

Greenhouse Gas Emissions Inventory Report

Prepared in accordance with Part 7.3.1 of ISO 14064-1:2018



Nelson City Council

Persons responsible: Principal Climate Change Adviser and Senior Climate Change Adviser

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For the period: 01 July 2025 to 30 June 2026

Base year: 01 July 2024 to 30 June 2025

Verification/Assurance Status: McHugh & Shaw Limited completed independent verification. The assurance level achieved is Reasonable Assurance for ISO Categories 1-2 and Limited Assurance for ISO Categories 3-6.

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Greenhouse Gas Emissions Inventory summary

Table 1: GHG emissions data summary (tCO₂e).

	FY 17/18 (Old base year)	FY 21/22	FY 22/23	FY 23/24	FY 24/25 (Old boundary)	FY 24/25 (Base year)	FY 25/26
Category 1	1,927	1,748	1,657	1,370	1,530	3,951	3,839
Category 2 (Electricity)	1,083	1,325	617	771	791	822	708
Category 3 (Transport)	109	15	316	282	262	276	212
Category 4 (T&D)	24	106	75	63	64	62	54
Category 5 (Rental)	0	0	0	267.3	253	454	341
Category 6 (Joint Business Units)	69,759	23,578	5,227	5,558	6,163	7,773	7,408
Total gross GHG from NCC (operational)	72,902	26,772	7,892	8,311	9,063	13,338	12,562
Category 3 (PT & waste collection)						629	614
Category 4 (Suppliers)						10,597	14,101
Category 6 (Joint CCTOs)						2,598	2,399
TOTAL gross emissions (value chain)						27,161	29,676
Certified green electricity	0.00	0.00	0.00	0	0	0	0
Purchased emission reductions	0.00	14.1	28.25	0	0	0	0
Net GHG emissions (operational)	72,904	26,757.9	7,863.75	8,311.54	9,063	13,338	12,562
Total gross operational GHG emissions per Population	1.39	0.49	0.14	0.15	0.166	0.25	0.23
Total gross operational GHG emissions per Rateable Units	3.38	1.19	0.35	0.36	0.397	0.60	0.53

Note:

Total number of rateable rating units as of 2017: 21,577 Total number of rateable rating units as of 2026: 23,561

Total population 2017-2018: 52,350 Total population 2025-2026: 54,300

Note – data on 2025-2026 rateable units provided by NCC finance team.

Note – data on 2025-2026 Nelson City population sourced from Infometrics.co.nz: <https://rep.infometrics.co.nz/nelson-city/population/growth>

Table 2: GHG emissions inventory summary by scope and greenhouse gas for FY 25/26.

Scope 1 Category 1	NCC	CCOs 100%	JBU's 50%	Rentals	CCTOs VC	Contractors
Petrol	18,137	15,638				
Diesel	33,425	2,498				
Stationary diesel	98,552	11,569				11,139
Stationary LPG	5,261	4,721				
Fertiliser						4,990
Wastewater Nelson North	3,633,089					
Refrigerants	-					
Category 1 total	3,788,465	34,425	0	0	0	16,129
Scope 2 Category 2	NCC	CCOs 100%	JBU's 50%	Rentals	CCTOs VC	Contractors
Electricity	641,165	66,429				
Scope 3 Category 3	NCC	CCOs 100%	JBU's 50%	Rentals	CCTOs VC	Contractors
Air travel	14,854	1,757				
Accommodation	2,043	292				
Rental cars	72					
Staff commuting	189,952					
Working from home	3,444					
Waste collection						83,371
Public transport						530,408
Category 3 total	210,364	2,049	-	-	-	613,779
Scope 3 Category 4	NCC	CCOs 100%	JBU's 50%	Rentals	CCTOs VC	Contractors
Professional services						1,739,588
Maintenance						1,940,734
Capital projects						9,844,722
IT						218,542
Forestry						357,277
T&D losses	48,548	5,030				
Category 4 total	48,548	5,030	-	-	-	14,100,864
Scope 3 Category 5	NCC	CCOs 100%	JBU's 50%	Rentals	CCTOs VC	Contractors
Electricity (generation & T&D losses)				271,370		
Diesel				3,241		
LPG				66,798		
Category 5 total				341,408		
Scope 3 Category 6	NCC	CCOs 100%	JBU's 50%	Rentals	CCTOs VC	Contractors
Landfill gas			3,794,543			
Wastewater Bell Island			3,047,514			
Electricity			266,476		259,890	
Fuel			8,402		2,139,480	291,071
Category 6 total	-	-	7,116,935	-	2,399,370	291,071
Scope 3 Total	258,912	7,078	7,116,935	341,408	2,399,370	15,005,714
Grand Total	4,688,542	107,933	7,116,935	341,408	2,399,370	15,021,843
Grand Total			Operational	12,562,018	Value Chain	17,114,013
Grand Total						29,676,030

Table 3 GHG stock liability (see Table 7: for mass of individual gases).

Source	Units	Quantity	Potential Liability tCO ₂ e
R-410A	kilograms	18	34.63

1 Introduction

This report is the annual greenhouse gas (GHG) emissions inventory report for Nelson City Council. The inventory is a complete and accurate quantification of the amount of GHG emissions that can be directly attributed to the Council's operations within the declared boundary and scope for the specified reporting period. The inventory has been prepared in accordance with the requirements of ISO 14064-1:2018 Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals. Where relevant, the inventory is aligned with industry or sector best practice for emissions measurement and reporting.

1.1. Base year information

A new base year of 2024-2025 has been established for Nelson City Council's emissions inventory report due to significant changes to the boundary and calculation methodology. This aligns with ISO guidance for base year review and recalculation procedure to account for substantial cumulative changes in base year emissions resulting from change in calculation methodologies. This report retains data since the old base year 2017-2018, for comparison.

Council's target for operational emissions from transport and energy is 43 per cent reduction in gross emissions from 2017/18 levels by 2030. This equates to an average of 4.8 per cent reduction each year.

1.2. Significance criteria

The criteria for significance for emission sources in this inventory are determined by the relative percentage of emissions from a given source, above the threshold of 1%. For example, if an emission source has 0.05% impact on the total carbon emissions, it will be considered *de minimis* and may not be included in the inventory depending on other significance criteria.

Other significance criteria are level of control, ability to measure, industry practice, relevance to transition risks and opportunities, and relevance to primary users of data.

In alignment with ISO 14064-1, this greenhouse gas inventory focuses on direct and indirect emissions within the organization's operational control.

Other significance criteria are laid out in the inclusions and exclusions sections of this report, where emissions from Joint Business Units, Council Controlled Organisations, Council Controlled Trading Organisations, and Council Organisations (CCOs, CCTOs and COs respectively) are identified and exclusions are reported.

Influence – Council includes emission sources for which it has majority influence over in the operational carbon footprint, such as direct emissions from owned-Council used properties and other directly influenced sources. Council-controlled entities that are indirectly influenced by council are included in Scope 3 Value chain footprint (EG. Kūmanu fuel consumption as this is not directly influenced by Council due to Kūmanu being a separate legal entity.). It is noted that Council includes in the Statement of Expectations, a clause that promotes the reduction of GHG emissions in all CCOs, CCTOs and COs.

1.3. Emission factors

Emission factors for the 2025-2026 Financial Year edition of the NCC carbon emissions inventory were sourced from [the Ministry for the Environment Measuring Emissions Catalogue 2026](#). The exceptions to the emission factors being used exclusively from MfE are the UEF implemented for landfill emissions, due to the infrastructure implemented at York Valley Landfill. Additionally, both WWTPs in this inventory use their own emission factors based on the Water NZ carbon accounting guidelines.

