



GREENHOUSE GAS EMISSIONS INVENTORY REPORT

Toitū carbonreduce and Toitū carbonzero programme



Waikato Regional Council

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For the period: 01 July 2020 to 30 June 2021

Base year: 01 July 2016 to 30 June 2017

Verification status: Reasonable (Scope 1, 2 and mandatory Scope 3 sources) and Limited (Scope 3 Additional)



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GREENHOUSE GAS EMISSIONS INVENTORY SUMMARY

Table 1: GHG emissions data summary.

	2017	2018	2019	2020	2021
Scope 1	806.75	739.91	656.10	719.14	625.79
Scope 2	714.99	546.89	315.38	264.41	226.00
Scope 3 Mandatory	151.21	132.65	198.98	104.69	51.16
Scope 3 Additional	0.00	0.00	0.00	0.00	7,037.11
Scope 3 One time	0.00	0.00	0.00	0.00	0.00
Total gross emissions	1,672.95	1,419.45	1,170.47	1,088.24	7,940.06
Total gross emissions excluding Public Transport	1,672.95	1,419.45	1,170.47	1,088.24	930.06
Certified green electricity	0.00	0.00	0.00	0.00	0.00
Purchased emission reductions	0.00	0.00	192.00	0.00	0.00
Net GHG emissions (all scopes)	1,672.95	1,419.45	978.47	1,088.24	7,940.06
Total gross GHG emissions per Turnover/revenue (\$Millions)	13.71	11.31	8.65	7.01	48.59
Total mandatory GHG emissions per Turnover/revenue (\$Millions)	13.71	11.31	8.65	7.01	5.69

Note: total mandatory emissions includes scope 1, scope 2, and scope 3 (i.e. excludes scope 3 one-time and scope 3 additional). Refer to inventory spreadsheet for full time series.

Table 2: Gross organisation GHG emissions by scope for current measurement year.

Indicator	tCO ₂ e
Scope 1	
Other fuels	30.79
Transport fuels	595.00
Scope 2	
Electricity	226.00
Scope 3	
Electricity	19.37
Other fuels	1.83
Passenger vehicles - default age	1.66
Scope 3 Additional	7,037.11
Transport - other	24.73
Waste	3.58
Total	7,940.06

Table 3: GHG emissions inventory summary by scope and business unit.

Component gas	Scope 1	Scope 2	Scope 3	Total	Removals	After removals
CH ₄	1.76	8.65	6.29	16.69	0.00	16.69
CO ₂	613.14	217.04	7,081.12*	7,911.30*	0.00	7,911.30
HFCs	0.00	0.00	0.00	0.00	0.00	0.00
N ₂ O	10.89	0.31	0.86	12.06	0.00	12.06
NF ₃	0.00	0.00	0.00	0.00	0.00	0.00
PFCs	0.00	0.00	0.00	0.00	0.00	0.00
SF ₆	0.00	0.00	0.00	0.00	0.00	0.00
Total	625.79	226.00	7,088.26	7,940.06	0.00	7,940.06

* Note: values for Scope 3 and total are estimates due to recording methodology for Public Transport emissions

Table 4: Mobile and stationary combustion of biomass.

Biomass	Quantity	Tonnes Biogenic CO ₂
No activity recorded	n/a	n/a

Table 5: Deforestation of two hectares or more.

Source	Mass	tCO ₂ e
Deforestation tCO ₂ e (tCO ₂ e)	0.00	0.00

Table 6: GHG stock liability (see Table 13: for mass of individual gases).

Source	Units	Quantity	Potential Liability tCO ₂ e
Diesel commercial	litres	95,900.00	255.45

Table 7: Land-use liabilities.

Type of sequestration	Liability tCO ₂ e
Contingent liability (carbon sequestered this reporting period)	0.00
Potential sequestration liability (total carbon stock)	0.00

Table 8: Renewable electricity generation on-site.

Renewable generation on-site	kWh generated	tCO ₂ e avoided
No activity recorded	n/a	n/a

Table 9: Purchased emissions reductions.

Type of emission reductions purchased	Amount	tCO ₂ e
Certified green electricity (tCO ₂ e)	0.00	0.00
Purchased emission reductions (tCO ₂ e)	0.00	0.00
Total	0.00	0.00

1 INTRODUCTION

This report is the annual greenhouse gas (GHG) emissions¹ inventory report for the named organisation. The inventory is a complete and accurate quantification of the amount of GHG emissions that can be directly attributed to the organisation's operations within the declared boundary and scope for the specified reporting period. The inventory has been prepared in accordance with the requirements of the **measure**-step² of the Programme, which is based on the *Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004)* and *ISO 14064-1:2006 Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*³. Where relevant, the inventory is aligned with industry or sector best practice for emissions measurement and reporting.

2 STATEMENT OF INTENT

This inventory forms part of the organisation's commitment to gain Programme certification.

This inventory reports into the Toitū carbonreduce programme. This inventory is also intended to inform relevant decision-making relating to the organisation's commitments to sustainability and environmental best practice.

3 ORGANISATION DESCRIPTION

The Waikato Regional Council (WRC) is the local government body representing the Waikato, the fourth largest region in New Zealand. The region comprises more than 2.5 million hectares of land and 10,000km² of coastal marine area. The Council's mission "working together to build a Waikato region that has a healthy environment, strong economy and vibrant communities" signals the council's commitment to valuing our natural environment and the ecosystem services it provides to ensure healthy, connected and thriving communities.

We are responsible for:

- Governance and management of natural and physical resources – such as land, air, freshwater, biodiversity, infrastructure and the coastal marine area – on which our primary sector and export economy are based.
- Strategic planning at the regional scale delivered through statutory instruments such as the Regional Policy Statement, the Regional Land Transport Plan, the Regional Pest Management Plan, Regional Plan and Regional Coastal Plan, civil defence and emergency management, and non-statutory instruments such as regional economic development strategies.
- Provision of regional scale infrastructure, such as flood protection assets that protect billions of dollars' worth of urban areas, roading infrastructure and productive farmland.
- Transport planning and provision to keep our region moving economically and socially.
- Regional-scale response to, and assessment of, natural hazards, including floods, earthquakes and tsunامي, to protect communities and assets.
- Biosecurity/biodiversity activities to safeguard the productive and export-earning capacity of the natural environment, a key foundation to a sustainable economy, and to support indigenous biodiversity.

¹ Throughout this document "emissions" means "GHG emissions".

² Programme refers to the Toitū carbonreduce and the Toitū carbonzero programme.

³ Throughout this document 'GHG Protocol' means the *GHG Protocol Corporate Accounting and Reporting Standard* and 'ISO 14064-1:2006' means the international standard *Specification with Guidance at the Organizational Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*.

- Obtaining, storing and evaluating information so we know how well the region is doing environmentally and economically.
- Managing catchments in a holistic way.

