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PALMERSTON  
NORTH  
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# **PALMERSTON NORTH CITY COUNCIL**

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AGENDA

## **SUSTAINABILITY COMMITTEE**

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**9AM, WEDNESDAY 11 OCTOBER 2023**

COUNCIL CHAMBER, FIRST FLOOR  
CIVIC ADMINISTRATION BUILDING  
32 THE SQUARE, PALMERSTON NORTH

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# MEMBERS

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**Brent Barrett (Chair)**  
**Kaydee Zabelin (Deputy Chair)**  
**Grant Smith (The Mayor)**

<b>Roly Fitzgerald</b>	<b>Lorna Johnson</b>
<b>Patrick Handcock (ONZM)</b>	<b>Debi Marshall-Lobb</b>
<b>Leonie Hapeta</b>	<b>Karen Naylor</b>

AGENDA ITEMS, IF NOT ATTACHED, CAN BE VIEWED AT

[pncc.govt.nz](http://pncc.govt.nz) | Civic Administration Building, 32 The Square  
City Library | Ashhurst Community Library | Linton Library

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**Waid Crockett**

**Chief Executive | PALMERSTON NORTH CITY COUNCIL**

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Te Marae o Hine | 32 The Square  
Private Bag 11034 | Palmerston North 4442 | New Zealand  
[pncc.govt.nz](http://pncc.govt.nz)

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# SUSTAINABILITY COMMITTEE MEETING

11 October 2023

## ORDER OF BUSINESS

**1. Karakia Timatanga**

**2. Apologies**

**3. Notification of Additional Items**

Pursuant to Sections 46A(7) and 46A(7A) of the Local Government Official Information and Meetings Act 1987, to receive the Chairperson's explanation that specified item(s), which do not appear on the Agenda of this meeting and/or the meeting to be held with the public excluded, will be discussed.

Any additions in accordance with Section 46A(7) must be approved by resolution with an explanation as to why they cannot be delayed until a future meeting.

Any additions in accordance with Section 46A(7A) may be received or referred to a subsequent meeting for further discussion. No resolution, decision or recommendation can be made in respect of a minor item.

**4. Declarations of Interest (if any)**

Members are reminded of their duty to give a general notice of any interest of items to be considered on this agenda and the need to declare these interests.

**5. Public Comment**

To receive comments from members of the public on matters specified on this Agenda or, if time permits, on other Committee matters.

(NOTE: If the Committee wishes to consider or discuss any issue raised that is not specified on the Agenda, other than to receive the comment made or refer it to the Chief Executive, then a resolution will need to be made.)

**6. Confirmation of Minutes**

Page 7

"That the minutes of the Sustainability Committee meeting of 16 August 2023 Part I Public be confirmed as a true and correct record."

**7. Resource Recovery Trials of Food Scraps Kerbside Collection and Provision of Free Rubbish Bags to Low Income Households.**

Page 13

Memorandum, presented by Bryce Hosking, Group Manager - Property and Resource Recovery, Natasha Hickmott, Activities Manager - Resource Recovery and Sustainability.

**8. Waste Management and Minimisation Plan - Progress on Actions**

Page 19

Memorandum, presented by Bryce Hosking, Group Manager - Property and Resource Recovery, Natasha Hickmott, Activities Manager - Resource Recovery and Sustainability.

**9. Wastewater Discharge Consent Project (Nature Calls) - Quarterly Update**

Page 29

Memorandum, presented by Mike Monaghan, Group Manager - Three Waters.

**10. Palmerston North City-wide Emissions Inventory 2022**

Page 35

Memorandum, presented by David Watson, Climate Change Analyst.

**11. Palmerston North City Council Organisational Emissions Inventory 2022/23**

Page 45

Memorandum, presented by Adam Jarvis, Acting City Planning Manager; David Watson, Senior Climate Change Advisor.

**12. Committee Work Schedule**

**13. Karakia Whakamutunga**

**14. Exclusion of Public**

To be moved:

“That the public be excluded from the following parts of the proceedings of this meeting listed in the table below.

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under Section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under Section 48(1) for passing this resolution

This resolution is made in reliance on Section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public as stated in the above table.

Also that the persons listed below be permitted to remain after the public has been excluded for the reasons stated.

*[Add Third Parties]*, because of their knowledge and ability to assist the meeting in speaking to their report/s [or other matters as specified] and answering questions, noting that such person/s will be present at the meeting only for the items that relate to their respective report/s [or matters as specified].



## PALMERSTON NORTH CITY COUNCIL

### Minutes of the Sustainability Committee Meeting Part I Public, held in the Council Chamber, First Floor, Civic Administration Building, 32 The Square, Palmerston North on 16 August 2023, commencing at 9.00am

**Members Present:** Councillor Brent Barrett (in the Chair), The Mayor (Grant Smith) and Councillors Kaydee Zabelin, Roly Fitzgerald, Patrick Handcock, Leonie Hapeta, Lorna Johnson, Debi Marshall-Lobb and Karen Naylor.

**Non-Members:** Councillors Rachel Bowen, Lew Findlay, Billy Meehan, Orphée Mickalad and William Wood.

#### Karakia Timatanga

Councillor Roly Fitzgerald opened the meeting with karakia.

#### Declarations of Interest

Councillor Kaydee Zabelin declared an interest in item 6: Palmy Climate Conversations presentation (clause 19-23).

#### 18-23 Public Comment

Dr Alan and Julie Palmer, both retired Massey University Lecturers, spoke on the proposal of putting solar farms at Massey University and provided additional information on Item 9: Update on the Manawatū-Whanganui Climate Action Joint Committee:

- They are supportive of solar energy but do not support the proposed site near the Orchard Road carpark.
- The proposed site is prone to flooding, is class one soil and is in a deep valley where shading and pollen from trees can adversely affect the use of any solar panels placed there.
- There is a very large carpark close by that would be a better option for a solar farm.
- They would like to see the proposal be publicly notified at least.

Moved Brent Barrett, seconded Kaydee Zabelin.

