New Plymouth District Council Greenhouse Gas Emissions Inventory

Financial Year: 2024/2025

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Introduction

This GHG Inventory reports New Plymouth District Council's (NPDC) GHG emissions for financial year 2024 / 2025 (FY25), a from 1st July 2024 to 30th June 2025.

The FY25 GHG Inventory was prepared in accordance with ISO 14064-1 (2018) and the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard.

NPDC use the operational control approach for reporting annual GHG emission. This includes all NPDC corporate operations, including all council-controlled organisations.

The purpose of this GHG emission inventory is to:

- Provide NPDC and the New Plymouth District community information on the GHG emissions produced within operational control.
- Track NPDC's annual GHG emissions to measure and monitor progress against the FY22 baseline year and Emission Reduction Plan.
- Report annual GHG emissions as part of NPDC's Climate Action Framework and responsibility to measure and manage GHG emissions.
- Document and report a standard methodology for use in future years
- Demonstrate to key stakeholders NPDC is actively involved in managing and reducing GHG emissions in line with NPDC's Emission Reduction Plan and New Zealand's net zero by 2050 target.

Statement of Intent

This inventory is prepared as a management tool for NPDC to:

- Assist NPDC in tracking and managing its GHG emissions.
- Complying with NPDC's Climate Action Framework and Emissions Reduction Plan.
- Provide verified information for all interested parties and stakeholders on NPDC's GHG emissions.
- Demonstrate integrity and transparency with respect to GHG emissions for NPDC rate payers.

Stakeholders and interested parties include NPDC Management, Executive Leadership Team, Community members, Iwi / Hapu, external suppliers, central government and regulatory bodies.

Organisation Profile

New Plymouth District Council is responsible for a wide range of activities in the New Plymouth District. The 2023 population of New Plymouth District was 88,900 (StatsNZ, 2024) and covers a land area of 2,324 square kilometres.

Figure 1: New Plymouth District Council location

NPDC operate in the following key areas:

- Infrastructure and Planning
- External Relations and Communications
- Corporate Services
- Community
- People & Capability
- Information Technology
- Community and Customer Services

The operational revenue was $282.2 million in FY25, with average employment of 620 permanent FTEs.

Boundary

Organisational Boundary

The organisational boundary defines the method used to consolidate GHG emissions and the NPDC facilities or subsidiaries included and excluded from the GHG inventory. Consolidation is done using one of the following methods:

- Control, whereby all emissions over which the organisation has either financial or operational control are included in the inventory
- Equity share, whereby the organisation only includes emissions for the portion of the facilities and business that the organisation owns.

NPDC uses the operational control method to consolidate GHG emissions. The NPDC operational control boundary is outlined in Figure 2. NPDC business units and Council Controlled Organisations within operational control are coloured blue. All CCO's are deemed within operational control due to statement of intents set with CCO. CCO emission reporting is also required under LGFA Climate Action Loans.

Figure 2: NPDC operational control boundary.

