Carbon Emissions Assessment Report – FY19/20 and FY20/21

FINAL ISSUE (Revision 3)

Prepared For: Selwyn District Council

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Taylor Collaborations Limited
Prepared by: Louise Wilson
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Collaborations

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1 Introduction

1.1 Background

Selwyn District Council (SDC) has engaged Collaborations[1] to compile and report on Council's carbon emissions data for financial years 2019-2020 (FY19/20) and 2020-2021 (FY20/21). SDC's financial years are from 01 July to 30 June. Collaborations previously assisted SDC to undertake an assessment of its carbon emissions for FY18/19. The baseline FY18/19 data set was audited and verified by Toitū to make sure the data was accurate, robust and comparable with other local government organisations. The subsequent two data sets have been compiled by entering all data into e-Bench software, provided by Carbon EES. The data has been collated by the same consultant (Louise Wilson of Collaborations) and entered into e-Bench under the same organisational structure as was used for data entry into Toitū's software. Data has been extracted via excel spreadsheets to produce an 'emissions inventory' with results presented by scope, business unit/site within the organisational chart, and source.

Comparing the FY19/20 and FY20/21 data to the baseline is an important aspect of understanding the Council's emissions profile and enable planning for Council's obligations under the Climate Change Response (Zero Carbon) Amendment Act 2019, targeting net zero greenhouse gas emissions by 2050.

1.2 Purpose

The purpose of this report is to inform SDC of the results of the carbon emissions assessment undertaken for FY19/20 and FY20/21 and compare both sets of results to the baseline data from FY18/19.

1.3 Scope of work

The following scope of work was undertaken:

- Liaison with SDC staff, contractors and suppliers to obtain raw emissions data for FY19/20 and FY20/21;
- Collate and process raw data ready for input into e-Bench against the relevant organisational structure business units and sub -units;
- Data input into e-Bench and working with e-Bench personnel to assign data appropriately;
- Review of e-Bench.csv files received from Carbon EES personnel and cross checking against raw data; and
- Preparation of this summary report with graphs and descriptions of emissions during FY19/20 and FY20/21, and comparison to the baseline FY18/19 data.

[1] Trading name of Taylor Collaborations Limited

2 Methodology

2.1 Data gathering

All raw emissions data for FY19/20 and FY20/21 was gathered by Louise Wilson, using the same SDC, subcontractor and supplier contacts as per the FY18/19 emissions assessment. This occurred between October 2021 and February 2022. The raw emissions for each business unit on the organisational structure were collated in a raw data summary spreadsheet. Data was then entered into e-Bench using one of four methods:

1. Setting up a 'portal' for monthly entry of the annual data into e-Bench by Louise Wilson; or
2. Emailing the raw data to Carbon EES Data Services Manager, Robb Morisson, for entry; or
3. The contractors themselves entered the data via an e-Bench portal (note that only Waste Management and HEB did this); or
4. The supplier (e.g., electricity provider, fuel supplier) uploaded data directly into e-Bench and this was assigned by Carbon EES personnel against the relevant source meter or business unit.

2.2 SDC organisational structure and business units

The same organisational structure with business units and sub-units as developed for the FY18/19 emissions assessment were set up in e-Bench. Each business unit and sub-unit has specific emissions sources associated with it, as presented in **Table 1**.

2.3 Emissions factors

All conversion of raw data (input in units such as litres, kilowatt hours, kilograms, etc.) to tonnes of carbon dioxide equivalent (tCO_2e) was done by Carbon EES personnel, using the latest emissions factors published by the Ministry for the Environment[2].

2.4 Quality assurance and data export review

The FY19/20 and FY20/21 emissions sources data sets were collated and their emissions calculated in general accordance with *ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals*. The purpose of the inventories is to enable SDC to plan carbon reductions, therefore the criteria applied to inclusion and exclusion of emissions was magnitude/volume; level of influence; and access to data. It is considered that all significant emissions sources with available data have been included. One notable exclusion is emissions from capital expenditure (CAPEX) projects (e.g., construction of Selwyn Sports Centre and Te Ara Atea and major infrastructure projects such as new township wastewater pipeline connections to the Pines wastewater treatment plant). The justification for exclusion of these sources is lack of access to data, as the contracts for these CAPEX projects did not require emissions to be reported to SDC. This will be addressed internally for so that CAPEX project emissions can be included in future reporting. Whilst emissions data was not captured in the contract specifications the new build projects did integrate energy efficiency and environmental considerations within design their standards.

[2] Measuring emissions: A guide for organisations – 2022 summary of emissions factors, using data from the 2020 calendar year. Published by Ministry for the Environment in April 2022 and updated in August 2022. ISBN: 978-1-99-102527-2 (Measuring Emissions Factors Summary 2020 (environment.govt.nz))

The raw data was entered as accurately as possible into e-Bench, noting that some small differences between raw data and the reported data may be present. This is primarily due to the nature of dividing the annual raw data total by 12 to get a monthly figure to one decimal place to enter into e-Bench portals.

Data already held in e-Bench (e.g., electricity) was individually assigned to a business unit and sub-unit. The name/description of each meter (e.g., #102 Toilets GI2444586, 60 Leeston and Lake Road, Leeston; #103 Sewer GI4621450, 40 Station Street, Leeston, etc.) was used to attribute the meter to the relevant business unit and sub-unit. The name/description of some meters was insufficient to confirm what business unit it should be attributed to. In this case, a small number of meters have been labelled 'Unassigned' and were not included in the emissions assessment. It is assumed that SDC personnel may be able to update these Unassigned meters for capture within future assessments.

Multiple iterations of the e-Bench .csv export from both FY19/20 and FY20/21 were provided to Collaborations by Carbon EES personnel for review and updates as necessary. As this was the first time a summary export data sheet has been generated in this format by Carbon EES there was a significant amount of cross checking, revision and reassigning of data required to get the data into a format that could be relatively easily compared with the baseline FY18/19 data. The FY18/19 summary inventory sheet obtained from Toitū's e-manage software was used as a general guide.

It is important to note that the data reported from e-Bench has not been independently reviewed by a third party (e.g., Toitū) and therefore should be interpreted as an overall summary of the emissions from FY19/20 and FY20/21. Although all due care has been taken by Collaborations when collating, inputting, assigning and reporting on this data, the nature of using a different reporting software from the baseline year (FY18/19) means that it is possible there are some small differences in the reporting. It is not anticipated that these will affect the overall usefulness and application of the emissions data.

Table 1 SDC organisational structure for carbon emissions assessment

Business Unit	Sub-Unit	Emissions source(s)
Rolleston HQ	Rolleston HQ	Electricity LPG Mixed recycling Refrigerant gases Waste to landfill
	Business Travel	Diesel Petrol Air travel domestic Air travel short haul
Property	Parks and Reserves	Diesel Electricity Fuel oil Petrol Organic waste Waste to landfill
	Public Toilets	Electricity
Infrastructure (Plants)	Leeston Wastewater Treatment Plant (WWTP)	Wastewater
	Pines WWTP	Wastewater Biosolids to landfill

Business Unit	Sub-Unit	Emissions source(s)
Infrastructure (Plants) continued	Pines Resource Recovery Park (PRRP)	Diesel Fuel oil Petrol Organic waste Waste to landfill
	Pump Stations	Electricity
Infrastructure (O&M)	Kerbside Rubbish Collection	Diesel
	5 Waters Network	Diesel Electricity Fuel oil Petrol Waste to landfill
	Irrigation	Electricity
	Roading	Diesel
	Streetlights	Electricity
Community Facilities and Service Centres	Community Halls	Electricity LPG Waste to landfill
	Pools	Electricity
	Service Centres	Electricity

