# KENNEBUNKPORT GHG INVENTORY

# PRESENTATION TO THE BOARD OF SELECTMEN

April 28, 2022

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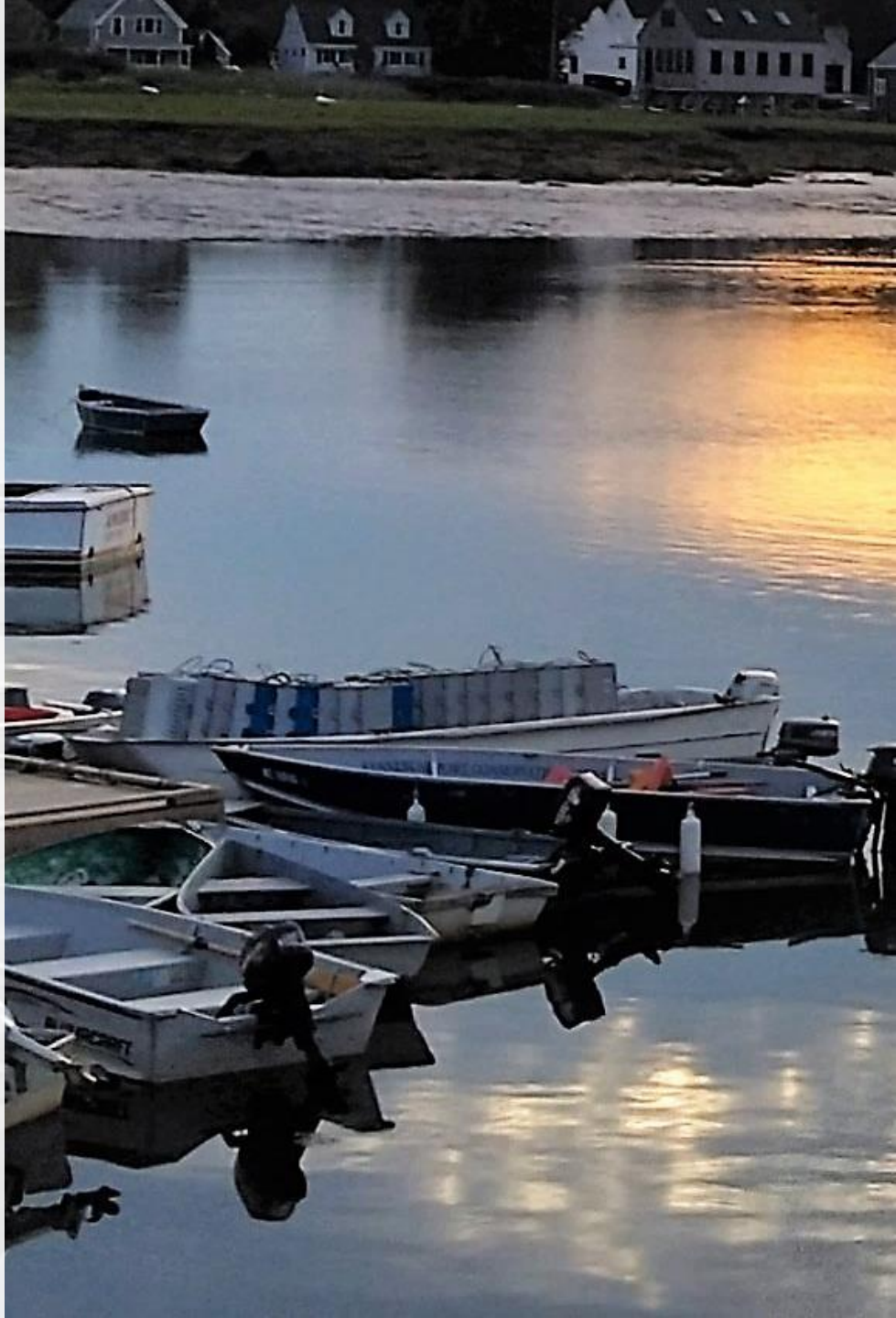
*Southern Maine Planning & Development Commission*