Fourteen elected council members represent the region’s interests. Councillors work in committees and make decisions and recommendations on a wide range of matters that are reported to or decided on by the full council once a month. In the 2019/20 Toitū reporting period a Climate Action Committee has been established by council, and in this reporting period a Climate Action Roadmap Discussion Document (Te Mahere Aarai Aahuarangi) has been developed and approved. The roadmap is an evidence-based discussion document identifying nine priority pathways the council could take to respond to climate change.

Waikato Regional Council’s work, functions and priorities are mandated by legislation or community direction.

Our Executive Leadership Team (ELT) has overall responsibility for implementing council decisions and ensuring the effective and efficient performance of the organisation. The executive includes the Chief Executive, six directors with directorate responsibilities for Customer, Community and Services, Finance and Business Services, Integrated Catchment Management, Resource Use, Science, Policy and Information, and Transport Connections. The Manager of the Chief Executive’s Office and the Manager of People and Capability are also ELT members.

Each triennium, the council sets its strategic direction, responding to stakeholder priorities and the drivers that will affect the region and the operating environment for the council over the next three to five years. The strategic direction then guides the council’s ongoing conversations with its community and the work programmes and budgets which are agreed through the Long Term Plan (Mahere Whānui).

Our six strategic priorities are:

WATER – because water is the source of life

CLIMATE – because we want a better tomorrow

BIODIVERSITY AND BIOSECURITY – because protecting nature protects our future

COASTAL AND MARINE – because we can turn the tide

SUSTAINABLE INFRASTRUCTURE – because we need to build with nature in mind

TRANSPORT CONNECTIONS – because connected communities are stronger.

Specifically to CLIMATE, our Strategy states our goals for success 2019-2022 are:

- A climate change lens is applied to decision making, laying the platform for a new way of doing business.
- Climate change risk is proactively and appropriately communicated.
- Annual climate change inventories demonstrate improvements year on year.

As part of our focus on our corporate activities, we aim to:

- Reduce CO₂e emissions by 68% by 2030
- Achieve net zero CO₂e emissions by 2050.

These targets are part of our Carbon Emissions Reduction Plan (CERP) which can be found in the appendix.

More information about the council's climate response can be found in the Appendix.

Waikato Regional Council is based in Kirikiriroa Hamilton, with regional offices in Taupō, Paeroa and Whitianga, and works depots in Tuakau, Te Aroha and Horotiu. The council employed approximately 535 full time equivalent staff during the year under review.

4 ORGANISATIONAL BOUNDARIES INCLUDED FOR THIS REPORTING PERIOD

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2006 standards. The GHG Protocol allows two distinct approaches to be used to consolidate GHG emissions: the equity share and control (financial or operational) approaches. The Programme specifies that the operational control consolidation approach should be used unless otherwise agreed with the Programme.

An operational control consolidation approach was used to account for emissions.

The figure below shows the organisational structure for the Waikato Regional Council. Councillors lead high level decision-making for the organisation. The Chief Executive oversees management of the organisation and fulfilling the decisions made by Council. The Chief Executive does this by managing and co-ordinating the work of the six Directorates. Each Directorate employs staff and contractors.

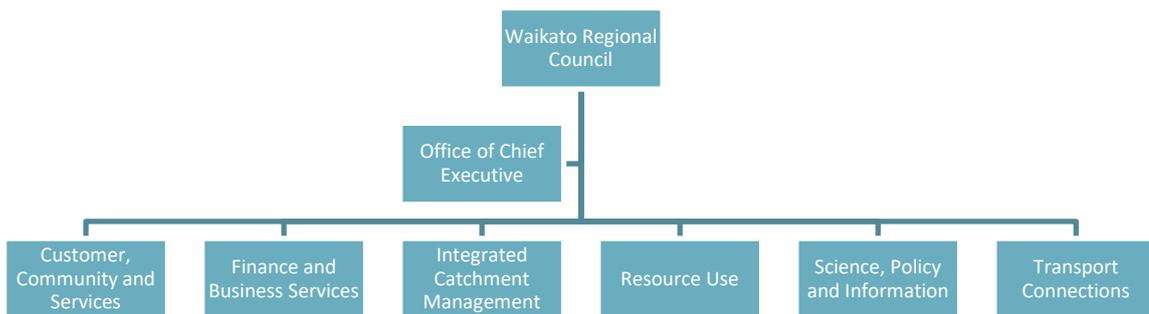


Figure 1: Organisational structure (effective 01/07/2021)

There are two business units in this inventory; 'Waikato Regional Council' and 'Public Transport'.

The 'Waikato Regional Council' business unit includes the following sites:

- Kirikiriroa Hamilton: 160 Ward St, Hamilton Central, Kirikiriroa Hamilton 3204
- Paeroa: 13 Opatito Road, Paeroa 3600
- Taupō: 100 Horomatangi Street, Taupō 3351
- Whitianga: 33-35 Albert Street, Whitianga 3510

Also included in this business unit are:

- Depots in Tuakau, Te Aroha and Horotiu
- Other sites and activities managed by Waikato Regional Council (excluding emissions from fuel combustion associated with regional public transport, see below).

The 'Public Transport' business unit includes emissions generated by public transport vehicles delivered or co-delivered by Waikato Regional Council. It only includes emissions from combusted fuel. Any other emissions associated with the delivery of regional public transport are accounted for within the 'Waikato Regional Council' business unit. This is the first year we are including this business unit in the inventory.

Table 10: Brief description of business units in the certifying entity.

Business unit	Address	Purpose
Waikato Regional Council	various locations across region	Includes operations and activities undertaken by the organisation
Public Transport	N/A	Includes only emissions associated with combustion of fuel to run public transport services

5 ORGANISATIONAL BUSINESS UNITS EXCLUDED FROM INVENTORY

Waikato Regional Council aims to enhance environmental, social, cultural and economic outcomes through its sustainable procurement policy and approach to the engagement and management of contractors. While sustainable practices and performance are a key consideration in all contracts, some of our smaller contractor activities have not been included as part of this inventory due to insufficient data and/or immateriality. Contractor activities newly included in reporting this year include public transport (regional bus service and Te Huia train), and taxi use associated with the Mobility Service (regional taxi subsidy service for qualifying community members).

These are being included in preparation for transition to the new reporting standards that will align with ISO 14064-1:2018, where organisations look more broadly at the scope of their inventory and include a wider range of indirect emissions.

Fugitive emissions resulting from land drainage services delivered by Waikato Regional Council have also not been included in the emissions inventory this year. It is hoped and expected that this information can be included in future emissions inventories, as understanding of fugitive emissions from organic soils drainage increases and more accurate data can be collected.