The **COMMITTEE RESOLVED**

1. That the Committee receive the public comment for information.

Clause 18-23 above was carried 14 votes to 0, the voting being as follows:

**For:**

The Mayor (Grant Smith) and Councillors Brent Barrett, Kaydee Zabelin, Roly Fitzgerald, Patrick Handcock, Leonie Hapeta, Lorna Johnson, Debi Marshall-Lobb, Karen Naylor, Rachel Bowen, Lew Findlay, Billy Meehan, Orphée Mickalad and William Wood.

**19-23**

**Presentation - Palmy Climate Conversations**

Presentation, by Robert Gibb, Palmy Climate Conversation Host, and Helen King, Environmental Network Manawatū.

Robert Gibb and Helen King spoke on the outcome of four climate conversation events that were held in Palmerston North during June and July 2023. These events were based on relevant webinars that were designed to generate ideas for local actions/initiatives.

They provided an overview of how the events were undertaken and a significant list of proposed ideas they would like to action with support from the Palmerston North City Council.

Elected Members agreed it was appropriate for the proposed ideas and actions from the presentation to be referred to the Long Term Plan process for consideration.

Moved Brent Barrett, seconded Kaydee Zabelin.

The **COMMITTEE RESOLVED**

1. That the Committee receive the presentation and refer the content and requests to the Long Term Plan 2024-34 process.

Clause 19-23 above was carried 10 votes to 4, the voting being as follows:

**For:**

Councillors Brent Barrett, Kaydee Zabelin, Roly Fitzgerald, Patrick Handcock, Lorna Johnson, Debi Marshall-Lobb, Karen Naylor, Rachel Bowen, Billy Meehan and Orphée Mickalad.

**Against:**

The Mayor (Grant Smith) and Councillors Leonie Hapeta, Lew Findlay and William Wood.

**Note:**

Councillor Kaydee Zabelin declared an interest, participated in the discussion and voted.

**20-23**

**Confirmation of Minutes**

Moved Brent Barrett, seconded Kaydee Zabelin.

The **COMMITTEE RESOLVED**

1. That the minutes of the Sustainability Committee meeting of 7 June 2023 Part I Public be confirmed as a true and correct record.

Clause 20-23 above was carried 12 votes to 0, with 2 abstentions, the voting being as follows:

**For:**

Councillors Brent Barrett, Kaydee Zabelin, Roly Fitzgerald, Patrick Handcock, Leonie Hapeta, Lorna Johnson, Debi Marshall-Lobb, Karen Naylor, Rachel Bowen, Lew Findlay, Billy Meehan and Orphée Mickalad.

**Abstained:**

The Mayor (Grant Smith) and Councillor William Wood.

## REPORTS

### 21-23

#### **Options to incentivise green buildings in the city**

Report, presented by David Watson, Climate Change Analyst and Adam Jarvis, Acting City Planner.

Moved Kaydee Zabelin, seconded William Wood.

The **COMMITTEE RESOLVED**

1. That the Committee agree to the following options to incentivise green buildings in the city, to be referred to the Long Term Plan 2024-34 process for consideration:
  - A. Provide information / training on green development benefits.
  - B. Provide grants for completing third party certification.
  - C. Provide grants for reaching internally defined standards, including stormwater.

Clause 21-23 above was carried 10 votes to 4, the voting being as follows:

**For:**

Councillors Brent Barrett, Kaydee Zabelin, Roly Fitzgerald, Lorna Johnson, Karen Naylor, Rachel Bowen, Lew Findlay, Billy Meehan, Orphée Mickalad and William Wood.

**Against:**

The Mayor (Grant Smith) and Councillors Patrick Handcock, Leonie Hapeta and Debi Marshall-Lobb.

The meeting adjourned at 10.45am.

The meeting resumed at 11.03am.

### 22-23

#### **Update on the Manawatū-Whanganui Climate Joint Action Committee**

Memorandum, presented by David Watson, Climate Change Analyst and Adam Jarvis, Acting City Planner.

Moved Brent Barrett, seconded Kaydee Zabelin.

The **COMMITTEE RESOLVED**

1. That the Committee receive the memorandum titled 'Update on the Manawatū-Whanganui Climate Joint Action Committee' presented to the Sustainability Committee on 16 August 2023.

Clause 22-23 above was carried 14 votes to 0, the voting being as follows:

**For:**

The Mayor (Grant Smith) and Councillors Brent Barrett, Kaydee Zabelin, Roly Fitzgerald, Patrick Handcock, Leonie Hapeta, Lorna Johnson, Debi Marshall-Lobb, Karen Naylor, Rachel Bowen, Lew Findlay, Billy Meehan, Orphée Mickalad and William Wood.

**23-23 Update on the Low Carbon Fund 2022/23**

Memorandum, presented by Adam Jarvis, Acting City Planning Manager and David Watson, Climate Change Analyst.

Officers noted two errors in the report on page 73 and 74 of the agenda, section 3 of the report. 1) The heading should read 2022/23. 2) Paragraph 3.1 note under Table 1 should read 2022/23.

The additional recommendation was sort to enable Elected Members an opportunity to mitigate any lost opportunities before the end of the Financial Year 2023/24.

Moved Brent Barrett, seconded Kaydee Zabelin.

The **COMMITTEE RESOLVED**

1. That the Committee receive the memorandum titled 'Update on the Low Carbon Fund 2022/23' presented to the Sustainability Committee on 16 August 2023.
2. That the Chief Executive report progress on Financial Year 2023/24 Low Carbon Fund utilisation to the Sustainability Committee in Quarter 3 of Financial Year 2023/24.

Clause 23-23 above was carried 14 votes to 0, the voting being as follows:

**For:**

The Mayor (Grant Smith) and Councillors Brent Barrett, Kaydee Zabelin, Roly Fitzgerald, Patrick Handcock, Leonie Hapeta, Lorna Johnson, Debi Marshall-Lobb, Karen Naylor, Rachel Bowen, Lew Findlay, Billy Meehan, Orphée Mickalad and William Wood.

**24-23 Update on the Climate Change Response Work Programme**

Memorandum, presented by Adam Jarvis, Acting City Planning Manager and David Watson, Climate Change Analyst.

Moved Brent Barrett, seconded Kaydee Zabelin.