Regional Sustainability and Resilience Program

SMPDC
SOUTHERN MAINE PLANNING & DEVELOPMENT COMMISSION

**History of climate change work:**

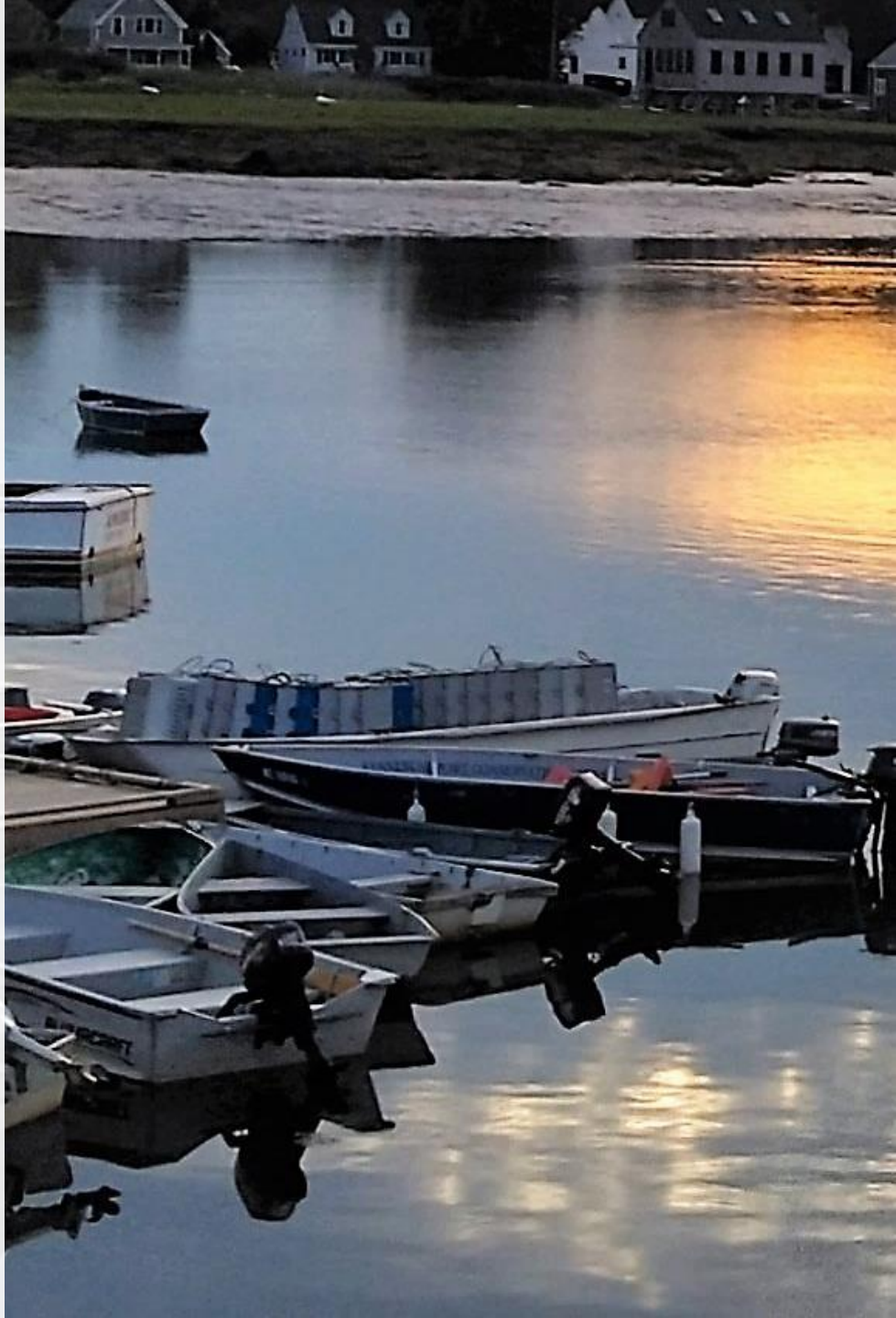
- **2019:** Joined the SMPDC Regional Sustainability and Resilience Program
- **2020:** Board approves Climate Change Goals and Priorities
- **2021:** Contracts to buy Maine solar energy for municipal electricity use
- **Now:** Comp. Plan process integrating climate change
- **Now:** Kennebunkport joins the Community Resilience Partnership



## Climate Change Goal #1: Establish Greenhouse Gas (GHG) emissions inventory, target and plan

A GHG inventory is an account of all the emissions from sources within a community to:

- Understand ongoing activities and major sources of emissions
- Identify areas to focus emission reduction efforts
- Establish goals and track progress towards those goals
- Facilitate decision-making about future policies and strategies