2.5 Exclusions

The following emissions sources have been excluded to date:

- **Emissions relating to capital expenditure (CAPEX) projects** (e.g., new build facilities). This data was excluded for the baseline FY18/19 year as the data was not readily available from subcontractors from retrospective projects, and has not been captured for FY19/20 nor FY20/21. It has been discussed with SDC that in order to capture these emissions, the requirement for data collection by subcontractors should be included in future contracts. This could potentially be a significant emissions source and it is therefore recommended that SDC begin requesting this data from contractors engaged to undertake CAPEX projects.
- **Emissions relating to staff commuting.** Some councils include staff commuting in Scope 3 data, however to date Collaborations are not aware that this data is being collected by SDC. This could be included in future assessments if SDC are capturing or start capturing this data.
- **Emissions classified as 'de minimis'.** For the baseline FY18/19 assessment, Toitū deemed the following emissions to be de minimis, and this has been applied to the FY19/20 and FY20/21 years:
    - Emissions from small rural WWTPs (Arthur's Pass, Claremont, Castle Hill, Lake Coleridge).
    - Staff rental cars and mileage from personal vehicle use for SDC trips.
    - Emissions from outgoing parcel delivery via courier/NZ Post.
    - Nitrogen fertiliser use (e.g. application at Foster Park).

SDC can choose to start including any of these emissions sources in future.

3 Report structure

The emissions for each financial year are presented in Sections 4 and 5 this report as follows:

- Total emissions and emissions per capita;
- By scope;
- By business unit;
- By source;
- By business unit and activity;
- Top 10 emissions sources; and
- Emissions per organisation.

The FY19/20 and FY20/21 results are compared to the baseline FY18/19 data in Section 6.

3.1 Scope definitions

Toitū describe Scope 1, 2 and 3 definitions as follows:

- **Scope 1 – All Direct Emissions** from the activities of an organisation or under their control. Including fuel combustion on site such as gas boilers, fleet vehicles and air-conditioning refrigerant leaks.
- **Scope 2 – Indirect Emissions** from electricity purchased and used by the organisation. Emissions are created during the production of the energy that is used by the organisation.
- **Scope 3 – All Other Indirect Emissions** from activities of the organisation, occuring from sources that they do not own or control. These are usually the greatest share of the carbon footprint, covering emissions associated with business travel, procurement (including contracted services such as Parks and Reserves and Roading), waste and water.

3.2 Selwyn district population

Because the population of the district is continuing to grow, it is important to present total emissions on a per capita basis. This is because SDC's services and facilities grow to accommodate the change in population.

In FY18/19 a population of 63,000 was used as this figure had already been used for other internal performance measures. This correlated to the June 2018 population as recorded by Statistics NZ[3]. For consistency, the populations as at June 2019 and June 2020 have been used for the FY19/20 and FY20/21 assessments, respectively (**Table 2**). However, if SDC wish to amend this it is possible to update the population figure and therefore the tCO_2e results per financial year.

Table 2 Population data for Selwyn district as recorded by Statistics NZ

Date	Statistics NZ estimated population for Selwyn district from 2018-2021
June 2018	63,300
June 2019	66,300
June 2020	70,200
June 2021	73,600

[3] https://www.stats.govt.nz/information-releases/subnational-population-estimates-at-30-june-2021-provisional

4 FY19/20 carbon assessment results

4.1 Total emissions

The total emissions for FY19/20 were **7,331 tCO_2e**. Using a population of 66,300, this equates to **0.1106 tCO_2e per capita**.

4.2 Emissions by scope

The majority of Council's emissions come from Scope 3 activities, which include fuel used by contractors (Corde, HEB, Waste Management and CWS), landfill waste tonnes generated and wastewater volumes (**Figure 1**).

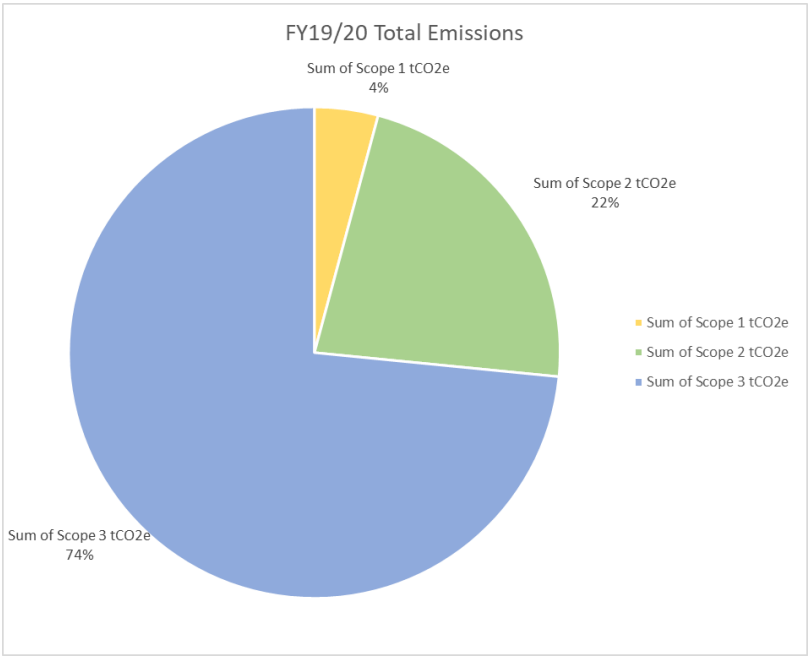


Figure 1 FY19/20 total emissions by scope

Within Scope 3, the main contributors to Council's emissions in order of largest to smallest are commercial diesel (used by contractors) at 2,982 tonnes, wastewater (methane and nitrous oxide) at 1,151 tonnes, sludge (biosolids to landfill) from Pines wastewater treatment plant (WWTP) at 802 tonnes, electricity at 147 tonnes and landfill waste at 111 tonnes. The combined contribution from the remained of Scope 3 emissions (petrol and organic waste) is 60 tonnes. **Figure 2** shows the total emissions (tCO_2e) broken down by scope.

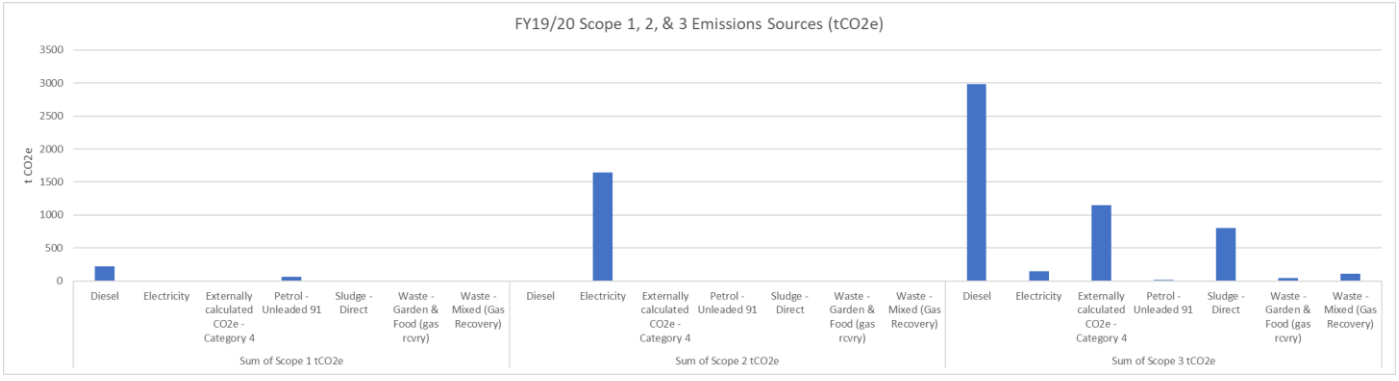


Figure 2 FY19/20 emissions for Scope 1, 2 and 3 sources

4.3 Emissions by source

The total emissions by source are presented in **Figure 3**. This shows that diesel is the most significant contributor (3,205.8 tCO_2e), followed by electricity (1,788.4 tCO_2e), emissions from wastewater (1,151 tCO_2e, labelled 'Externally calculated CO_2e – Category 4') and sludge (biosolids) to landfill from Pines WWTP (802.5 tCO_2e).

