

RDCK 2023 GHG INVENTORY SUMMARY

This summary highlights key findings from the [Regional District of Central Kootenay GHG Community Inventory Report \(2023\)](#), including the total 2023 emissions for the RDCK community, corporate emissions from RDCK-owned vehicles, buildings, and facilities, trends from 2018–2023, and recommendations for pathways forward.

For readers seeking more detail, the full report includes background on the inventory methods, sector-specific results, and year-to-year comparisons. It also explains how emissions are tracked using international standards and provides the complete data and analysis that inform this summary.

The full report is available at rdck.ca/GHG2023

Terms To Know

ISO 14064-1:2018

This is an international standard that guides how organizations can measure, understand and report their GHG emissions.

GHG Emissions

This acronym stands for greenhouse gas emissions, and includes carbon dioxide (CO₂), methane (CH₄), and nitrogen oxide (N₂O), the primary gases emitted into the atmosphere when burning fossil fuels.

B.C. Climate Action Charter

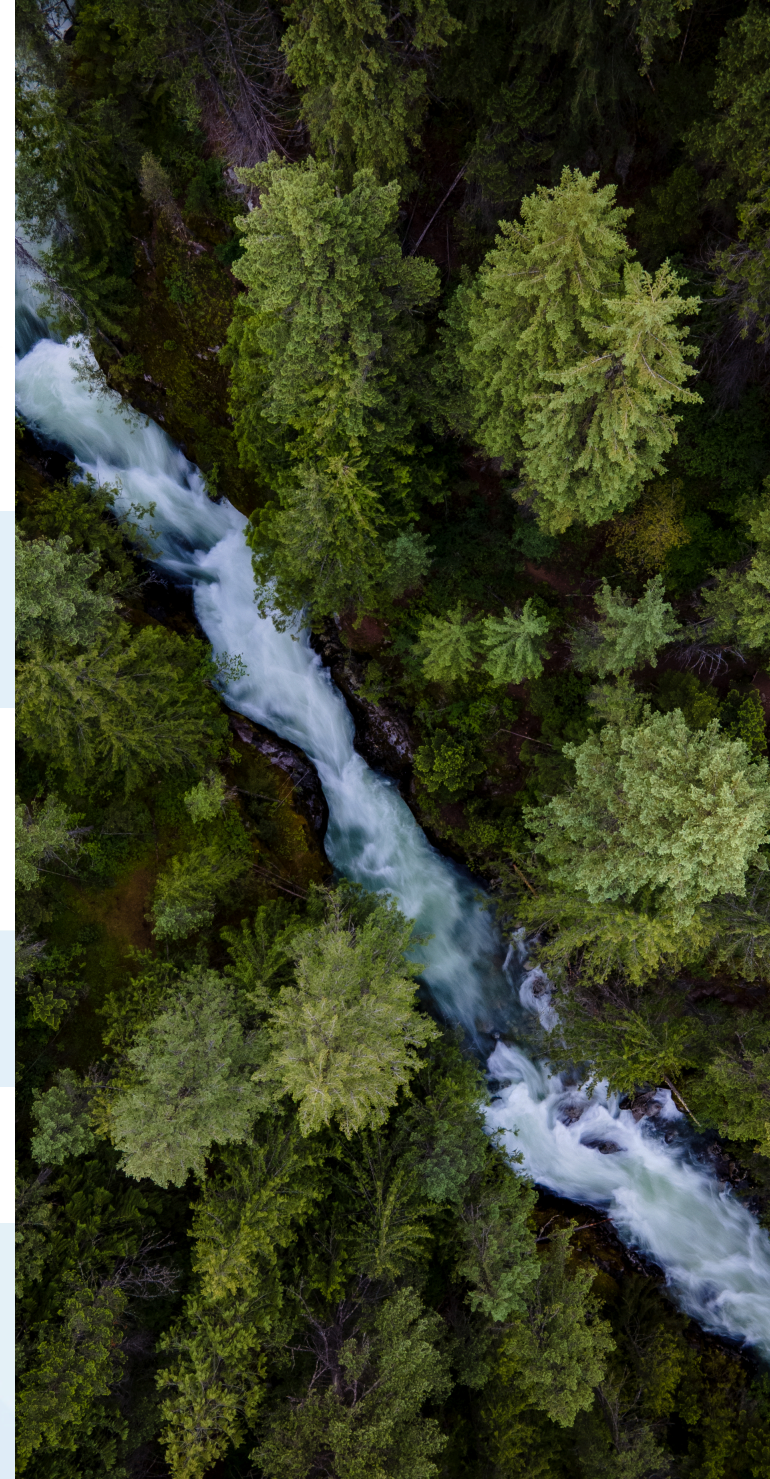
A voluntary commitment where local governments pledge to reduce emissions, plan for climate change, and report progress each year, giving signatories like the RDCK access to grants for community-supported climate resilience projects.