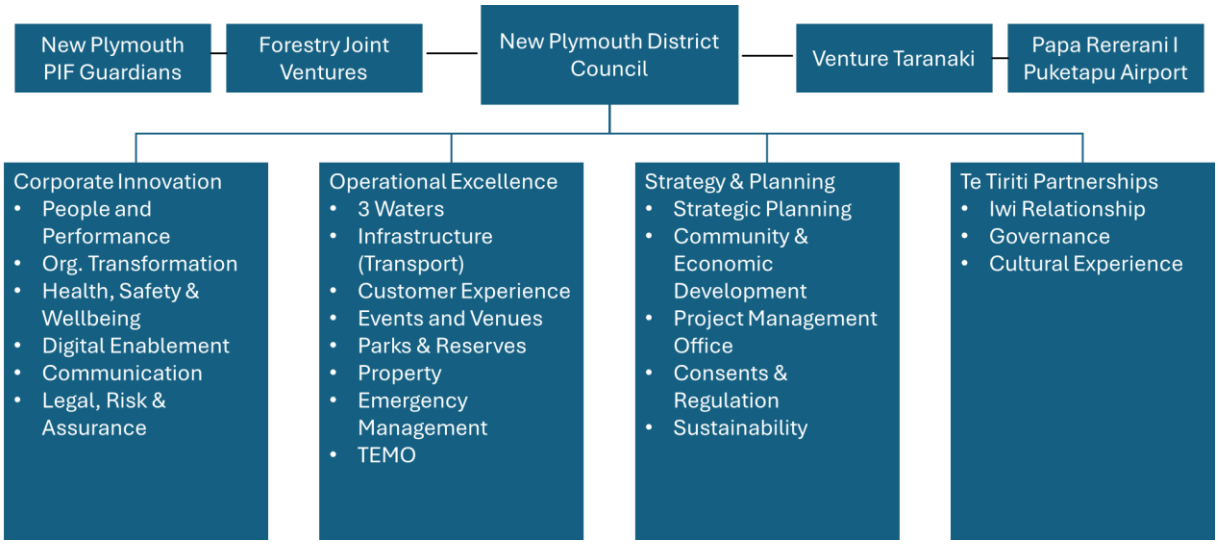

Table 1 NPDC's CCO Functions

CCO	Function
Venture Taranaki	Partially funded by NPDC, Venture Taranaki (VT) are the regional economic development agency. The agency offers professional services. VT has its own independent board of directors and CEO. VT has its own GHG inventory by Toitu.
PIF Guardians	The New Plymouth PIF Guardians Limited was set up in 2017 and is a council-controlled organisation. Since 2017, the PIF has been managed at arm's length by independent investment firm Mercer. Release payments / annual revenue from PIF are used to offset rates and keep rate rises minimised. The New Plymouth District Council (Perpetual Investment Fund) Act 2023 sets out requirements for investment decisions for the PIF to be made independently of elected members. NPDC does not have operational control of PIF Guardians or Mercer.
Papa Rererangi i Puketapu Ltd (PRIP)	New Plymouth Airport services the regional flights. PRIP has its own independent board of directors and CEO. PRIP has its own GHG inventory and is part of the international Airport Carbon Accreditation Programme. PRIP is currently working on a sustainability strategy to define and prioritise sustainability action and investment.
Forestry JV	NPDC and Multiple Land Owners. The JV's set out that the landowners provide the land and the Council plants the trees and undertakes the silviculture (pruning) of the trees. When they are harvested, the profits are split between the landowner and council. The landowner's return is a form of rental for the land, and the council gets back money to reflect that spent growing the forest. NPDC has already used and cancelled its Carbon credits from its pre 1990 Forests.

Operational Boundary

The operational boundary defines the scope of direct and indirect emissions within the organisational boundary. The GHG emission sources and sinks were determined based on its materiality. An emission source or sink's materiality is determined on a significance criterion, which includes the quantum of emissions, stakeholder interest, reduction potential, and accuracy or reliability of the measurement.

The majority of emission sources within NPDCs operational boundary have been included in the GHG Inventory. However, not all emissions sources were captured. Table 2 summarises the inclusions in this year's reporting year, and Table 3 summarises the known exclusions for the FY25 reporting period.

Table 2: Inclusions

GHG Protocol Classification	**ISO Classification**	**Activity Type**	**Activity/ Emission source**

Scope 1	Category 1	Stationary combustion	Natural gas
			LPG
			Stationary diesel
		Transport combustion	Fleet diesel
			Fleet petrol
		Fugitive emissions	Refrigerants
			Colson Road gas flare
		Biogenic emissions	NPDC Wastewater Treatment Plant
Scope 2	Category 2	Electricity	Electricity
Scope 3	Category 3	Upstream transportation and distribution	Freight and postal
			Business travel - Air travel
			Staff mileage claims
			Business travel – rental vehicle
			Business travel – accommodation
			Employee commuting
		Downstream freight	Waste transportation.
		Working from home	Working from home
	Category 4	Purchased Goods and Services	Purchased Goods and Services
		Capital goods	Capital Goods
		Waste generated in operations	Rural transfer stations
			Kerbside collection - organics
			Kerbside collection - general waste
			Kerbside collection - recycling rejects (MRF)
			Illegal dumping and litter
			Wastewater treatment plant waste – sludge and screening waste
			Organisation waste - organics
			Organisation waste - waste to landfill
		Transmission and distribution	Electricity T&D
			Natural gas T&D
	Category 5	Downstream leased assets	Grazing animals
		Investments	PIF investment fund
		Use of sold product	Bioboost sold from the WWTP