6 GHG EMISSIONS SOURCE INCLUSIONS

The GHG emissions sources included in this inventory are those required for Programme certification and were identified with reference to the methodology described in the GHG Protocol and ISO 14064-1:2006 standards. Identification of emissions sources was achieved via personal communications with Waikato Regional Council staff, and cross-checked against operational expenditure records for the reporting period. These records were viewed in order to see what activities may be associated with emissions from all of the operations.

As adapted from the GHG Protocol, these emissions were classified into the following categories:

- **Direct GHG emissions (Scope 1):** GHG emissions from sources that are owned or controlled by the company.
- **Indirect GHG emissions (Scope 2):** GHG emissions from the generation of purchased electricity, heat and steam consumed by the company.
- **Indirect GHG emissions (Scope 3):** GHG emissions required by the Programme that occur as a consequence of the activities of the company but occur from sources not owned or controlled by the company. Inclusion of other Scope 3 emissions sources is done on a case-by-case basis.

After liaison with the organisation, the emissions sources in Table 11 have been identified and included in the GHG emissions inventory.

For this reporting period we have continued to report on all previously measured emissions sources, and have begun reporting on four new emissions sources:

- Emissions from public transport services offered by the Waikato Regional Council. These emissions are considered Scope 3 additional as the service is delivered by contractors. Specifically, these emissions are from regional buses and Te Huia train service (it is important to note that Te Huia has been operational for a small proportion of the reporting period and therefore emissions associated with this service will be much higher in future years).
- Emissions from taxi use associated with Total Mobility (taxi subsidy service) provided to qualifying community members. These emissions are also considered Scope 3 additional as the service is delivered by contractors.
- Emissions from transmissions and distribution losses for electricity and natural gas. These are both considered Scope 3 mandatory.

Table 11: GHG emissions sources included in the inventory

Business unit	GHG emissions source	GHG emissions level scope	Data source	Data collection unit	Uncertainty (description)
WRC	Air travel domestic (average)	Scope 3	Travel provider (Orbit) provides activity report	pkm	It is assumed supplier records are complete and accurate
WRC	Diesel	Scope 1	Invoices from fuel supplier and WRC records	L	It is assumed supplier and internal records are complete and accurate
WRC	Electricity distributed T&D losses	Scope 3	Invoices from suppliers, largely accessed via eBench (except since move to new premises, where records were obtained directly from new supplier)	kWh	It is assumed supplier records are complete and accurate
WRC	Electricity	Scope 2	Invoices from suppliers, largely accessed via eBench (except since move to new premises, where records were obtained directly from new supplier)	kWh	It is assumed supplier records are complete and accurate
WRC	Natural Gas distributed commercial	Scope 1	Invoices from supplier, accessed via eBench	kWh	It is assumed supplier records are complete and accurate
WRC	Natural Gas distributed T&D losses	Scope 3	Invoices from supplier, accessed via eBench	kWh	It is assumed supplier records are complete and accurate
WRC	Petrol premium	Scope 1	Invoices from fuel supplier and WRC records	L	It is assumed supplier and internal records are complete and accurate
WRC	Petrol	Scope 1	Invoices from fuel supplier and WRC records	L	It is assumed supplier and internal records are complete and accurate
WRC	Private Car average (fuel type unknown)	Scope 3	Data collected and collated by WRC	km	It is assumed data source represents a complete and accurate account of all travel activity. It is possible a small amount of travel is unaccounted for. However, this is deemed de minimis in terms of overall private car travel.
WRC	Taxi (regular)	Scope 3 Additional	Invoices from suppliers, collated by WRC	\$	It is assumed supplier and internal records are complete and accurate
WRC	Waste landfilled LFGR Mixed waste	Scope 3	2019 waste audit (conducted by Sunshine Yates Consulting)	kg	Complete data is unavailable and no waste audit was carried out for FY 2020-21, so data from the most recent waste audit (May 2019) is extrapolated in order to calculate an estimate of waste generated per person per day
Public Transport	Public Transport (regional buses)	Scope 3 Additional	Data calculated by Business Analyst from Regional Transport Connections, using internally collected data and Waka Kotahi NZ Transport Agency emissions factors	tCO ₂ e	It is assumed calculation is correct
Public Transport	Public Transport (Te Huia train)	Scope 3 Additional	Data calculated by Business Analyst from Regional Transport Connections, using internally collected data and Waka Kotahi NZ Transport Agency emissions factors	tCO ₂ e	It is assumed calculation is correct

6.1 Other emissions – HFCs, PFCs and SF₆

No refrigeration or air-conditioning or other equipment containing hydrofluorocarbons (HFCs) is used in the operations and therefore no emissions from these sources are included in the inventory.

No operations use perfluorocarbons (PFCs), Nitrogen Trifluoride (N₃) nor sulphur hexafluoride (SF₆), therefore no holdings of these are reported and no emissions from these sources are included in this inventory.

6.2 Other emissions – biomass

No biomass is combusted in the operations and therefore no emissions from the combustion of biomass are included in this inventory.

6.3 Other emissions – deforestation

No deforestation has been undertaken by the organisation on land it owns and that is included in this inventory. Therefore, no emissions from deforestation are included in this inventory.

6.4 Pre-verified data

No pre-verified data is included within the inventory.

7 GHG EMISSIONS SOURCE EXCLUSIONS

Emissions sources in Table 12 have been identified and excluded from the GHG emissions inventory.

Table 12: GHG emissions sources excluded from the inventory

Business unit	GHG emissions source	GHG emissions level scope	Reason for exclusion
Waikato Regional Council	Freight emissions	Scope 3	Freight emissions have been excluded from this inventory as useful data cannot be collected with current purchasing and courier systems.
Waikato Regional Council	Accommodation and consumption while travelling	Scope 3	Emissions relating to accommodation and other consumption while travelling for WRC business have not been included in the inventory this year. We are considering ways to collect useful data so that it may be included in future reporting.
Organic Soils (not yet included)	Fugitive emissions resulting from drainage of organic soils	Scope 3	Fugitive emissions resulting from drainage of organic soils have been excluded until understanding of fugitive emissions from organic soils drainage increases and more accurate data can be collected. Available data and estimations will be provided in future inventories.

8 DATA COLLECTION AND UNCERTAINTIES

Table 11 provides an overview of how data were collected for each GHG emissions source, the source of the data and an explanation of any uncertainties or assumptions made. Estimated numerical uncertainties are reported with the emissions calculations and results.

All data was calculated using Toitū emanage and GHG emissions factors as provided by the Programme (see Appendix 1 - data summary.xls).

A calculation methodology has been used for quantifying the GHG emissions inventory using emissions source activity data multiplied by GHG emissions or removal factors.

Most data have been collected and sorted using invoices and/or supplier records, and double checked using records stored in eBench software. Exceptions to this include data about private car use, waste, and contractor activities (specifically, emissions from public transport and Total Mobility).

