

Fiordland Trips and Tramps Ltd

Greenhouse Emission Report 2022

1. INTRODUCTION

This report is the fifth annual greenhouse gas (GHG) emissions inventory report for Fiordland Trips & Tramps Ltd (Trips & Tramps). The inventory is a complete and accurate quantification of the amount of GHG emissions that can be attributed to the organisation's operations within the declared boundary and scope for the specified reporting period. The workbook used to provide figures and guide this report is from the Ministry for the Environment (<https://environment.govt.nz/publications/measuring-emissions-a-guide-for-organisations-2022-summary-of-emission-factors/>).

2. STATEMENT OF INTENT

This Inventory forms part of Trips & Tramps commitment to measure and manage our emissions. We aspire to become carbon neutral and actively encourage other local businesses to follow this path.

3. ORGANISATION DESCRIPTION

Fiordland Trips & Tramps Ltd is a small, family-run business based in Te Anau on the edge of Fiordland National Park. Steve and Kate Norris are the Directors of Fiordland Trips & Tramps and work full time in the business. They are supported year-round Operations Manager, Senior Guide and Reservationist. We employ an extra 10 full time equivalent guides, mostly during the summer season from October to the end of April.

Trading as Trips & Tramps, the business offers small group guided tours and walks, with an emphasis on knowledgeable local guides and quality equipment. Tours can be on a scheduled or private basis. Access to the tracks, weather conditions and tourist travel patterns means our business is seasonal, with the highest volume of trading between the months of November through to end of April. We do offer a Milford Sound Day tour year-round and hold the Milford Sound mail contract. By the very nature of a small business, we work with other local operators (contractors) to supply additional skill sets and resources to support our activities and products. These can include transport operators such as, boat, or helicopter companies, to food providers for our lunches. Our main emission source is from our fleet of 10 late-model vehicles, which range in size up to 16 seats.

Trips & Tramps recognises that it operates in a special area of the world, Fiordland National Park and that its operations and resource use will impact the environment. The business is committed to operating in an energy-efficient environment and considers the management of its GHG emissions to be the next step in creating a sustainable business model we can be proud of. It is our aim to use all opportunities for energy savings throughout the business, to establish ourselves as an environmentally responsible organisation.

By enabling an energy-conscious culture within the company, we aim to balance our environmental and financial priorities throughout our operations and demonstrate regulatory compliance with existing and future legislation.

4. GHG EMISSIONN SOURCE INCLUSIONS

The GHG emissions sources included in this inventory were identified with reference to the methodology in the GHG Protocol and standards. These emissions were classified under the following categories:

- 4.1. Direct GHG emissions (Scope 1): emissions from sources that are owned or controlled by the company.
- 4.2. Indirect GHG emissions (Scope 2): emissions from the generation of purchased electricity, heat and steam consumed by the company.
- 4.3. Indirect GHG emissions (Scope 3): emissions that occur because of the company's activities but from sources not owned or controlled by the company.

The emissions sources in table 1 have been included in the GHG emissions inventory.

Table 1

GHG emission source	GHG emission level scope	Data source	Data Collection unit	Uncertainty (description)
Diesel	Scope 1	Fuelcard report from supplier	L	It is assumed the supplier reports are complete and accurate.
Premium Petrol	Scope 1	Fuelcard report from supplier	L	It is assumed the supplier reports are complete and accurate.
Electricity	Scope 2	Consumption report from landlord	kWh	It is assumed the landlord has provided the correct meter data.
Travel	Scope 3	Online calculator (www.airmilescalculator.com) for domestic travel distances. Financial report to provide accommodation nights.	kph	Small amount of domestic activity here as a business. It is assumed data represents a good approximation of the travel, as detailed transactions have not been recorded.
Waste and landfill	Scope 3	From monitoring waste for 1 month and extrapolating (using the fuel data percentage each month).	kg	Hard to get an accurate measurement for this data as difficult to weigh. We hope to improve this data in 2023.
Contractors • Helicopters	Scope 3	From supplier accounts	Hours	Assumed flights to Luxmore hut are a return 15-minutes (average time billed). Included in Travel figures. Used helicopter emission source closest to size of machines used in our operations.
Water supply and wastewater treatment	Scope 3	FTE staff	Per capita	Figure based on the Ministry for the Environment Emissions Factor Workbook Using Data and Methods from the 2021 Calendar Year
T&D Losses	Scope 3	Consumption report from landlord	kWh	It is assumed the landlord has provided the correct meter data.
Working from Home	Scope 3	Steve & Kate home offices, estimated working time p.a	Employee days	Based on average hours worked per week based on 8-hour day.