2 Statement of intent

This inventory forms part of Nelson City Council's commitment to reduce its operational emissions. The inventory report and any GHG assertions are expected to be verified by a third-party verifier. The level of assurance is reported in a separate Assurance Statement.

The intended use of the Council operational footprint report is to track down emissions reductions achieved because of initiatives/interventions by comparing GHG emissions from base year.

The intended users are internal staff part of the climate change team and key teams such as transport, property services, WWTP, communities, etc.

External users such as Annual Report auditor, community organisations and residents would be also interested to make Council accountable for its commitment to reduce operational emissions. Additionally, other intended users are councillors, management, as well as other stakeholders.

3 Organisation description

Te Kaunihera ō Whakatu, Nelson City Council (Council), is the unitary authority of Nelson, a city of approximately 54,300 (as of 2025-2026) residents. With approximately 403 (as of June 2026) *full time* equivalent staff, Council delivers projects and services across a range of activities: transport, water supply, wastewater, stormwater, flood protection, solid waste, environment, social, parks and active recreation, economic and corporate. These activities cover a wide range of services to the community.

Council, through a resolution on 3 May 2018, committed to adopting and implementing a comprehensive plan to reduce carbon emissions. The first step, as per the recommendations that were adopted, was for Council to measure its own carbon footprint. This focus has continued through the subsequent Long Term and Annual Plans and Climate Action Plan. Additionally, in 2025 the Council has adopted a new climate change strategy, which further builds on the 2018 resolution.

Council Controlled Organisations (CCOs).

Nelson City Council is involved in a range of CCOs that are set up to deliver public benefit for the city in a financially prudent manner.

Council has four CCOs. These are: The Suter Art Gallery Te Aratoi o Whakatū; City of Nelson Civic Trust, Nelson Marina Management Limited, Nelson Regional Development Agency, Nelson Municipal Band Trust (Nelson School of Music).

The Council organisations (COs)

The COs are owned by Council and are set up with intentions of cultivating public culture. These are organisations for which a local authority controls any proportion of the voting rights, or rights to appoint directors/trustees. These are Nelson Centre of Musical Arts (shared with TDC – 50%) and Nelson Festivals Trust).

Council controlled trading organisations (CCTOs)

Nelson City Council's infrastructure holdings include a 50% share in Infrastructure Holdings Limited (IHL), which owns and manages Council controlled trading organisations (CCTOs) Nelson Airport Limited and Port Nelson Limited.

Council also jointly with owns Nelmac Limited (trading as Kūmanu), set up with the primary objective of returning a profit as well as delivering agreed strategic outcomes for the city.

Joint business units (JBUs)

Council controls waste management organizations, including NRSBU and NTRLBU. These are jointly owned with Tasman Council at a 50% split rate of emissions for Bell Island WWTP and Landfill. Additionally, Civil Defence is

jointly owned with TDC, however only the electricity portion is allocated to NCC (50%), remaining emissions are fully allocated to NCC (e.g. fuels)

Leased out properties

Council owns many properties within the city – some of which are leased to businesses at market rates, others are leased at a subsidised rate to community organisations such as sports clubs and community groups. Council retains ownership of some of its properties and facilities, while contracting the operation to others – for example, Council’s swimming pools are contracted to CLM, and community housing is contracted to Nelson Tasman Housing Trust.

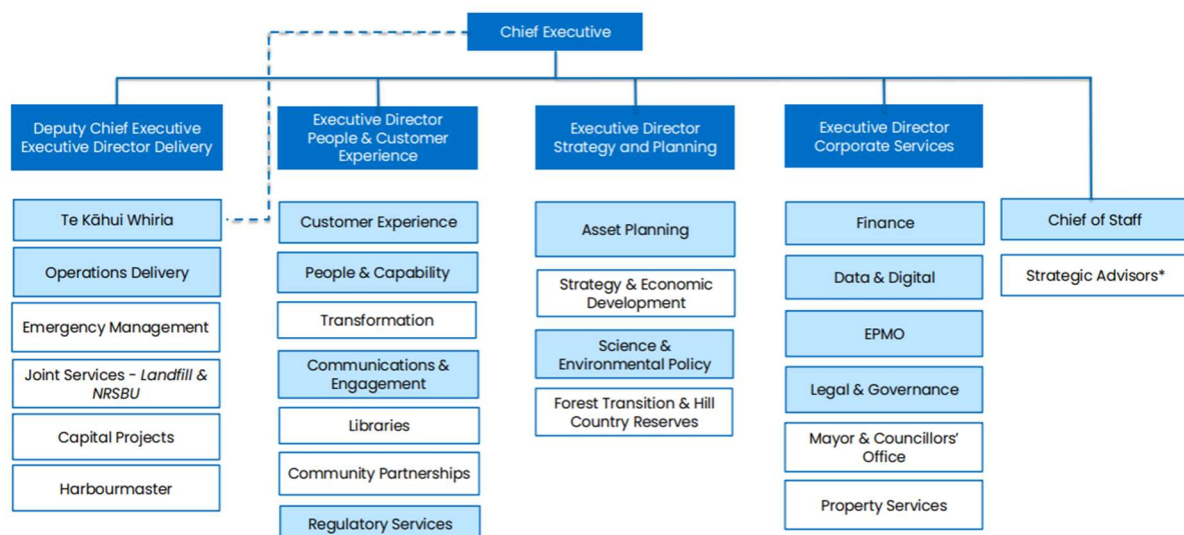
4 Organisational boundaries included for this reporting period

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards. The GHG Protocol allows two distinct approaches to be used to consolidate GHG emissions: the equity share and control (financial or operational) approaches.

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An operational control consolidation approach was used to account for emissions. The organisational chart provides a summary overview of the primary NCC structures and business units, outlining which assets and activities are included within the scope of this report. This report covers the Council full value chain emissions. Organisational boundary indicates which entities are included in the operational boundary (Council has higher level of control) and value chain boundary (council has lower level of control) as well as which organisations’ emissions are reported in Scope 1 & 2, and which ones are reported only in Scope 3.

Figure 1: Council organisational structure.



All parts of the Council are included in the organisational boundary as Council’s own operations. For Joint Business Units, CCTOs and Nelson Museum 50% of emissions were counted to reflect co-ownership with TDC.

Figure 1: Organisational Boundary.