Private car use data has been recorded using an Excel spreadsheet managed by the Finance and Business Services Directorate. The spreadsheet recorded data as reimbursement value (NZD), which has been multiplied by the reimbursement rate of \$0.79/km to determine approximate kilometres travelled.

Data for waste has been extrapolated from limited available data obtained from the 2019 waste audit conducted by Sunshine Yates Consulting. The average weight of waste-to-landfill generated per FTE staff per week was calculated at 0.43kg, or 0.086kg per weekday. Data was generated by multiplying 0.086kg by the number of working days in the 2020/21 financial year (250) and then multiplied again by number of FTE staff (535).

Emissions from public transport have been calculated by staff from Regional Transport Connections and the methodology can be found in the appendix of this report.

9 GHG EMISSIONS CALCULATIONS AND RESULTS

GHG emissions for the organisation for this measurement period are provided in Table 1 where they are stated by greenhouse gas, by scope, by business unit and as total emissions.

There are 12 sources of CO₂e emissions included in the emissions inventory this year, with emissions associated with regional public transport services, as well as T&D losses from electricity and natural gas being included for the first time.

Emissions from public transport contribute 7010 tCO₂e (88.3%) to the total emissions portfolio. These emissions are associated with the regional bus service (6600 tCO₂e) and Te Huia train (410 tCO₂e).

Excluding the public transport emissions, 930 tCO₂e have been emitted in the financial year of 2020/21. This is less than previous years and follows the trend of Waikato Regional Council reducing gross and net emissions each financial year since the base year.

Excluding public transport, the largest two emissions sources remain diesel and electricity.

Emissions from diesel consumption have reduced from 646 tCO₂e in the base year, to 503 tCO₂e in 2020/21: a reduction of approximately 22.2%. Emissions from diesel this year are at the lowest level they have been since reporting began in 2016/17. Transmissions and distribution losses (T&D losses) from electricity have been included for the first time this reporting period and contribute an additional 19 tCO₂e to the inventory.

Emissions from electricity consumption have reduced from 715 tCO₂e in the base year, to 264 tCO₂e in 2019/20, 226 tCO₂e in 2020/21: a reduction of 14.4% since last reporting period and 68.4% overall.

Emissions from all petrol types contribute 92 tCO₂e; a slight increase since the last reporting period, but lower than the years preceding that.

Natural gas contributes 31 tCO₂e; a reduction of almost 20% from 2019/20 and lower than all other reporting years.

Emissions from taxi use is 27 tCO₂e in this reporting year, which is almost double the quantity of last year. This is due to the inventory now including emissions associated with Total Mobility, in addition to staff taxi travel.

With data available this year it has not been possible to separate staff taxi travel from taxi use associated with Total Mobility. However, it is known that the majority of taxi use will be associated with Total Mobility and so taxi emissions have been classified as Scope 3 - Additional this year. (It is possible that in future reports it will be possible to separate taxi use further, and categorise staff taxi use as Scope 3 - Mandatory.)

Emissions from domestic air travel are 25 tCO₂e; a major reduction from all previous reporting years (almost 70% reduction from the previous year and more than 80% reduction compared the base year). Emissions associated with other forms of air travel are zero, with international travel restrictions due to COVID-19 likely being the reason, although efforts to minimise air travel have been ongoing within the organisation.

The remaining ~8 tCO₂e comprised emissions from travel in private vehicles, T&D losses associated with natural gas, and landfilled waste. Emissions from landfilled waste are estimated to be slightly higher than 2019/20 due to that year having fewer on-site working days due to the COVID-19 lockdown.