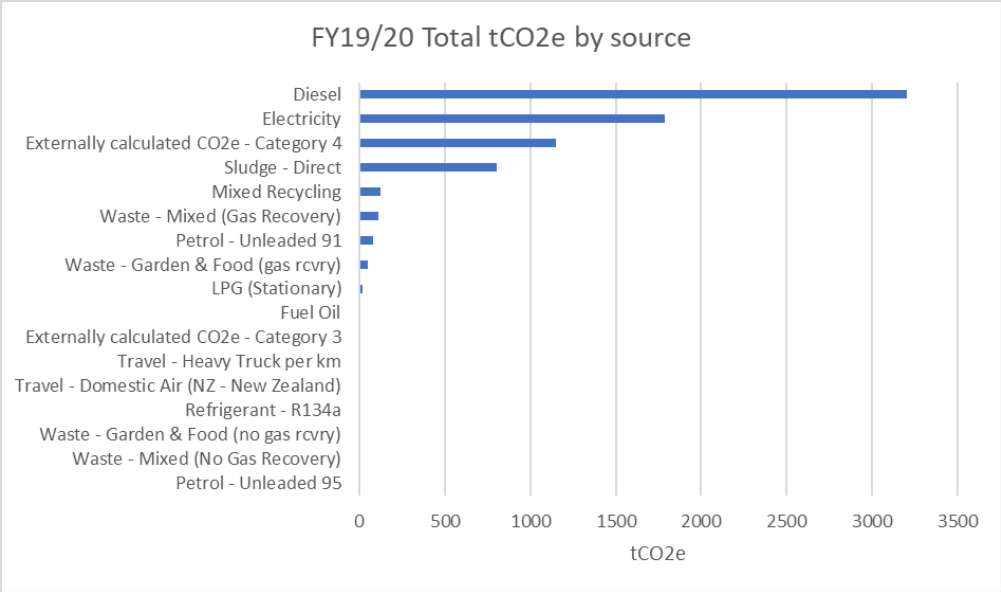


Figure 3 FY19/20 total emissions by source

4.4 Emissions by business unit

Looking at Council's emissions in another way, we can display them on a per business unit basis. The largest contributor to total emissions is Infrastructure – O&M (operations and maintenance). This includes the 5 waters network, irrigation, roading, kerbside rubbish collection and streetlights. The second largest contributor is Infrastructure - Plants (Pines WWTP, Pines Resource Recovery Park (PRRP), Leeston WWTP and pump stations). Together the emissions from these two Infrastructure business units make up approximately two thirds of the total emissions. Community Facilities and Service Centres is the third largest emitter, followed by Property (Parks and Reserves), and lastly Rolleston HQ (**Figure 4**).

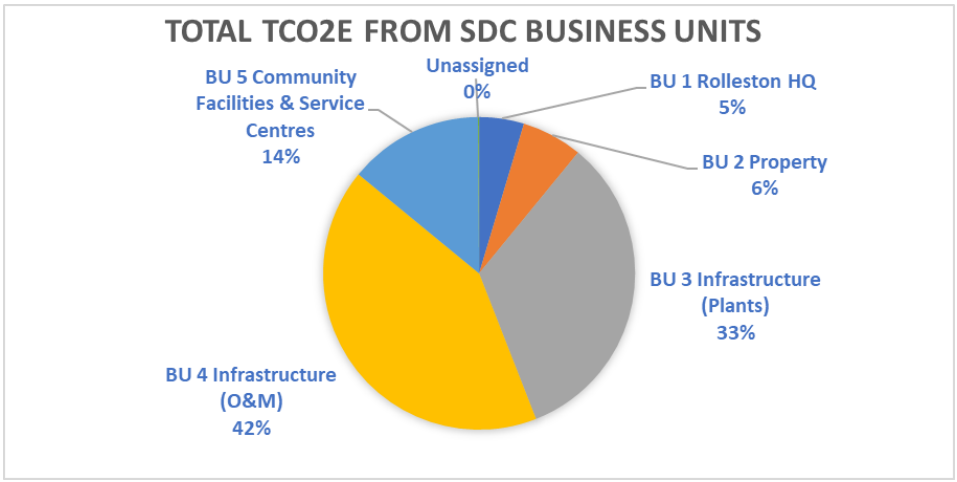


Figure 4 FY19/20 total emissions per business unit

Figure 5 shows the breakdown of emissions by Council business unit and scope (1, 2 or 3). It demonstrates that most emissions are Scope 3, generated via contractors engaged for infrastructure contracts (i.e., 5 Waters, Roading, PRRP), and Wastewater.

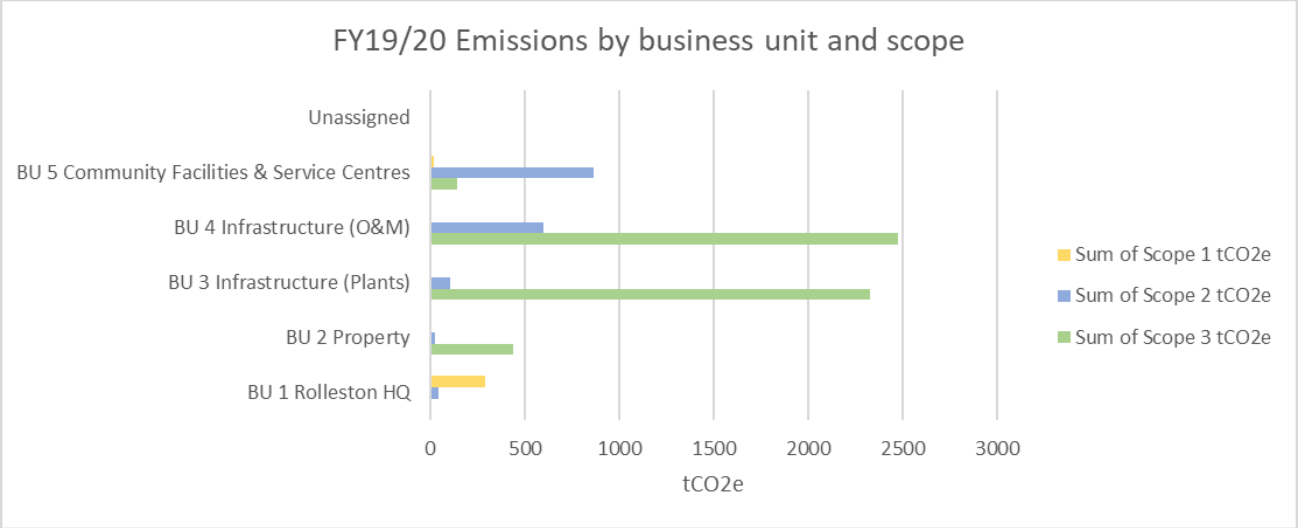


Figure 5 Emissions per business unit colour coded by scope

4.5 Emissions by business unit and activity

Further breakdown of emissions generated by each activity is shown in **Figure 6**, and contractors are represented with different colours to help visualise the emissions breakdown. Breaking down the emissions in this way helps to identify areas to target for emission reductions among the different business units within Council.