The **COMMITTEE RESOLVED**

1. That the Committee receive the memorandum titled 'Update on the

Climate Change Response Work Programme' presented to the Sustainability Committee on 16 August 2023.

Clause 24-23 above was carried 14 votes to 0, the voting being as follows:

**For:**

The Mayor (Grant Smith) and Councillors Brent Barrett, Kaydee Zabelin, Roly Fitzgerald, Patrick Handcock, Leonie Hapeta, Lorna Johnson, Debi Marshall-Lobb, Karen Naylor, Rachel Bowen, Lew Findlay, Billy Meehan, Orphée Mickalad and William Wood.

**25-23 Committee Work Schedule**

Moved Brent Barrett, seconded Kaydee Zabelin.

The **COMMITTEE RESOLVED**

1. That the Committee receive the Work Schedule dated August 2023.

Clause 25-23 above was carried 14 votes to 0, the voting being as follows:

**For:**

The Mayor (Grant Smith) and Councillors Brent Barrett, Kaydee Zabelin, Roly Fitzgerald, Patrick Handcock, Leonie Hapeta, Lorna Johnson, Debi Marshall-Lobb, Karen Naylor, Rachel Bowen, Lew Findlay, Billy Meehan, Orphée Mickalad and William Wood.

**Karakia Whakamutunga**

Councillor Roly Fitzgerald closed the meeting with karakia.

The meeting finished at 12.10pm

Confirmed 11 October 2023

**Chair**



## MEMORANDUM

**TO:** Sustainability Committee

**MEETING DATE:** 11 October 2023

**TITLE:** Resource Recovery Trials of Food Scraps Kerbside Collection and Provision of Free Rubbish Bags to Low Income Households

**PRESENTED BY:** Bryce Hosking, Group Manager - Property and Resource Recovery, Natasha Hickmott, Activities Manager - Resource Recovery and Sustainability

**APPROVED BY:** Chris Dyhrberg, Chief Infrastructure Officer

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### RECOMMENDATION TO SUSTAINABILITY COMMITTEE

1. That the Committee receive the memorandum titled “Resource Recovery Trials of Food Scraps Kerbside Collection and Provision of Free Rubbish Bags to Low Income Households” presented to the Sustainability Committee on 11 October 2023.
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#### 1. ISSUE

- 1.1 The Resource Recovery team have recently undertaken two trials:
  - Free rubbish bags to low income households, and
  - Food scraps kerbside collections.
- 1.2 This report provides a summary of the findings from these trials which can be considered by Council when adopting the 2024 Waste Management and Minimisation Plan (WMMP).

#### 2. BACKGROUND

- 2.1 The free rubbish bag trial to low income households was undertaken to determine how much the increasing cost of waste disposal was a contributor towards contamination in recycling wheelie bins. During the trial, participants were asked a few questions to understand their waste disposal needs.
- 2.2 The food scraps collection trial was established to provide a detailed and city-specific understanding of the cost, extent of waste diversion and operational impact of introducing a food scraps collection in the city. A high-level overview of some of these results is provided in this memorandum.

**3. FREE RUBBISH BAGS TO LOW INCOME HOUSEHOLDS TRIAL**

- 3.1 Four free rubbish bags were available for collection from Council's Customer Service or one of the branch libraries during the period 11 April to 28 April 2023. Households could collect these and use them at their discretion. During the trial, a total of 4,076 bags were provided to 1,019 households.
- 3.2 The effectiveness of the free rubbish bag trial on contamination in the recycling bins was measured by using the rate of contaminated recycling coming into the Awapuni Materials Recovery Facility (MRF) from kerbside recycling trucks. For context, contamination is anything that is not an accepted material through this service, which can range from soft plastics to dirty nappies. Each load of recycling delivered to the MRF had three loader scoops (approximately 1 cubic meter each) taken from separate places in the pile, as the sample. Each sample was weighed, and inspected, and the amount of recyclable and non-recyclable material was recorded.
- 3.3 One set of truck audits were taken before the trial began, (indicated as FN1 in Figure 1 below) and for the following three fortnights as resources allowed. A further audit was taken at the beginning of August for comparison (post trial).

Findings

- 3.4 Figure 1 below shows the citywide contamination based on these audits. The data shows that during the trial period there was a very slight decrease in MRF contamination from the pre-trial audit, however, the contamination in May and post-trial were recorded at similar levels.

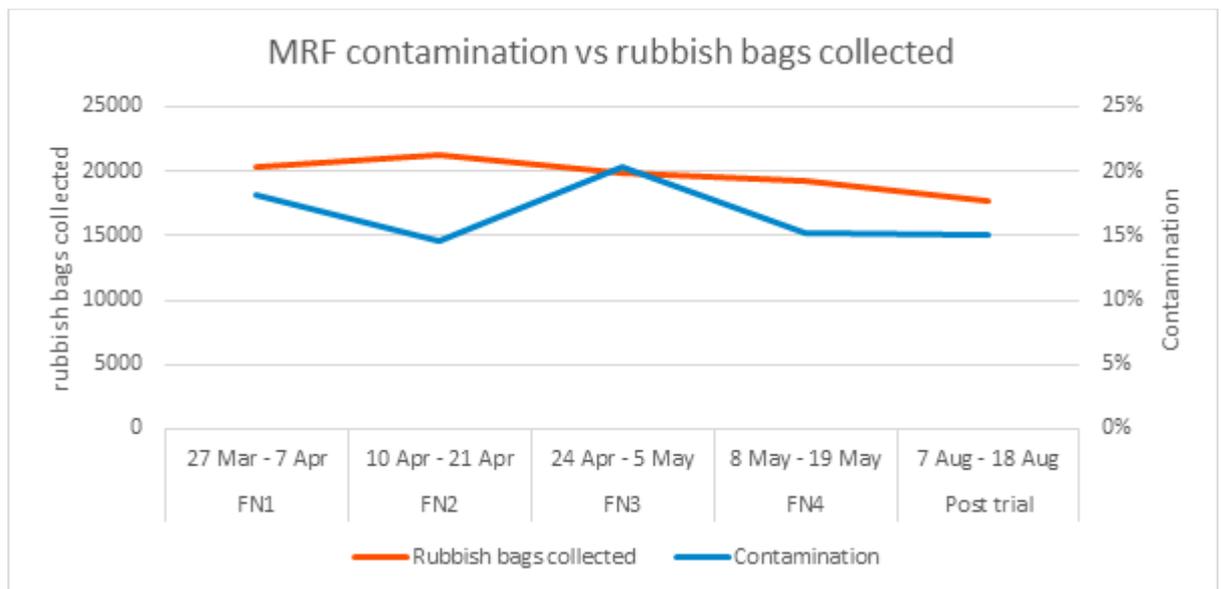


Figure 1: MRF Contamination and rubbish bag collection

- 3.5 Figure 1 also demonstrates that there is little correlation between the amount of contamination and the number of rubbish bags placed out for collection, suggesting that socio-economic factors are not the sole driver for this