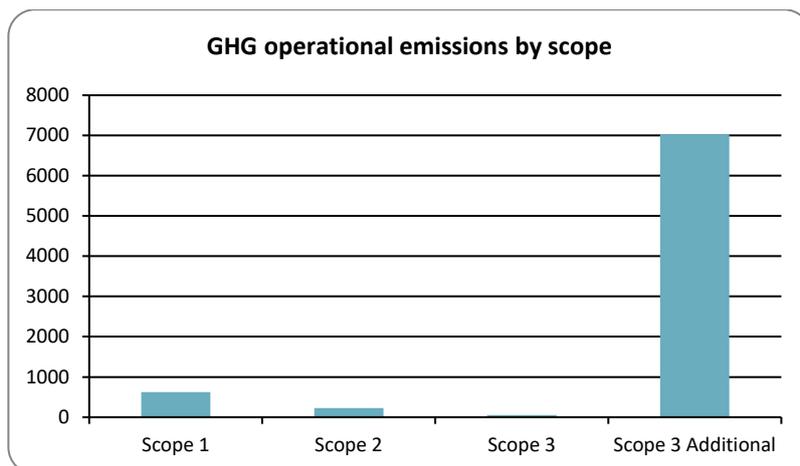


Figure 2a: GHG emissions (tonnes CO₂e) by scope, including public transport

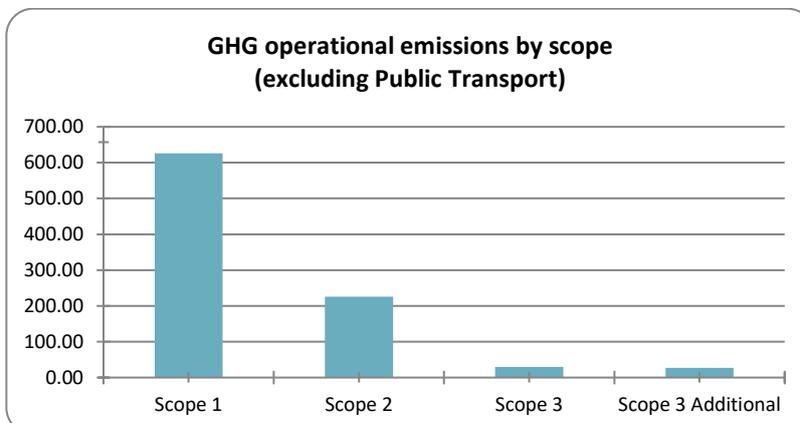


Figure 3b: GHG emissions (tonnes CO₂e) by scope, excluding public transport

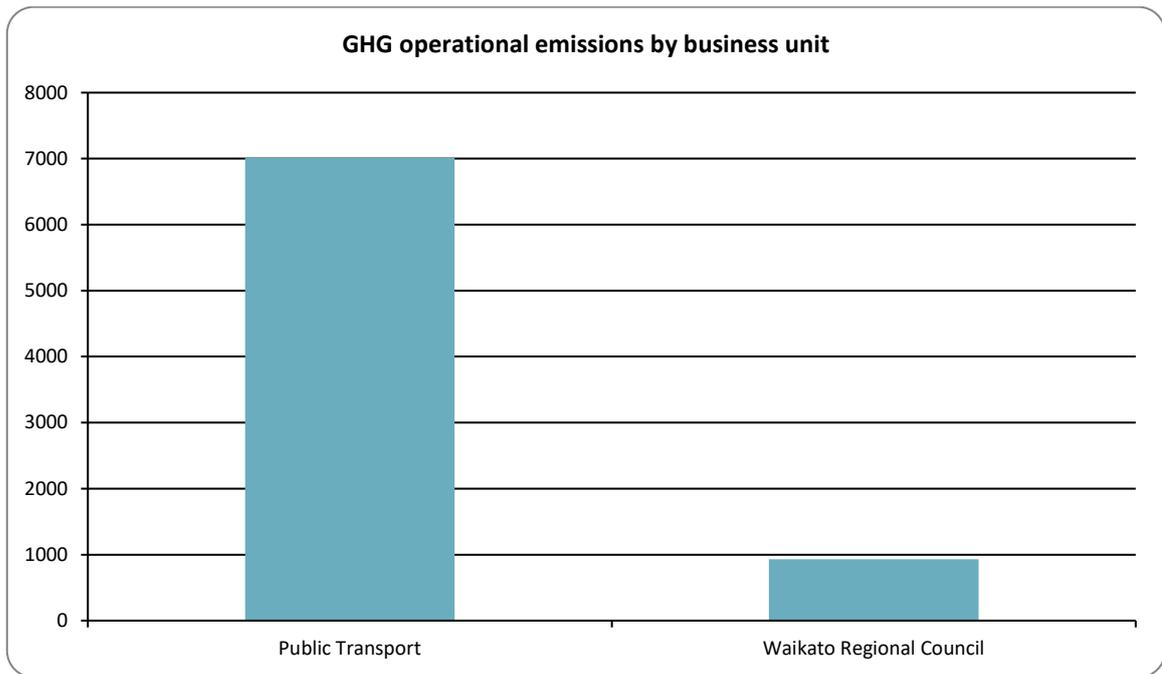


Figure 4: GHG emissions (tonnes CO₂e) by business activity.

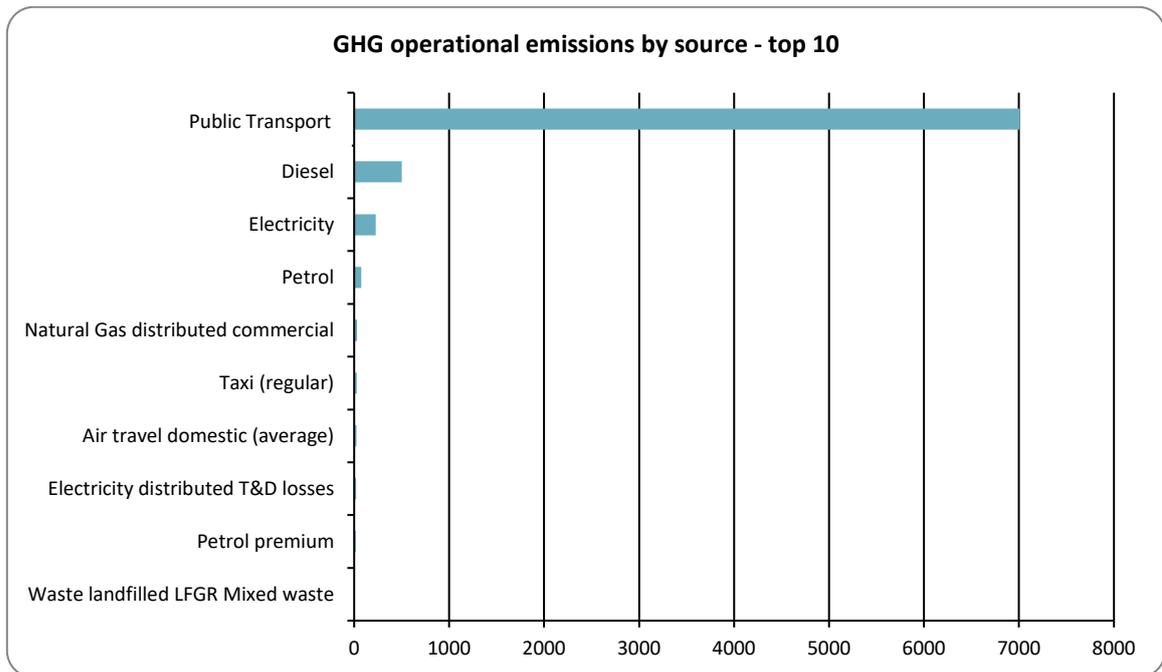


Figure 5: GHG emissions sources by source.

The inventory report and any GHG assertions are expected to be verified by a Programme-approved, third-party verifier. The level of assurance is reported in a separate Assurance Statement provided to the directors of the certified entity.

10 EMISSIONS REDUCTIONS AND REMOVALS ENHANCEMENT

GHG emissions for the organisation for the current reporting period are detailed in Table 1. Excluding the emissions from public transport, the results are that gross emissions for 2020-21 are 930 tCO₂e. This result is:

* 158 tCO₂e (14.5%) lower than emissions of the previous year 2019-20.

* 743 tCO₂e (44.4%) lower than emissions of the base year 2016-17.

A proportion of this emissions reduction compared to the base year remains due to the unusually high use of flood pumps in 2016-17 (heavy rain in March and April 2017 led to consumption spikes). Another factor contributing to reduced emissions in the 2020-21 year is the effect of COVID-19, travel restrictions, and the social and cultural impacts of 'the new normal' on our traditional business operations.

These factors notwithstanding, there are other reasons for emissions reductions as well. For example, baseload electricity consumption has steadily decreased over the last four years. This reduction is a result of adjusting systems to increase efficiency and a number of behaviour change campaigns. In addition, the last quarter of this reporting period saw Waikato Regional Council shift from many offices and sites across Kirikiriroa Hamilton to a central and purposefully designed building,

Emissions from diesel have decreased from 591 tCO₂e last year to 503 tCO₂e in 2020-21. This reduction can largely be attributed to there being no bulk purchasing of diesel for diesel storage tanks, although increases in fleet efficiency and/or driving behaviour will also be contributing to the decrease in diesel consumption.

It should be noted that data relating to diesel storage tanks is based on diesel purchased in a given year, rather than diesel consumed, and as such it is possible that actual diesel emissions in this reporting period are higher than indicated by data. This potential discrepancy will always be accounted for in subsequent years, when bulk diesel is purchased to replenish the storage tanks.

Reductions in petrol consumption (as well as fleet related diesel consumption) have occurred as a result of changing fleet vehicles to more fuel efficient models, actively managing the choice of vehicles booked (fit for purpose), as well as campaigns promoting more fuel-efficient driving behaviours.