Table 3: Exclusions

GHG Protocol Classification	Activity Type	Reason for exclusion

Scope 1	Historic closed landfill emissions (other than the Colson Road closed landfill)	Old historic landfills such as Okato, Inglewood, Okoki Road, Oakura, Waitara, Marfell Park, Waiwhakaiho, Tongaporutu were excluded from this inventory. These landfills have been closed and capped for over 17 years. Based on the Scholl Canynon LFG generation curve, these landfills have negligible LFG emissions with low certainty in the calculation method, so were deemed an exclusion.
	Well to tank emissions	Emissions associated with the production and transportation of fuel from 'well to tank' were excluded.
	Emissions associated from diverted / recovered materials	Downstream emission associated with diversion of waste were excluded from this inventory, including the processing and remanufacturing of kerbside recyclables and waste to energy (e.g. burning tyres at Golden Bay Cement). Emissions from reprocessing and remanufacturing recyclables and waste to energy are considered part of the diverted materials next lifecycle so are deemed outside of scope and excluded from this inventory.
	New Plymouth Transfer Station	The New Plymouth Transfer Station is owned and operated by Enviro NZ. NPDC has no operational control of this facility. Therefore, emissions associated with waste processing at the New Plymouth Transfer Station, except for kerbside collection, MRF rejects, the Junction and the Sorting Depot, are excluded from this inventory. Note, rural transfer stations are owned by NPDC and are included in this inventory.
Scope 3	Council Controlled Organisations	The CCO scope 3 emission have been excluded due to a lack of data and collection processes. NPDC will work with CCOs to improve scope 3 data collection to align with NPDC.

Data Collection, uncertainties and assumptions

Data Collection

Data collection was coordinated by the NPDC Climate Change Mitigation Advisor.

The following approaches were used for data collection:

- Direct supplier data – direct engagement with suppliers to provide measured data for the organisation, such as electricity, natural gas, waste to landfill, or transport fuel.
- Indirect employee data – data collection via employees at NPDC who provide measured or estimated data from specific activities, such as refrigerant use, forestry land, closed landfill methane emissions, or general ledger data.

Emission calculation

Emissions were calculated by multiplying activity data with appropriate emissions factors. Three main methods were used for calculating emissions in this GHG inventory:

- Applying MfE emission factors to NPDC activity data
- Applying custom emission factors to NPDC activity data
- Applying Thinkstep spend-based emission factors to NPDC spend data.

Most emission factors are sourced from MfE's Measuring emissions guide 2025. Custom emission factors were created or derived when certain emission factors were not available from the MfE guide or when more suitable, industry approved emission factors or methods were available, such as the Water New Zealand guidance for calculating wastewater treatment plant emissions.

Spend-based emission factors were used when activity data was poor quality or unavailable, such as emissions from purchased goods and services and capital goods. In these cases, spend-based emission factors were sourced from Thinkstep (Thinkstep, 2025) and applied to general ledger spend.

Table 4 outlines the custom emission factors used in this report, i.e. the emission factors used other than MfE 2025:

Table 4 Custom emission factors

Activity / Emission source	Unit	Methodology
Biogenic wastewater treatment plant emission	Kg TOW (total organics in wastewater)	Combination of CH4 effluent COD, CH4 WWTP COD, WWTP N2O and effluent N2O emissions calculated, based on Water New Zealand: Carbon accounting guidelines for wastewater treatment: CH4 and N2O
Closed landfill burnt methane emissions	Kg landfill non-fossil methane emissions and flared methane emissions	Scholls Canyon Model, developed by Tonkin& Taylor for the Landfill gas capture and flare system. The model has been adapted to estimate total LFG emissions. Please refer to the Colson Road landfill gas methodology in the next section
Domestic air travel emissions	Passenger kilometres travelled	Orbit Travel provide flight specific emission factors based on the type of plane used for travel. Domestic air travel emissions are taken directly from the Orbit reports.
Time of Use Electricity emissions	kWh	Simply Energy provides bespoke electricity emission factors based on half hour Transpower grid energy data. Emission data is sourced from Simply Energy directly.

Staff mileage claim	$	FY25 average fuel price per litre ($/L) applied to emission factor of petrol (kgCO_2e / L) to estimate emissions from staff mileage claims
Forestry	Hectares	Ministry for Primary Industries carbon stock value data used to calculate total removals and liabilities.

Colson Road landfill gas calculation methodology

Colson Road Landfill gas (LFG) emissions are calculated using metered data and modelled data using the Scholls Canyon method.