behaviour. Other drivers for contamination could include language barriers, lack of knowledge of what can and cannot be recycled and the absence of any regulatory activity.

- 3.6 In addition, during the trial period our team noticed no measurable impact to recorded incidents of illegal dumping, amount of illegal dumping and the amount of rubbish collected in our public space bins.

Survey Results

- 3.7 When residents collected their bags, they were asked if they would participate in a survey as part of the trial. Each household was asked eleven quick questions to help us understand their waste disposal needs, with one question asking if they had any suggestions to Council in improving kerbside rubbish collections.

- 10% indicated they currently do not use the Council Rubbish Kerbside Collection Service, or did not respond to this question
- 74% indicated that one bag per month was not sufficient to meet their household rubbish disposal needs
- 59% indicated that they placed at least one Council bag out each week for collection
- 94% indicated that they used the Council's recycling service, and 76% of these households indicated they placed their recycling bins out each fortnight
- 62% of those surveyed either had no further feedback, were happy with Council's rubbish service or provided no response to the question asking if they had any suggestions to Council in improving kerbside rubbish collections
- 9% indicated that Council should either reduce the cost of the bags or provide bags as part of their rates/provide the service for free
- 8% indicated that Council should provide an organics service (food scraps and/or green waste)
- 9% indicated that Council should provide a bin for rubbish

- 3.8 Overall, the general feedback was positive and supportive of this trial, with most households generally satisfied with the services (rubbish and recycling) provided by Council.

**4. FOOD SCRAPS KERBSIDE COLLECTION TRIAL**

- 4.1 The food scraps collection trial ran for 23 weeks between March and August 2023. All households, on 14 specifically selected streets, were delivered a 23-

litre kerbside caddy, and those with odd numbered addresses were also delivered a smaller 7 litre benchtop caddy to keep in their kitchens.

- 4.2 The streets were selected to provide a good sample size and cross section of residents to try mimic a city-wide service as best as possible.

Findings

- 4.3 During the food scraps trial, over 16 tonnes of food scraps were collected. On average, 39% of the trial participants presented their bin on any given week. If those that opted out are excluded, the presentation rate is 43%.
- 4.4 Overall, 80% of the original participants presented their bin at least once over the trial period. 11% of the original participants opted out with the predominant reason for opting being because the household already composts at home in some form (i.e., compost bin, worm farm, bokashi).

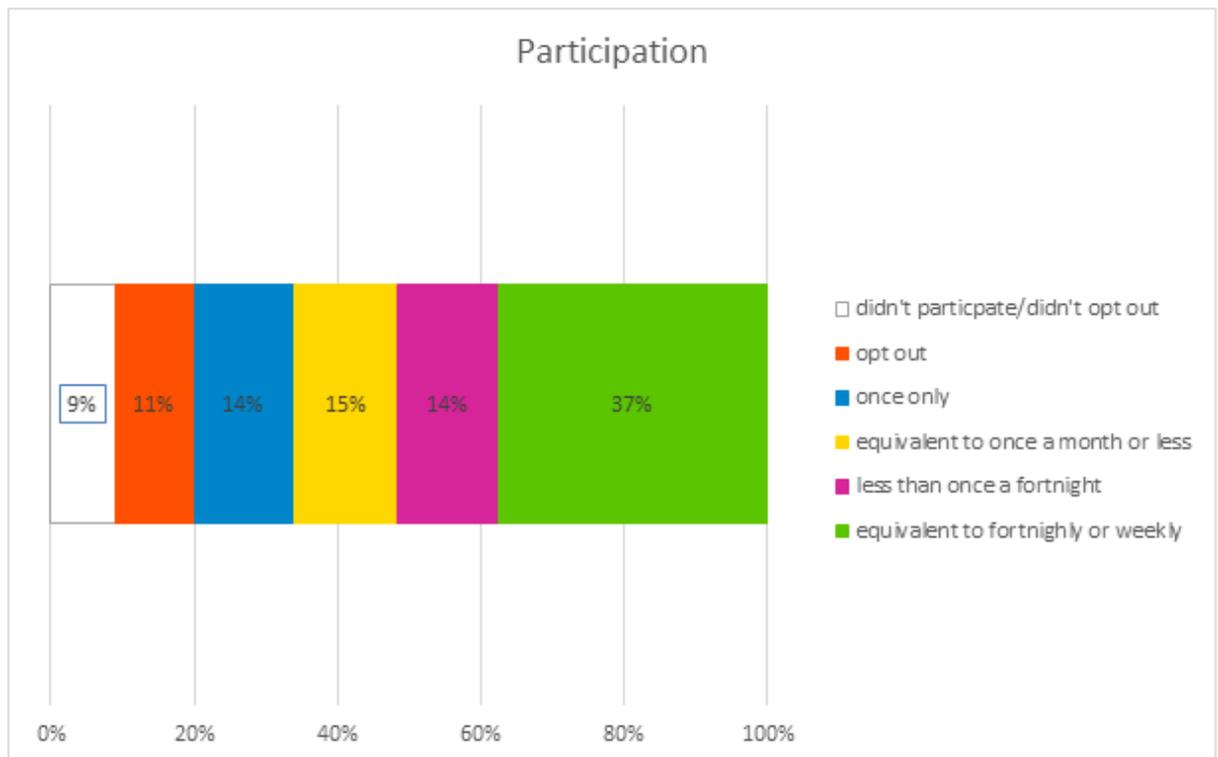


Figure 2: Participation in food scraps collection trial

- 4.5 Figure 2 shows that 14% of the participants presented their bin only once during the trial, and 37% of the participants presented their caddy 12 times or more, the equivalent of once a fortnight or more. Furthermore, 4% presented their bin every week or only missed one week throughout the trial. 9% of the participants were completely disengaged in the trial.