Air travel and associated emissions have changed markedly in the past two years. In this reporting period there have been no international (long or short haul) flights, due to travel restrictions associated with the COVID-19 pandemic. There have also been significant reductions in domestic air travel; likely influenced by the social and cultural changes brought about by COVID-19 and its associated restrictions, although even before these restrictions came into effect the emissions from air travel have been tracking lower than in previous years.

Emissions from taxi use recorded in the emissions inventory have increased by almost 100% since last reporting year, and last year they also increased significantly compared to other reporting periods. This is due to increasing data accuracy (last year) and extending the scope of taxi travel to include emissions from Total Mobility (this year). This regional service offers taxi subsidies to certain groups in the community that would otherwise have limited mobility. It is likely that if the scope of taxi use emissions had not been extended, emissions from taxi use would have decreased for this reporting period, as staff taxi use is largely comprised of trips to airports and considerably fewer flights were taken this year.

It is not possible to evaluate emissions from waste and associated reduction activities as a waste audit was not carried out in 2020-21, meaning all data is extrapolated from previous waste audit data. This decision was made because the move to the new central premises affected usual waste generation.

When emissions from public transport are included in the interpretation of data, the result is that gross emissions for 2020-21 are 7940 tCO₂e. This is 7.3 times higher than emissions of the previous year 2019-20, and emissions from public transport are expected to be considerably greater next year (as Te Huia train service will have been operational for the entire 12 months in the reporting period, in contrast to this reporting period where Te Huia was operational for less than 3 of the 12 months).

The organisation will have an updated management plan in place for managing and reducing emissions in the future in order to maintain Programme recertification.

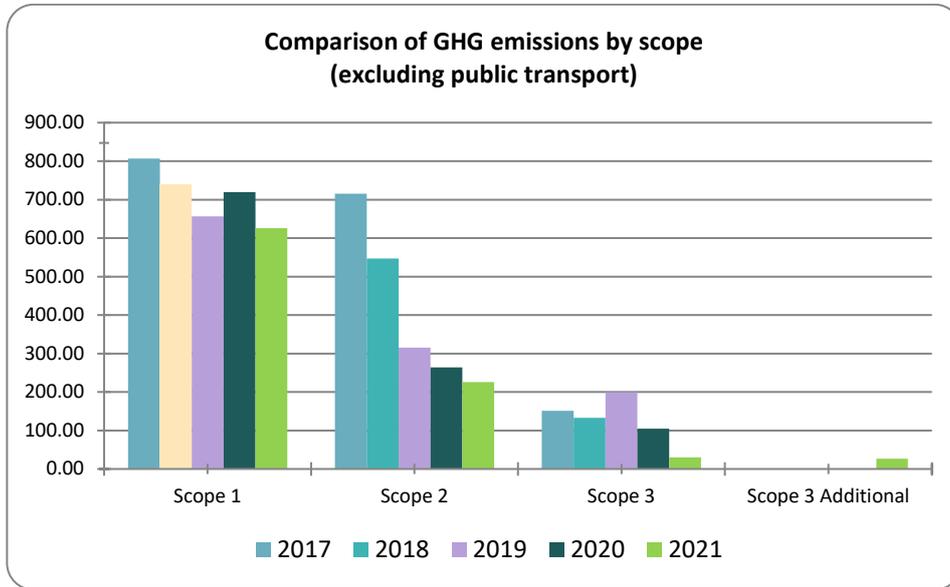


Figure 6a: Comparison of GHG operational emissions by scope between the reporting periods, excluding public transport

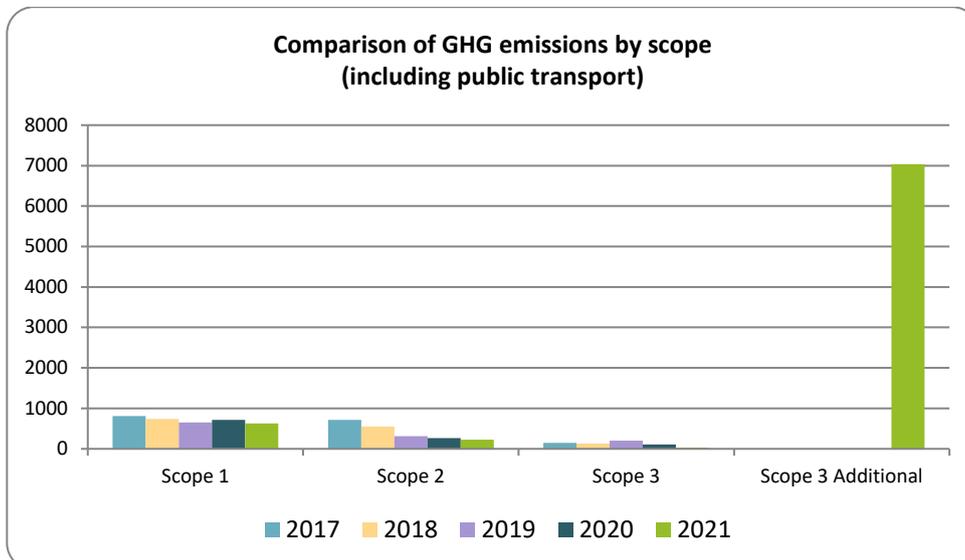


Figure 7b: Comparison of GHG operational emissions by scope between the reporting periods, including public transport

