

Report to Town Council

Meeting Date: January 24, 2022

From: Cameron Wake, chair, Kittery Climate Adaptation Committee

Subject: Kittery Climate Adaptation Committee Annual Report

Introduction

The Kittery Town Council formed the Climate Adaptation Committee Town in 2019 to identify and address: 1. the impacts of a changing and uncertain climate on Kittery and 2. the opportunities for the Town and community to reduce its reliance on greenhouse gases. The Committee's work is carried out by three subcommittees: Built and Natural Landscape Impacts; Energy; and Health and Public Safety. The committee meets on the first Tuesday of each month, and its membership currently includes representatives from Town Council, Conservation Commission, Planning Board, and Traip Academy, as well as five residents at large, including two local business owners. The Committee works closely and collaboratively with the Town Manager and is supported by the Project Planner in Kittery Planning and Development. Current membership and pertinent documents may be found at <https://www.kitteryme.gov/climate-adaptation-committee>.

In its first year, the Committee surveyed residents on their climate-related concerns. A majority expressed concern (extremely to concerned) about possible impacts on Kittery; the need for the Town to take action; and finally, the desire for information on impacts to private property and options, including financing, to increase residential energy efficiency. These results continue to guide the Committee's work.

2021

In June, Town Council's adoption of a climate statement was a Committee milestone. Council endorsed Maine Climate Action Plan goals and development of a Kittery Climate Action Plan. The Committee is now in the early stages of the Town-wide plan.

The Committee continued to identify and map flood hazard areas, begun in 2020, and collaborate with the Town's Land Use Issues Committee (KLIC) on land protection strategies. Working with the Southern Maine Planning and Development Commission (SMPDC), the Committee completed a Town (municipal, schools, and community) greenhouse house gas (GHG) inventory for 2019 – the most recent year for which data were available. The inventory will be presented to Town Council in January 2022. This past year, the Town added to electric vehicles (EVs) and two electric charging stations and intends, where feasible, to continue replacing vehicles with EVs. Other accomplishments included Moody's, the bond rating agency, citing the Climate Adaptation Committee as an important factor in increasing the Town's bond rating to Aa1. Further, greenhouse gas emission impacts were incorporated in the Town's Capital Improvement Program planning. With Committee encouragement, the Town Manager worked with SMPDC to craft a regional municipal approach for purchasing community solar for

municipal facilities. In July, Town Council approved the Town Manager's proposal to enter into a net energy billing agreement, based on that effort. The 20-year contract will provide for a 27.5% discount each year with regional energy credits (RECs). Once operational, 77% of the Town's municipal energy will come from Maine solar. The Committee also worked with the Town Manager and Kittery Climate Action Now (KCAN) to set up household waste collection at the Town's Resource Reclamation Center. In addition, the Committee has secured permanent display space for community outreach in the Kittery Community Center. Much of the committee's work, however, occurred in its subcommittees.

Built and Natural Landscape Subcommittee

This past year, the subcommittee has refined the flood vulnerability assessment begun on 2019-2020. The flood projections were further evaluated in a UNH senior sustainability capstone project last spring. The students estimated the total value of Town property at risk under the three sea level rise and storm surge scenarios used by the State in their planning: 3.9 ft - \$424 million; 6.1 ft - \$485 million; 10.9 ft - \$687 million. Considerably more refinement needs to go into their assessment and resulting estimates, but the report points to the areas where the Town of Kittery, individual residents, business owners need to focus attention.

Our work to date has identified key vulnerable areas in Kittery: the area around Naval Shipyard Gate 2; Rt. 103 in Kittery Point - an evacuation roadway -, including Lewis Square at Pepperrell and Haley Roads; the three Spruce Creek bridges (I-95, Rt. 1, and Rt. 103); the Seapoint Road causeway at the Rachel Carson Wildlife Preserve; Payne Road; and much of our working waterfront.

With committee support, the Town received a Piscataqua Region Estuaries Partnership (PREP) grant to work in coordination with SMPDC. The project is refining mapping of sea level rise and storm surge scenarios as a foundation for establishing an ordinance-level flood hazard zone.

The subcommittee also looked at land use issues associated with a proposed solar ordinance for Kittery; increase in the freeboard standard; and a revision of the 25-year flood standard to reflect more accurately the increasingly high rate, volume, and frequency of rainfall.

Since the spring, the Committee has displayed at the Kittery Community Center maps showing the extent of projected sea level and storm surge flooding on Kittery properties. The maps include property boundaries and allow residents to pinpoint the location of their properties.

Energy Subcommittee

The Energy Subcommittee has pursued several areas. It identified resources for residents to make their homes more energy efficient and expand ownership of EVs. Last March, the subcommittee held a virtual meeting for residents on those topics with Efficiency Maine. Over 40 people attended, and the program video was shown on Channel 22. Topics covered included Efficiency Maine rebates for EVs, charges, heat pumps and water heaters and its programs for low-income financing, a listing of contractors for energy efficient installations and retrofits, and other resources. The subcommittee added information on Efficiency Maine programs as well as

more general information, covering greenhouse gases and climate change, increasing energy efficiency, and achieving cost savings in everyday life to the Climate Committee [webpage](https://www.kitteryme.gov/climate-adaptation-committee) (<https://www.kitteryme.gov/climate-adaptation-committee>) under FAQs (frequently asked questions).

The second area, mentioned above, has been the Town-wide greenhouse gas inventory. Of note, is that roughly 40% of the greenhouse gas produced in 2019 came from transportation, consistent with State-wide estimates. In addition to EV promotion, the group began consideration encouraging public and other modes of transportation.

The final area dealt with promoting options for low-income residents to weatherize their homes and seek financing at low interest rates. At the end of the year, the group began discussion about planning for infrastructure to support the coming need for expanded electrification.

Public Health and Safety Subcommittee

The subcommittee did very preliminary work on issues of extreme heat, including locations in Kittery where we might have high heat drop-in centers.

The Coming Year

The Committee will continue its focus on the flood hazard mapping and zoning amendments to address protections in the areas of potential flooding; ordinance changes to promote solar energy; promotion of Efficiency Maine programs; infrastructure needs such as microgrids for managing electricity use; continuing community education on energy efficiency options, including for financial support for residents on limited incomes to switch to non-carbon based sources of energy; building capacity to evaluate impacts on the working waterfront and opportunities to develop aquaculture; and most importantly, developing a climate action plan that includes broad community participation.

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