- 4.6 Kitchen caddies were provided to approximately half of the participants to measure if their presence on kitchen benches would act as a prompt to use the service.
- 4.7 Results show that households that were provided kitchen caddies presented their bins 3% more often than those that did not. Although this was a small difference, households with caddies presented their bins consistently more often than those without caddies every week.
- 4.8 Waste audits of a sample of the trial participants showed that during the trial, the percentage of food scraps present in the waste stream at the end of the trial reduced by 7% when compared to the beginning of the trial.
- 4.9 Overall, the post-trial feedback was supportive of the service, and participants found the caddies easy to use.

## **5. NEXT STEPS**

- 5.1 In order to combat increased contamination in kerbside collected recycling bins, Officers are proposing a dedicated programme in the 2024-34 Long Term Plan (LTP) to address contamination. This programme involves a dedicated resource and the necessary tools to inspect recycling bins and actively enforce non-compliance of the Waste Management and Minimisation Bylaw with respect to incorrect materials placed in the kerbside recycling wheelie bins (contamination).
- 5.2 Further measures to address contamination will include:
  - Education, engagement, and behaviour change campaigns, with funding proposed in the LTP.
  - Ministry for the Environments (MfE) kerbside standardisation, which will be rolled out nationwide in February 2024, will be accompanied with an array of communication material. This will support and reinforce Councils messaging on the correct materials that can be recycled.
- 5.3 Additionally, operating programmes are being proposed in the LTP to:
  - Undertake a comprehensive activity service review which will explore how Council provides the Resource Recovery Services, including rubbish collections, and what options Council may have in delivering these services.
  - Undertake a detailed analysis of a city-wide organics collection, this will be used to confirm the proposed capital programmes currently proposed in the LTP to roll out a city-wide food scraps kerbside collection service.

## 6. COMPLIANCE AND ADMINISTRATION

Does the Committee have delegated authority to decide?	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do, they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>
Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council's policies or plans?	<b>No</b>
The recommendations contribute to Goal 4: An Eco City	
The recommendations contribute to the achievement of action/actions in Resource Recovery The action is: Maximise the proportion of waste diverted from landfill (e.g. through recycling and composting).	
Contribution to strategic direction and to social, economic, environmental, and cultural well-being	This memo informs Elected Members of the outcome of recent trials undertaken by the Resource Recovery and how this information will be taken forward to the LTP.

## ATTACHMENTS

Nil

## MEMORANDUM

**TO:** Sustainability Committee

**MEETING DATE:** 11 October 2023

**TITLE:** Waste Management and Minimisation Plan - Progress on Actions

**PRESENTED BY:** Bryce Hosking, Group Manager - Property and Resource Recovery, Natasha Hickmott, Activities Manager - Resource Recovery and Sustainability

**APPROVED BY:** Chris Dyhrberg, Chief Infrastructure Officer

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### RECOMMENDATION TO SUSTAINABILITY COMMITTEE

1. That the Committee receive the memorandum titled 'Waste Management and Minimisation Plan - Progress on Actions' presented to the Sustainability Committee on 11 October 2023.
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#### 1. ISSUE

- 1.1 The 2019 Waste Management and Minimisation Plan (WMMP) requires progress on each of the actions and targets within the WMMP to be reported annually to the Sustainability Committee.
- 1.2 This report provides the annual progress update from the 2022/23 financial year. Please refer to 'Attachment 1: WMMP Action Progress 2023 progress and overview' for detail on progress towards the specific actions within the WMMP.

#### 2. BACKGROUND

- 2.1 The Palmerston North City Council (Council) has a statutory requirement under the Waste Minimisation Act 2008 to promote effective and efficient waste management and minimisation within Palmerston North City.
- 2.2 This is done through adopting a WMMP which sets the priorities, actions, targets, and strategic framework for managing waste in the city. This does not necessarily mean that Council is going to have direct involvement in the management of all waste – but there is a responsibility for the Council to at least consider all waste in our city, and to suggest areas where other groups, such as businesses or householders, could take action themselves.

2.3 The 2019 WMMP sets a target of increasing waste diversion from 36% to 48% by 2025. Reducing the amount of material sent to landfill will be achieved via 26 actions in the WMMP.

**3. KEY ACHIEVEMENTS IN 2022/23**

Waste Diversion

3.1 In 2022/23 the amount of recycled material collected via our kerbside service is estimated to be 50kgs per capita. This is lower than previous years which, for reference, was closer to 60kgs per capita. We are currently investigating possible reasons for this decrease.

3.2 Unfortunately, the amount of waste landfilled per capita cannot be determined this year due to some data from the private waste sector being unavailable. Again, for reference, last year we reported this figure to be 606kgs per capita.

Kerbside Food Scraps Collection Trial

3.3 A trial of a kerbside food scraps collection was successfully implemented and due to conclude in August 2023. Given all councils in New Zealand must introduce a kerbside food scraps collection service by 2030, the trial has provided valuable insight into participation and presentation rates, as well as information as to what the city-wide roll out will look like. After four months of the trial the interim findings are:

- 83% of all households in the trial area have participated in the trial at least once, and 20% have at least 90% of the time.
- The household presentation rate (putting material out for collection) has been around 44% each week.
- There has been minimal contamination of the material presented. This is excellent as this was a key risk of introducing this service.

Free Rubbish Bag Trial

3.4 A trial to provide free rubbish bags to low income households was also implemented in 2022/23. During the trial people were able to collect their bags from our Customer Services Centre, or any of the branch libraries.