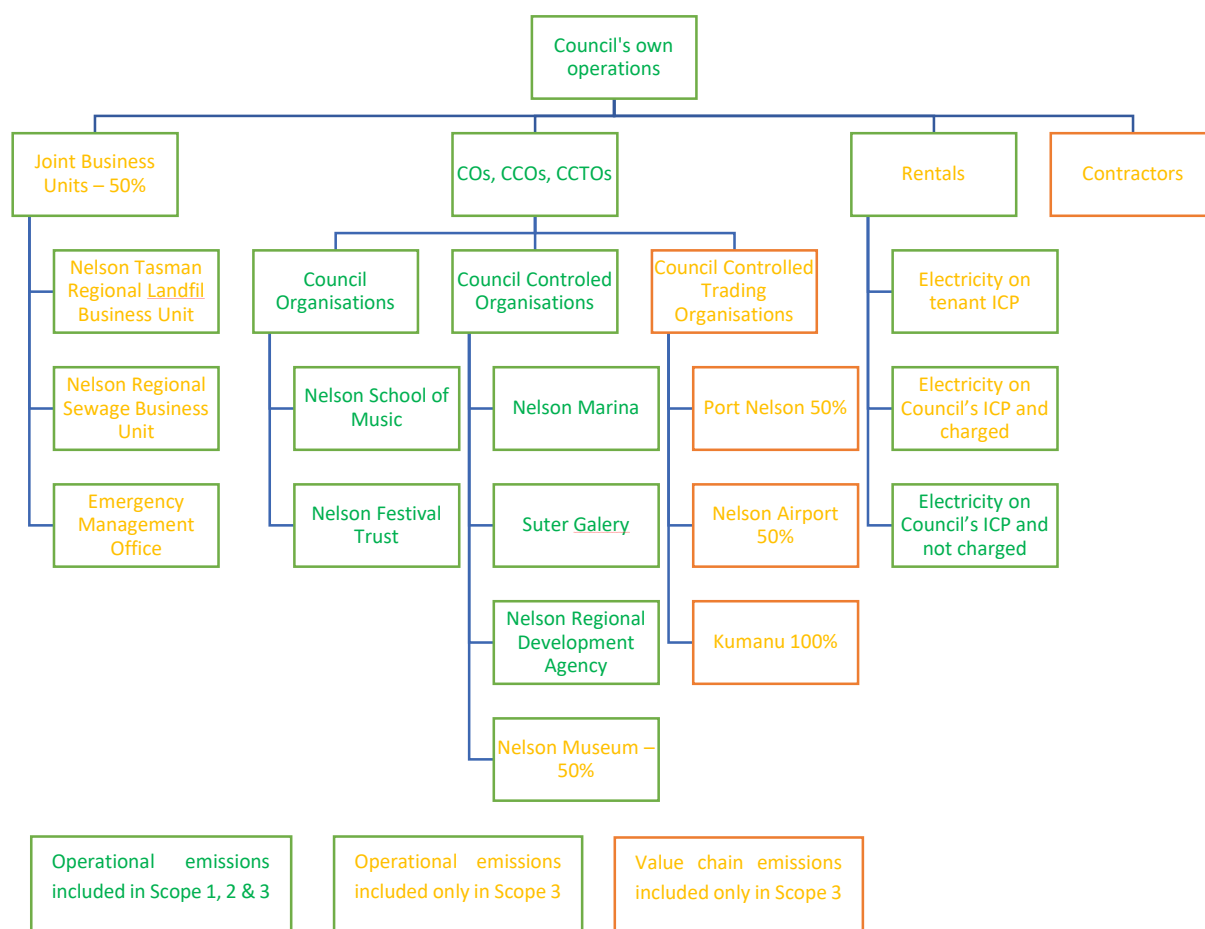


Figure 2: Organisational Boundary.

Table 4: Brief description of business units.

Business unit	Purpose
Corporate Services	Corporate Services covers a range of necessary services to ensure the smooth running of the organisation. Council also manages a small portfolio of properties that were purchased for strategic purposes.
People and customer experience	Social Activity supports community wellbeing through provision of a range of social, arts and heritage facilities such as libraries or Founders Heritage Park. The council also funds events, invests in and supports the work of key community-owned facilities and funds community development. Organisations outsourced to conduct some of the work for this Business Unit are: • The Suter Art Gallery Te Aratoi o Whakatū • Tasman Bays Heritage Trust – Nelson Museum • Nelson Centre of Musical Arts • Nelson Festivals Trust

Business unit	Purpose
Strategy & Planning	Council's environmental activities include planning, city development, scientific monitoring and reporting, education, and assistance, as well as building and resource consents, compliance, and enforcement. Parks and Active Recreation manages a network of approximately 11,250 hectares of parks and reserves for the city and provides recreation opportunities through indoor and outdoor sports facilities. Kūmanu (CCTO) is outsourced to conduct some of the work for this Business Unit. As of 01 July 2025, Green By Nature, will be taking over the contract from Kūmanu for managing the city's parks, reserves and open space assets. Forestry transition refers to transitioning Council commercial forestry to permanent native forest.
Delivery	Infrastructure and Networks covers provision of transport infrastructure, the water supply system, and wastewater, stormwater, and solid waste management for the Nelson district. Organisations outsourced to conduct some of the work for this Business Unit are: • Kūmanu (CCTO) • NRSBU • NTRLBU

5 Organisational business units excluded from inventory

Full value chain emissions are included in the boundary.

6 GHG emissions source inclusions

The GHG emissions sources included in this inventory were identified with reference to the methodology described in the GHG Protocol and ISO14064-1:2006 standards. Identification of emissions sources was achieved via personal communications with Nelson City Council staff and cross-checked against operational expenditure records for the reporting period.

These emissions were classified into the following categories:

- **Direct GHG emissions (Category 1):** GHG emissions from sources that are owned or controlled by the organization. This includes the Nelson North Wastewater Treatment Plant and Tantragee Water Treatment Plant contractor stationary diesel use on the site.
- **Indirect GHG emissions (Category 2):** GHG emissions from the generation of purchased electricity
- **Operational Indirect GHG emissions (Categories 3 - 6):** GHG emissions that occur consequently of the activities of the organization but occur from sources not owned or controlled by the company. These include T&D losses, business travel, staff commuting, working from home, rentals and joint business units shared 50% with TDC (Emergency Management, Landfill, and the Bell Island Wastewater Treatment Plant).
- **Value Chain indirect GHG emissions (Categories 3-6)** GHG emissions that occur consequently of the activities of the organization further in the Council's value chain. These include purchased goods and

services estimated based on annual spend, fuel used by public transport and waste collection contractors and CCTO's jointly owned 50% with TDC.

The emissions sources in the following table have been identified and included in the GHG emissions inventory (next page). A qualitative assessment of uncertainty was used over quantitative due to being too time consuming and expensive.

Table 5: GHG emissions sources included and excluded in the inventory

GHG Protocol category	GHG emissions source	ISO GHG emissions categories	Data source	Data collection unit	Uncertainty (description)	Uncertainty tier
Stationary combustion	Diesel – council assets	1	Waitomo Mini Tankers	L	These emissions are from the purchased diesel rather than consumed diesel. The tank capacity means by the end of FY NCC might still have some diesel storage.	M1
	LPG – council assets	1	ELGAS	Kg/L	In some cases, LPG was converted from L to Kg using a 0.54Kg/L conversion rate, due to the MfE emission factors only measuring stationary LPG as Kg. conversion rate sourced from internet; conversion rate shared by numerous sources.	M2/D2
	Diesel – managed by contractors at NWWTP and TWTP	1	Kūmanu, Fulton Hogan	L	Data on diesel purchased for the site provided by contractors managing the site. Estimated based contractors' records.	E2
	Diesel – CCOs owned 100%	1	Nelson Marina	L	Includes diesel use at Marina. Other CCOs diesel use is not included, but the use has been estimated as minimal (back-up generators).	M1/ E1
	LPG – CCOs owned 100%	1	Nelson Marina	KG/L	Includes LPG use at Marina. Other CCOs LPG use is not included, but the use has been estimated as minimal (LPG use by a café at Suter Gallery).	M1/ E1
Mobile combustion	Diesel – council fleet	1	BP Fuel Card	L	Fuel use by Council owned fleet.	M1
	Petrol – council fuel	1	BP Fuel Card	L	Fuel use by Council owned fleet.	M1
	Fuel – CCOs owned 100%	1	Nelson Marina, NRDA	L	Fuel use information has been provided by the Marina and estimated for NRDA based on the data from FY24/25. Any fuel use by other CCOs is considered immaterial and is excluded.	M1/E3
Fugitive emissions	Refrigerants – council assets	1	Best & West	kg	Total amount of top ups in the years has been provided by the contractor. No work on minor heat pumps is included. Only NCC council buildings have been included in this assessment.	E1
	Refrigerants – CCOs owned 100%	1			No data available, assumed <i>de minimis</i> .	Excluded
	Fertiliser use	1	Green by Nature	kg	The amount of fertiliser used and its nitrogen content was provided by supplier who applies it to Council land. Three different quantities of fertiliser are used for NCC projects, split into non-urea, urease-coated, non-urease coated fertiliser types which have their separate emission factors.	M1