In order of largest to smallest contributor:

- **Infrastructure (O&M) – 3,069.8 tCO_2e:** Diesel used by contractors is major contributor, followed by electricity consumption, with minor emissions by petrol, oil and waste.

- **Infrastructure (Plants) – 2,427.1 tCO_2e:** Wastewater (methane and nitrous oxide) emissions from Pines WWTP and sludge (biosolids to landfill) are the largest contributor. These are followed by diesel used in CWS trucks transporting waste to Kate Valley Landfill, and diesel used by Corde for the operation of PRRP. Electricity consumption at pump stations and recycling from PRRP are the smallest contributors.

- **Community Facilities and Service Centres – 1,022.8 tCO_2e:** Electricity consumption is the largest contributor. Waste, mixed recycling and LPG are minor contributors.

- **Property – 461.7 tCO_2e:** Diesel use by Corde for the Parks and Reserves contract is the largest contributor, followed by mixed waste from rubbish collection and thirdly organic waste generated from Parks and Reserves maintenance (e.g., grass clippings, hedge trimmings). Electricity, petrol, oil and LPG used at Parks and Reserves and Public Toilets are minor contributors.

- **Rolleston HQ – 340.2 tCO_2e:** Diesel used in fleet cars is the largest contributor, followed by petrol use and electricity. Air travel, gases used to top up air conditioning units and waste are minor contributors.

- **Unassigned – 8.7 tCO_2e:** As per the explanation in Section 2.4, a small number of meters in e-Bench were unable to be assigned to a business unit. This accounts for 0.11% of the total emissions and is therefore considered negligible.

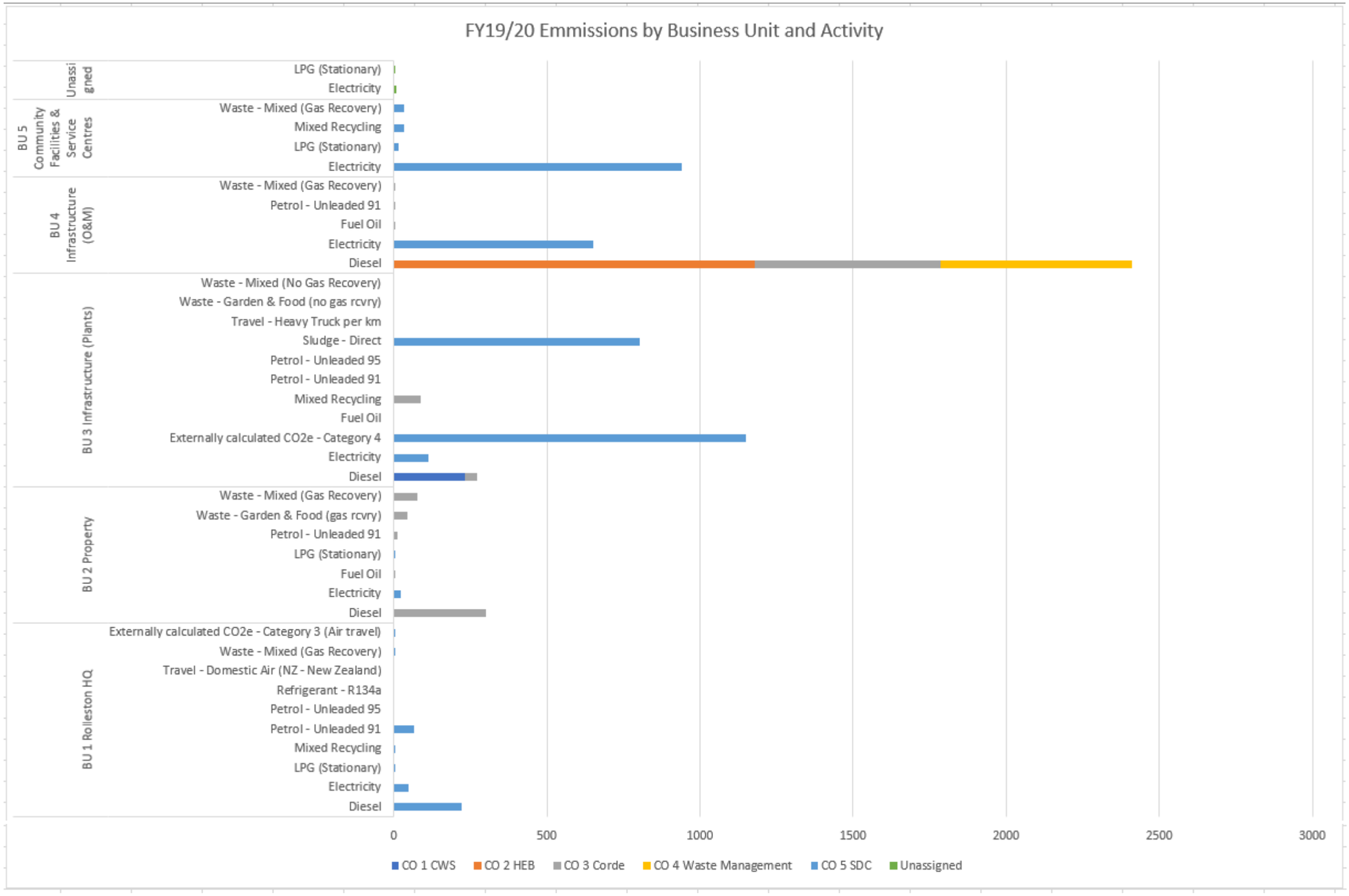


Figure 6 FY19/20 Emissions by business unit and activity with colour coding of contractors

4.6 Top 10 emissions sources

The top 10 emissions sources comprise 85.9% of SDC's tCO_2e, equating to 6,328.4 tCO_2e (**Table 3**). The remaining emissions sources comprise only 14.1%.

Table 3 Top 10 emissions sources for FY19/20

Rank	Emissions Source	Total tCO_2e	% of tCO_2e
1	Diesel used by HEB for Roading contract	1,178.1	16.1%
2	Wastewater (CH_4 and N_2O) at Pines WWTP	1,053.0	14.3%
3	Electricity used for service centres	907.8	12.3%
4	Biosolids to landfill from Pines WWTP	802.5	10.9%
5	Diesel used by Waste Management for Kerbside Collection contract	625.1	8.5%
6	Diesel used by Corde for 5 Waters contract	606.8	8.2%
7	Electricity used for operation of 5 Waters Network	352.9	4.8%
8	Diesel used by Corde for Parks & Reserves contract	301.2	4.1%
9	Electricity used for Streetlights	268.2	3.6%
10	Diesel used by CWS for waste transfer to Kate Valley Landfill	232.8	3.1%
	Combined total	**6,328.4**	**85.9%**

4.7 Emissions per organisation

Emissions generated directly by SDC accounted for over half the total emissions for FY19/20 (4,108 tCO_2e of the total of 7,330.6 tCO_2e). Corde and HEB generated second equal emissions, followed by Waste Management and CWS (**Figure 7**).

