Town of CANMORE

Canmore Climate Emergency Action Plan

Annual Status Update
2024

Town of Canmore | 907 7 Avenue | Canmore, AB | T1W 3K1

Contents

Summary

In July 2024, the Town of Canmore adopted the Climate Emergency Action Plan (CEAP). It is a combined strategy for both climate change mitigation (reducing greenhouse gas emissions) and adaptation (preparing for the impacts of a changing climate). The CEAP includes greenhouse gas emission reduction targets and actions to meet the Town's climate and environmental goals.

This document provides an update on progress and actions undertaken in 2024. This includes a 2024 corporate and community greenhouse gas (GHG) inventory, which is the main measure for progress on climate change mitigation efforts.

CEAP Progress

In the six months after the CEAP was completed and adopted on July 2, 2024, progress was made on the 93 actions in the plan. As of the end of 2024:

- Two actions have been completed:
    - Develop a regional wildfire management working group to coordinate FireSmarting, grants, and other fire management priorities and activities across the region.
    - Dispose of municipal solid waste in a landfill with methane gas capture.
- Some progress was made on 35 actions.

More detail is provided in Section 1.

Climate Change Mitigation

- In 2024, the community-wide GHG inventory indicated a 9% decrease in emissions from 2022, which is the baseline year set by the CEAP[1].
- GHG emissions from municipal operations, referred to as "Corporate" emissions, decreased by 12%.
- The CEAP set a target of reducing GHG emissions to net zero by 2050, which means that sustained action is required to continue decreasing emissions, especially as the population and Canmore's visitor economy continues to grow.

The sources of GHGs, as well as the data and trends that influence the 2024 inventory, are provided in Section 2.

Climate Adaptation and Resilience

Unlike a GHG inventory, the Town's progress on climate change adaptation and resilience can't be easily measured quantitatively. The annual status updates will focus on the actions that have been undertaken within that year. In 2024 there was notable progress made in wildfire and flood risk reduction, including:

- Initiating significant FireGuard work to help protect the community from wildfire.
- Completing the Cougar Creek debris flood retention structure.

Additional action updates are provided in Section 3.

Equity and Co-Benefits

As the CEAP is implemented, there will be a focus on advancing co-benefits such as improved health and quality of life. There will also be special consideration to ensure more vulnerable residents are not adversely impacted by climate action and have fair access to the benefits and incentives provided through the Town's work on climate.

Initiatives with a specific focus on equity and advancing co-benefits are discussed in Section 4.