Corporate Emissions

These are emissions from all RDCK-owned and operated buildings and vehicles and the services we contract out.

Community Emissions

These emissions come from landfills, municipalities, and unincorporated areas such as rural and electoral communities



Behind the Numbers

How the Inventory Works

Tracking greenhouse gasses (GHGs) can be a tricky undertaking. There are many types and sources of carbon pollution, and these can be directly or indirectly linked to our daily activities. For this inventory, the RDCK worked with GHG Accounting to measure corporate and community emissions across the region in 2023.

As a signatory to the B.C. Climate Action Charter, the RDCK has committed to measuring and reducing both corporate and community emissions. This inventory fulfills part of that responsibility while also guiding local decision-making and progress toward regional climate targets. These targets, adopted in 2019, are measured against the 2018 baseline year and are:

- 50% reduction in emissions by 2030
- 100% reduction (net-zero) by 2050

This inventory was developed in adherence with the [ISO 14064-1:2018](#) standard for GHG accounting following 5 principles to ensure best practice: relevance, completeness, consistency, transparency, and accuracy. This ISO standard uses 6 categories to differentiate types of emissions resulting from activities in the RDCK and includes carbon dioxide (CO₂), methane (CH₄), and nitrogen oxide (N₂O), the primary gases emitted into the atmosphere when burning fossil fuels.

Data was gathered from utilities, transportation records, waste facilities, and RDCK operations to create the most complete picture of emissions in our region to date. The inventory shows where the biggest sources of carbon pollution are today, such as transportation and buildings. The following pages highlight key findings and trends, helping inform community-wide solutions.

For more technical details, refer to the full inventory report.

rdck.ca/GHG2023



RDCK 2023 Community Emissions (Region Wide)

In 2023, total region-wide emissions in the RDCK were 666,048 tCO₂e, including emissions from both municipalities and unincorporated areas. The accompanying pie charts show the overall distribution of emissions across municipalities, unincorporated areas, and landfills (Figure 1), as well as emissions by source within unincorporated areas (Figure 2) and within municipalities (Figure 3).

The data was compiled using utility records, transportation data from ICBC, waste volumes from RDCK facilities, and energy use data from residential and commercial buildings. It captures the primary sources of community emissions: passenger and commercial vehicles, buildings, and waste. Sectors not under RDCK jurisdiction, such as agriculture, large industry, aviation, and schools, are excluded.

This data is one way of seeing what activities generate the most emissions and where efforts to reduce GHGs could have the greatest effect.

Figure 1. RDCK Community Emissions (2023)