Metered data:

NPDC's WaterOutlook database provides daily burnt methane volumetric (m3) SCADA data. The carbon emission equivalent of this methane is calculated using the following assumptions:

- 90% of this methane is assumed to be burnt
- The calorific value is assumed to be the same as natural gas 55 MJ/m3
- Emission factor of industrial natural gas is used 54.1 kgCO2e/GJ
- The 10% of unburnt methane (m3) is converted to kg using the density of methane at 25 degrees Celsius and 1 atm. (0.657 kg/m3).
- The GWP (see below) is calculated using AR6 non-fossil methane (27)

Modelled data:

Total LFG production is assumed using the medium bound model at 75% collection efficiency. Fugitive emissions are estimated by subtracting metered SCADA data from the Scholls Canyon LFG model. Emission are then calculation using the following assumptions:

- The concentration of methane and carbon dioxide are estimated using SCADA LFG concentration data
- Fugitive carbon dioxide emissions are estimated by applying the density of CO2 at 25 degrees Celsius at 1 atm (1.808 kg/m3) with a GWP of 1.
- Fugitive methane emissions are estimated by applying the density of methane at 25 degrees Celsius and 1 atm. (0.657 kg/m3).

Total emissions are estimated by summing burnt methane emissions, unburnt methane emissions, and fugitive LFG emissions.

Global Warming Potential

Global Warming Potential (GWP) is an index to translate the level of emissions of various gases into a common measure to compare the relative radiative forcing of different gases. GWPs are calculated as the ratio of the radiative forcing that would result from the emissions of one kilogram (kg) of a greenhouse gas to that from the emission of one kg of CO2 over a period (usually 100 years).

This FY25 GHG Inventory was prepared using AR6 values. Figure 3 shows the GWPs in the latest AR6

Figure 3 GWP factors

IPCC Global Warming Potential (GWP) values relative to CO_2

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
Major Greenhouse Gases				
Carbon dioxide	CO_2	1	1	1
Methane – non-fossil	CH_4	25	28	27.0
Methane – fossil	CH_4	N/A	30	29.8
Nitrous oxide	N_2O	298	265	273
Nitrogen trifluoride	NF_3	17,200	16,100	17,400
Sulfur hexafluoride	SF_6	22,800	23,500	24,300

Uncertainty

A description of the data quality indicators, with explanations of the terms used in the table, is provided below.

Figure 4: Uncertainty summary key

Data management	Data collection		
	Measured	Derived	Estimated
Robust	M1	D1	E1
Satisfactory	M2	D2	E2
Questionable	M3	D3	E3

Measured = Data directly provided by a service provider, contractor or directly obtained from a monitoring device. For example, electricity invoices, contractor receipts, emissions monitoring equipment, incident reports, consultant reports etc.

Derived = Data obtained from calculations, mass balances, use of physical/chemical properties, use of coefficients and emission factors etc., for example converting cubic meters of waste into tonnes.

Estimated = Usually, where there is no other available method for obtaining the data. Such data could be pro-rated on previous results, use precedents or historical data, or even be based on a calculated guess.

Robust = Evidence from a sound, mature and correct reporting system, where room for error is negligible. Examples would include well-kept spreadsheets, databases and on-line reporting.

Satisfactory = Examples would include manual, but structured keeping of records, files and results. Some potential for error or loss of data.

Questionable = No logical or structured approach to data or record keeping. High potential for error &/or loss of data. Data may appear to differ from those initially reported.

Table 5: Emission sources, data collection and uncertainty

GHG Protocol / ISO reporting categories	Activity/ Emission source	Unit	Data Collection	Data quality	Emission factor name
Scope 1					
Category 1 - Direct GHG emissions and removals - Emissions	Natural Gas	GJ	Activity data provided by Nova Energy	M1	MfE - Natural gas - Industrial use
	LPG	kg	Activity data provided by Ongas	M1	MfE - LPG - Industrial use
	Stationary Diesel	litres	Activity data obtained by McFuel Invoices and prorated for FY25	E1	MfE - Diesel - Commercial
	Fleet diesel	litres	Activity data obtained by BP fuel cards	M1	MfE - Diesel
	Fleet Petrol - regular	litres	Activity data obtained by BP fuel cards	M1	MfE - Regular petrol
	Fleet Petrol – premium	litres	Activity data obtained by BP fuel cards	M1	MfE - Premium petrol
	Refrigerants	kg	Refrigerant liability (total refrigerant stock) determined by Excel maintenance schedule. FY25 leakage determined by refrigerant purchases in reporting period.	E1	MfE - Refrigerant emission factors
	Colson Road gas flare	m3	Burnt methane data obtained from gas meter data and extracted from Water Outlook (Scada system).	D1	Stoichiometric conversion for the combustion of methane and GWP of methane emissions (AR5)
	Fertilisers	kg	Fertiliser activity data provided by Parks team, and nitrogen content determined from product descriptions.	D1	MfE - Nitrogen content of non-urea nitrogen fertiliser
	Biogenic Waste Water Treatment Plant emissions	CH4 and N2O	Activity data sourced from WWTP measured data. Water NZ guidelines used to determine CH4 and N2O emissions.	D1	Water NZ methodology
Category 1 - Direct GHG emissions and	Forestry carbon sequestration	Ha	Forestry hectare data determined by aerial	D1	MPI - carbon stock data