Section 1: Climate Emergency Action Plan Progress

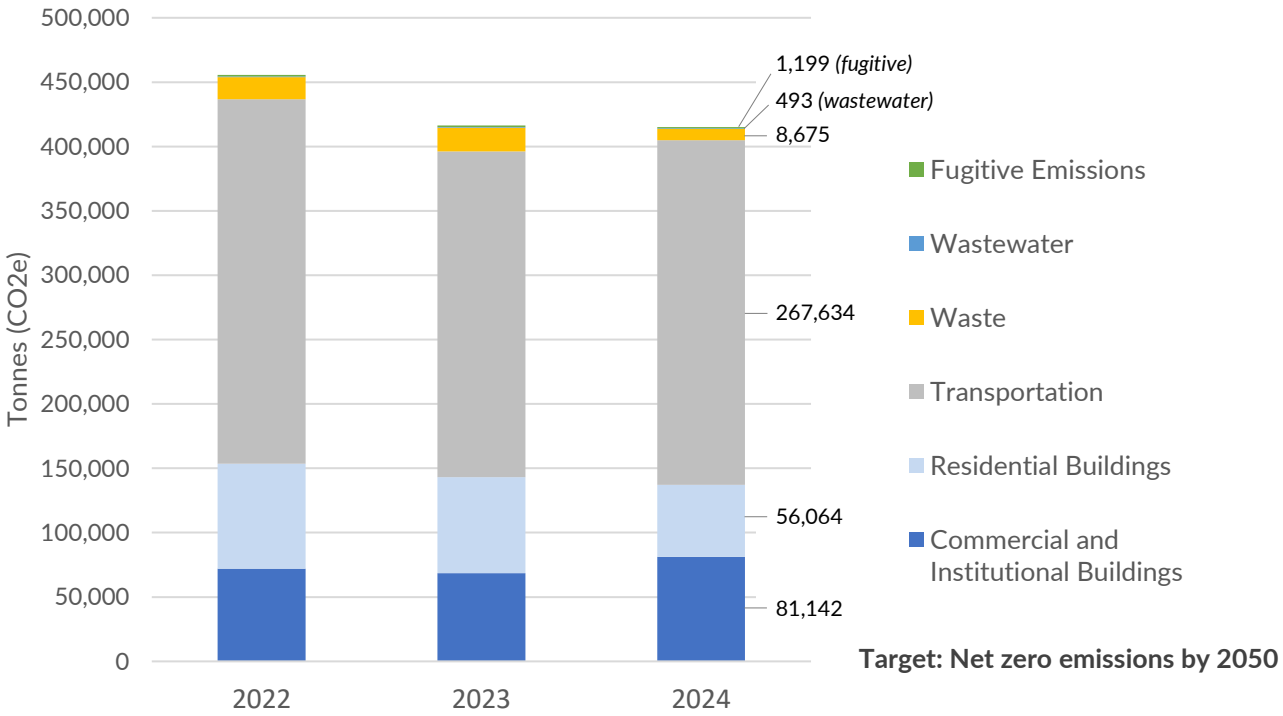
Canmore's CEAP contains 93 actions that, taken together, will move the community towards net zero, and improve resilience to a changing climate, while making the community more equitable and livable. The 93 actions are divided into seven themes and each action has been assigned a different timeframe for completion. Some are discreet initiatives, with a clear start and finish, while others represent ongoing efforts over a long period. Many of the actions are continued from Canmore's previous climate and environmental action plans.

The table below shows the Town's progress on the CEAP actions by theme.

Theme	Number of CEAP actions	% of actions completed	% of actions with some progress
Municipal Leadership The critical role of the Town in guiding, exemplifying, and facilitating through actions such as retrofitting municipal buildings and infrastructure, and electrifying the Town vehicle fleet.	6	-	33%
Resilient, Efficient Buildings Reducing emissions from Canmore's building stock, through energy-efficient new construction that is also resilient to climate impacts, and retrofits of existing buildings.	20	-	30%
Clean, Resilient Energy Shifting to renewable energy sources and ensuring continued access to energy during extreme weather.	8	-	25%
Safe and Protected Natural Spaces Preserving Canmore's unique natural environment. Managing forests and water bodies to mitigate risks like wildfires and floods while enhancing their role in carbon sequestration and ecosystem health.	6	-	17%
Emergency Preparedness for All Preparing the community for climate-induced emergencies by creating robust response plans, ensuring efficient evacuation routes, and educating the community on emergency preparedness.	29	3%	38%
Rethinking Transportation and Mobility A shift to electric vehicles, enhanced public transit, and improved infrastructure for walking and biking.	15	-	60%
Efficient Waste, Water, and Wastewater Management Safeguarding essential services against climate impacts and managing resources efficiently. Implementing strategies for water conservation and waste reduction and ensuring the resilience of wastewater management systems.	9	11%	44%

Section 2: Climate Change Mitigation

Community Greenhouse Gas Inventory



In 2024, Canmore residents, businesses, organizations, and visitors generated a total of 415,206 tonnes of CO2e, compared to 455,634 tonnes of CO2e in 2022, which is the baseline year established in the CEAP. This represents a 9% reduction in GHGs from the 2022 baseline, and is consistent with 2023 emission levels. The reduction from 2022 is largely attributed to reduced natural gas consumption due to a warmer winter, the provincial electricity grid transitioning away from coal, switching to a landfill with methane capture, and reduced transportation emissions.