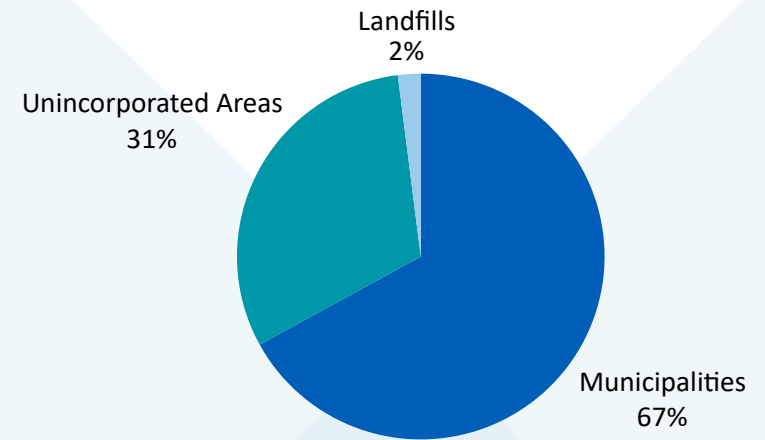


Figure 2. Unincorporated GHG Emissions

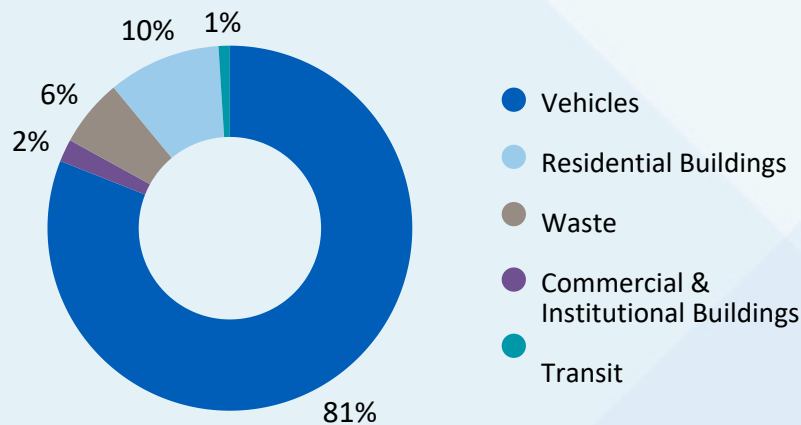
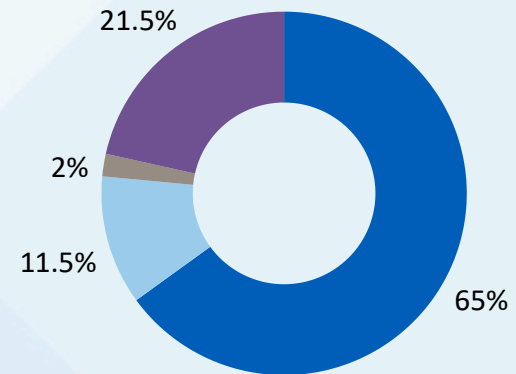


Figure 3. Municipalities GHG Emissions



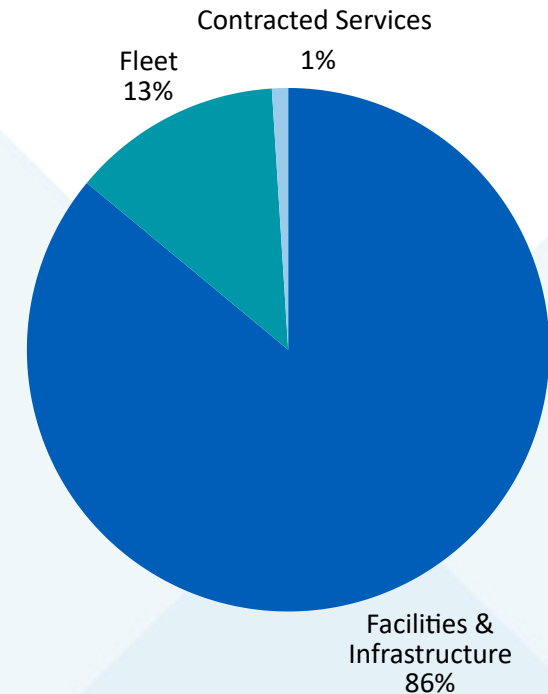
RDCK 2023 Corporate Emissions

The RDCK's 2023 Corporate Inventory reported total emissions of 1,742 tCO₂e, covering all RDCK-owned and operated assets and directly contracted services. This includes:

- fleet vehicles and equipment
- administration buildings
- recreation facilities
- fire services
- water and wastewater systems
- solid waste operations

Data was collected from utility records, fuel use from corporate fleets, and information provided by RDCK departments on contracted services. Emissions are reported using the ISO 14064-1:2018 standard to ensure accuracy and consistency.

While corporate emissions represent a smaller share of the region's overall carbon footprint compared to community emissions, they are important because they fall under the direct responsibility of the RDCK. Tracking these emissions helps identify opportunities for the RDCK to lead by example through energy efficiency, fleet management, and facility upgrades.



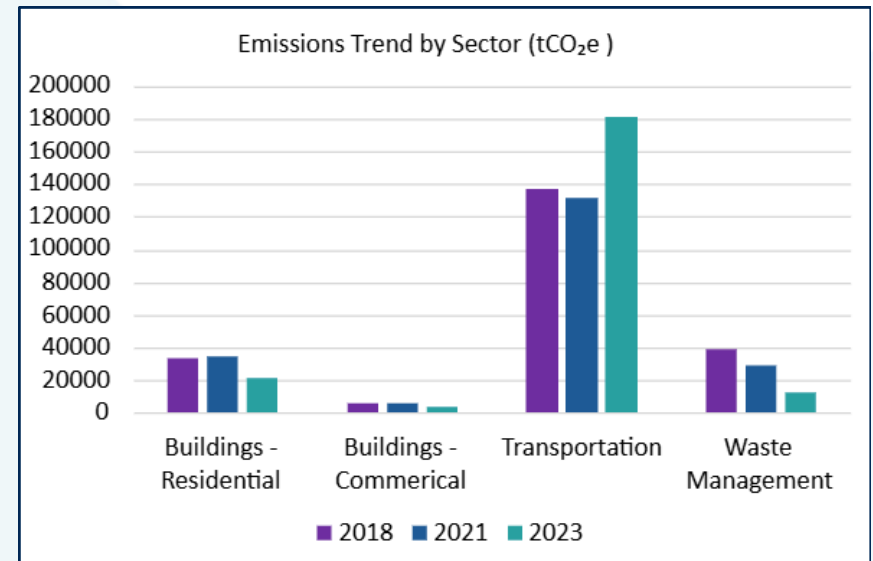
RDCK 2018-2023 Community Emissions Trends (Unincorporated Areas)

