












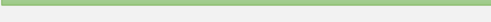
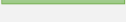
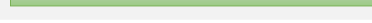

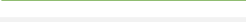
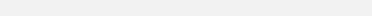

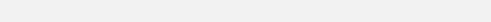



TOWN OF KITTERY

2020 Sustainability and Coastal Resilience Assessment

The oldest incorporated town in Maine, the Town of Kittery has a long history of supporting the sustainability and resilience of its community. In 2019, Kittery joined a coalition of six towns in coastal York County to create the SMPDC Regional Sustainability and Resilience Program. The program aims to foster more sustainable and resilient communities by leveraging regional collaboration to enhance the effectiveness of local government action. To identify and direct sustainability and resilience efforts, the program is establishing a baseline of sustainability and resilience efforts and needs in individual communities and the Coastal York Country region. Kittery excels in waste management and watershed protection efforts. The Town is also making significant progress on climate change mitigation and adaptation initiatives, including establishing the Kittery Climate Adaptation Committee, incorporating climate resilience into the Comprehensive Plan, and conducting coastal flood vulnerability assessments.

Using the SMPDC Sustainability Progress Framework (SPF), Kittery was evaluated on a variety of sustainability and resilience strategies within twelve categories, with strategies grouped into 22 indicators as shown below. Kittery's status on each progress indicator ranges from "Not Yet Considered" to "Excelling". Explanations for each indicator are detailed on the following pages. Also listed are suggested *Next Steps* for potential future sustainability and resilience efforts that reflect priorities identified by Town staff as well as efforts identified by regional program staff for the Town to consider.

CATEGORY	INDICATOR	STATUS
Climate	Establish a GHG emissions inventory, target, and plan	 Getting Started
	Climate change vulnerability assessment	 Making Progress
Coastal Hazards	Integrate coastal risk reduction measures in zoning and regulations	 Making Progress
	Incorporate future climatic conditions into land use requirements and municipal policies	 Getting Started
Economic Development	Promote and support sustainability and resiliency actions for local businesses	 Getting Started
	Reduce municipal fossil fuel consumption and implement municipal energy efficiency measures	 Getting Started
Energy	Promote energy efficiency for residents and businesses	 Interested
	Support development of and access to renewable energy	 Getting Started
Land Ecosystems	Promote and practice environmentally-friendly and sustainable landscape approaches	 Almost There
Leadership	Participate as an active member of a national/regional sustainability and resilience network	 Almost there
Mobility	Promote and facilitate transit systems as well as bicycle and pedestrian networks	 Making Progress
	Adopt a complete streets policy	 Getting started
	Support the electrification of the transportation system, leading by example with the municipal fleet	 Getting started
	Formally adopt sustainability and resilience goals, policies, and strategies	 Almost there
Municipal Operations	Establish local financing strategies for sustainability and resilience activities	 Interested
	Incorporate sustainability and resilience criteria in municipal expenditure policies	 Making Progress
Sustainable Communities	Connect residents to resources and services that support well being and enhance community resilience	 Excelling
	Actively engage community members in local climate, sustainability, and resilience issues	 Getting started
Sustainable Development	Facilitate compact, mixed-use development that reduces environmental impacts and increases housing affordability	 Making Progress
Waste & Recycling	Deliver sustainable and affordable waste management services	 Excelling
Water	Include Low Impact Development in performance and design standards	 Excelling
	Establish and enforce progressive watershed protection measures	 Excelling

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Climate: Kittery's actions on climate are guided by the goals and strategies laid out in the Coastal Community Resilience section in the Town's Comprehensive Plan. The Town is undertaking its first municipal greenhouse gas (GHG) inventory in 2020 and has also begun to address vulnerability to climate change and its impacts. In 2019, Kittery established the Kittery Climate Adaptation Committee (KCAC) to advance the Town's resilience to climate change.

NEXT STEPS:

- Work with KCAC to complete municipal and community-wide GHG inventories and to establish a GHG emissions reduction target for municipal and/or community-wide emissions.
- Assess non-coastal vulnerabilities to climate change.
- Create a climate adaptation or resilience plan and begin implementing climate adaptation strategies.