GHG Protocol category	GHG emissions source	ISO GHG emissions categories	Data source	Data collection unit	Uncertainty (description)	Uncertainty tier
	Wastewater treatment emissions (NWWTP)	1	NWWTP Rolling Process Data sheet		Emissions are calculated based on volume, BOD and TN content of sewage treated through specific treatment and disposal processes based on Water NZ guidance.	D1/E3
Electricity	Electricity – council assets	2	Meridian	kwh	Electricity measured for ICPs associated with council units in the FY25/26. Electricity charged back to tenants and joint business units is deducted and reported in Category 5 and 6 respectively.	M1
	Electricity – CCOs owned 100%	2	Nelson Marina, historical carbon footprint reports	kwh	Nelson Marina electricity usage provided by the CCO. Other CCOs estimated based on: Suter Gallery estimated on 2021 carbon footprint, Nelson School of Music estimated based on 2022 footprint, NRDA, estimated based on 2021 footprint. Nelson Festival Trust and City of Nelson Civic Trust are based in Council premises.	M1/E3
Purchased goods & services Capital Goods	Purchased goods and services	4 Value Chain	General Ledger for FY25/26	\$	Estimated for all suppliers with spend over \$50K, based on emission factors from Market Economics corrected for inflation. Excludes emissions (e.g. waste or public transport) that are accounted for in other categories.	E3
Fuel and energy related activities	T&D losses – council assets	4 Operational	Meridian	kwh		M1
	T&D losses – CCOs owned 100%	4 Operational	Nelson Marina, historical carbon footprint reports	kwh		M1/E3
	Production and distribution of fuel	4			Excluded, as no reliable emission factors available in New Zealand. Estimated at 44TCO ₂ e based on UK factors.	Excluded
Waste generated in operations	Operational waste for Council and CCOs owned 100%	4			Emissions are included in Cat 6 as part of fugitive emissions from the landfill.	
Business travel	Rental cars	3 Operational	FCM Travel	km	Recorded by FCM Travel and provided in an annual report for FY25/26	D1
	Air travel	3 Operational	FCM Travel Credit card records	pkm	Recorded by FCM Travel and provided in an annual report for FY25/26 Small amounts of travel have been booked outside of FCM Travel and has been estimated based on \$ spend.	D1/E3

GHG Protocol category	GHG emissions source	ISO GHG emissions categories	Data source	Data collection unit	Uncertainty (description)	Uncertainty tier
	Accommodation	3 Operational	FCM Travel Credit card records	nights	Recorded by FCM Travel and provided in an annual report for FY25/26 Small amounts of travel have been booked outside of FCM Travel and has been estimated based on \$ spend.	D1/E3
	Taxi	3			Excluded – only minimal amounts used but difficult to track. Estimated at 23 kg CO2e.	Excluded
	Public transport	3			For Nelson Included under total Public Transport emissions. For other cities excluded as deemed immaterial and difficult to measure.	Excluded
Employee commuting	Employee commuting	3 Operational	Employee survey		Based on an internal NCC staff survey, of which around half of all staff members responded. From this, a per capita estimation and subsequent scaled-up approximations have been calculated to give the figure in the inventory. All bus travel is assumed on e-bus (this is double counting with Public Transport in Category 3 Value Chain – a slight overestimate). It is also assumed that there is no emissions from e-bikes – a slight underestimate.	D2
	Working from home	3 Operational	Employee survey		Based on an internal NCC staff survey, of which around half of all staff members responded. Staff were asked how many days a week they work from home in a typical week.	D2
Downstream transportation and distribution	Waste collection	3 Value Chain	Waste Services Contract Manager	L	Based on fuel use recorded by waste collection contractors.	M2
	Public transport	3 Value Chain	Public Transport Contract Manager	L kwh	Annual electricity and diesel use estimated by Public Transport Contract Manager based on confidential data (km) provided by the PT Operator.	E2
	Freight	3	General Leger FY25/26	\$	Excluded due to difficulty in estimating the emissions. Estimated based on GL codes to equal below 100T CO2e in FY25/26.	Excluded
Downstream leased assets	Electricity in rented buildings	5 Operational	Electricity charging records Property size records E-mails from Riverside and Nayland Pools, Brook Camp, Maitai Camp, Tahunanui Camp	\$ Sqm kwh	Properties where IPC is assigned to NCC and charged to the tenants estimated based on a rate 0.3436\$/kwh. Properties where IPC is assigned to the tenant estimated based on sqm size of property and estimated based on 200kwh/sqm for café and commercial properties, 150kwh/sqm for low use properties (sheds) and 80kwh/sqm for residential.	M2/E3

GHG Protocol category	GHG emissions source	ISO GHG emissions categories	Data source	Data collection unit	Uncertainty (description)	Uncertainty tier
					For largest tenants kwh use was provided by the managers. Reported emissions include both generation and T&D.	
	LPG in rented buildings	5 Operational	E-mails from Riverside and Nayland Pools, Brook Camp, Maitai Camp, Tahunanui Camp	Kg/L	LPG use at the campgrounds has been provided by camp managers. The use of LPG at 3 cafes and 2 residential buildings has been excluded due to lack of information, and is considered minimal (it has been previously estimated at 3.61 TCO2e).	M2 Excluded
	Refrigerants in rented buildings	5 Operational		L	Loss of refrigerants in rented buildings is excluded from the boundary. A significant leak was notified in FY25/26 at Riverside Pool.	Excluded
	Diesel in rented buildings	5 Operational	Tahunanui Camp	L	Only Tahunanui camp reported diesel use.	M2
	Grazing on council land	5	Contract Manager biodiversity	no	Estimated based on the number of sheep and cattle grazed on the Council land to be less than 100T CO2e, and excluded from the boundary based on difficulty in measuring and lack of less carbon efficient alternatives.	Excluded
Investments NTRLBU	NTRLBU - electricity	6 Operational	Meridian	kwh	ICPs associated with NTRLBU are managed by NCC. Includes generation and T&D emissions. 50% is accounted to reflect 50% ownership with TDC.	M1
	NTRLBU – contractor diesel use	6 Operational	NTRLBU analyst, Edridge	L	Diesel use in the compactor and other equipment operated by Edridge at the landfill. Annual use was estimated by Edridge and provided by NTRLBU. 50% is accounted to reflect 50% ownership with TDC.	M2
	NTRLBU – mobile fuel	6 Operational	BP Fuel card	L	NTRLBU uses NCC BP fuel card. 50% is accounted to reflect 50% ownership with TDC.	M1
	NTRLBU – fugitive emissions (CH4)	6 Operational	NTRLBU analyst	T	Landfill emissions are estimated based on York Valley landfill waste records for the year. NTRLBU calculates a Unique Emission Factor every year for its ETS disclosure for calendar year 2025. This UEF is applied to waste deposited to the landfill in the FY25/26. Waste categories in the UEF and emissions calculations are crosschecked to confirm the same types of waste are considered in both calculations. 50% is accounted to reflect 50% ownership with TDC.	D2

