine and other resources, it can be challenging to learn about, afford any cost not covered by rebates, and implement improvements. Another risk to resilient housing and properties in Tremont is the prospect of sea level rise and coastal flooding and erosion. Under the Intermediate scenario, the Tremont Vulnerability Assessment found that by 2100, over \$45 million worth of property is expected

to experience repetitive flooding damage, predominantly in Bass Harbor. That translates into \$533,593 in potential lost revenue for the town, or 8.4% of its total income tax revenue. The same analysis from the Gulf of Maine Research Institute showed that 80% of properties that are impacted by flooding during the highest predicted tides, both in the present and in the future, are not owned by out-of-state residents, even though roughly 56% of buildings in Tremont list an out-of-state owner address, suggesting that the burden of flood impacts may be disproportionately borne by those who own working waterfront businesses and year-round residents who may have no alternative dwelling.

Relative Increases in Income and Home Prices (Mount Desert Island)



The graph above shows the relative increases in income and home prices in the four towns on Mount Desert Island (Tremont, Southwest Harbor, Bar Harbor, and Mount Desert), Maine since 2000. Source: Maine Housing.

Figure on the left contrasts trends in income and trends in home prices, and is sourced from the 2023 MDI Housing Summit

Strategy I. Support for Weatherization & Insulation:

To decrease burdensome heating costs and emissions and increase comfort, health, and safety, the Town can support residents in weatherizing and insulating their homes and buildings by:

- Use grant funds (detailed in the Implementation Guide) to produce, assemble, and distribute DIY kits to interested residents that will enable them to apply winterizing fixes.
- Distribute clear guides that break down eligibility for weatherization rebates, credits, and other incentives based on income to ensure that Efficiency Maine Trust resources are being widely utilized to make weatherization more accessible to residents of any income, and ensure that residents are taking full advantage of significant rebates. Points of distribution for these materials include:
 - When residents apply for/receive heating assistance, register their vehicles, apply for various licenses and permits, or perform other administrative tasks at the Town Office or on the town website.
 - On display tables at the Bass Harbor Memorial Library or at parent-teacher nights or other Tremont Consolidated School events.

Strategy II: Host Window Dressers builds for Tremont residents*:

Window Dressers is a volunteer-driven non-profit organization that produces low-cost insulating window inserts that function as custom, interior-mounted storm windows. Residents who qualify as low-income are eligible for up to ten window inserts free of charge if they participate in the Community Build. For residents of any income, flexible payment options exist, and rates are well below market due to their nonprofit status and the pivotal role of volunteers in the insert construction.

- For town-owned spaces where more intensive weatherization or retrofits are not feasible in the short term, the town may consider purchasing window inserts to bring down energy costs and improve the comfort of these spaces.
- Residents who inhabit Tremont's aging building stock and/or who are economically vulnerable could particularly benefit from this straightforward, flexible option. Hosting a build in either the Harvey Kelley Meeting Room or Tremont Consolidated School would incur no cost to the town, and would assist residents in taking a simple, affordable step towards energy independence, cost savings, and greater comfort in their homes by building custom inserts.



Photo from 2022 MDI Window Dressers build.

Strategy III: Utilize town channels to educate residents on other affordable retrofits

- Consider an annual educational mailer sent via Every Door Direct Mail about available incentives and rebates at the town, state, and federal level.
- Consider targeted outreach to seasonal residents on strategies for winterizing, weatherizing, and/or insulating dwellings during vacancy to decrease unnecessary energy use.
- Publicize income-specific resources on the funding opportunities available for resilient building retrofits at the points of distribution mentioned above
- Funding for this action has already been secured through the Community Resilience Partnership.



Photo of attic insulation from Efficiency Maine

Longer-Term Strategies:

Strategy I. Maximize energy efficiency of all public buildings

Focusing first on systems at or near the end of their service life, utilize Efficiency Maine incentives and other grants to gradually upgrade efficiency and electrify where possible, both to model this transition for the community and to bring down energy costs incurred by the Town. This goal is already well underway.

Strategy II. Consider adoption of a building code

When undertaken deliberately, a building code can be adopted that does not constrain residents' autonomy or compromise Tremont's unique character, but that instead addresses health and safety concerns and ensures that new construction and renovations benefit inhabitants and patrons in the long term by meeting efficiency standards.

Strategy III. Support informed planning for repetitive flood properties

Work with property owners in repetitive flooding areas to provide insights into future trends and evaluate options and best course of action.