removals - Removals			surveying and sourced from forestry valuations.		
Scope 2					
Category 2 - Indirect GHG emissions from imported energy - Electricity	Electricity	kWh	Activity data sourced from Simply Energy and Meridian Energy	M1	MfE - Electricity 2023 / Simply Energy calculation
Scope 3					
Category 3 - Indirect emissions from transportation	Freight and postage	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	Air travel	passenger km travelled	Activity data sourced from Orbit	M1	MfE - Air travel emission factors
	Mileage claims - accounts payable	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	Waste transportation	tonnes kilometer travelled	Distance travelled estimated from maps, total tonnage provided by EnviroNZ	E3	MfE - Road haulage factor
	Taxi	$	Spend data sourced from internal general ledger	E3	MfE - Taxi ($)
	Rental vehicle	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	Accommodations - Orbit data	employee nights	Activity data sourced from Orbit	M1	MfE - Accomodation
	Employee commuting	vkt	Internal staff survey (2024) to estimated passenger kilometers travelled	E3	MfE - travel emission factors
Category 4 - Indirect GHG emissions from products an organisation uses	NPDC Purchased Goods and Services	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	NPDC Capital Goods	$	Spend data sourced from internal general ledger	E3	Inflation adjusted Thinkstep spend-based emission factors
	Electricity T&D losses	kWh	Activity data sourced Simply Energy and Meridian Energy	M1	MfE - Electricity T&D losses
	Natural Gas T&D losses	Gj	Activity data sourced from Nova	M1	MfE - Natural gas - T&D losses

	Rural transfer stations	tonnes	Activity data provided by EnviroNZ	M1	MfE - Waste to landfill with gas capture
	Kerbside collection - Organics	tonnes	Activity data provided by EnviroNZ	M1	MfE - Organics with gas capture
	Kerbside collection - general waste	tonnes	Activity data provided by EnviroNZ	M1	MfE - Waste to landfill with gas capture
	Kerbside collection - recycling rejects	tonnes	Activity data provided by EnviroNZ	M1	MfE - Waste to landfill with gas capture
	Waste water treatment waste	tonnes	Activity data provided by WWTP team	M1	MfE - Sludge with gas capture
	Organisation waste - Organics	tonnes	Activity data provided by Waste Management NZ	M1	MfE - Organics with gas capture
	Organisation waste - waste to landfill	tonnes	Activity data provided by Waste Management NZ	M1	MfE - Waste To Landfill with gas capture
	Working from home	employee days	Internal staff survey (2024) to estimated passenger kilometers travelled	E1	MfE - working from home
Category 6 - Indirect GHG emissions from other source	Grazing lands	head count	Activity data estimated from agricultural leased land and stock number per hectare assumptions	E3	MfE - agricultural emissions
	Investments	$	PIF emissions determined by respective fund emission estimations	E3	Mercer fund emission inventories

Biogenic emissions

Biogenic GHGs are made up of carbon dioxide, methane and nitrous oxide emissions and a produced because of the absorption of emissions by the feedstock during its lifetime, from biogas / biomass combustion, or microbial processes. The main forms of biogenic emissions in the organisation for this reporting period include:

- N_2O and CH_4 emissions from the wastewater treatment
- CO_2 and CH_4 emissions from the Colson Road Landfill (landfill gas capture flare and unburnt methane emissions)
- N_2O and CH_4 emissions from agricultural grazing, including manure management, livestock enteric fermentation.
- CO_2 removals from the NPDC forestry portfolio.
- CH_4 emissions from waste to landfill.

All biogenic emission sources are quantified, however biogenic CO_2 removals from forestry are reported separately for NPDC's total GHG footprint. This is because biogenic CO_2 removals from forestry are part of the short carbon cycle and outside of the direct reporting scope. This differs from biogenic N_2O and CH_4 which are produced from decaying organic matter or combustion of biomass and are within the reporting scope.

NPDC have received 15,420 NZU Carbon Credits for pre -1990 forest land that have been claimed previous to this inventory and are excluded from reporting.