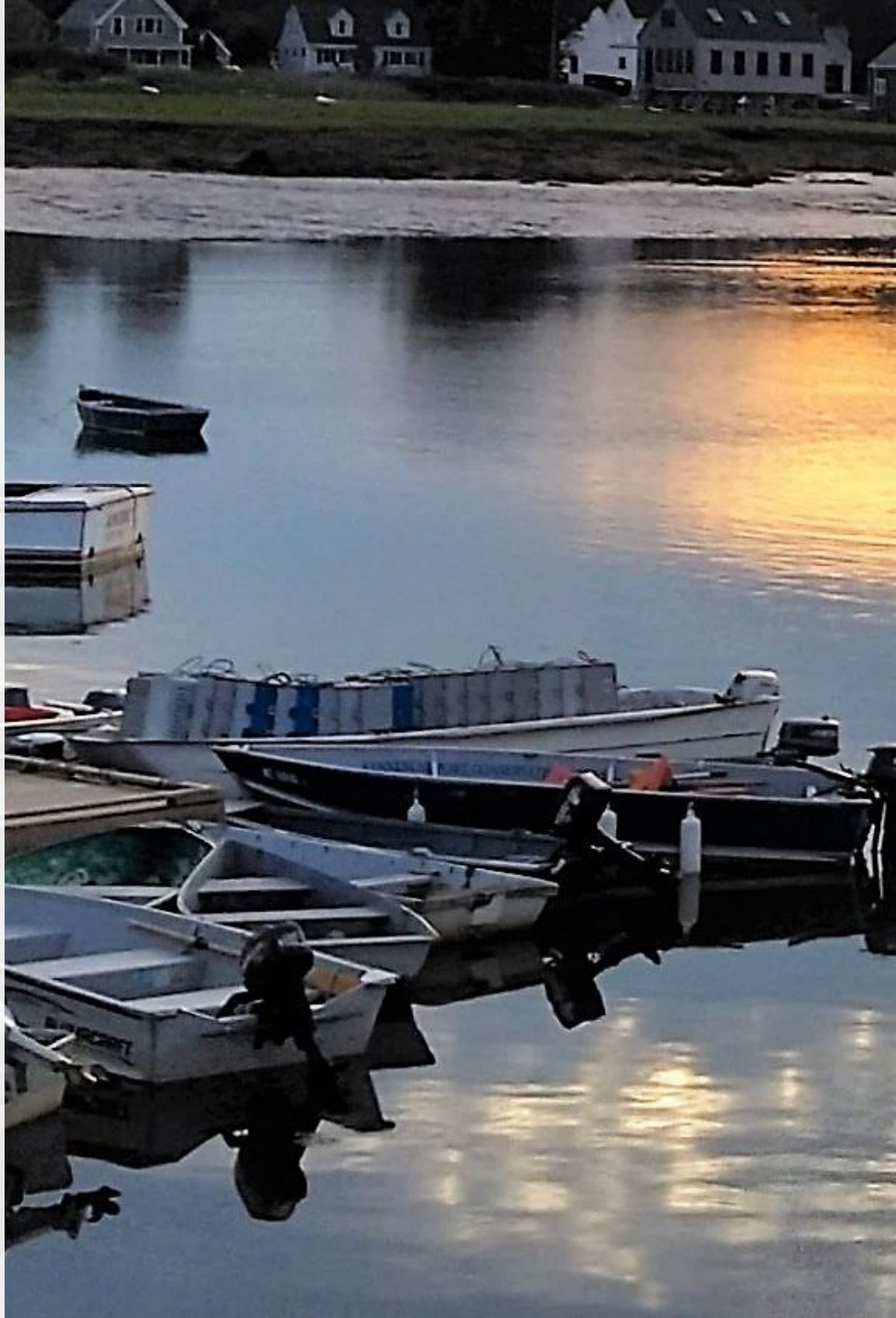


## Kennebunkport GHG Inventory Report

**Community-wide GHG Inventory:** estimates the amount of GHG emissions associated with community sources and activities, meaning those of a municipality's residents, workforce, visitors, and economy.