GHG Protocol category	GHG emissions source	ISO GHG emissions categories	Data source	Data collection unit	Uncertainty (description)	Uncertainty tier
	NTRLBU – biogas combustion	6 Operational	NTRLBU analyst	M3	Some landfill gas is flared at the site and some is used by the Nelson hospital for heating. The amount sent to both destinations is tracked by NTRLBU in m3. M3 are converted to TJs where 1m3 landfill gas = 0.000018TJ. No emission factor is available for m3. Only CH4 and N2O emissions associated with the combustions are counted. Only emissions flared at the landfill are counted to reflect beneficial use of the gas at the hospital. Landfill gas replaced coal at the hospital. 50% is accounted to reflect 50% ownership with TDC.	D2
Investments NRSBU	NRSBU - electricity	6 Operational	Meridian	kwh	ICPs associated with NRSBU are managed by NCC. Includes generation and T&D emissions. 50% is accounted to reflect 50% ownership with TDC.	
	NRSBU – stationary fuel use by a contractor	6 Operational	NRSBU engineer Kūmanu	L	Kūmanu operates a generator, diesel steam cleaner and seeding pumps at NRSBU, and provides NRSBU with L diesel use at the site on annual basis. 50% is accounted to reflect 50% ownership with TDC.	M2
	NRSBU – mobile fuel use by a contractor	6 Operational	NRSBU engineer NMW	L	NMW uses mobile spreaders to deposit processed sludge at Rabbit Island, and provides NRSBU with the L diesel used for that purpose on annual basis. 50% is accounted to reflect 50% ownership with TDC.	M2
	NRSBU – mobile fuel	6 Operational	BP Fuel card	L	NRSBU uses NCC BP fuel card. 50% is accounted to reflect 50% ownership with TDC.	M1
	NRSBU – treatment emissions	6 Operational	Bell Island Rolling Process Data sheet		Emissions are calculated based on volume, BOD, COD and TN content of sewage treated through specific treatment and disposal processes (effluent and sludge) based on Water NZ guidance. 50% is accounted to reflect 50% ownership with TDC.	D1/E3
Investment EMO	Emergency Management Office - electricity	6 Operational	Meridian	kwh	ICPs associated with EMO are managed by NCC. Includes generation and T&D emissions. 50% is accounted to reflect 50% ownership with TDC.	M1
	Emergency Management Office – fuel use	6 Operational	BR Fuel card	L	EMO uses NCC BP fuel card. 50% is accounted to reflect 50% ownership with TDC.	M1
Investment – other	Port Nelson	6 Value Chain	Port Nelson Environmental Manager	TCO2e	Scope 1 and Scope 2 emissions are provided by Port Nelson on annual basis. 50% is accounted to reflect 50% ownership with TDC.	M2

GHG Protocol category	GHG emissions source	ISO GHG emissions categories	Data source	Data collection unit	Uncertainty (description)	Uncertainty tier
	Nelson Airport	6 Value Chain	Nelson Airport Sustainability Manager	TCO2e	Scope 1 and Scope 2 emissions are provided by Nelson Airport on annual basis. 50% is accounted to reflect 50% ownership with TDC.	M2
	KūmanuKūmanu	6 Value Chain	Kūmanu HSEQ Advisor	TCO2e	Scope 1 and Scope 2 emissions are provided by Kūmanu on annual basis. Emissions associated with fuel use by Kūmanu used at NWWTP and Bell Island WWTP has been deducted from this category and included in Scope 1 and NRSBU emissions respectively.	M2
	Nelson Museum	6 Value Chain	Ekos	L/ kwh	Based diesel and electricity use as reported in Ekos carbon footprint from 2019. 50% is accounted to reflect 50% ownership with TDC.	E3

6.1 Other emissions – HFCs, PFCs and SF₆

NCC uses hydrofluorocarbons (HFCs) in our operations, and these have been included in the inventory. These are contained in NCC's Air-Conditioning units. NCC Air conditioners in FY 25-26 did not have leaks or top-ups of HFC gases, however the air conditioners still contain potential emission liabilities from existing gas stock. Only Council assets are included in this assessment. No review of refrigerants in CCO's or rental properties has been undertaken.

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

Nayland college uses its wood burner water boilers to heat sections of Nayland Pool. This totalled to 89.9 tons of wood pallets burned throughout FY 24-25. This is outside of NCC's scope of reporting, so has not been included in the carbon inventory.

6.3 Other emissions – deforestation

Carbon sequestration is not included in this inventory

6.4 Pre-verified data

No pre-verified data is included within the inventory.

7 Data collection and uncertainties

Table 5 above provides an overview of how data was collected for each GHG emissions source, the source of the data and an explanation of any uncertainties or assumptions made.

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

A recalculation of FY24/25 was completed in accordance with the new boundary and calculation methodologies used in FY25/26.

Table 6: Data risk assessment – uncertainty tears

Data management	Data collection		
	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 prorated on previous results, use of precedents or historical data, or even a calculated guess.
Robust Evidence of sound, mature and correct reporting system, where room for error is negligible. Examples would include use of spreadsheets, databases and on-line	M1	D1	E1
Satisfactory Examples would include manual, but structured keeping of records, files and results. Some potential for error or loss of data.	M2	D2	E2
Questionable	M3	D3	E3

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.			
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New boundary and calculation methodology was applied in FY25/26. FY24/25 emissions have been recalculated following the same methodology to enable comparison from year to year. New carbon footprint distinguishes between operational and value chain footprint for Scope 3 emissions.

New emission sources included in the Scope 1 and 2:

- Contractors diesel at NWWTP and TWTP
- NRDA fleet fuel use
- Electricity estimate for all 100% owned CCOs

New emission sources included in the operational Scope 3:

- T&D losses in all 100% owned CCOs
- NRDA business travel

New emission sources included in the value chain Scope 3

- Purchased goods and services estimated from annual spend
- Fuel use in waste collection
- Fuel use in public transport
- Scope 1 & 2 emissions of Port Nelson, Nelson Airport, Kūmanu and Nelson Museum

Key methodology changes include

- Revised methodology for the calculation of waste water emissions resulting in 180% increase for NWWTP and 71% increase for Bell Island. These numbers, while still lower better reflect observed emissions at NWWTP.
- More detailed employee commute questionnaire enabling people to indicate different modes of commute throughout the week
- Correction of data transfer errors e.g. for electricity.

Due to lack of data no full recalculation was possible for FY17/18. Using high level EF correction and using data from FY24/25 as proxy a comparison was derived in the figure below.

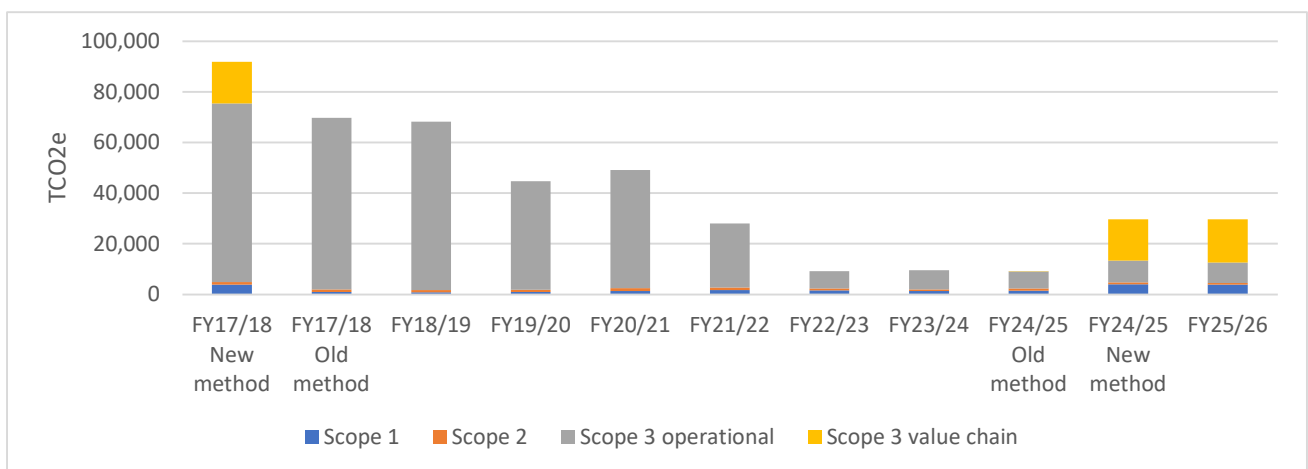


Figure 3: Operational Boundary changes.