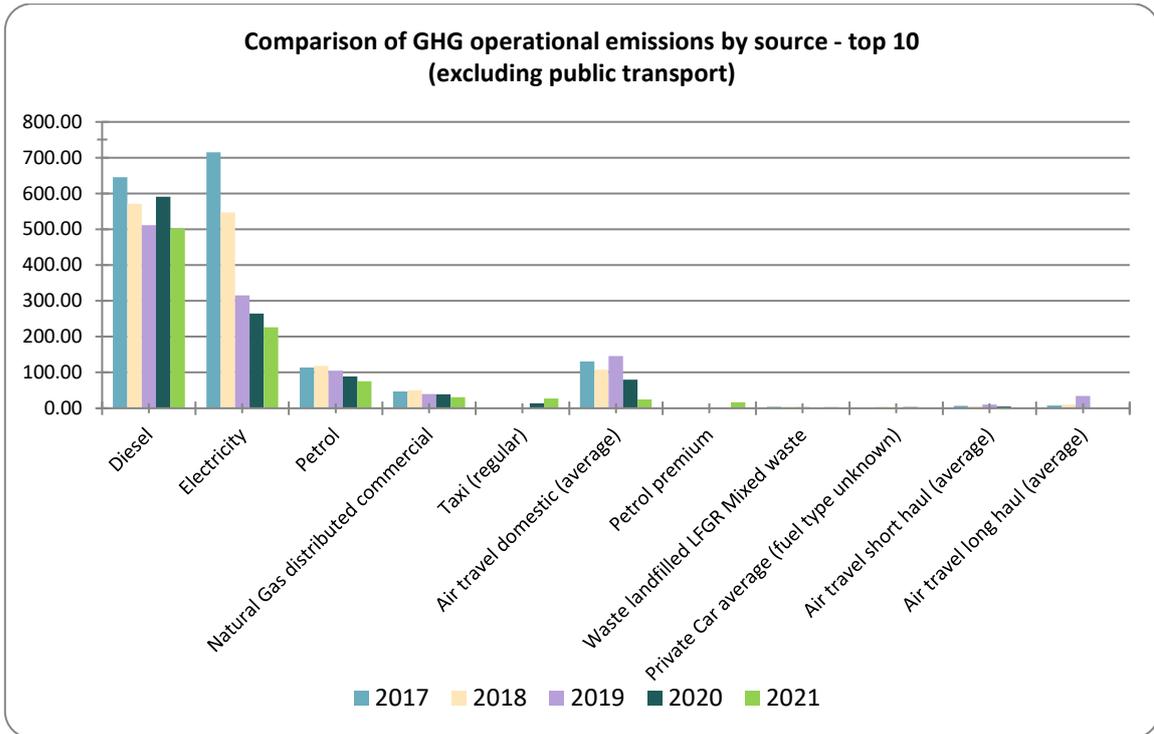


Figure 8a: Comparison of GHG operational emissions by emissions sources between the reporting periods, excluding public transport

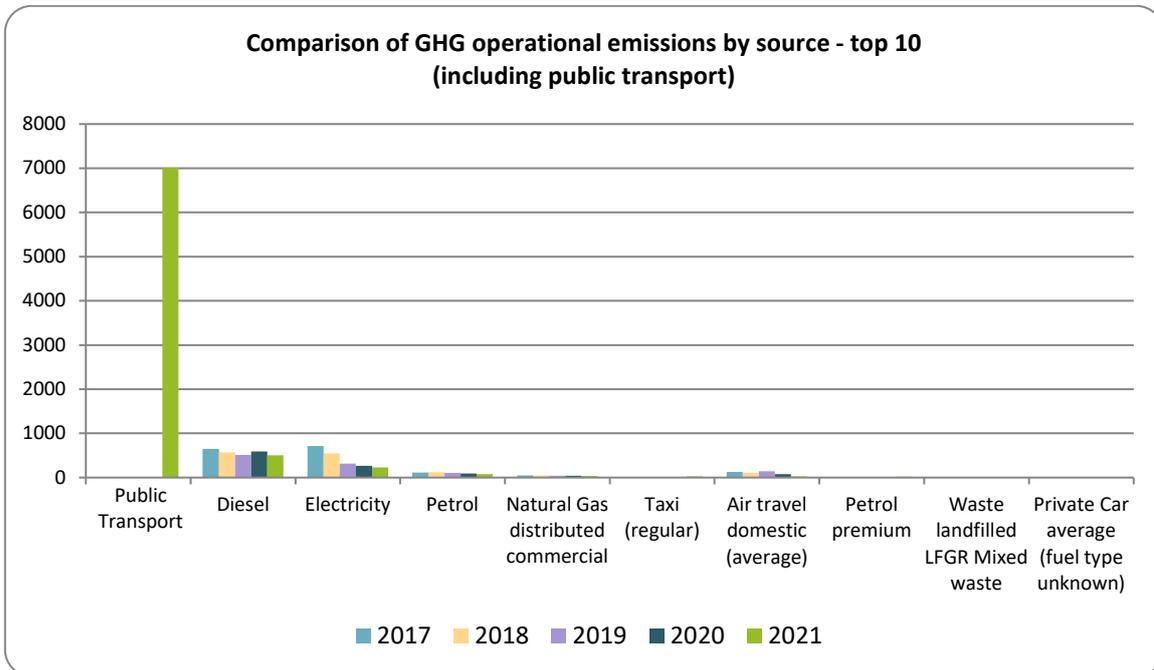


Figure 9b: Comparison of GHG operational emissions by emissions sources between the reporting periods, including public transport

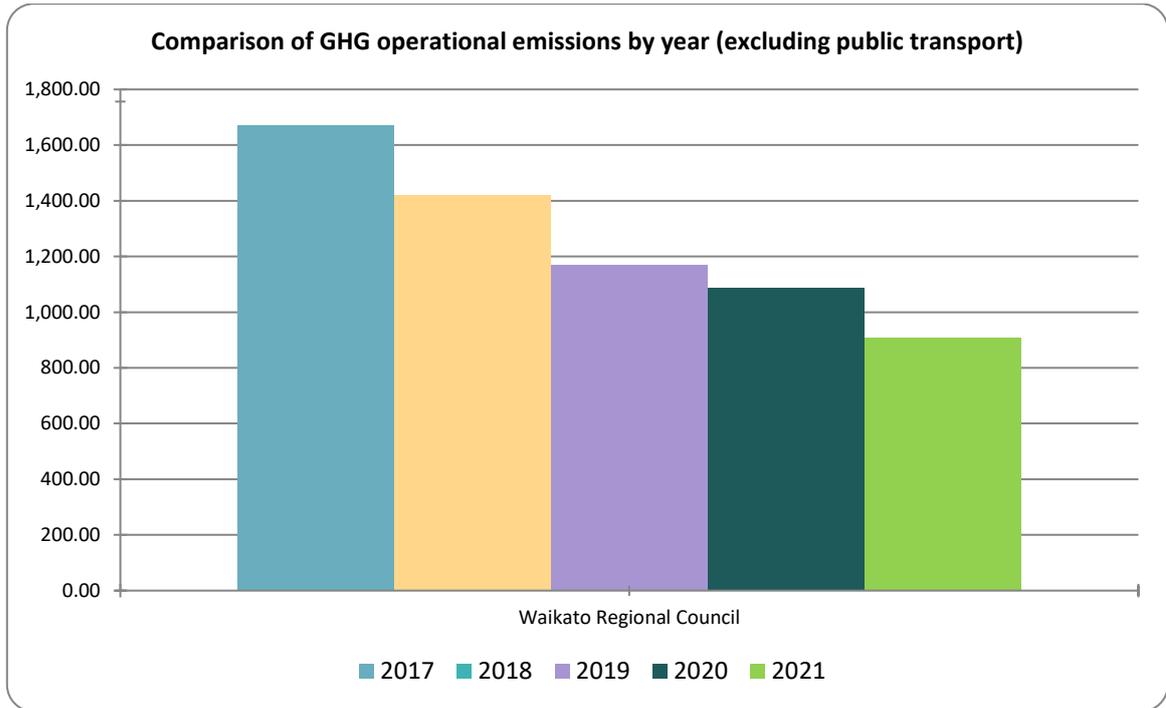


Figure 10a: Comparison of emissions between the reporting periods (excluding public transport)