**Municipal GHG Inventory:** estimates only the emissions occurring because of local government operations, including those from:

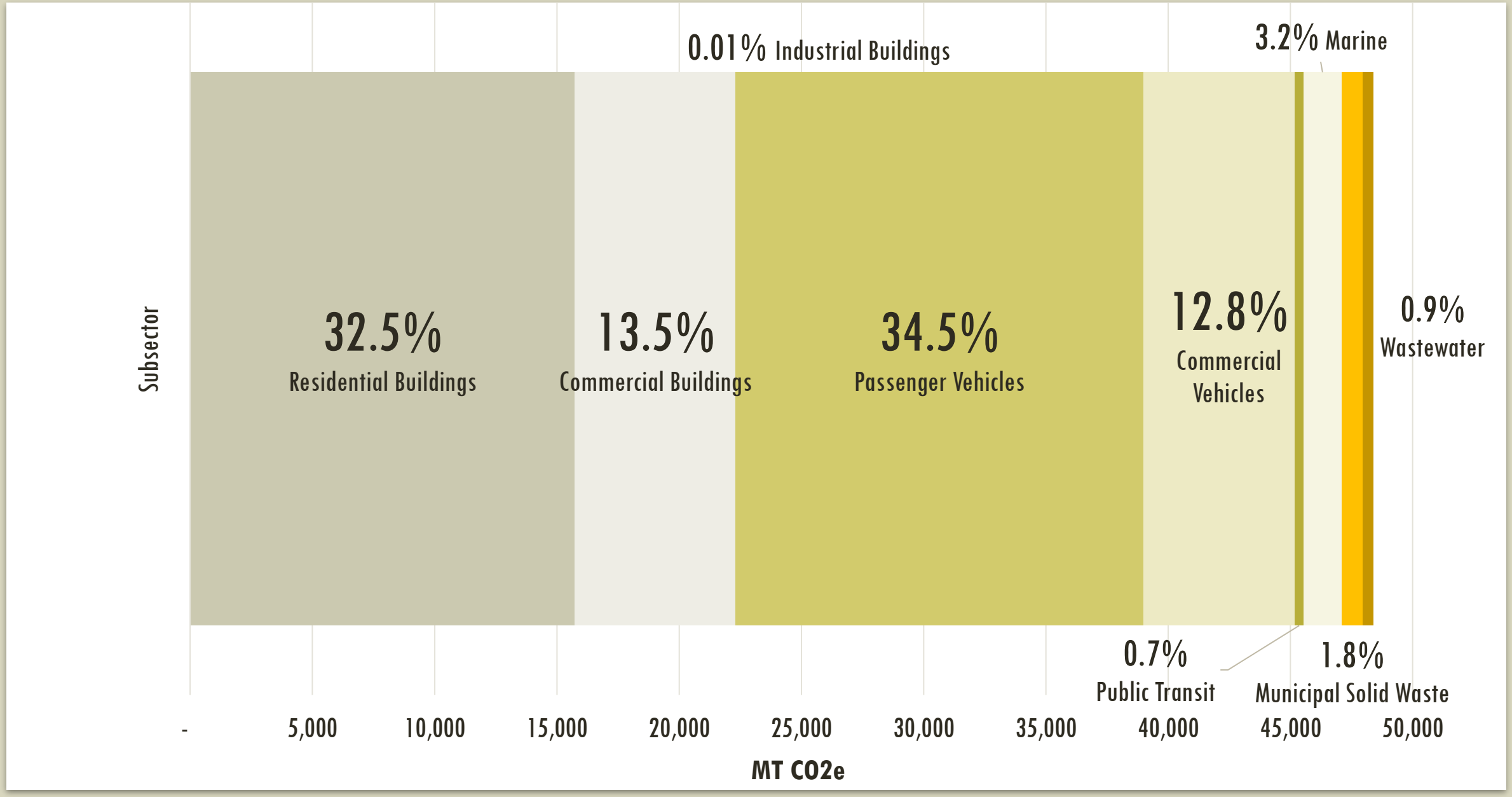
- Government buildings and facilities
- Government fleet vehicles
- Wastewater treatment facilities



# COMMUNITY-WIDE INVENTORY

# Community-wide inventory for 2019:

- 48,387 metric tons carbon dioxide equivalent (MT CO2e)
- Equivalent to 10,426 passenger cars driven for one year or 112,026 barrels of oil consumed


0.01% Industrial Buildings
3.2% Marine
Subsector
32.5%
Residential Buildings
13.5%
Commercial Buildings
34.5%
Passenger Vehicles
12.8%
Commercial Vehicles
0.9%
Wastewater
0.7%
Public Transit
1.8%
Municipal Solid Waste
-
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
MT CO2e