Notable climate change mitigation initiatives in 2024 include:

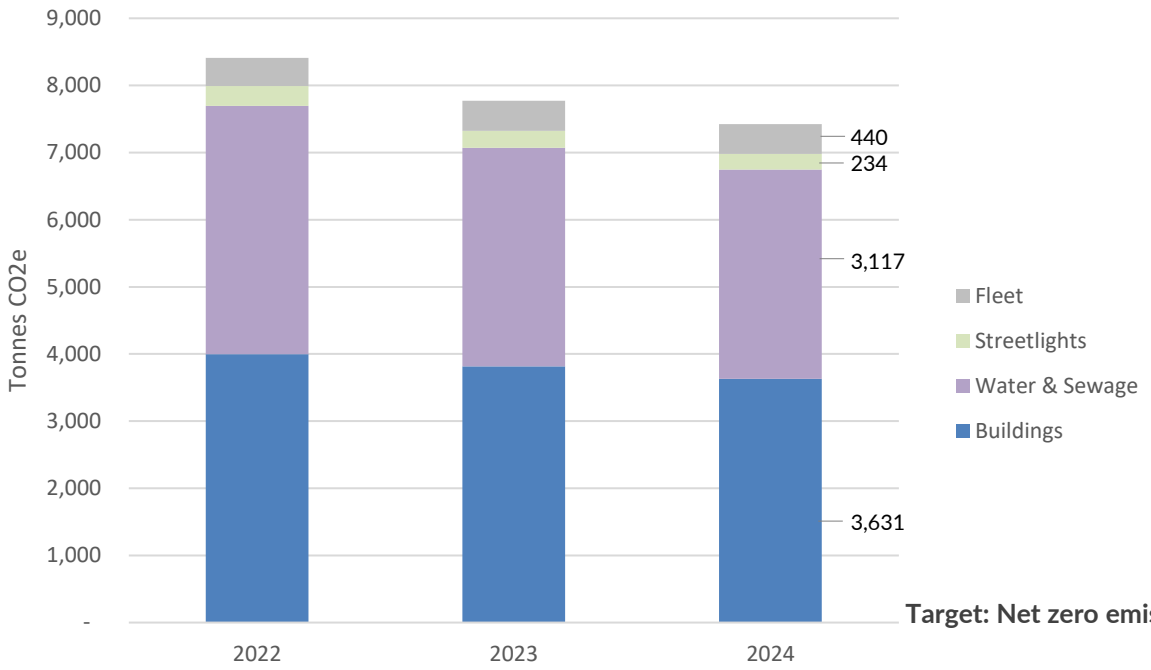
- Switching to a landfill with methane capture, which resulted in significant GHG reduction.
- Servicing over 100 restaurants, cafes, and grocery stores with the Commercial Food Waste Collection Program, picking up 510 tonnes of commercial food waste, up from 30 tonnes when the program first launched in 2021.
- Introducing a new Climate Action Incentive Program, doubling the number of residential solar incentives, adding a commercial/multi-family solar incentive, and an incentive to make multifamily parking stalls Electric Vehicle (EV) charger 'ready'.
- Completing the Bow Valley Trail separated cycling and walking path and the West Bow River Pathway.
- Continuing leak detection and repair of drinking water and sanitary lines.
- Obtaining funding to install 'smart' water metering systems at an accelerated rate.

Community GHG Inventory Data and Trends[2]

	2022	2024	increase/decrease from 2022*
Greenhouse gas (GHG) emissions			
Total GHGs (tonnes CO2e)	455,634	415,206	-9%
Buildings			
Electricity consumed (kWh)	124,583,779	128,282,756	3%
Natural gas consumed (GJ)	1,573,187	1,486,407	-6%
Solar cumulative installed capacity (kWDC)	2,124	3,281	54%
Number of solar installations	131	247	89%
Local solar as a percentage of grid electricity	1.6%	2.4%	50%
GHGs reduced due to solar (tonnes CO2e)	1,239	1,456	18%
GHGs from buildings (tonnes CO2e)	153,594	137,206	-11%
Electricity and natural gas expenditure ($)	48,822,185	48,375,861	-1%
Revenue and savings from solar energy ($)	229,000	353,000	54%
Fugitive emissions (tonnes CO2e)**	1,164	1,199	3%
Vehicles			
Motor vehicles registered to a Canmore address	12,983	13,486	4%
Hybrid and Plug-in Hybrid Electric Vehicles (EVs)	229	379	66%
Battery EVs	65	138	112%
EVs and Hybrids as a percent of total vehicles	3.0%	3.8%	27%
Local Route 5 and Route 12 ROAM transit ridership***	180,090	374,411	108%
GHGs from vehicles (tonnes CO2e)	283,184	267,634	-5%
Waste and Wastewater			
Solid waste landfilled (tonnes)	9,395	10,259	9%
Commercial and residential food waste diverted (tonnes)	560	894	60%
GHGs from solid waste (tonnes CO2e)	17,185	8,675	-50%
GHGs from wastewater (tonnes CO2e)	507	493	-3%