8 GHG emissions calculations and results

GHG emissions for the organisation for this measurement period are provided in Table 1 where they are stated by category and as total emissions.

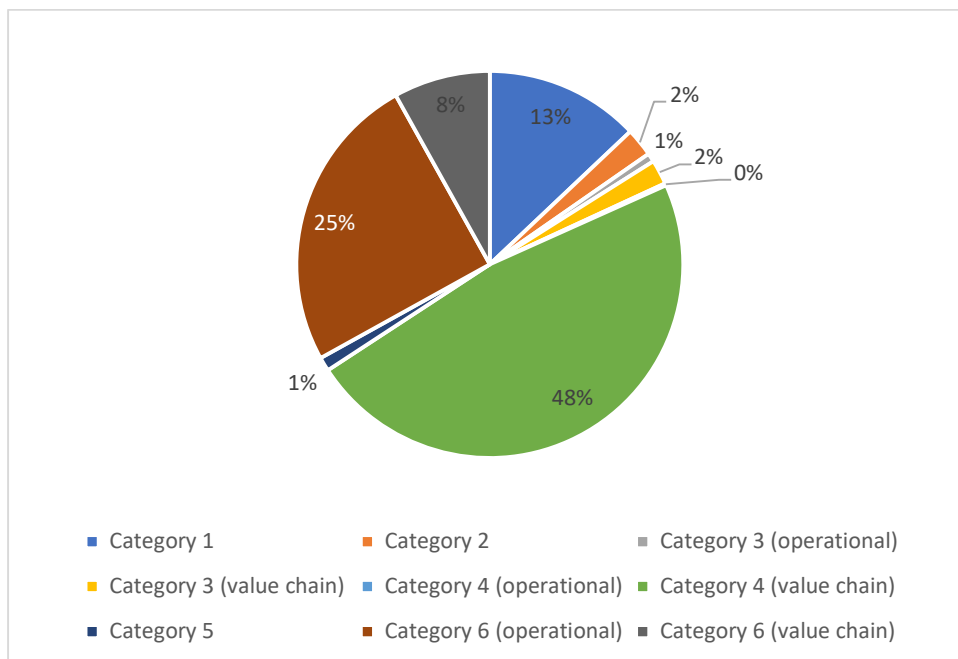


Figure 4: Percentage of GHG emissions by category FY 24-25

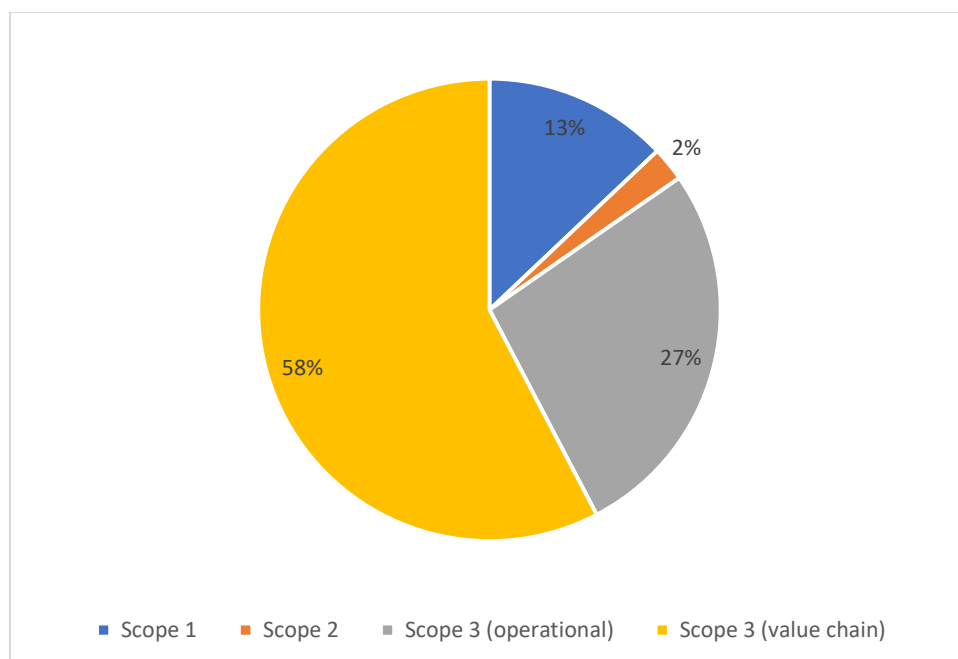


Figure 5: Percentage of GHG emissions by scope FY 24-25

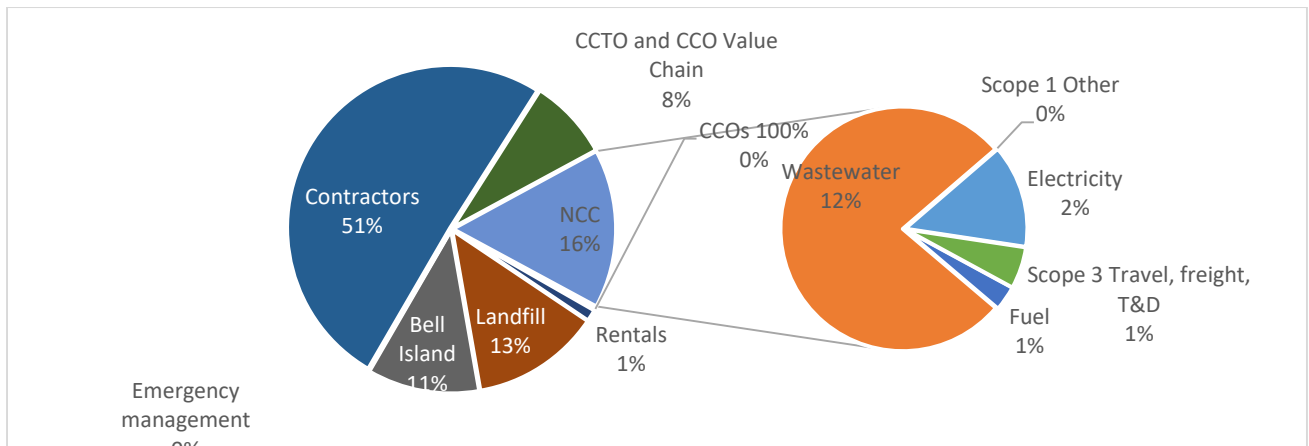


Figure 6: GHG emissions sources by source FY 25-26

9 GHG emissions comparison

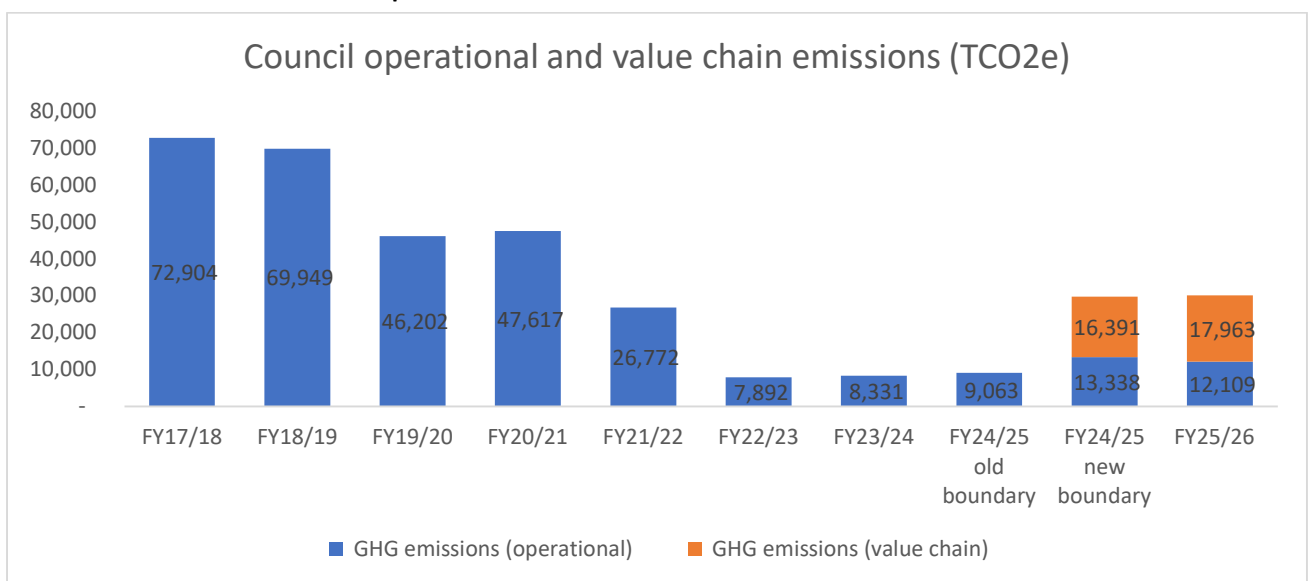


Figure 7: Comparison of total GHG operational emissions between the reporting periods.

Biogenic GHG emissions

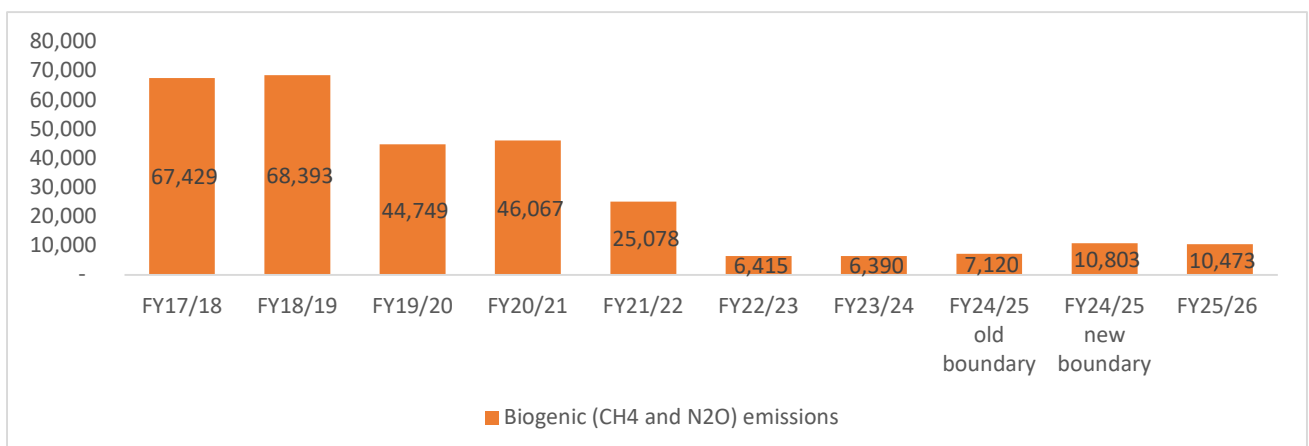


Figure 8: Biogenic emissions between base year and reporting periods.

Table 7 - Breakdown of biogenic emissions

Biogenic Emissions (Methane and Nitrous Oxide in TCO ₂ e)										
	2017 – 2018	2018 – 2019	2019 – 2020	2020 – 2021	2021 – 2022	2022 – 2023	2023 – 2024	2024 – 2025	2024 – 2025 (new)	2025 – 2026