3.5 The interim findings are:

- 1022 households took up the opportunity, which resulted in Council providing 4,088 free rubbish bags to our community.
- We surveyed the participants when they collected the bags. 73% indicated that one bag per month was not sufficient to meet their household rubbish disposal needs, and 94 of the households that participated indicated they do not normally use Council rubbish bags but did because it was free.

A full analysis of both trials can be found in the report “Resource Recovery Trials of Food Scraps Kerbside Collection and Provision of Free Rubbish Bags to Low Income Households” (Item 7 of this agenda)

Improved Data Management

- 3.6 Improved data systems have been identified by the Ministry for the Environment (MfE) as being key to building the foundations of New Zealand’s improved waste system.
- 3.7 We put significant focus on better understanding the cost of providing our operations and services along with improving our internal analytical capability in the Resource Recovery Division. This will help us make data driven decisions and inform both the next WMMP and the 2024-34 Long Term Plan (LTP).
- 3.8 We also made progress towards upgrading our systems to better capture, maintain and manage our data and ensure we can meet MfE reporting standards, as well as monitor and respond to trends in the city.

Resource Recovery Fund

- 3.9 The Resource Recovery Fund was again well utilised in 2022/23. The Fund is an important initiative for Council, and it reflects Council’s commitment to sustainability and environmental responsibility. The total amount awarded this year was \$40,000.
- 3.10 The successful projects were:
  - Environment Network Manawatu (ENM): Repair Café – continued support for their successful repair café that they established after last year’s funding round.
  - ENM: Increased city-based recycling opportunities – ENM have provided teracycle recycling bins, creating a collection point in the city-centre for hard-to-recycle items including blister packs, beauty products and packaging boxes, as well as nametags and lanyards.
  - Precycle NZ Limited: Paper towel recycling and upcycling project – A pilot programme will be developed to collect and upcycle used paper towels and turn them into building products.
  - English Language Partners NZ Trust: Palmerston North Centre – Making composting fun. It sets out to engage with newcomers from refugee or migrant backgrounds to encourage home composting and utilising this compost in home gardens.
- 3.11 In addition to the above successful projects, there were other several strong contenders that unfortunately missed out. These applicants should be commended for their commitment to waste reduction and sustainability and we hope they apply again next year.

### Community Engagement

- 3.12 Another focus area in 2022/23 was our engagement with community. We continued our tours of the Materials Recovery Facility (MRF) throughout the year. There is a form on Council's website where interested parties can register for a tour.
- 3.13 Another example was our messaging through social media and the release of the 'Palmy 10/7' video which highlights the impact of illegal dumping. This clip garnered a lot of engagement and received considerable positive feedback. Unfortunately, the amount of illegal dumping continues to be an issue in the city, and we are exploring ways to do further work in this space.

## **4. NEXT STEPS**

- 4.1 Council is undertaking an early review of the WMMP alongside the 2024-34 LTP process. Not only will this review provide the opportunity to bring the plan in line with the rapidly evolving landscape in resource recovery and MfEs recently implemented and signalled changes to the industry, but it also allows for the actions within the new WMMP to be transparently aligned to the programmes being proposed within the LTP, to deliver on these actions.
- 4.2 Some of the other actions being proposed for next year through the WMMP include:
- An implementation plan and investigation for the introduction of a city-wide kerbside food scraps collection service.
  - An investigation of options in respect to kerbside rubbish collection. This will include, but is not limited to, the benefits, risks and impacts of introducing a wheelie bin collection service, rather than the current user-pays bag service, consideration of delivery models, and financial implications of this service. This would then be reported back to Council for consideration.
  - Opportunities to reduce illegal dumping and reduce contamination in our kerbside recycling.
- 4.3 Alongside this, Council also needs to position itself to meet MfEs key performance indicators and targets set out in the new Waste Strategy and legislation. This may include enacting provisions already in our bylaw to license private waste collectors in Palmerston North. Obtaining up-to-date data from the private sector at the Local Government Level may be a key component in monitoring how we are tracking against the set (and waste levy funding dependent) Key Performance Indicators.

**5. COMPLIANCE AND ADMINISTRATION**

Does the Committee have delegated authority to decide?	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do, they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>
Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council's policies or plans?	<b>No</b>
The recommendations contribute to Goal 4: An Eco City	
The recommendations contribute to the achievement of action/actions in Resource Recovery	
The action is:	
<ul style="list-style-type: none"> <li>• Ensure the city's solid waste is adequately and affordably managed.</li> <li>• Maximise the proportion of waste diverted from landfill (e.g. through recycling and composting).</li> <li>• Manage hazardous waste in an environmentally responsible manner.</li> </ul>	
Contribution to strategic direction and to social, economic, environmental, and cultural well-being	This report on actions in the Waste Management and Minimisation Plan (WMMP) provides Elected Members with an update on progress to achieving the outcomes of that Plan and provides information that will support the next review of the WMMP.