This section focuses on community emissions in the RDCK’s unincorporated areas, which represent the portion of regional emissions that the RDCK can help shape, both directly and indirectly. Municipal emissions are excluded from this analysis to better understand trends in rural and electoral areas.

Using updated guidance from the ISO 14064 1:2018 standard, the RDCK’s 2018 baseline for community emissions is 214,124 tCO₂e, or about 6.7 tCO₂e per person.

From this baseline, total emissions decreased by 6% between 2018 and 2021, then increased by 9% between 2021 and 2023, resulting in an overall rise of about 2% since 2018. This mirrors global patterns, with emissions dropping around 2020 and then rebounding slightly above previous levels.

Across sectors, residential and commercial buildings saw reductions in emissions, while transportation emissions increased, offsetting some of those gains.



Unincorporated Emissions Trend Overall

Year	Total Emissions (tCO ₂ e)	Change (tCO ₂ e)	% Change	Population	Emissions Per Capita (tCO ₂ e)
2018	214,563			31,486	6.81
2021	200,868	-13,695	-6%	32,596	6.16
2023	219,124	18,255	+9%	33,358	6.57

For more technical details, refer to the full inventory report.

rdck.ca/GHG2023



RDCK 2018-2023 Trends Building Emissions

Emissions from residential buildings increased by 5% from 2018 to 2021 and decreased by 37% from 2021 to 2023. Similarly, commercial and institutional buildings increased by 18% from 2018 to 2021 and decreased by 33% from 2021 to 2023. This information was compiled from utility records for electricity and natural gas, provincial estimates for fuels such as propane and wood, and weather station data on heating demand.

While some of the recent improvements can likely be attributed to renovations, energy retrofits, and fuel switching from fossil fuels to electricity, there was also substantially less heating demand in 2023 as compared to 2021 (6.6% less). As a result, 5% less electricity was used that year, and similar trends would be expected for other fuel types like propane and wood.

Together, these factors show that both energy choices and weather conditions play a role in year-to-year changes in building emissions

Residential Buildings Emissions Trends

Year	Emissions (tCO ₂ e)	Change (tCO ₂ e)	% Change
2018	33,092		
2021	34,688	1,596	+5%
2023	21,794	12,894	-37%

Reducing Emissions at Home

Improving home energy efficiency, such as replacing or sealing windows, can lower energy costs and improve comfort. Learn more about regional energy efficiency programs at rdck.ca/energy.





RDCK 2018-2023 Trends Waste Management Emissions

While the waste sector is still the third largest source of emissions, it has made major progress in recent years. Emissions fell by 25% between 2018 and 2021 and by another 58% from 2021 to 2023.

The emissions data is based on records from RDCK-operated landfills, composting facilities, and transfer stations, which track the volume and type of materials managed. This reduction is likely due to the efforts made by the RDCK Resource Recovery Service to divert organic materials from the waste stream.

The GHG inventory report shows that the waste sector is already making strong progress toward meeting the RDCK’s 2030 target, especially as diversion programs continue to grow and capture more organic material.

Waste Management Emissions Trends

Year	Emissions (tCO ₂ e)	Change (tCO ₂ e)	% Change
2018	38,691		
2021	28,893	9,799	-25%
2023	12,100	16,792	-58%

Your Compost Makes a Difference

Whether you compost at home or use the RDCK’s organics program, your efforts are helping reduce landfill emissions. Learn more about the program at rdck.ca/organics.





RDCK 2018-2023 Trends Transportation Emissions

In contrast, the transportation sector experienced the most significant recent increases. While emissions dropped by 5% from 2018 to 2021, largely due to less travel during the COVID-19 pandemic, they rose by 38% between 2021 and 2023.

This data is based on ICBC vehicle registration records for the region, combined with fuel efficiency data and estimates of average annual travel distances from Natural Resources Canada. These sources provide a detailed picture of passenger and commercial vehicle use across the RDCK.

The GHG inventory report found that increases in transportation emissions have offset reductions made in other sectors. This trend highlights the large share of emissions linked to vehicle use in the region and indicates that progress toward overall targets will depend heavily on changes in this sector.