The method of calculating biogenic emissions are outlined in the table below

Biogenic GHG source	Description	Method
Closed landfill gas capture flare	Colson Road is the most recent and largest landfill which closed in 2019 and contains just under 1 million Tonnes of waste. The final capping on Colson Road was completed in FY25.	Gas flow data is metered and recorded in NPDC's SCADA system. Daily Burnt Methane data is applied a 90% burnt rate, based on a conservative assumption the quantity of methane destroyed in combustion. Stoichiometry is used to convert burnt methane into carbon dioxide emissions. The remaining 10% of unburnt methane is applied a GWP (AR5) factor of 28 to estimate the carbon dioxide equivalent impact of methane.
Wastewater treatment plant emissions	NPDC operates the NP wastewater treatment plant (WWTP) which is a large producer of N20 and CH4 emissions due to the processing of wastewater. NPDCs WWTP is an aerobic process.	WWTP GHG emissions were calculated based on Water NZ, Carbon Accounting Guidelines for Wastewater Treatment Aug. 2021. The COD methodology was chosen as it had the most frequent measurements (highest GHG emissions).
Grazing	Emissions associated with NPDCs leased grazing land is a Scope 3 emissions source based on Downstream leased assets. NPDC leased out approximately 185 ha of grazing land across 39 different grazing leases.	To estimate the emissions associated with these grazing leases, NPDC used stock unit estimates for small blocks and large blocks and stock type information provided by the NPDC Property team to estimate the head count per ha for the different stock type. MfE emission factors for enteric fermentation, manure management and agricultural soils were used to estimate annual emissions from grazing.
Forestry	NPDC has 217.8 ha of post -1990 forestry, as reported in the 2024 Forestry Valuation.	Removals from forestry were estimated using the Toitu calculator tool, which is based on the MPI

	NPDC also has the Planting our Place Programme which has planted a total area of 5.42 ha of natural plantings since 2021 / 2022. There are other natural planted areas within NPDC portfolio, however these have been excluded due to poor data on land area.	lookup tables for carbon stock change. Total area and age of forestry were applied carbon stock change value assumptions to estimate total removals in the reporting year and total liabilities from forestry.

Liabilities

Liabilities are the potential GHGs that could result in emissions if released. NPDC have GHG liabilities in the form of refrigerants, forestry and stationary fuel. Refrigerants, such as HFCs, PFCs and SF6, have high global warming potentials if leaked. Forestry biomass is stored carbon, and stationary fuel is held in one 2000 litre fuel tank. Forestry and stationary fuel could result in GHG emissions if they were accidentally released in a fire. The GHG stock holdings are presented in the table below:

Table 6 Liabilities

Liability type	**Type**	**Potential liability (tCO2e)**
Refrigerant	R22	208.0
Refrigerant	R32	11.6
Refrigerant	R410A	531.6
Refrigerant	R404A	14.9
Refrigerant	R134A	6.4
Refrigerant	R407C	4.6
Refrigerant	R600A	0.0003
Refrigerant	R290	0.0003
Refrigerant	R12	2.1
Refrigerant	R448A	2.3
Forestry	Total carbon stock	185,855
Stationary fuel	Diesel (6600 litres)	17.7
Total liabilities		**200,252**

Base year

The baseline year for NPDC is financial year 2021 / 2022 (FY22). The estimated FY22 GHG footprint was 105,014 tCO_2e including closed landfill emissions, or 35,223 tCO_2e excluding closed landfill emissions. Figure 5 & 6 summarise the FY22 baseline GHG inventory.

Figure 5: Base year emissions, by scope

GHG by scope	Total excluding closed landfill	% TOTAL (excl closed landfill)
Scope 1	4,220	12%
Scope 2	988	3%
Scope 3	30,014	85%
Total	**35,223**	**100%**
Emissions per FTE (tCO2e)	56	