**ATTACHMENTS**

1. WMMP Action Progress 2023 and Overview [↓](#) 



Reference	Abbreviated Description	Timeframe	Status	Funding (from WMMP)	Overall action progress (2019-2023)	2022/23 Action progress
R01	Implement provisions in Waste Management and Minimisation bylaw to allow licensing of and data collection from Waste Collectors	2019	Behind schedule	Rates and licencing fees	Private waste companies were surveyed to find out what data they currently collect. Through this process, some were not willing to provide data to Council citing commercial sensitivity. It became apparent that a third-party data collection platform would be required to collect and aggregate data from the private collectors, however there was no budget to allow this to occur.  Ministry for the Environment (MfE) signals indicated a national licensing scheme would be introduced which could negate the need for councils to license separately. Given this and the lack of resource available to progress this action, it was put on hold while officers awaited direction from MfE.	<b>Update:</b> MfE have signalled their intent to introduce a national licensing scheme, however they are unlikely to hold information at a territorial boundary level as first expected.  To ensure visibility across the waste streams in the city, PNCC will likely need to address licencing provisions in the bylaw. However, there is still uncertainty regarding the detail of the new legislative requirements and our ability to licence and collect data under the new proposed legislation.
R02	Introduce rules that would prohibit collection companies from collecting bins that contain lots of divertible material	2020	Behind schedule	Rates	This would need to occur after R01 was implemented.  Material limits may partially be address through legislation.  The Emissions Reduction Plan has an action to remove organic waste from landfill by 2030, and the Container return Scheme (which is currently deferred until after the 2023 general election) aims to incentivise recycling.	<b>Update:</b> PNCC will either need to licence the private waste collectors through the bylaw to ensure visibility across waste streams in the city, and/or work with the private waste providers.  The performance measures introduced in the new waste strategy will require all councils to reduce the waste sent to landfill. Working with the private sector is a key element to meeting these targets.
R03	Enforcement of illegal dumping	Ongoing	On track	Rates and income from infringements	Manawatu District Council inspect all reported incidences of illegal dumping. Since July 2019, 109 infringements have been issued relating to illegal dumping.	Illegal dumping enforced where possible.
D01	Undertake occasional SWAP's and Waste Assessments	As required	On track	Waste Levy		The Solid Waste Analysis Protocol (SWAP) and waste assessment were undertaken in early 2022 to inform the review of the WMMP in 2023/24.
D02	Improve internal data collection and analysis	Ongoing	On track	Rates	Data capture and analysis systems constantly being improved to increase efficiency and reliability. This will be key to ensuring we can accurately report to MfE.  Historically, resources to develop, implement and manage this area on a large scale has been stretched.	Progress made towards upgrading our systems to better capture, maintain and manage our data particularly through the Awapuni weighbridge.  A focus was put on better understanding the cost of providing our operations and services along with improving our internal analytical capability in the Resource Recovery Division.
E01	Maintain current education and engagement	Ongoing	On track	Rates and Waste Levy	Various educational campaigns have occurred since 2019, however COVID had an impact on momentum. Education and engagement have been largely through digital formats during this time, including the Plastics Campaign after the materials accepted in kerbside recycling were changed, and the development of the recycling section on the PNCC website.  PNCC has given support to Environment Network Manawatu (ENM) to deliver 3 Future Living Skills workshops since 2022.	Tours of the material recovery facility (MRF) resumed – with six tours held since July 2022, and four booked for the next few months. Alongside this a standardised presentation was developed for these tours aimed at intermediate aged children to adults, with a condensed version for younger children.  In addition, several social media videos were also created including the popular Palmy 10/7 clip which highlighted the challenges council is facing in respect to illegal dumping.  Please refer to the main report for more detail.
E02	Specific communication of new services	As required	On track	Rates and Waste Levy	Communication of new services occurs as required through a variety of mediums depending on the requirements. These include media releases, radio interviews and advertisements, social media, local newspapers, bus backs, brochures and posters.	No new services implemented in 2022/23. Communications were limited to the food scraps and free rubbish bag trials that were implemented.
E03	Establish community led zero-waste action group to include Rangitāne representation, supported by Council though coordination and some funding, to deliver project areas	2019	Completed	Waste Levy	This group was established in 2020, and a vision was defined. Initially this group met every 2 months, and at the end of 2021 \$10,000 was given to Plastic Pollution Challenge to fund the 2022 round of clean up events.	<b>Update:</b> Due to availability of attendees the Zero Waste Action Group was paused during 2022/23. ENM have expressed interest in hosting this group through a more formal arrangement.  The Resource Recovery Activities Team will also consider options to coordinate these with our internal resources.

	prioritised and planned by the community.					
E04	Investigate establishment of a waste minimisation competitive fund	2020	Completed	Waste Levy	There have been two rounds of the resource recovery fund since its establishment in 2022. There has been a total of 19 applications, with 8 successful projects being awarded funding.	The resource recovery fund provided funds to another four successful applicants, totalling \$40,000. Please refer to the main report for more detail.
E05	Work closely with iwi and other regional partners to ensure culturally appropriate waste management methods where possible, particularly relating to biosolids.	Ongoing	On track	Rates		Waste minimisation was a regular topic on the bi-monthly Infrastructure meetings with Rangitāne.  A wastewater biosolids strategy is currently being developed as part of the Wastewater Discharge Consenting Programme. This work includes identifying future beneficial reuse options and will be developed in consultation with iwi.
E06	Investigate removing food from residual waste stream including reduction of food waste, home composting and kerbside food waste collection.	2020	On track/will be completed in second half of 2023	Rates and Waste Levy		A food scraps collection trial has recently concluded which will help inform what a city-wide collection service will look like. A summary of the trial will be presented to Council in a separate report. Please refer to the main report for more detail.
C01	Maintain kerbside recycling collections and make the most of data collected from RFID tags	Ongoing	On track (RFID behind schedule)	Rates and Waste Levy	Removed plastics 3, 4, 6 & 7 to align with MfE's kerbside standardisation. There were disruptions to the service during the two lockdowns and subsequent COVID outbreak.	BAU.
C02	Maintain kerbside rubbish collection	Ongoing	On track	User pays		BAU.
C03	Subject to investigation, provide city-wide kerbside food waste collection service	2021 (investigate )	On hold	Rates and Waste Levy		<b>Update:</b> This will be considered as part of the WMMP review and upcoming LTP.  We are expecting kerbside service provision regulations in early 2024 from the MFE, which will require PNCC to introduce kerbside food scraps collections by 1 January 2030.
C04	Encourage use of existing services for garden waste	Ongoing	On track	Waste Levy	PNCC's green waste service is periodically promoted through media.	BAU.
C05	Provide recycling services to non-residential customers	2020	On track	User pays		BAU.  A reactive approach was taken in 2022/23 as resource constraints in collections limits our ability to take on more commercial customers currently.
C06	Hazardous waste disposal	2019	Ongoing	Rates and Waste Levy	Three hazardous waste days diverting 2.6 tonnes from waterways or landfill. While not true diversion, chemicals collected are processed before being disposed of to landfill in an inert form.	No progress since last report as programme was deferred.  The next hazardous waste collection event is scheduled for early October 2023.
C07	Continue to investigate recycling services for hard to recycle materials, such as polystyrene	2019	Ongoing	Waste Levy	Officers continuously investigate opportunities for hard to recycle materials, and as a result various new services have been established. These include cooking oil, tyres, liquid paperboard and flat glass. A polystyrene recycling trial ran during 19/20 with a select group of businesses, but inconsistent end markets for post-consumer polystyrene were limited at the time, resulting in the trial ending.	<b>Update:</b> Officers continued to explore an opportunity to commence a polystyrene recycling service. The outcome of this is anticipated in late 2023.  There are several opportunities to partner with organisations around recycling hard to recycle items. These will be proposed as investigations through the WMMP review.