Waste – York Valley (CH ₄)	65,989.5	63,565.3	39,756.1	43,640.1	22,370.4	3,692.9	3,489.3	4023.0	4,021	3,792
Wastewater – Bells Island WWTP (CH ₄)	667.0	646.8	711.1	1,086.7	998.1	1,074.8	1,651.6	1,675.1	2,155	2,033
Wastewater – Bells Island WWTP (N ₂ O)	23.8	555.3	610.5	201.6	194.4	228.2	110.5	134.97	981	1,015
Wastewater – Nelson North WWTP (CH ₄)	724.3	342.3	370.4	982.3	1,327.3	1,247.3	997.1	1,149.11	3,089	3,018
Wastewater – Nelson North WWTP (N ₂ O)	24.8	293.8	318.0	156.3	187.5	171.7	141.9	141.942	596	615
Total	67,429.4	65,403.4	41,766.1	46,067.0	25,077.6	6,414.9	6,390.5	7,124.1	10,801	10,473

Biogenic emissions have reduced to **10,473 tCO₂e** from 10,801 tCO₂e in FY 24/25, a reduction of 328 tCO₂e, due to lower amount of waste sent to landfill and lower volume of sewage treated at NWWTP and Bell Island.

Other than biogenic GHG emissions

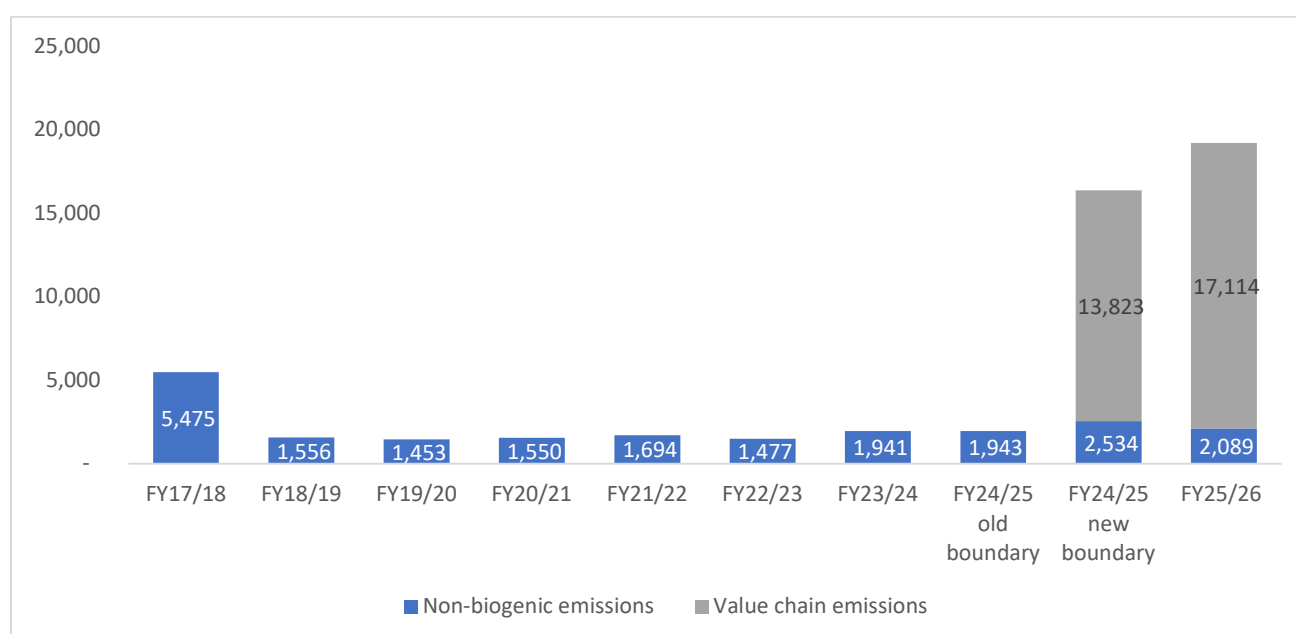


Figure 9: Other than biogenic methane emissions between base year and reporting periods.