Coastal Hazards: The Town has recently undertaken several initiatives to evaluate and plan for coastal hazards, including completing the Maine Flood Resilience Checklist in 2020 and participating in an EDA grant-funded project assessing the economic and social vulnerabilities associated with sea level rise and coastal flood events. A UNH Sustainability fellow developed hazard assessment maps with different flooding/sea level rise scenarios and planning recommendations for the Town. Kittery's Comprehensive Plan addresses coastal resilience, providing the enabling foundation for adoption of regulatory and policy actions to make the Town more climate resilient.

NEXT STEPS:

- Establish a coastal hazard overlay zoning district, based on adopted sea level rise scenarios, and accompanying development standards to ensure new and redevelopment in areas vulnerable to storm surge and sea level rise are resilient.
- Amend the floodplain management ordinance to incorporate enhanced flood risk reduction measures such as increased freeboard height requirements and accounting for cumulative improvement costs in the definition of substantial improvement and damage.
- Incorporate future precipitation projections in land use regulations and amend ordinances to require the use of more robust storm frequencies (e.g., 24-hour rainfall of a 30-year storm event) for stormwater management and design standards.

Economic Development: In partnership with the Portsmouth Naval Shipyard, Kittery undertook a Joint Land Use Study to address community growth and military readiness, with a primary objective to provide for sustainable growth in an economically, environmentally, and socially conscious manner. Kittery engages the business community on sustainability and resiliency issues through the KCAC, which requires two members to be representatives of local business, one of which must include aquaculture.

NEXT STEPS:

- Engage the business community on climate change and resiliency issues, potentially as part of SMPDC's EDA grant-funded project on coastal economic resilience.
- Work through KCAC to support the establishment of a regional business sustainability award or recognition program.

Energy: Reducing municipal fossil fuel consumption and implementing energy efficiency measures are both recommendations of Kittery's comprehensive plan. Kittery completed an upgrade to LED streetlights in 2019. The KCAC is working to promote energy efficiency for residents and businesses. Kittery supported the development of renewable energy by adopting a Property Assessed Clean Energy (PACE) ordinance in 2011 and adding a solar stipulation for lot configurations to the Land Use and Development Code in 2015. The town is currently considering a solar energy ordinance prescribing the permitting, standards, and allowable use of roof-top and ground mounted solar.

NEXT STEPS:

- Improve municipal energy efficiency by tracking building energy consumption (i.e. with EnergyStar Portfolio Manager), conducting energy audits of municipal facilities to identify opportunities for energy conservation, and continuing to implement energy efficiency measures as opportunities arise.
- Work through KCAC to connect residents and businesses to energy efficiency resources and renewable energy options.
- Work through KCAC to review and adopt the solar energy ordinance.

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Land Ecosystems: Kittery practices environmentally-friendly landscape practices through the public works Integrated Pest Management (IPM) program and the Spruce Creek Watershed Management Program. Kittery has begun incorporating sustainable landscaping standards into the Title 16: Land Use and Development Code. Kittery has hosted multiple outreach events to connect residents to sustainable landscaping information, such as Yardscaping workshops.

NEXT STEPS:

- Continue working through Conservation Commission to connect residents to sustainable landscaping resources.
- Continue incorporating sustainable landscape requirements into the Title 16: Land Use and Development Code.
- Work through the Conservation Commission to encourage community-wide use of integrated pest management to reduce impacts from fertilizers and pesticides.

Leadership: Kittery is playing an active role in leading sustainability and resilience efforts in Maine. Kittery's sustainability and resilience activities are guided by the Kittery Climate Adaptation Committee (KCAC). Town Manager Kendra Amaral serves on the Maine Climate Council transportation working group, and Kittery joined ICLEI Local Governments for Sustainability in 2020.

NEXT STEPS:

- Continue working through KCAC to actively participate in regional/state sustainability and resilience networks.
- Share information about municipal leadership in sustainability and resilience broadly in the community and externally.

Mobility: Kittery strives to facilitate transit systems and bike and pedestrian networks. The Town is in the process of developing a Bicycle and Pedestrian Plan. Kittery has also worked to extend regional transit and will be further exploring alternative transportation opportunities as part of a Joint Land Use Study (JLUS) Implementation Grant in collaboration with the Portsmouth Naval Shipyard. A complete streets policy is recommended in the Kittery Comprehensive plan. Kittery installed a level 2 EV charging station at Rice Library and is exploring EV charging station incentive opportunities and EV fleet vehicle opportunities. Kittery is in the process of acquiring their first electric vehicle.