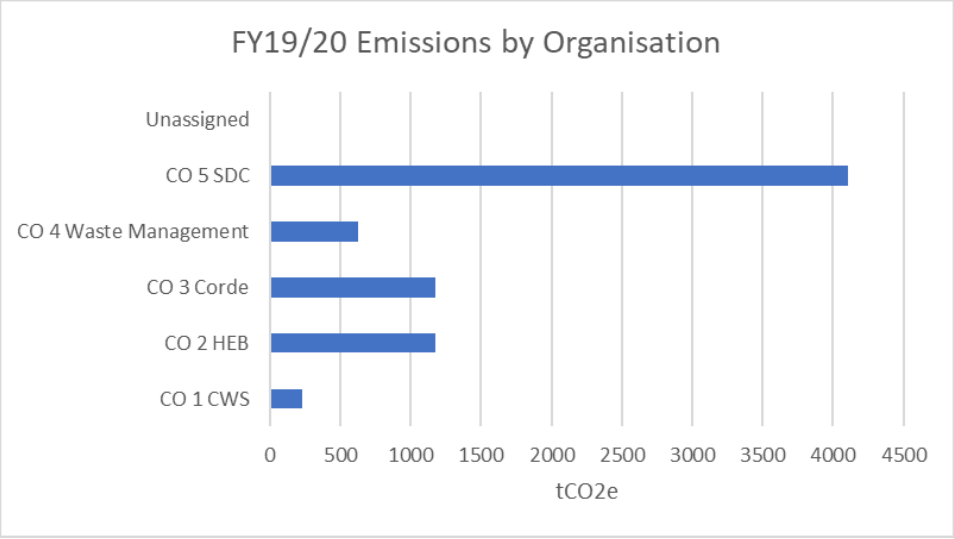


Figure 7 FY19/20 Emissions by organisation

5 FY20/21 carbon assessment results

5.1 Total emissions

The total emissions for FY20/21 were **7,421 tCO_2e**. Using a population of 70,200, this equates to **0.1057 tCO_2e per capita**.

5.2 Emissions by scope

As per FY19/20, the majority of SDC's emissions for FY20/21 come from Scope 3 activities. The percentage breakdown of emissions per scope remained relatively stable between FY19/20 and FY20/21 (**Figure 8**).

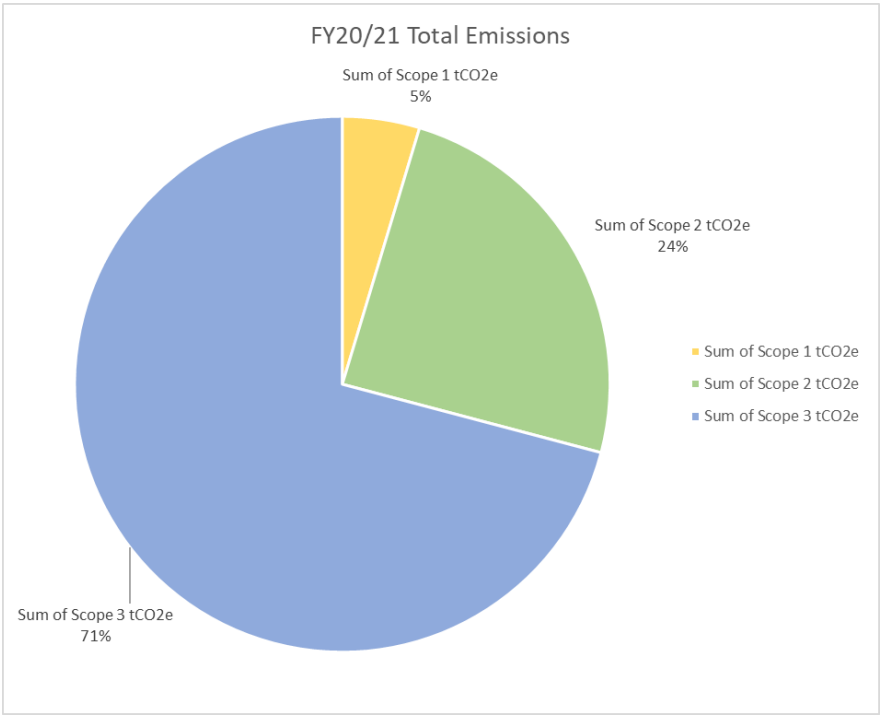


Figure 8 FY20/21 emissions by scope

Scope 3 emissions comprise mostly the same breakdown as FY19/20, however the main change is that sludge (biosolids to landfill from Pines WWTP) reduced from 802.5 tCO_2e to only 58 tCO_2e in FY20/21 (**Figure 9**).

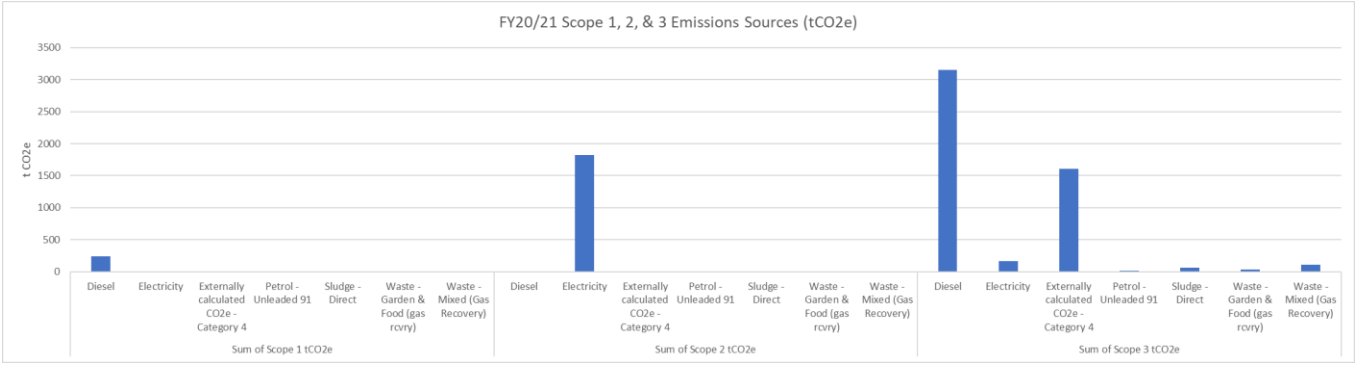


Figure 9 FY20/21 emissions for Scope 1, 2 and 3 sources

5.3 Emissions by source

The total emissions by source are presented in **Figure 10**. As per FY19/20, this shows that diesel is the most significant contributor (3,367.9 t CO_2e), followed by electricity (1,986.1 tCO_2e) and emissions from wastewater (1,610 t CO_2e, labelled 'Externally calculated CO_2e – Category 4').