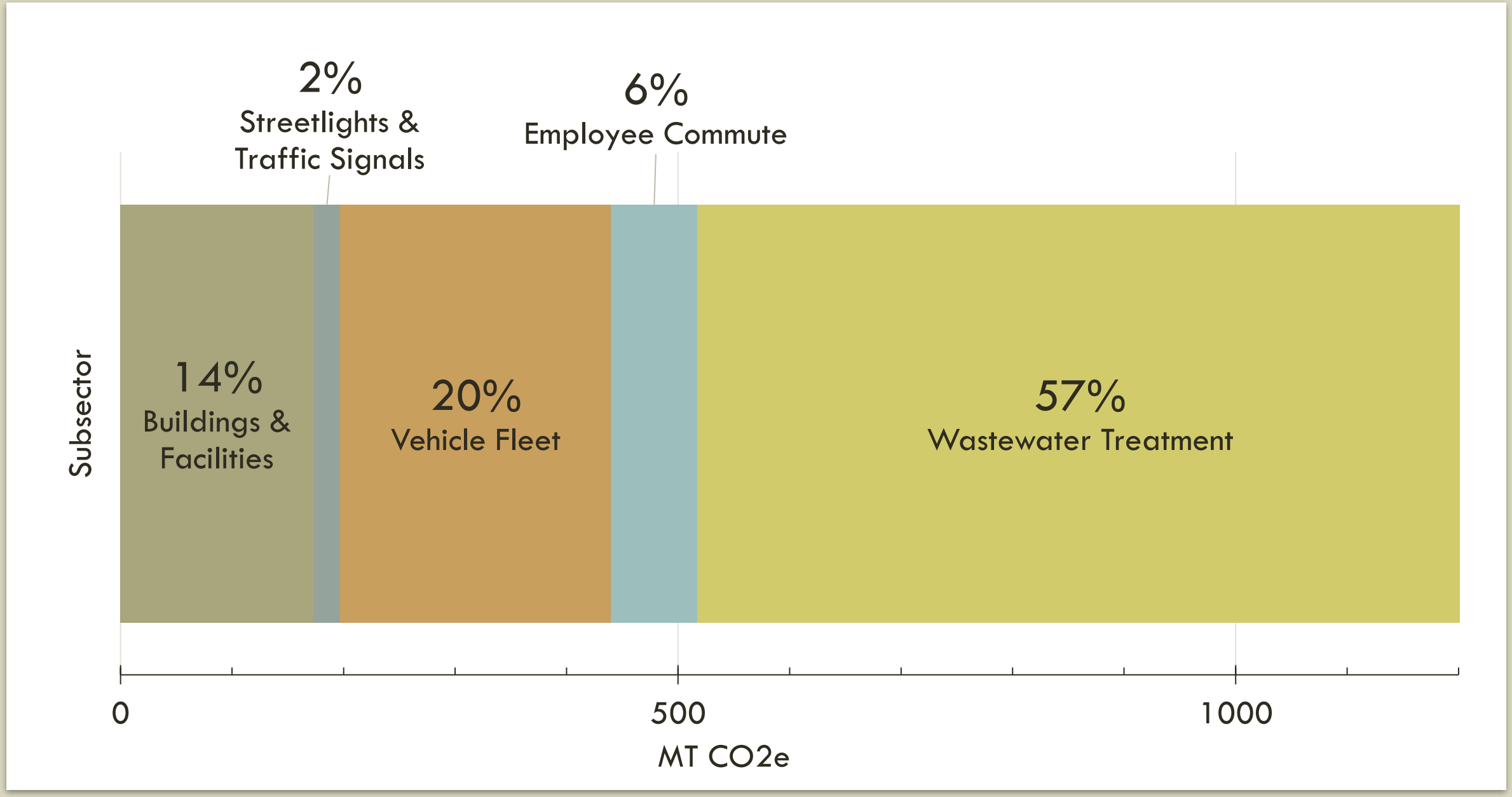
## Key Takeaways from Community-wide inventory:

1. The largest source of community-wide GHG emissions is passenger vehicle fuel use
2. The second largest source is residential heating fuel use, particularly heating oil use
3. The energy used for vehicles and building heating/electricity make up 93.4% of the GHG inventory
4. A better understanding of commercial building heating fuel is needed to develop targeted strategies