In FY25/26 NCC **Scope 1,2 and 3 operational non-biogenic emissions were 2,089 TCO₂** – a significant reduction of 445 TCO₂e or 17% compared to FY24. Key factors in this reduction are:

- increase in fuel price which led to 10% reduction in fleet fuel use, 27% reduction in stationary fuel use (cremator, back up generators), 11% reduction in commuting related emissions
- reduction in the emission factor from 0.101 kg CO₂e/kwh to 0.079 kg CO₂e/kwh leading to 14% in Scope 2 electricity and 24% reduction in emissions from rentals
- other cost measures leading to 67% reduction in business travel

In FY25/26 NCC for the first time measured its **full value chain emissions, estimated at 17,114 TCO₂e**. Scope 3 Value Chain emissions have increased by 3,291 TCO₂e or 23% compared to FY24/25. This is due to higher than usual spend on capital projects such as Bridge to Better. The estimations of emissions associated with the contractor should be treated with caution as they carry the highest uncertainty. The Council plans to engage with key contractors over the next few years to measure the emissions associated with Capital Projects directly and drive emission reduction initiatives.

10 Progress on Targets

Council has a target of reducing transport and energy emissions by 43% compared to FY17/18.

Transport and energy emissions include:

- Council Mobile and stationary fuel use including contractors at NWWTP and TWTP
- Electricity use and transmission and distribution losses in Council assets and CCOs
- Business Travel
- Staff commuting and working from home
- Electricity and fuel use in rental properties
- Electricity and fuel used at Bell Island WWTP and the landfill

FY17/18 emissions have been updated to include the same emissions. Where data was unavailable (staff commuting, rental properties and fuel use at Bell Island and the landfill) it was assumed that the emissions were the same as in FY24/25 to enable meaningful comparison. **Transport and energy emissions dropped from 2,635 TCO2e in FY17/18, 2,527 TCO2e in FY24/25 to 2,082 in FY25/26.** This represents 21% reduction from FY17/18 and 17.6% reduction from FY24/25. While significant, this reduction is slightly off track compared to a target of 1,825 TCO2e for FY25/26

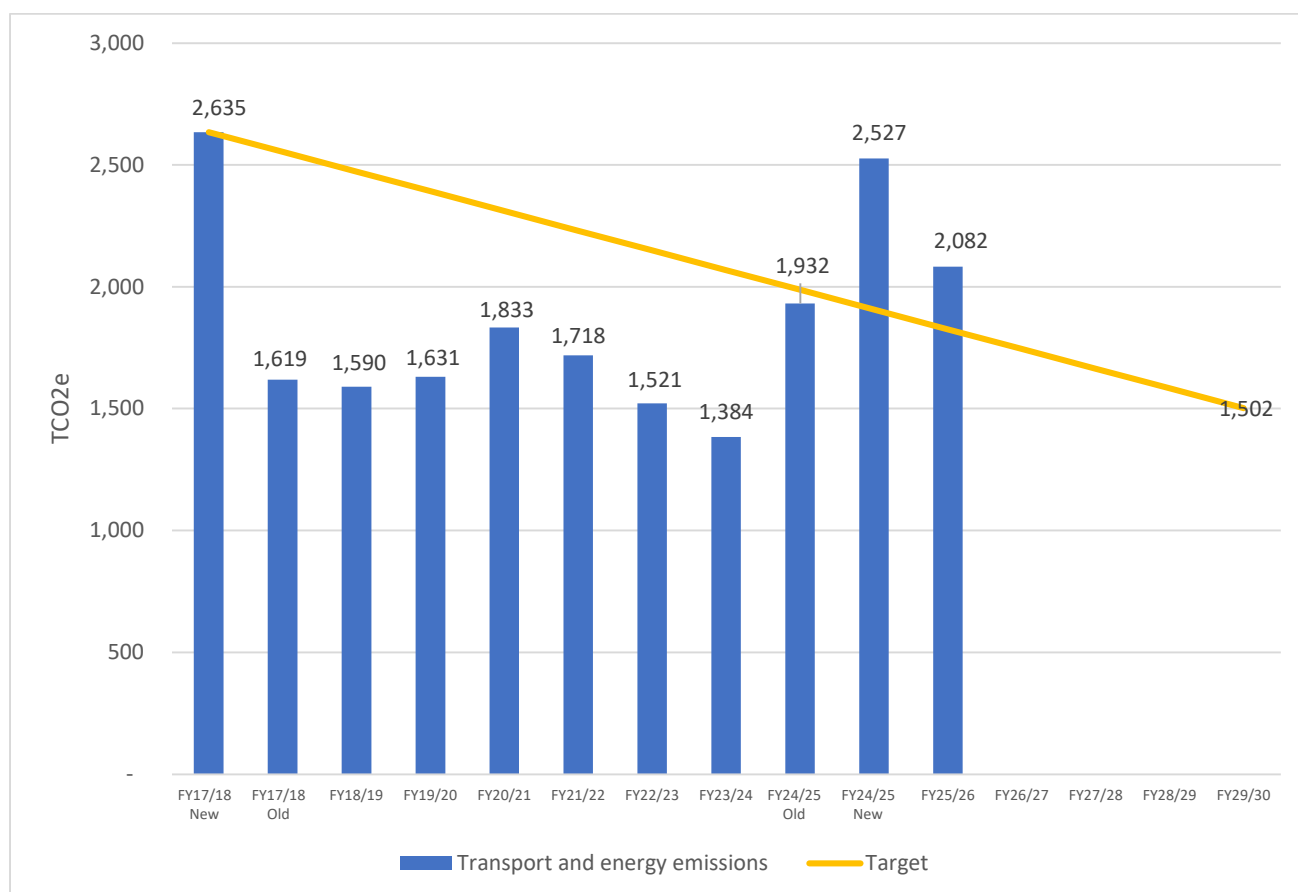


Figure 10: Transport and energy emissions

11 Liabilities

11.1 GHG stocks held¹

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 (Table 7).

GHG stocks have been reported in this inventory. Civic House has 2 air conditioning units that are large enough to meet criteria for inclusion, each holds 9kg of R410A.

Table 8 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
Civic House	R-410A	Kilograms	18.00	18.00	37.58

This inventory does not include refrigerants held at Riverside and Nayland's Pool or any other of the Council Organisations. A large leak occurred at Riverside pool this year releasing 600L of refrigerant to the atmosphere.

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.

No sequestration is claimed in the current year.

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 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. NCC has not purchased carbon offsets for the FY 25/26 inventory.

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.

¹ HFC stock liabilities for systems under 3 kg can be excluded.

- 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 been included in this inventory. landfill has been included (Joint Committee emissions) calculated based on the categories of waste weights that have crossed the landfill weighbridge.

Double counting has occurred for Kūmanu, Fulton Hogan, Edridge and NMW which have reported specific fuel use at NWWTP, TWTP and Bell Island and were also captured in Purchased Goods and Services spend based estimate.

14 Treatment of exported energy

The term "Exported energy" refers to energy that is supplied by the organisation to users outside of the organisational boundaries. Direct GHG emissions from energy generated and exported by NCC is to be reported separately from other emissions.

Treatment of exported energy refers to situations where the Nelson City Council and/or its entities export energy generated by the organisation in the form of electricity, heating, steam, cooling, or compressed air.

As of current, the York Valley landfill generates and captures landfill gas, which is exported to the Nelson Hospital to be used to power Hospital facilities such as heating and generators. During the 2025-2026 Financial Year, York Valley landfill reported an export of 2,061,143m³ of landfill gas to the Nelson Hospital, equivalent to 1,011 kgCO₂e.