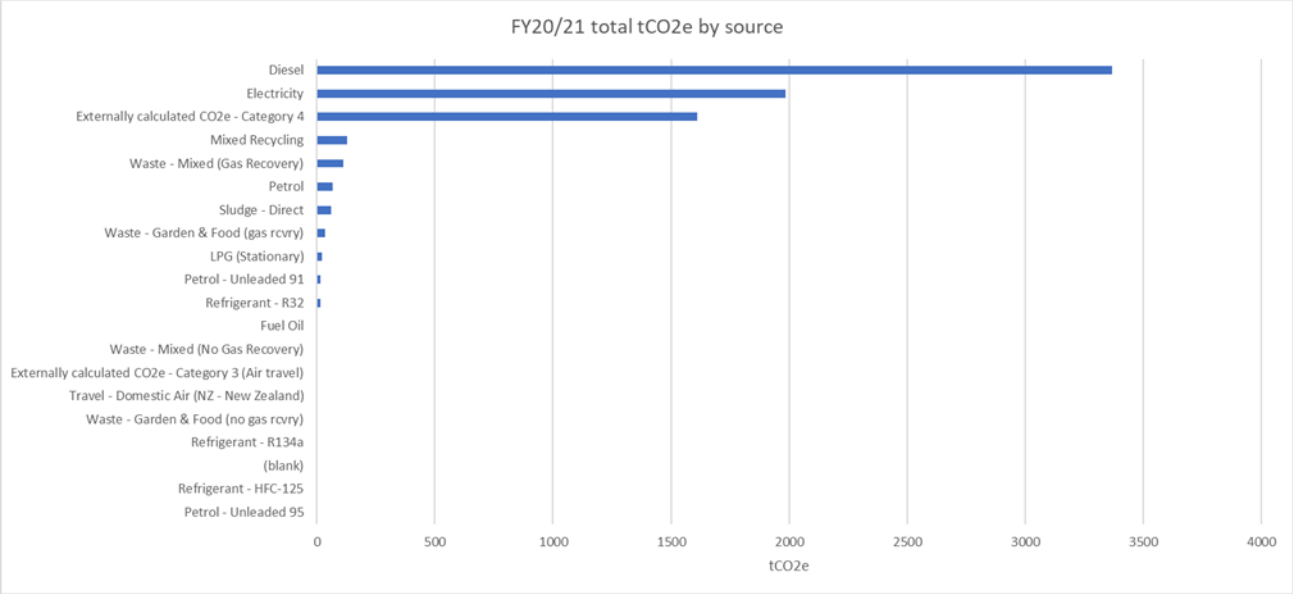


Figure 10 FY20/21 Emissions by source

5.4 Emissions by business unit

The percentage of emissions per business unit is very similar to FY19/20, as displayed in **Figure 11**. One notable change is that the percentage of Unassigned emissions sources has increased from 0.11% to 4.0%. This is primarily due to an increase in electricity meters in the FY20/21 period that were unable to be assigned to a business unit.

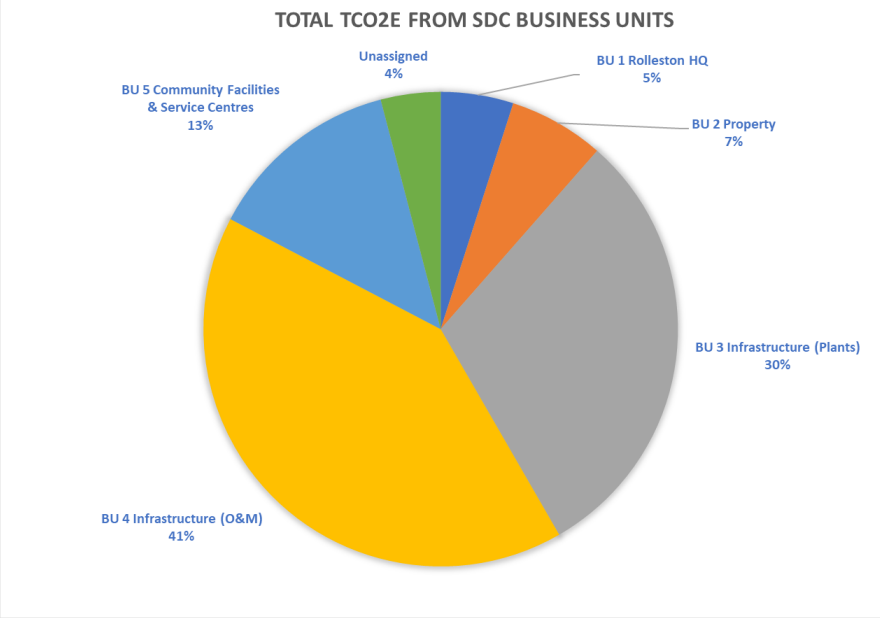


Figure 11 FY20/21 total emissions per business unit

Figure 12 shows the breakdown of emissions by Council business unit and scope (1, 2 or 3). It demonstrates that most emissions are Scope 3, generated via contractors engaged for infrastructure contracts (i.e., 5 Waters, Roading, PRRP), and Wastewater.

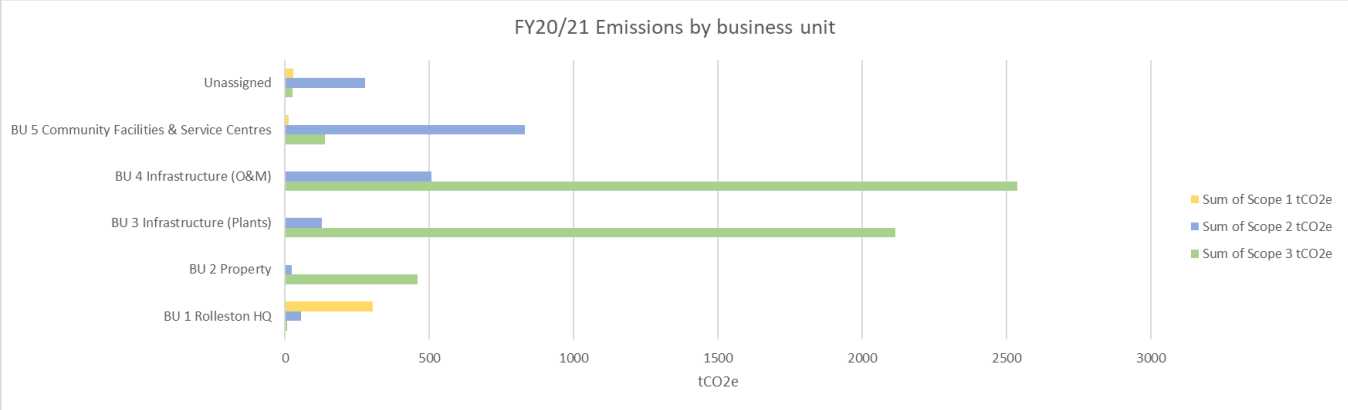


Figure 12 Emissions per business unit colour coded by scope

5.5 Emissions by business unit and activity

Further breakdown of emissions generated by each activity is shown in **Figure 13**, and contractors are separated with different colours to help further visualise the emissions breakdown.

In order of largest to smallest contributor:

- **Infrastructure (O&M) – 3,042.5 tCO_2e:** Diesel used by contractors is major contributor, followed by electricity consumption, with minor emissions by petrol, oil and waste.
- **Infrastructure (Plants) – 2241.7 tCO_2e:** Wastewater (methane and nitrous oxide) emissions from Pines WWTP is the largest contributor. This is followed by diesel usage for CWS trucks transporting waste to Kate Valley Landfill and by Corde for the operation of PRRP. Electricity consumption at pump stations, recycling from PRRP and biosolids (sludge) to landfill from Pines WWTP are the smaller contributors, and the smallest is waste to landfill from the operational activities at the plants.
- **Community Facilities and Service Centres – 983.5 tCO_2e:** Electricity consumption is the largest contributor. Waste, mixed recycling and LPG are minor contributors.
- **Property – 483.1 CO_2e:** Diesel use by Corde for the Parks and Reserves contract is the largest contributor, followed by mixed waste from rubbish collection and thirdly organic waste generated from Parks and Reserves maintenance (e.g., grass clippings, hedge trimmings). Electricity, petrol, oil and LPG used at Parks and Reserves and Public Toilets are minor contributors.
- **Rolleston HQ – 367.4 tCO_2e:** Diesel used in fleet cars is the largest contributor, followed by petrol use in fleet cars and electricity. LPG, gases used to top up air conditioning units, air travel and recycling are minor contributors.
- **Unassigned – 302.1 tCO_2e:** As per the explanation in Section 5.3 the percentage of Unassigned emissions sources has increased from 0.11% to 4.0%. This is due to an increase in electricity meters in the FY20/21 period that were not able to be assigned to a business unit. Overall, this is considered not to impact the FY20/21 data assessment however it would be beneficial to have these meters assigned for the FY21/22 assessment.