5. GHG EMISSION SOURCE EXCLUSIONS

We have chosen to declare the following notable emission sources from our emission inventory.

Table 2

GHG emission source	Reason for exclusion
Contractors (boat, food providers)	This is difficult to calculate, and it requires further investigation as there are many unknown factors.
Staff travel emissions	No data is collected currently.

6. GHG EMISSION CALCULATIONS AND RESULTS

GHG emissions for the organisation for this measurement period are provided in the GHG Inventory summary section at the start of this report.

Table 1: Summary of total emissions

Total calculated emissions 2018-2022						
Default scope		t CO ₂ -e				
		2018	2019	2020	2021	2022
Scope 1	Fuel	104.63	94.58	58.28	49.41	71.63
Scope 3	T&D losses					0.02
Scope 2	Purchased energy	0.27	0.35	0.16	0.25	0.14
Scope 3	Working from home					0.1
Scope 3	Travel	1.02	1.67	0.55	20.44	31.62
Scope 3	Water supply and wastewater treatment					0.69
Scope 3	Waste	0.47	0.47	0.14	0.37	1.87
Total GHG Inventory Emissions		105.92	97.07	59.14	70.47	106.07
Total scope 1		104.64	94.58	58.29	49.41	71.63
Total scope 2		0.27	0.35	0.16	0.25	0.14
Total scope 3		1.49	2.14	0.69	20.81	34.29