# MUNICIPAL INVENTORY

# Municipal inventory for 2018:

- 1,204 MT $CO_2e$
- Equivalent to 259 passenger cars driven for one year


2%
Streetlights & Traffic Signals
6%
Employee Commute
Subsector
14%
Buildings & Facilities
20%
Vehicle Fleet
57%
Wastewater Treatment
0
500
1000
MT CO2e

## Key takeaways from the municipal inventory

5. Community-wide emissions are far greater (4018%) than municipal emissions

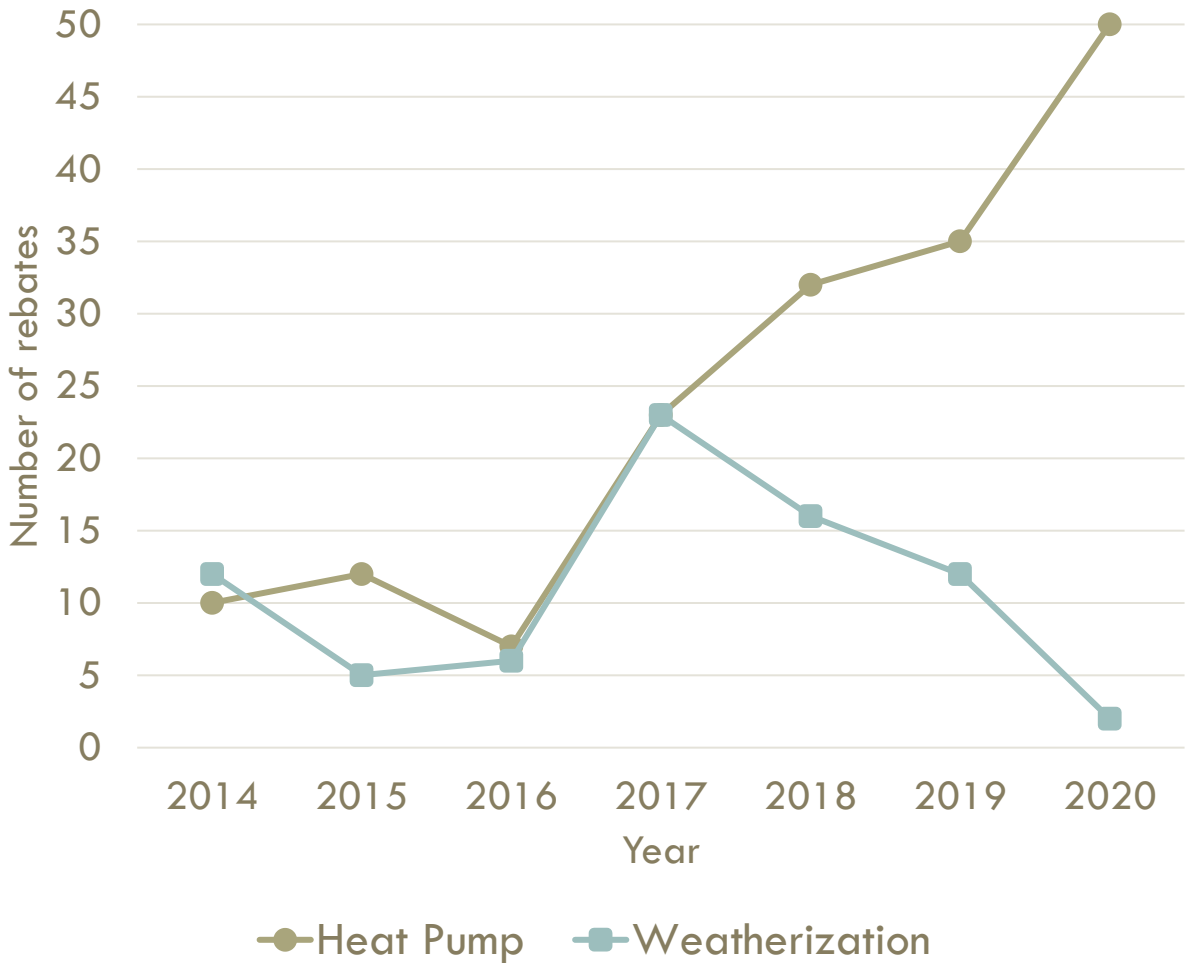
Still worth targeting largest sources of municipal emissions (municipal fleet, wastewater treatment plant electricity use, and heating fuel use in buildings)