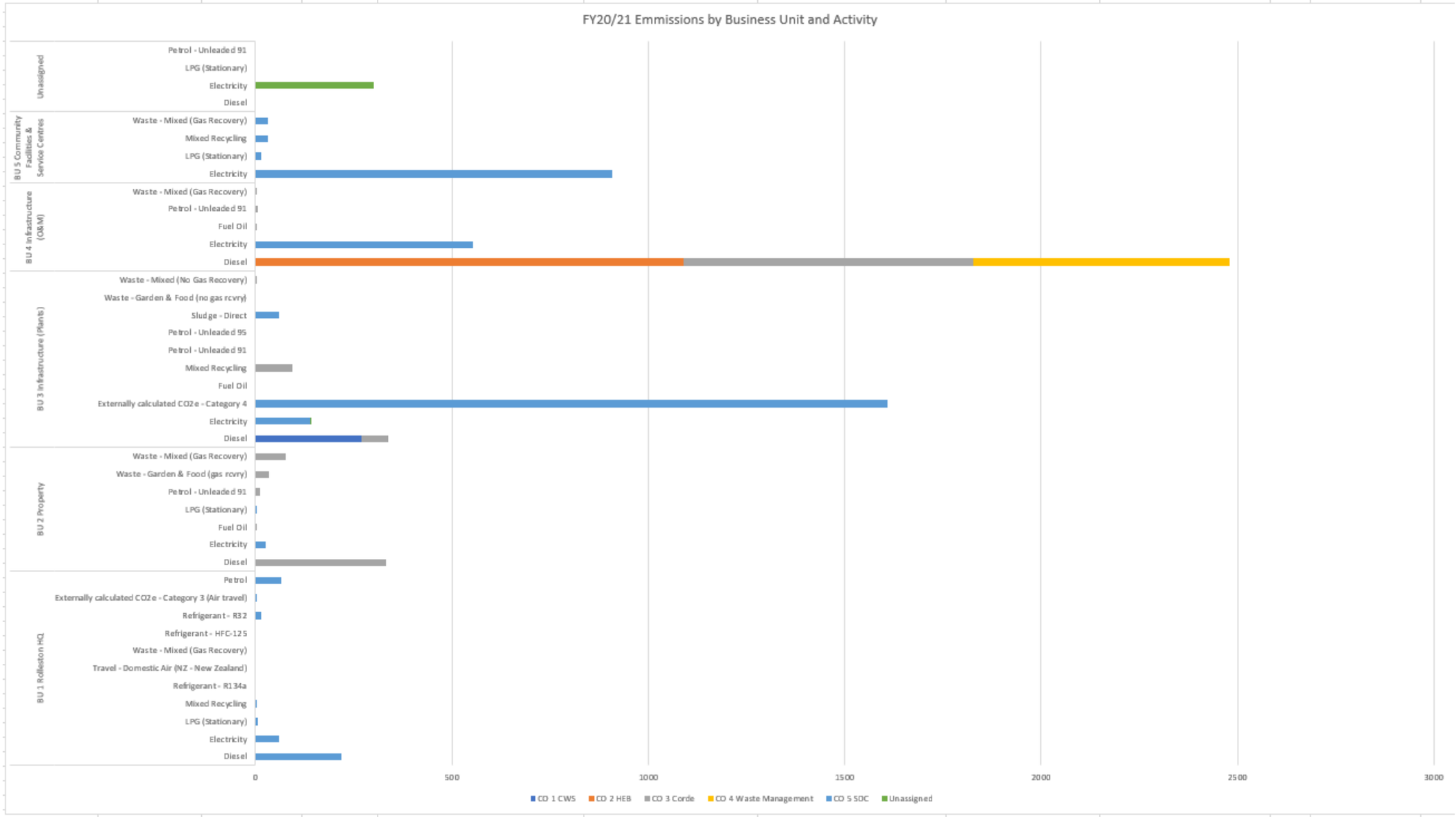


Figure 13 FY20/21 Emissions by business unit and activity with colour coding of contractors

5.6 Top 10 emissions sources

The top 10 emissions sources comprise 84.9% of SDC's tCO_2e, equating to 6,332.7 tCO_2e (**Table 4**). The remaining emissions sources comprise only 15.1%.

Table 4 Top 10 emissions sources for FY19/20

Rank	Emissions Source	Total tCO_2e	% of tCO_2e
1	Wastewater (CH_4 and N_2O) at Pines WWTP	1,521	20.5%
2	Diesel used by HEB for Roading contract	1,088	14.6%
3	Electricity used for service centres	842.0	11.3%
4	Diesel used by Corde for 5 Waters contract	737.7	9.9%
5	Diesel used by Waste Management for kerbside rubbish collection	655.1	8.8%
6	Diesel used by CWS for waste transfer to Kate Valley	337.7	4.5%
7	Diesel used by Corde for Parks & Reserves contract	330.6	4.4%
8	Unassigned electricity meters	302.1	4.0%
9	Electricity used for Streetlights	269.8	3.6%
10	Electricity used for operation of 5 Waters Network	247.7	3.3%

5.7 Emissions per organisation

Emissions generated directly by SDC accounted for approximately half the total emissions for FY20/21 (3,737 tCO_2e of the total of 7,421 tCO_2e). Corde generated the second largest emissions, followed by HEB, Waste Management and CWS (**Figure 14**).

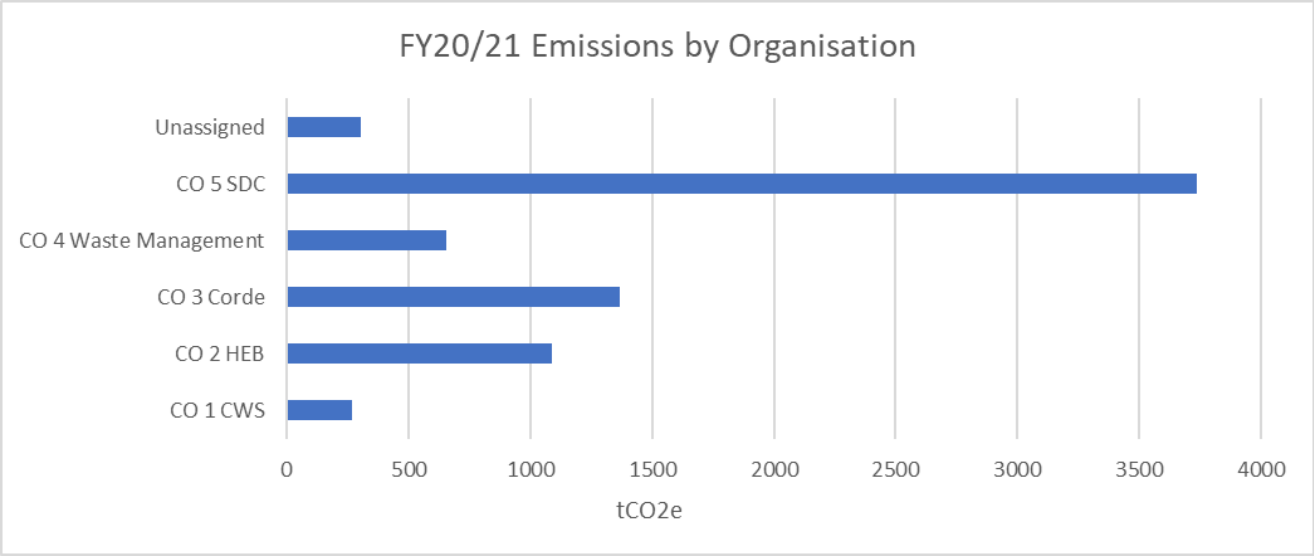


Figure 14 FY20/21 Emissions by organisation

6 Comparison to FY18/19 baseline data

In general, the emissions sources and relative proportions per business unit and sub-unit have remained stable over the FY18/19 to FY20/21 reporting period. Although total emissions have increased from 6,101 tCO_2e in FY18/19 to 7,420.5 tCO_2e in FY20/21, the Selwyn district has experienced population growth over the reporting period (**Figure 15**).