Figure 1: GHG emissions by scope

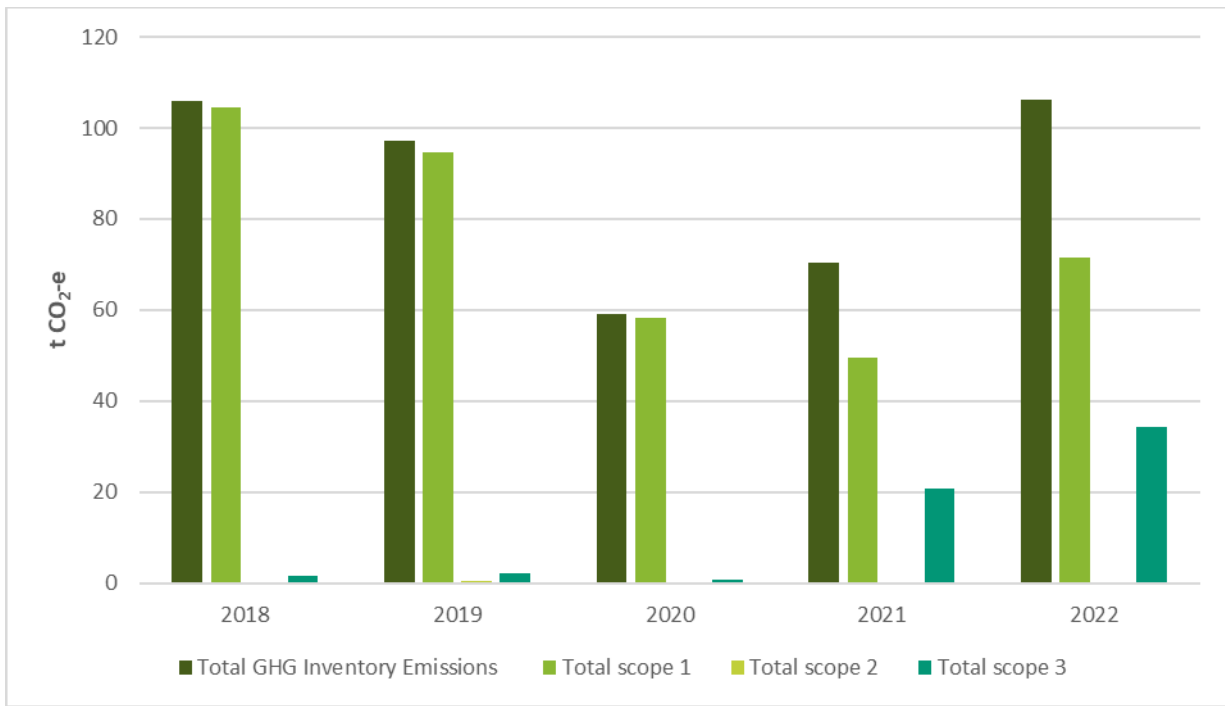
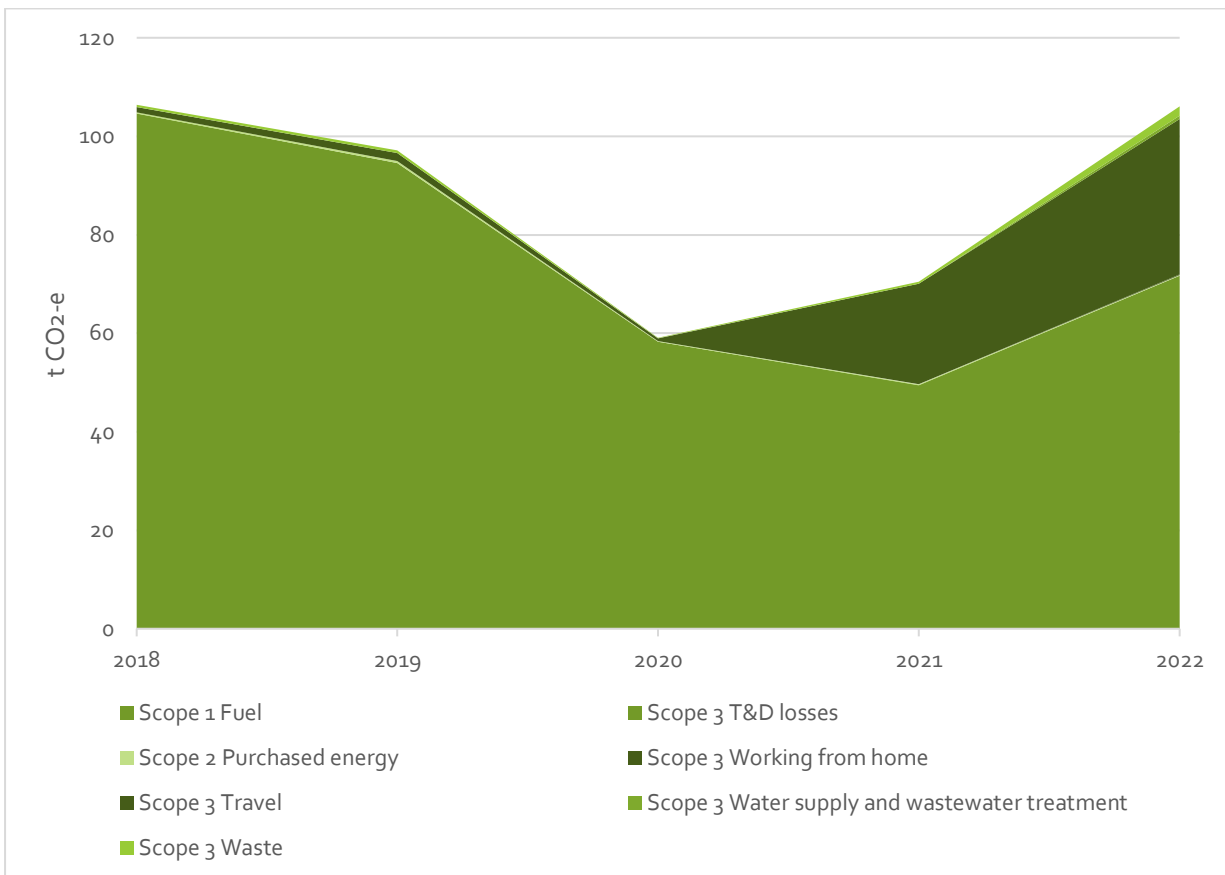


Figure 2: GHG emission by source



7. DISCUSSION

This data is increasing our awareness of the impact our business activities have on the natural environment. Trips & Tramps has always taken a leading role in environmentally sustainable practices; however, we acknowledge we need to implement more actions and ensure our staff are onboard.