NEXT STEPS:

- Complete the Bicycle and Pedestrian plan and begin implementing strategies.
- Ensure alternative transportation projects and initiatives result from the JLUS implementation grant.
- Begin developing a Complete Streets Policy.
- Continue to pursue EV charging station installation at public sites.
- Collaborate with businesses to develop EV infrastructure.
- Establish a fleet purchasing policy to prioritize electric vehicles.

Municipal Operations: Sustainability is a guiding principle of Kittery's Comprehensive plan and the KCAC is charged with addressing Kittery's sustainability and resilience issues. Kittery strives to embed sustainability and resilience into existing operations, financial planning and expenditures. Kittery is in the process of incorporating sustainability criteria into their Capital Improvement Program.

NEXT STEPS:

- Ensure sustainability and resilience criteria are successfully incorporated into the Capital Improvement Program.
- Formalize sustainability and resilience goals and plans for the Town, as recommended by the Comprehensive Plan.
- Explore strategies such as Power Purchase Agreements, leases, and Energy Savings Performance Contracts to finance renewable energy systems and energy efficiency projects for municipal buildings.
- Budget and plan for long-term energy efficiency equipment upgrades (i.e. boilers and chillers for heating and cooling, window, door and rooftop replacements, and modified ductwork).

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Sustainable Communities: Kittery connects residents to vital community services that enhance wellbeing and community resilience through the Kittery Community Center and Kittery Welfare Assistance. The Town also has an Emergency Management Agency Ordinance to prepare for environmental disasters and public health crises. Kittery supports the Kittery Community Market to promote local food access, offering a space in the Kittery Community Center for the winter market. Kittery has begun working through the KCAC to engage residents on local climate, sustainability, and resilience issues.

NEXT STEPS:

- Apply emergency management lessons from the Covid-19 pandemic to increase community preparedness and resilience.
- Collaborate with partner organizations to support community gardens and increased access to local foods.
- Host events educating the public about climate change and local impacts and how to reduce GHG emissions.
- Develop online materials for the community about sustainability initiatives and other allied organizations and government agencies.

Sustainable Development: Kittery is undertaking a recodification of the Title 16: Land Use and Development Code to incorporate sustainable development principles and practices. It is addressing infill development, mixed use zoning, open space preservation, redevelopment of underutilized properties, transit-oriented development, and housing affordability. Kittery is also addressing housing affordability and transit-oriented development through the JLUS implementation grant. In 2020 Kittery approved a number of housing initiatives, establishing a housing reserve fund, creating a process to utilize the proceeds from the sale of tax-foreclosed properties for affordable housing, and formally establishing a Housing Committee to work on affordable housing initiatives.

NEXT STEPS:

- Continue addressing transit-oriented development and housing affordability through the JLUS implementation grant.

Waste & Recycling: Kittery delivers sustainable and affordable waste management services. The town requires mandatory recycling for residents and at the transfer station. Municipal departments are also required to recycle. There is a Freebie Barn at the transfer station for donations, and curbside composting is available to residents and businesses.

NEXT STEPS:

- Explore a construction and demolition recycling policy to keep these materials out of landfills and ensure they are recycled.
- Continue to explore partnerships with the schools to promote education about consumption and waste.

Water: An MS4 community and an active member of the Southern Maine Stormwater Management Group (SMSWG), Kittery has adopted enhanced stormwater management regulations and policies. The Town has implemented water quality protection measures through a wetlands conservation ordinance, the Spruce Creek Watershed project, and green infrastructure projects to manage stormwater runoff on municipal properties. The Town is currently amending its land use ordinance to require low impact development (LID) for commercial land uses.

NEXT STEPS:

- Enhance the Town's existing land use regulations and policies that encourage and/or require the use of low impact development and green infrastructure approaches for stormwater management for all development and redevelopment projects requiring site plan review.
- Enact a pesticide and fertilizer ordinance.
- Adopt a septic inspection and pump out ordinance to ensure septic systems, especially those in areas vulnerable to current and future flooding, function properly and to minimize potential detrimental impacts to water quality and the environment.