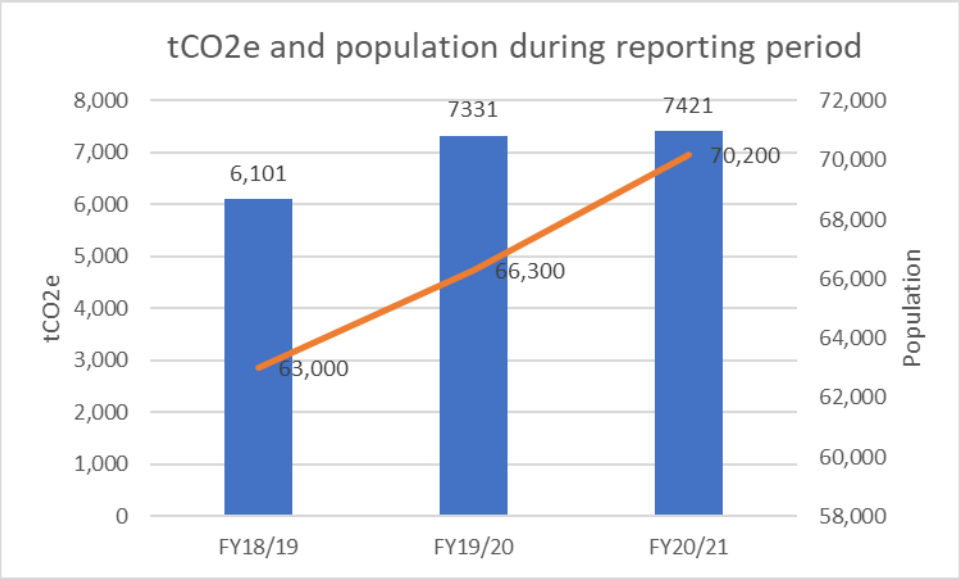
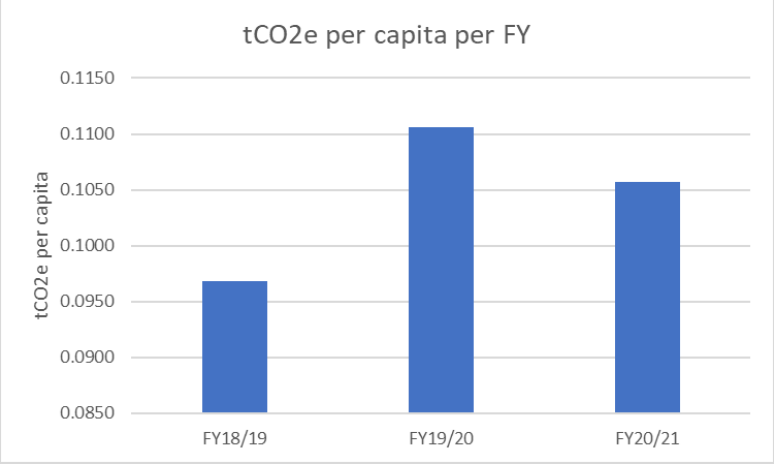


Figure 15 tCO_2e (bars) and population (line) per financial year

The emissions per capita have increased overall from 0.0968 tCO_2e to 0.1057 tCO_2e per capita in FY20/21 (based on populations recorded in June prior to each reporting year). However, the highest per capita emissions were recorded in FY19/20 (0.1106 tCO_2e). This may be partially due to the volume of Pines WWTP biosolids disposed of to landfill during this period, which was significantly higher than both FY18/19 and FY20/21 (**Figure 16**).



The proportion of emissions per business unit has remained relatively stable, with some minor percentage changes as presented in **Table 5**.

Table 5 Percentage of total emissions per business unit during reporting period

Business Unit	Percentage of total emissions		
	FY18/19 (%)	FY19/20 (%)	FY20/21 (%)
Rolleston HQ	8	5	5
Property	10	6	7
Community Facilities & Service Centres	16	14	13
Infrastructure (O&M)	38	42	41
Infrastructure (Plants)	28	33	30

The top 10 emissions sources were also relatively similar throughout the reporting period. The top 10 per financial year are presented in **Table 6** (excluding the total tCO_2e and percentage per source) for a general comparison. To assist with comparison, the emissions sources have been colour coded to show how their rank has changed per financial year. Emissions sources that only appear once have **bold** font and are not colour coded.

Table 6 The top 10 emissions sources per FY

Rank	Emission Sources		
	FY18/19	FY19/20	FY20/21
1	Wastewater (CH_4 and N_2O) at Pines WWTP	Diesel used by HEB for Roading contract	Wastewater (CH_4 and N_2O) at Pines WWTP
2	Diesel used by HEB for Roading contract	Wastewater (CH_4 and N_2O) at Pines WWTP	Diesel used by HEB for Roading contract
3	Electricity consumption at Service Centres	Electricity consumption at Service Centres	Electricity consumption at Service Centres
4	Diesel used by Waste Management for Kerbside Collection contract	**Biosolids to landfill from Pines WWTP**	Diesel used by Corde for 5 Waters contract
5	Diesel used by Corde for 5 Waters contract	Diesel used by Waste Management for Kerbside Collection contract	Diesel used by Waste Management for kerbside rubbish collection
6	Diesel used by CWS for waste transfer to Kate Valley Landfill	Diesel used by Corde for 5 Waters contract	Diesel used by CWS for waste transfer to Kate Valley Landfill
7	Diesel used by Corde for Parks & Reserves contract	Electricity used for operation of 5 Waters Network	Diesel used by Corde for Parks & Reserves contract
8	Electricity used for operation of 5 Waters Network	Diesel used by Corde for Parks & Reserves contract	**Unassigned electricity meters**
9	Electricity used for streetlights	Electricity used for Streetlights	Electricity used for Streetlights
10	**Diesel used in Council fleet vehicles**	Diesel used by CWS for waste transfer to Kate Valley Landfill	Electricity used for operation of 5 Waters Network

7 Supporting documents

The following supporting documents should be read or viewed in conjunction with this report:

- FY19/20 e-Bench Export Spreadsheet (containing raw data from e-Bench, data converted to tCO_2e in e-Bench and Collaborations data assessment including pivot tables and graphs).
- FY20/21 e-Bench Export Spreadsheet (containing raw data from e-Bench, data converted to tCO_2e in e-Bench and Collaborations data assessment including pivot tables and graphs).
- Raw data files received from SDC and contractors, to be issued to SDC in a zip folder.
- Instruction guide for future carbon assessments (prepared by Collaborations, with details of how to collate data and enter into e-Bench and obtain export summary spreadsheets).

The supporting documents will be delivered electronically to SDC.

8 Limitations

This report has been produced based on a scope of work agreed between Selwyn District Council and Taylor Collaborations Limited. Use of this report by any third party is at that party's own risk as it may be outside of the report's intended purpose. Information provided and utilised within this report is for the purposes and level of accuracy as agreed between Taylor Collaborations Limited and Selwyn District Council.

Report prepared by:
Louise Wilson, CEnvP

Environmental Consultant and Director
Collaborations
021 210 4984
louise@collaborations.co.nz

Report reviewed by:
Dr Gareth Taylor, CEnvP

Environmental Consultant and Director
Collaborations
021 246 0396
gareth@collaborations.co.nz