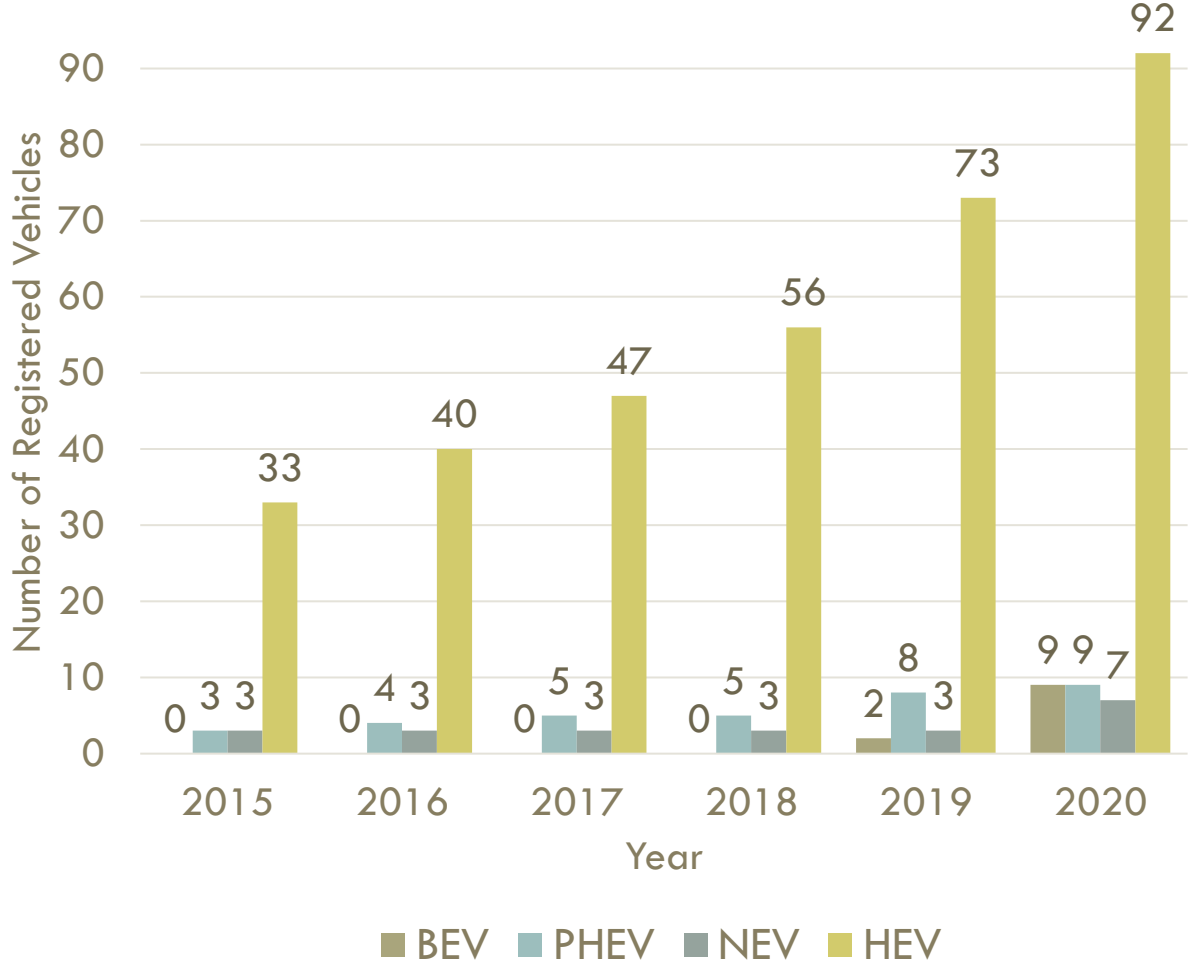
**Other key takeaways:**

6. Alternative indicators can be used to identify other strategies to reduce emissions that are not captured in the inventory

7. Future GHG inventories can be used to evaluate Kennebunkport's progress on emission reduction efforts.

**Additional indicators:** Alternative metrics that may be used to develop emissions reduction initiatives and set measurable goals without the need to quantify their impact in MT $CO_2e$.



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4. A better understanding of commercial building heating fuel is needed to develop targeted strategies
5. Community-wide emissions are far greater (4018%) than municipal emissions
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# NEXT STEP: CLIMATE ACTION PLAN: TARGETS, GOALS, AND STRATEGIES