Emissions Trends Transportation

Year	Emissions (tCO ₂ e)	Change (tCO ₂ e)	% Change
2018	137,284		
2021	130,817	6,467	-5%
2023	180,903	50,086	+38%

Reducing Transportation Emissions

Exploring options like transit, carshare, rideshare, or active transportation can help lower emissions across the region.



Key Takeaways

GHG 2023 Inventory Report

Transportation as the Priority

Transportation is the biggest source of regional emissions, mostly resulting from personal vehicle use. Reducing these emissions means making low-carbon travel options more practical, affordable, and convenient for everyone.

- Key opportunities:
 - Expand public transit, active transportation, and shared mobility options
 - Support transportation options for residents who do not own a personal vehicle
 - Emphasize co-benefits like saving money, cleaner air, and healthier communities
 - Encourage fuel efficiency improvements and hybrid or electric vehicles

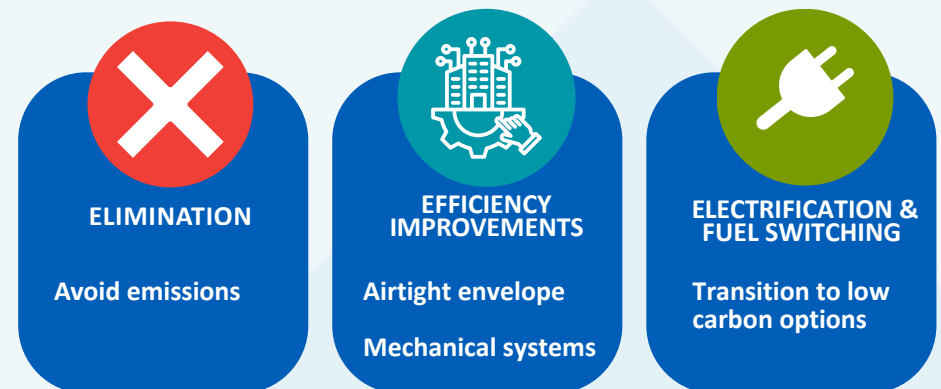
Rural and Urban Differences

Climate strategies need to reflect the realities of rural communities. Unlike cities, rural areas have longer distances, fewer transportation options, and unique challenges. Tailored solutions help ensure that rural residents can take part in and benefit from climate action in ways that make sense for their communities.

RDCK Operations and Corporate Emissions

Most emissions from RDCK operations come from buildings and facilities. Upgrading these systems offers big opportunities to cut emissions while saving money over time.

- Key actions:
 - Prioritize energy-saving improvements in buildings
 - Balance costs, payback periods, and efficiency gains
 - Plan upgrades alongside regular equipment replacements
 - Focus on the three E's:



State of Climate Action Tracking Our Progress

How the RDCK Aligns our Climate Action with the GHG Inventory

The State of Climate Action (SoCA) is the RDCK annual update on climate action. It tracks progress toward climate targets, evaluates initiatives across departments, maintains transparency and supports climate leadership.

The 2023 GHG Inventory provides the data that supports this work. It shows where emissions come from and identifies the most effective opportunities for reduction.

Together, SoCA and the GHG Inventory offer a coordinated view of climate action. SoCA presents achievements, shows progress scores, and pathway updates that complement the emissions data. **Explore the SoCA Report at rdck.ca/soca** to learn more about initiatives such as:

- **Rural Mobility Community Advisory Committee:** RDCK collaborating with community organizations to advance regional transportation solutions.
- **Regional Energy Efficiency Program (REEP):** Completed 82 pre-retrofit and 73 post-retrofit assessments to support energy savings.
- **Organics and Waste Diversion:** Composting facilities in Creston and Salmo are operational, and curbside organics collection is expanding.

Together, the GHG Inventory and the State of Climate Action provide a picture of where we are today, what actions are underway, and how the RDCK is working toward long-term climate goals with practical, affordable, community-focused solutions.



What Are the Next Steps?

This inventory strengthens the foundation for evidence-based climate action, helping decision-makers, staff, and residents focus efforts where they matter most.

The next step is for RDCK staff to revise climate actions and present ideas to the RDCK Board for consideration. This process would be grounded in the methods and priorities outlined in the [RDCK Ideas for Climate Action](#).

To explore the findings in more detail and gain a deeper understanding of the data behind these results, read the full [Regional District of Central Kootenay GHG Community Inventory Report \(2023\)](#).

Visit engage.rdck.ca/rdck-climate-action to share your thoughts on how you may use this knowledge.