Figure 6: Base year emissions, by ISO category

ISO Cat	Source	Te CO_2e	% of total	% of Total (LFG removed)	CO2 (Te CO2-e)	CH4 (Te CO2-e)	N2O (Te CO2-e)
	Scope 1	**74,012**		**4,220**	**2,338**	**70,194**	**1,436**
Cat 1	Refrigerants	44	0.0%	0.1%	-	-	-
Cat 1	Natural (reticulated) Gas	2,060	2.0%	5.8%	2,055	5	1
Cat 1	Fleet Petrol	167	0.2%	0.5%	281	0	4
Cat 1	Fleet Diesel	285	0.3%	0.8%	-	-	167
Cat 1	Colson Road Landfill Gas	69,792	66.5%	NA	-	69,792	-
Cat 1	LPG	106	0.1%	0.3%	-	106	-
Cat 1	Fertiliser	8	0.0%	0.0%	3		5
Cat 1	Waste Water Treatment Plant (WWTP)	1,551	1.5%	4.4%	0	292	1,259
	Scope 2	**988**		**988**	**960**	**26**	**2**
Cat 2	Electricity	988	0.9%	2.8%	960	26	2
	Scope 3	**30,014**		**30,014**	**815**	**6,257**	**109**
Cat 6	Community Waste to landfill	5,916	5.6%	16.8%		5,989	
Cat 4	Organisational Waste to landfill	90	0.1%	0.3%	-	90	
Cat 6	Community Food Composting	256	0.2%	0.7%	256	163	93
Cat 4	Organisational Food Composting	22	0.0%	0.1%	22	14	8
Cat 6	Community Mixed recycling	99	0.1%	0.3%	-		-
Cat 4	Organisational Mixed recycling	3	0.0%	0.0%			
Cat 4	Purchased Goods & Services	14,695	14.0%	41.7%	-	-	-
Cat 4	Capital Goods	6,549	6.2%	18.6%	-	-	-
Cat 4	T&D Loss Electricity & Gas	191	0.2%	0.5%			
Cat 4	Upstream Leased Assets	78	0.1%	0.2%	-	-	-
Cat 3	Business Travel (airtravel, taxis and accom)	19	0.0%	0.1%			
Cat 3	Employee Commuting	193	0.2%	0.5%			
Cat 5	Downstream Leased Assets	1,313	1.3%	3.7%			
Cat 3	Upstream trasportation and distribution	592	0.6%	1.7%	537	1	9
	Total	**105,014**	**100%**	**100%**	**4,113**	**76,477**	**1,547**
	Total excluding closed landfill	**35,223**			**4,113**	**6,686**	**1,547**

Base year data is revised when material changes occur and have an impact on calculated emissions. When changes to the organisational boundary, operational boundary or calculation methodology are estimated to represent more than 5% of Scope 1, 2 or 3 emissions, a recalculation of base year data will be completed with explanation.

Changes to the FY2021 / 2022 baseline that result in more than a 5% change to the organisational emissions are listed below:

- Investments: The FY2021 / 2022 baseline year excluded emissions from investments due to PIF Guardians being a CCO and outside of the organisational boundary using the

operational control method. Investments are included in the FY 2023 / 2024 inventory as NPDC use the PIF investment fund for operational revenue.

- Inclusion of CCO's. Local Government Funding Agency (LGFA) deem CCO's within operational control, therefore Venture Taranaki, New Plymouth Airport and Forestry JV are included in this inventory.

NPDC will reset the baseline for the FY26 inventory

Disclosure statement

This GHG inventory has been third-party verified by Toitū according to the Greenhouse Gas Protocol: A Corporate Accounting and Standard (2004) and ISO 14064-1:2018.

The level of assurance is "reasonable" for categories 1 & 2 and "limited" for other categories.

As part of NPDC's Climate Action Framework and Emission Reduction Plan, NPDC will report the results of this FY25 GHG Inventory to Council and disclose the results publicly.

Results

Total gross GHG emissions for the FY25 GHG Inventory are 67,635 tCO_2e (including landfill gas emissions). Total category 1 removals from the forestry portfolio and Planting our Place programme are 7,693 tCO_2e. Figure 7 outlines the GHG emissions by category, Figure 8 outlines GHG emissions by source, and Figure 9 outlines GHG emissions by gas contribution (in tCO_2e).

Figure 7: GHG emissions by category

ISO Category	tCO2e
Category 1: Direct emissions and removals	21,901.90
Category 2: Indirect GHG emissions from imported energy	1,249.34
Category 3: Indirect GHG emissions from transportation	2,034.52
Category 4: Indirect GHG emissions from products used by organization	23,181.38
Category 5: Indirect emissions associated with the use of products from the organisation	11,583.66
Category 6: Indirect GHG emissions from other sources	-
Total	**59,950.80**