Covid-19 and the decrease in travel saw a corresponding decline in our footprint. However now the world is traveling again, and our carbon emissions have increased. As our business evolves and guided walks become a larger part of the business, we increasingly rely on external operators to assist with the transport of our guests to the tracks (e.g., helicopter and water taxis). We are now measuring the helicopter emissions (scope 3) and including these in our calculations. This is relatively straightforward as we charter the machine, so know the hours we fly. For 2023 we hope to put in place systems to measure the water taxi emissions, however as we do not have exclusive use of the boats it is more variable.

In 2022 Managing Director, Kate, participated in the Murihiku Southland Sustainable Tourism Programme, which helped to gain a better understanding of sustainability within the business and create an action plan in several key areas of the business operation.

Our emission reduction strategies actions include:

1. Fleet Optimisation: Our vehicles are late model, and we are committed to upgrading the fleet to run the most fuel-efficient models within our capabilities. We also run a range of vehicle sizes, so the most economical vehicle is used for each tour. In 2022 we purchased our first hybrid vehicle for 1-3 passengers. Unfortunately, fully electric vehicles are not currently available in the size we require, nor the infrastructure in Fiordland.
2. Driving Behaviour: We train drivers to adopt fuel-efficient driving practices, such as maintaining steady speeds and reducing idling time.
3. Maintenance: We ensure regular vehicle maintenance to maximise fuel efficiency and reduce emissions.
4. Waste minimisation: We are looking at our waste and implementing minimisation strategies to refuse, reduce, and recycle. We are actively engaging with staff to implement this and ensure support.
5. Collaboration: We make a conscious effort to choose suppliers who align with our priorities to reduce their carbon footprint.

After implementing these strategies, the business still has residual emissions, which in 2022 was 106 t CO₂-e, so not insignificant. Carbon offsetting can help compensate for these emissions by investing in projects that reduce or remove an equivalent amount of CO₂ from the atmosphere. However, after research in this area I realised this couldn't be achieved by our business at this time. The financial cost is large (which includes ensuring our emissions and the project are independently verified) and having access to offsetting projects that align with our business's values and priorities is not there. Whenever possible, our business wishes to support local offset projects that benefit the Fiordland community and enhance our tourism experience.

As our financial position strengthens, we have made the decision to establish a fund dedicated to supporting local environmental and community projects. Beginning financial year ending September 30, 2023, we are committed to allocating 50% of the credit card fees collected to this fund. Based on our current figures, we anticipate this contribution to amount to approximately NZD\$9,000 annually. It's important to note that this estimate is based on direct bookings, and there may be some variations; however, it remains closely tied to our income and is readily identifiable, ensuring the sustainability of this commitment from our business. In 2023, we will actively focus on managing this fund, including its marketing, allocation, and expansion, with the aim of gaining stronger support and engagement from our customers.

Despite all the challenges Trips & Tramps is committed to the carbon journey. With the return of international visitors and the increasing urgency to combat climate change, now is the time to act. We believe every small business has a part to play. Carbon offsetting is a valuable tool for a family-run small tourism business looking to mitigate its carbon emissions. However, we recognise this should be part of a broader sustainability strategy that includes emission reduction measures. By calculating our carbon footprint, implementing emission reduction strategies, and

contributing to sustainability projects, our business can demonstrate its commitment to environmental responsibility while continuing to provide memorable tourism experiences. Ultimately, this approach not only benefits our environment, but also appeals to eco-conscious travellers who increasingly prioritise sustainable tourism options.

8. REFERENCES

Ministry for the Environment. 2023. Measuring emissions: A guide for organisations: 2023 detailed guide. Wellington: Ministry for the Environment.