Strategy IV. Explore energy-efficient affordable housing options

Through participation in the housing conversations currently underway on Mount Desert Island and through building partnerships with organizations like Island Housing Trust, consider projects that implement affordable, sustainable year-round housing. Increased density and intelligent design can ensure low fixed energy costs and unlock eligibility for grant funding, tax credits, and more.

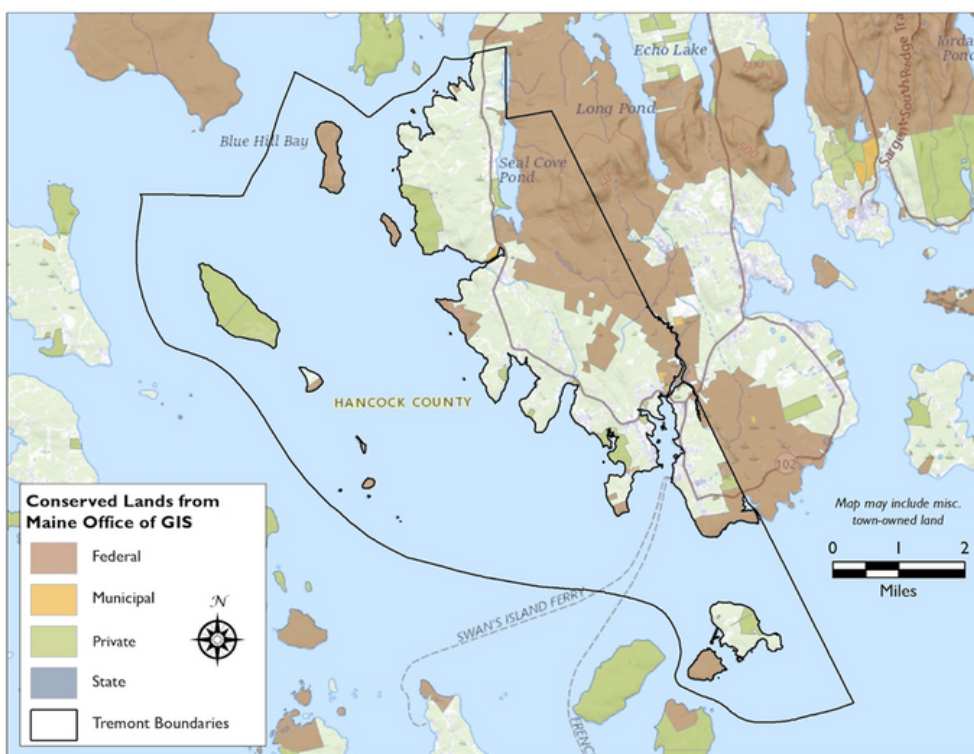


Community members consider repetitive flood areas at a community workshop with Gulf of Maine Research Institute and A Climate to Thrive.

“Estuaries and marshes are key to conserve, but we must also be cognizant of how these will change, and how new ones will be created as the coast shifts.”

Tremont boasts 1688 acres of conserved land spread across 58 parcels, excluding Acadia National Park. Among those 58 parcels, 41 (representing 152 acres), are susceptible to flooding in the present which is projected to worsen by 2050 under an Intermediate sea level rise scenario. Tremont residents greatly value their natural environment, and the Town is home to a diverse natural community such as low-elevation treeless grassy meadows, seasonal vernal pools, spruce forest, the largest salt marsh on MDI (Bass Harbor Marsh), and cedar swamps and is an ecological area of statewide significance as home to many endangered species. Its coastlines and coves provide significant habitat for birds and contain numerous shellfish growing areas, many of which are closed to digging due to contamination concerns.

Conservation Resources in Tremont



Maine Coast Heritage Trust Map showing conservation resources in Tremont

As climate impacts worsen, maintaining a network of connected, biologically and geographically diverse ecosystems will be critical for preserving biodiversity, protecting the Town's valued ecosystems and maintaining the health of the watershed that supports its working waterfront. Six tidal crossings in Tremont were identified as tidal restrictions in January 2020: Crockett Point Road, Cousins Creek Bridge, Clark Bridge, Marsh Bridge, Dix Point Road Bridge, and Seal Cove Bridge. These six crossings are, therefore, all susceptible to damage during high water events and Clark Bridge and Marsh Bridge both likely restrict the flow of water and sediment into and out of salt marshes. Road crossings that restrict tidal flow into and out of Bass Harbor Marsh, as well as the marshes landward of Crockett Point Road and Cousins Creek Bridge may hinder the health of Tremont's salt marshes as sea level rises.

