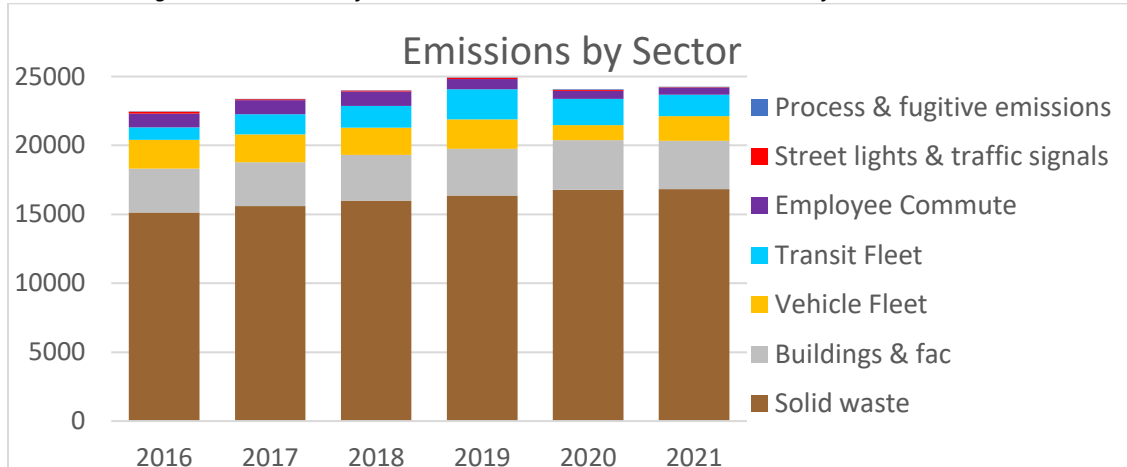


2021 Summit County Greenhouse Gas Emissions Inventory for Government Operations

Summit County has the goal of reducing greenhouse gas (GHG) emissions associated with government operations 80% from the 2016 baseline by the year 2040. To track progress, the sustainability team conducts an annual GHG emissions inventory for government operations. The government operations inventory provides a benchmark upon which we can evaluate potential programs and projects aimed at addressing GHG emissions. The 2021 inventory reports emissions from seven sectors as shown below. Result suggest that Summit County emitted 24,250 MT CO₂e (metric tons of carbon dioxide equivalent) in 2021. Emissions in 2021 were 8% higher than baseline year 2016 (Table 2). The solid waste and buildings sectors continue to be the biggest contributors to County operations GHG emissions.

Figure 1: Breakdown of each sector's contribution to annual emissions from 2016 to 2021



Sector	2016	2017	2018	2019	2020	2021
Solid waste (MT CO ₂ e)	15,130.0	15,592.1	15,987.9	16,372.9	16,793	16,834
Buildings & facilities (MT CO ₂ e)	3,196.5	3,199.6	3,328.8	3,382.9	3,594.0	3,498
Vehicle Fleet (MT CO ₂ e)	2,072.1	1,997.9	1,966.1	2,127.9	1,078	1,795
Transit Fleet (MT CO ₂ e)	907.8	1,465.0	1,574.7	2,190.0	1,917.0	1,549
Employee Commute (MT CO ₂ e)	1,010.4	1,024.9	1,048.1	742.0	584	486
Street lights & traffic signals (MT CO ₂ e)	126.5	74.8	67.7	92.3	60	47
Process & fugitive emissions (MT CO ₂ e)	3	16	16	20	45	41
Total (MT CO₂e)	22,446	23,370	23,989	24,928	24,071	24,250
Percent change from previous year		4.1%	2.7%	3.9%	-3.5%	0.75%

Table 1. Annual emissions (in MT CO₂e) by sector from 2016 through 2021

Between 2016 and 2019, emissions from Summit County government operations increased each year. Emissions in 2020 and 2021 were both lower than 2019. While some climate experts predicted a spike in post-pandemic emissions, Summit County remained consistent from 2020 – 2021. This speaks to the role of pandemic-inspired policy, like telecommuting, in emissions reduction.

There are many emissions-reducing projects on the horizon, such as:

- Renewable electricity from the Elektron solar project
- Electric buses coming to the High Valley Transit fleet starting in 2023
- Energy efficient building design

Solid waste continues to account for the majority of County emissions. Future landfill upgrades or improvements should incorporate sustainability and GHG emissions reduction.