Figure 8: GHG emissions by source

Source	tCO2e
Scope 1	**29,594.75**
Refrigerants	16.69
Natural Gas	2,013.04
Fleet Petrol (transport)	148.93
Fleet Premium Petrol (transport)	20.94
Fleet Diesel (transport)	291.50
Colson Road Landfill Gas	25,536.28
LPG	88.54
Bulk Diesel (stationary)	6.46
Fertiliser	10.02
Waste Water Treatment Plant (WWTP)	1,462.36
Scope 2	**1,249.34**
Electricity	1,249.34
Electricity (transport)	0.00
Scope 3	**36,799.56**
Upstream transport and distribution	59.05
Business travel - other mileage claim	47.20
Business travel - taxi	0.91
Business Travel - airtravel	75.65
Business Travel - accomodation	8.29
Business Travel - rental vehicle	0.30
Employee Commuting	710.55
Working from home	7.37
Waste transportation	1,125.20
Rural Transfer Station: Waste to landfill	57.28
Rural Transfer Station: Green Waste	1,174.60
Kerbside collection: Waste to landfill	1,911.70
Kerbside collection: organics	193.18
NPDC Organisation: Waste to landfill	98.48
NPDC Organisation: Organics	12.41
The Sorting Depot	864.33
Illegal waste dumping: Waste to landfill	258.46
Illegal waste dumping: Green Waste	0.89
WWTP waste	30.18
Purchased Goods & Services	7,080.81
Capital Goods	11,339.63
T&D Loss Electricity	95.23
T&D Loss Gas	64.20
Downstream Leased assets - Grazing	1,932.29
Council Controlled Organisations	166.93
Regional Development	571.14
PIF Investments	8,502.73
Bioboost - sold product	410.57
Removals	**- 7,692.85**
Total Gross	**67,643.65**
Total Gross excluding closed landfill	**42,107.38**
Total Net	**59,950.80**
Total net exclusing closed landfill	**34,414.53**

Figure 9: GHG emissions by gas contribution, in tCO_2e

	CO_2 (tCO_2)	CH_4 (tCO_2-e)	N_2O (tCO_2-e)	Remaining tCO_2e
Total Gross	**5,740**	**4,878**	**1,763**	**55,262**

Appendix 1 – Significance criteria

Emission source	Magnitude	Level of influence	Risk or opportunity	Sector specific guidance	Outsourced	Employee engagement	Intended Use and Users	Include in inventory?
Upstream transport and distribution	0%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Business travel - other mileage claim	0%	Medium Influence	Low risk	LGFA guidance to include all emission categories		Yes	Yes	Yes
Business travel - taxi	0%	Medium Influence	Low risk	LGFA guidance to include all emission categories		Yes	Yes	Yes
Business Travel - airtravel	0%	Medium Influence	Low risk	LGFA guidance to include all emission categories		Yes	Yes	Yes
Business Travel - accomodation	0%	Medium Influence	Low risk	LGFA guidance to include all emission categories		Yes	Yes	Yes
Business Travel - rental vehicle	0%	Medium Influence	Low risk	LGFA guidance to include all emission categories		Yes	Yes	Yes
Employee Commuting	1%	Low - Medium Influence	Low risk	LGFA guidance to include all emission categories	Outsourced	Yes	Yes	Yes
Working from home	0%	Low - Medium Influence	Low risk	LGFA guidance to include all emission categories	Outsourced	Yes	Yes	Yes
Waste transportation	2%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Rural Transfer Station: Waste to landfill	0%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Rural Transfer Station: Green Waste	2%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Kerbside collection: Waste to landfill	4%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Kerbside collection: organics	0%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
NPDC Organisation: Waste to landfill	0%	Low influence	Low risk	LGFA guidance to include all emission categories		Yes	Yes	Yes
NPDC Organisation: Organics	0%	Low influence	Low risk	LGFA guidance to include all emission categories		Yes	Yes	Yes
The Sorting Depot	2%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Illegal waste dumping: Waste to landfill	1%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Illegal waste dumping: Green Waste	0%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
WWTP waste	0%	Low influence	Low risk	LGFA guidance to include all emission categories		No	Yes	Yes
Purchased Goods & Services	14%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Capital Goods	22%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
T&D Loss Electricity	0%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
T&D Loss Gas	0%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Downstream Leased assets - Grazing	4%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Council Controlled Organisations	0%	Medium Influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Regional Development	1%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
PIF Investments	17%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Bioboost - sold product	1%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	Yes	Yes
Historic closed landfill emissions (other than the Colson Road closed landfill)	<5%	Low influence	Low risk	LGFA guidance to include all emission categories		No	No	No
Well to tank emissions	<1%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	No	No
Emissions associated from diverted / recovered materials	<1%	Low influence	Low risk	LGFA guidance to include all emission categories	Outsourced	No	No	No

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