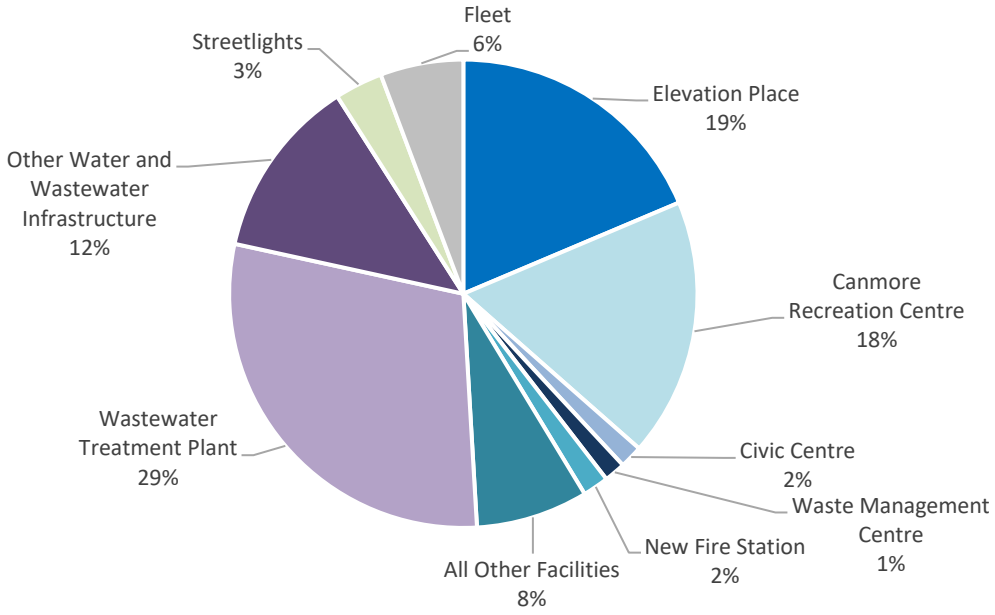
**Green percentages denote trends that contribute to GHG reduction, whereas red denote increased GHGs.*
*** Fugitive emissions are released directly into the atmosphere during the extraction, production, processing and delivery natural gas, most often through equipment leaks, evaporation and flashing losses, venting, flaring, incineration, and accidental releases.*
****Route 12 started in 2024, operating from May-September.*

Town of Canmore Corporate Greenhouse Gas Inventory



Target: Net zero emissions by 2050

Canmore Corporate Greenhouse Gas Emission Sources



In 2024, GHGs from Town of Canmore municipal buildings and operations totaled 7,423 tonnes of CO2e, which represents 1.8% of the emissions from the entire community. This is a 12% reduction from the 2022 baseline.