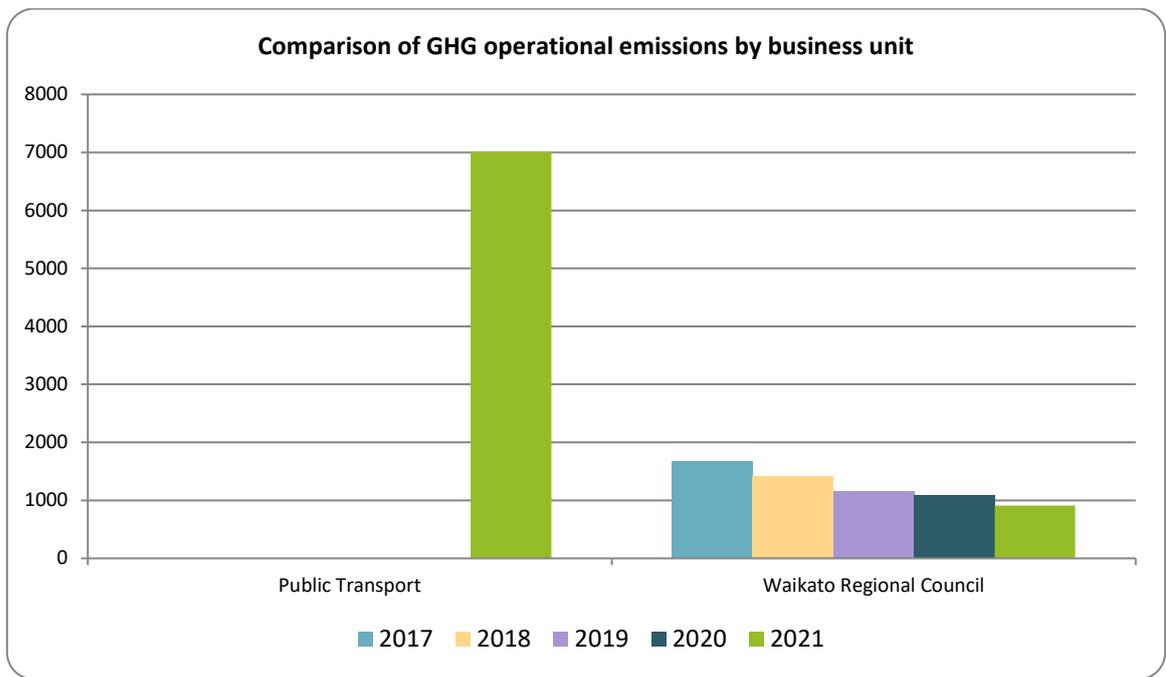


Figure 11b: Comparison of emissions by business unit between the reporting periods

11 LIABILITIES

11.1 GHG stocks held⁴

HFCs, PFCs and SF₆ represent GHGs with high global warming potentials. Their accidental release could result in a large increase in emissions for that year, and therefore the stock holdings are reported under the Programme (Table 13).

GHG stocks have been reported in this inventory and added into the GHG Stock Liability questionnaire. There are a number of above ground diesel storage tanks managed by the Waikato Regional Council. These are a potential liability as greenhouse gases could be released if there was an accident that resulted in their combustion.

There are five diesel storage tanks. Their details are as follows:

- * Stocks Pumpstation, SH2, Paeroa - 20,000L
- * Mill Road No 2 Pumpstation, Mill Road, Paeroa - 21,000L
- * Paeroa Main Drive Pumpstation, Stopbank Road, Paeroa - 20,000L
- * Roger Harris Pumpstation, 294 Old Netherton Road, Paeroa - 20,000L
- * Alexanders Pumpstation, Ferry Road, Hikutaia - 14,900L

These are the diesel storage tanks that, when refilled, contribute to increases in diesel emissions.

Table 13: HFCs, PFCs and SF₆ GHG emissions and liabilities.

Business Unit	Source	Units	Amount held - start of reporting period	Amount held - end of reporting period	Potential Liability tCO ₂ e
Waikato Regional Council	Diesel commercial	litres	95000	95900	255.45075

11.2 Land-use change

Organisations that own land subject to land-use change may achieve sequestration of carbon dioxide through a change in the carbon stock on that land. Where a sequestration is claimed, then this also represents a liability in future years should fire, flood or other management activities release the stored carbon.

Land-use change has not been included in this inventory. This is because no significant land-use change has occurred in the reporting period on council owned land.

Since the last reporting period work has continued to better understand fugitive emissions resulting from the drainage of organic soils (peat land), which is a service provided by Waikato Regional Council both on council-owned and private land. Data is not yet at a level for emissions to be included in the inventory.

It is likely deforestation, afforestation and other land-use changes (e.g. fugitive emissions) will be included in future emissions inventories when suitable data becomes available.

12 PURCHASED REDUCTIONS

Purchased reductions could include certified “green” electricity, verified offsets or other carbon-neutral-certified services. Organisations may choose to voluntarily purchase carbon credits (or

⁴ HFC stock liabilities for systems under 3 kg can be excluded.

offsets) or green electricity that meets the eligibility criteria set by a regulatory authority. The reported gross emissions may not be reduced through the purchase of offsets or green tariff electricity.

Purchased emission reductions have not been included in this inventory.

Certified green electricity has not been included in this inventory.

We do not generate on-site renewable electricity.

13 DOUBLE COUNTING / DOUBLE OFFSETTING

Double counting/offsetting refers to situations where:

- Parts of the organisation have been prior offset.
- The same emissions sources have been reported (and offset) in both organisation and product.
- Emissions have been included and potentially offset in the GHG emissions inventories of two different organisations, e.g. a company and one of its suppliers/contractors. This is particularly relevant to indirect (Scope 2 and 3) emissions sources.
- The organisation generates renewable electricity, uses or exports the electricity and claims the carbon benefits.
- Emissions reductions are counted as removals in an organisation's GHG emissions inventory and are counted or used as offsets/carbon credits by another organisation.

Double counting / double offsetting has not been included in this inventory.

14 REFERENCES

International Organization for Standardization, 2006. ISO 14064-1:2006. Greenhouse gases – Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas GHG emissions and removals. ISO: Geneva, Switzerland.

World Resources Institute and World Business Council for Sustainable Development, 2004 (revised). The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard. WBCSD: Geneva, Switzerland.

15 APPENDIX 1: GHG EMISSIONS DATA SUMMARY

More GHG emissions data is available on the accompanying spreadsheet to this report:

Appendix – WRC Carbon Emissions Reduction Plan (CERP).xls

Appendix – Climate Work Completed Feb 2020 – Aug 2021.docx

Appendix – Public Transport Emissions 2020-21.docx