To protect habitat connectivity, and to take advantage of the ability of ecosystem services to nourish resilience and buffer flooding, Tremont can consider using [Stream Smart practices for freshwater bridges/culverts](#) and [CoastWise practices for tidal crossings](#). Tremont can support the adaptation of tidal marshes to sea level rise by conserving or encouraging private stewardship of adjacent land where the marsh can migrate inland.

Strategy I: Leverage Living/Organic Erosion and Flooding Solutions:

- On town-owned property, where appropriate, work with ecologists to plan plantings of native Submerged Aquatic Vegetation (SAVs) such as seagrasses and beach plum, to stabilize sediment and reduce erosion. Use town channels to communicate information on these strategies to residents who are facing erosion and flooding concerns on their private property (discussed further in Homes & Properties)
- At the sites outlined in GMRI's Vulnerability Assessment (See Appendix X), while avoiding interference with fishing activity, evaluate the possibility of using natural breakwaters of oyster shoals (or other natural breakwaters) to dissipate wave action and protect shorelines. Robust funding sources and technical assistance exist for nature-based solutions in Maine, as outlined in the Implementation Guide.

Strategy II: Address Tidal Restrictions to Protect Marsh Health

- Collaborate with the Maine Department of Transportation, National Park Service, and Friends of Acadia to evaluate the conditions surrounding tidal restrictions, particularly the restriction at Clark Bridge and its impact on Bass Harbor Marsh. Informed by the state's [CoastWise protocol](#), contribute insights to future plans for bridge maintenance or replacement.

Strategy III: Support Invasive Management & Native Replanting

- Support ongoing work from Acadia National Park to manage invasive species in Bass Harbor Marsh, as well as expanding research designed to guide the rehabilitation to support surface vegetation and reduce open water pools while also potentially expanding and promoting plants, such as sweetgrass, that increase ecosystem services and have cultural value.

Strategy IV. Encourage watershed stewardship across private and public lands

Collaborating with Maine Coast Heritage Trust, Acadia National Park, Friends of Acadia, and other local resources, facilitate connection and resource-sharing to support Tremont residents in stewarding the town's watershed by:

- Convening a watershed conversation where residents can learn about ongoing work from conservation organizations, and voice their concerns, questions, and priorities.
 - During this planning process, Seal Cove Pond, about which residents have raised concerns, could serve as a potential focal point
- Involve students at the Tremont Consolidated School, who are already building understanding of these issues and solutions, and support participation in citizen science programs including water quality testing for students and residents of all ages.
- Host summer clinics or workshops in which year-round and seasonal residents can learn how to take action to make their waterfront or marsh front property more resilient by incorporating living shoreline techniques, with expert advice and a supply of native plants available.
- Create a demonstration space at Kelley Farm Preserve with educational signage to educate community members and visitors about the possibilities of restoration and native species planting and incorporate this and other examples of living shorelines or well-managed coastal spaces into the island's circuits of garden tours, hosted by various organizations.
- Make guidance on native plants that stabilize shorelines and provide other ecosystem services (while also protecting viewsheds by growing low to the ground) available at the Bass Harbor Memorial Library and work towards creating a "seed library" or resource library for residents.

“Tremont’s citizens are remarkably involved. They show up. It’s why we can get so much done for such a small town.”

Tremont’s town government and robust citizen involvement have supported extensive resilience-building activities to date. Governance strategies aim to mainstream resilience into the town’s existing plans and processes. By integrating resilience into existing town processes, the town can better adapt to changes while making more efficient use of budget, staff, and committee capacity. Applying a “resilience lens” to decision-making and planning allows for a cost-effective transition and avoids decisions and projects that ultimately conflict with the town’s resilience goals. In many instances, responding to climate change impacts does not always require transformational changes to municipal functions, but can instead include adapting existing plans and actions in areas such as emergency management or capacity building so that communities are better able to care for one another and thrive in the face of climate change and other challenges to come.

LEADERSHIP, GOVERNANCE, & FUNDING STRATEGIES

Strategy I. Allocate staff capacity to resilience-specific work:

Small municipalities like Tremont have a tall order when it comes to managing the many facets of town operations with limited staff. Pursuing the strategies outlined in this plan, as well as responding to needs that will emerge related to resilience, will be most successful if there is dedicated staff time focused on these matters, also supporting the Town’s ability to be proactive rather than reactive. This capacity can be created in a variety of ways:

- Consider partially funding or matching costs to host a shared staff member with Mount Desert or Southwest Harbor to work on a focused list of priorities and tasks that will support the town’s resilience, as modeled by the Solutions Coordinator work currently being funded through the 2023 Community Resilience Partnership Grant.
 - This approach has the advantage of continuity, allowing personnel to work more effectively by understanding town context, and a lower cost structure. Regional collaboration can also accelerate and deepen the positive impact of resilience strategies.
- Consider contracting with service providers to implement specific projects, thereby increasing capacity while drawing on established resources and knowledge bases. The Town has done this in the past with the Gulf of Maine Research Institute, North Star Planning, the Musson Group, and A Climate to Thrive. Particularly when coupled with grant funds, this can be a cost-effective way to accomplish high-urgency goals.
 - Host interns at the graduate student or undergraduate student level working on projects focused on resilience matters. The UMaine system has resources that support this exchange, and other island towns have hosted students who completed waste audits, walking and biking transit plans, and more.
 - In instances where a project and a candidate are a good fit, a motivated high schooler could assist with some of these projects while gaining valuable, transferable skills in the process.



Pictured left are UMaine Farmington student interns working on a compost project for a nearby municipality.

Strategy II: Maximize Use of No-Cost Technical Assistance*:

- As a small municipality, it is not feasible for Tremont to retain staff with specific expertise in sea level rise, energy, housing, or any of the number of issues it must navigate. This is why no-cost technical assistance from the state and federal government - through which the town has access to expert input on key issues, projects, and planning endeavors (as well as support applying for and implementing grants) - can be a critical resource. Technical assistance has become available at an increasing rate since 2020 and is expected to remain a regular offering, both through independent initiatives (for example, the FEMA Direct Technical Assistance Program the town is enrolled in until 2025) as well as through some grant application processes, particularly at the federal level. By accessing no-cost technical assistance, the town benefits from expert insights, and, in many cases, data and specifications that can inform planning, calls for RFPs, and other initiatives that outlive any one grant cycle.

Strategy III: Enhance Resilience through Improving Municipal Digital Services

- Challenges faced by small rural municipalities, including COVID-19 and recent storms and severe weather events, have driven increased research and programs focused on the role of municipal digital services in cultivating community resilience. Digital services are key tools for municipalities to communicate with residents and share information, and, increasingly, processes for reporting damages and receiving support are unavoidably virtual. Functional municipal digital services also allow for community members to participate flexibly in volunteer committees, attend and contribute comments to town meetings and hearings, and strengthen democratic processes and community involvement in decision-making.
- Tremont can work with partners, including Hancock County Planning Commission, to take small actionable steps to improve municipal digital services and build capacity and skills related to digital literacy among staff and town committee members.

Longer-Term Strategies

Strategy I. Comprehensive Plan, Zoning/Ordinances, Emergency Management Plan, and Town Guiding Document Alignment

- Incorporate climate change projections into future Comprehensive Plan updates and include resilience as a core consideration of policies and actions. Include maps showing climate vulnerability to inform land use planning decisions.
- Integrate resilience to sea level rise, flooding, and other climate hazards as a consideration of Capital Improvement Plans. Incorporate projected impacts into identification of future growth areas and update development guidelines accordingly.

Strategy II: Increased collaboration with other municipalities in the region

- Cross-cutting issues affect all island towns and neighboring mainland communities. Opportunities exist for towns to share resources, collaboratively acquire capital funding for necessary larger infrastructural mitigation projects, and plan on a regional scale to increase effectiveness and reduce costs.

Strategy III: Incorporate insights from the Tremont Vulnerability Assessment into long-term planning processes for the Tremont Consolidated School

- Collaborating with the School Board, staff, and other stakeholders, ensure that decision-makers invested in the future of the Tremont Consolidated School are aware of expected impacts from coastal flooding and changing sea levels and supported in planning accordingly.

As Tremont looks to navigate coming challenges and seize timely opportunities, the Town remains guided by its values and history and committed to nourishing its unique character. This Plan outlines a pathway to harnessing as many resources as possible from the state and federal levels to make projects that would not otherwise be possible a reality. These strategies are not intended to drive emissions to zero or create a future in which Tremont avoids all impacts associated with a changing climate; these are not realistic goals, nor are they what town residents are looking for from their plan. Instead, these strategies are intended to serve as actionable steps towards protecting the most vulnerable and valued aspects of this community, based on its expressed priorities and shared vision.

The Implementation Guide, which contains tools including prioritization matrices (critical level, time horizon, severity of impacts), timelines with responsible parties, and funding sources, is available on the Town of Tremont's website under Sustainability Committee.

Key documents that informed this planning process can be found at the following links:

- [GHG Inventory Report](#)
- [Gulf of Maine Research Institute Vulnerability Assessment](#)

Thoughts on this plan can be shared in-person at Sustainability Committee meetings on the Third Thursday of every month at 5 pm at the Bass Harbor Memorial Library, or by email with sew3@mac.com.

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