Corporate GHG Inventory Data and Trends

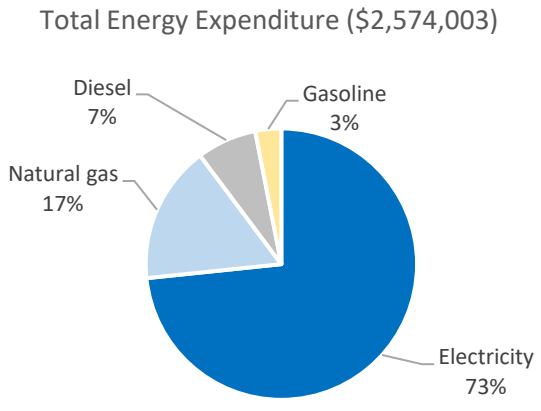
	2022	2024	increase/decrease from 2022*
Greenhouse gas (GHG) emissions			
Total greenhouse gas emissions (tonnes CO2e)	8,412	7,423	-12%
Corporate GHGs as a percentage of total community emissions (%)	1.8	1.8	n/a
Municipal facilities, streetlights, and water and wastewater energy			
Electricity consumed (kWh)	9,250,327	9,543,330	3%
Natural gas consumed (GJ)	50,353	47,803	-5%
Solar PV total installed capacity (kWDC)	1,013	1,205	19%
Generated solar electricity (kWh)	888,250	1,241,209	40%
Electricity offset by solar	6.3%	8.3%	32%
GHGs reduced due to solar (tonnes CO2e)	673	583	-13%**
GHGs from facilities, streetlights, and water and wastewater energy	7,992	6,982	-13%
Electricity and natural gas expenditure ($)	1,878,971	2,310,744	22%
Revenue and savings from solar energy ($)	75,774	94,619	25%
Fleet			
Diesel fuel (L)	111,260	124,993	12%
Gasoline (L)	47,431	53,937	14%
Electricity consumed (kWh)***	n/a	2,915	n/a
Number of battery electric fleet vehicles	1	3	200%
GHGs from fleet (tonnes CO2e)	420	440	5%
Diesel and gasoline expenditure	234,987	263,259	12%

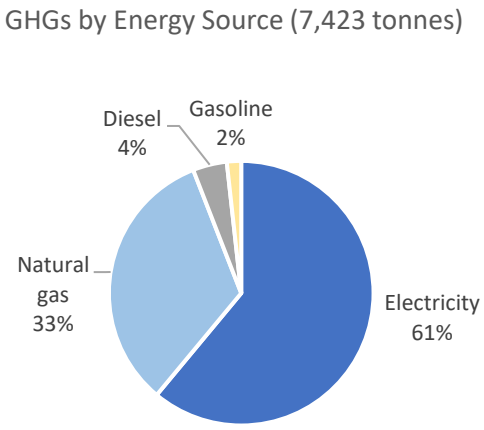
** Green percentages denote trends the contribute to GHG reduction, whereas red denote increased GHGs.*

*** The GHG reduction impact of local solar is decreasing. This is not a concerning trend as it is due to the magnitude of positive impact from the conventional grid electricity transitioning away from using coal.*

**** 2023 was the first full year with fleet EVs.*

Corporate Energy Expenditure vs GHGs





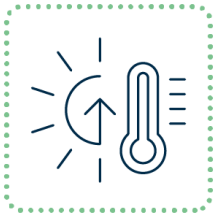
Section 3: Climate Change Adaptation

The CEAP modeled the projected impacts of a changing climate to Canmore, from now to 2070. The highest risks in relative order are shown in the graphics below. Actions undertaken in 2024 to adapt and build resilience to these risks are also listed below.

Wildfire and Smoke

Steep Creek Flooding

Riverine Flooding



Extreme Heat

Dry Weather Conditions/ Drought

- Updating the Wildfire Preparedness Plan and establishing the Bow Valley Interagency Wildfire Committee.
- Receiving external funding and starting significant FireGuard work to help protect our community from wildfire.
- Completing FireSmart assessments on all water and wastewater facilities. Starting roof and cladding upgrades to help protect our critical infrastructure against wildfire.
- Completing the Cougar Creek debris flood retention structure. The structure is now reducing the risk to homes and businesses.
- Receiving funding to increase flood protection infrastructure for the wastewater treatment plant.
- Upgrading back up power at pump and lift stations to ensure access to water and sanitary services during extreme weather events.
- Developing a water restriction program for water shortages, such as droughts or emergencies, and a supporting communications plan.

Section 4: Equity and Co-Benefits

As the CEAP is implemented, conscious effort must be made to foster an inclusive approach to climate action, addressing issues like income inequality, housing affordability, and global equity. Special considerations need to be made to ensure more vulnerable residents are not adversely impacted by climate action and have fair access to the benefits and incentives provided through the Town's work on climate.

In 2024, the following climate change mitigation and resilience actions were undertaken with the intention of simultaneously advancing equity, affordability, and co-benefits, such as improved air quality and health:

- Providing 25 Affordable Services Program members with a significant point-of-sale discount for an e-bike from a local bike shop.
- Providing fully funded home energy retrofits (high efficiency furnaces, insulation, etc.) to seven Affordable Services Program members through the Home Upgrades Program, a partnership with Kambo Energy Group and Alberta Ecotrust aimed at reducing energy poverty.
- Expanding existing fare-free local transit with a new summer route which provides transit service to critical facilities along Bow Valley Trail, including the hospital, pharmacies, doctor's offices and other medical and paramedical services.

End Notes

1. The CEAP established a new 2022 baseline and a new, more ambitious, 2050 target for net zero emissions. Going forward, 2022 will be used as the baseline for all GHG reporting as opposed to the previous Climate Action Plan's baseline year of 2015. This change is due to the more robust transportation modeling and forecasting that was used in the CEAP.

Canmore's GHG inventory scope and methodology follows the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) and is compiled using the Partners for Climate Protection Milestone Tool. Notable sources of GHG emissions not accounted for in the inventory include upstream emissions associated with the production and transportation of food, consumer goods and services, embodied carbon in building materials, domestic and international air travel and long-distance vehicle travel by residents and visitors, and fugitive emissions from wastewater treatment and refrigerants.

2. Data sources for the Community GHG Inventory

Grid and solar electricity	Fortis Alberta
Natural gas	ATCO
Conventional and electric vehicles	Ministry of Transportation and Economic Corridors
ROAM transit ridership	Bow Valley Regional Transit Services Commission
Solid waste and wastewater	Town of Canmore and EPCOR
GHGs from buildings, waste, and wastewater	Calculated using source-specific emission factors from the Partners for Climate Protection (PCP) GHG Inventory Tool
GHGs from vehicles	Estimated from fuel sales data and PCP GHG Inventory Tool emission factors, with modeling factors determined by the Sustainability Solutions Group for out-of-boundary travel

Taking Action On Climate

We are doing our part as a municipality by strengthening our commitment to climate action.

Our climate change strategy and goals were updated in 2024. We set 2022 as a baseline for our progress, and we are committed to reporting back annually on how we are doing.

Since 2022, we have made progress as a community to reduce pollution and build resilience to the impacts of a changing climate.

Reduced greenhouse gas emissions by 9% **9%**

89%

Increased the number of solar installations from 131 to 247

108%

Doubled the number of passengers taking local Roam Transit

But we still have work to do

9%

Canmore's landfilled waste went up by 9%

Here is what we did:

- Completed the West Bow River Pathway.
- Piloted Roam Route 12, providing transit to popular destinations as well as the hospital, and medical and paramedical services on Bow Valley Trail.
- Switched to a landfill with methane capture, which cut greenhouse gas emissions in half.
- Collected food waste from over 100 restaurants, cafes, grocery stores, and schools.
- Continued leak detection and repair of drinking water and sanitary lines.
- Updated the Wildfire Preparedness Plan and began construction on the Bow Valley Community Fireguard.
- Completed the Cougar Creek debris flood retention structure.
- Prepared a water restriction program to use during water shortages.
- Increased the available number of climate action incentives for residents by 400%

Here is what you can do:

- Read our 2024 *Climate Emergency Action Plan* Annual Status Update at **canmore.ca/climateaction**.
- Decrease your household energy use while saving money. Our Clean Energy Improvement Program provides upfront financing for energy efficient home upgrades and a $500 incentive. Apply now at **canmore.ca/incentives.**
- Reduce waste by sharing, repairing, and re-using.
- Divert food scraps into one of Canmore's 23 neighbourhood food waste bins.
- Walk, cycle, or Roam around town.

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