C08	Trial mattress recycling programme	2019	Behind schedule	Waste Levy	Mattress recycling is a difficult service to introduce as it is significantly labour intensive and accompanied by a variety of health and safety concerns to consider. The mattress recycling scheme run by a third-party contractor is currently in caretaker mode, but tools and training could be provided if required. There are hopes within the industry that a product stewardship scheme will be established once the current priority schemes are set up – currently the big players are reluctant to be the first to drive such a scheme, although some do take back old mattresses for a fee when a new bed is purchased.	No progress since last report.
C09	Investigate how Council can support early childhood facilities and schools to divert more waste	2019	Completed		A comprehensive survey to ECE's and schools in the city was undertaken in 2019, with just over half of these organisations responding, with the majority of respondents stating that the cost of recycling was the biggest barrier to waste diversion.  Until September 2022, a dedicated resource worked with some schools to implement bespoke where necessary. Since September 2022, this role has been vacant however this position will be filled by the end of 2023.  As part of the plastics campaign, small reusable containers and yoghurt makers were supplied to two local kindergartens, both of which reported a reduction in the amount of waste generated.	No progress since last report.
IN1	Maintain existing Recycling Drop Off Points and Awapuni Resource Recovery Park	Ongoing	On track		Upgrades to the Awapuni, Ferguson St facilities to increase efficiency and operability.	There were improvements made at the Ferguson Street drop off point to improve capacity for accepting cardboard.  The Ashhurst recycling drop off point is being upgraded in August/ September 2023 to allow glass to be colour separated and increase capacity.
IN2	Investigate new site for green waste and recycling drop-off facility	2019-2021	Behind schedule	Rates		No progress since last report as programme was deferred as part of Annual Plan deliberations.
IN3	Investigate establishment of construction and demolition recycling facility	2021-2022	Completed	Rates and Waste Levy, then Rates, User Pays and Waste Levy for implementation phase	Central Demolition concrete crushing plant established.	No progress from Officers since last report. However, a regional facility in the process of being developed by private company with help from funding by MfE's Waste Minimisation Fund.
LM1	Central government advocacy	Ongoing	On track		Officers have submitted feedback for a number of consultations as MfE developed their ambitious work programme. These consultations will ultimately shape the new waste legislation that is expected to be introduced in 2024.	Officers maintained ongoing contact with MfE regarding new waste strategy and legislation.
LM2	Work closely with mana whenua and community groups	Ongoing	On track		Increased engagement with ENM and attendance at bi-monthly Rangitāne meetings.	No progress since last report. Waste minimisation was a regular topic on the bi-monthly Infrastructure meetings with Rangitāne. Officers regularly engaged with ENM through various projects.
LM3	Review procurement policy to require lower-waste purchasing	Ongoing	On track			A Procurement Governance Policy is in the final stages of being drafted and is due to come before council in late 2023. One of the principles included includes sustainability.



## MEMORANDUM

**TO:** Sustainability Committee

**MEETING DATE:** 11 October 2023

**TITLE:** Wastewater Discharge Consent Project (Nature Calls) - Quarterly Update

**PRESENTED BY:** Mike Monaghan, Group Manager - Three Waters

**APPROVED BY:** Chris Dyhrberg, Chief Infrastructure Officer

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### RECOMMENDATION TO SUSTAINABILITY COMMITTEE

1. That the Committee receive the report titled 'Wastewater Discharge Consent Project (Nature Calls) – Quarterly Update' presented to the Sustainability Committee on 11 October 2023.
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#### 1. ISSUE

- 1.1 The Nature Calls Project Team completed the concept design and development of the resource consent application to Horizons Regional Council (Horizons) in late 2022. This was the culmination of four years of work developing the Best Practicable Option (BPO) which comprises highly treated wastewater being discharged to the Manawatū river or to land.
- 1.2 Quarterly updates for the project were requested by Council. This report provides an update on the project for the period from June 2023 to October 2023.

#### 2. BACKGROUND

##### Application lodged - 19 December 2022

- 2.1 The Wastewater Discharge Consent application was lodged with Horizons on 19 December 2022, with the initial processing timeframe for assessing completeness of the application (section 88 assessment under the Resource Management Act 1991 (RMA)) being 10 February 2023. This timeframe was agreed to reflect the complexity of the application, the number of public holidays and anniversary days occurring between lodgement and the statutory timeframe.
- 2.2 In February 2023 Horizons requested a further extension to assess if the application met the completeness assessment. This extension was requested to allow Horizons additional time to review the land discharge technical

assessments. Council agreed to the additional extension and a decision regarding section 88 was due on the 31 March 2023.

### **Application not accepted by Horizons – 31 March 2023**

- 2.3 On 31 March 2023, Horizons informed Council that the consent application had been rejected under section 88 of the RMA. Horizons cited in their correspondence to Council that the application did not include sufficient information. This was a disappointing outcome for the Project Team given the extensive work that went into the consent application preparation.
- 2.4 The consent application programme was driven by the need to satisfy the requirements of Condition 23C of the existing consent, which required a consent application to be lodged for the discharge consent for the Wastewater Treatment Plant (WWTP). The decision to reject the consent application meant that this condition was unfulfilled.

### **Objection by Council to Horizons Section 88 decision**

- 2.5 Following discussions with the Project Team, Council Officers and, external legal advisors - a decision was made to formally object to Horizons section 88 decision. The objection was made under the RMA on the basis that the applicant (Council) disagreed with the decision of the regulator (Horizons).
- 2.6 The objection was deemed necessary for Council to assert the position that the consent application **was** sufficient to be accepted under section 88. The Project Team continued to work constructively with Horizons on the consent application despite the objection.

## **3. UPDATE SINCE LAST QUARTERLY REPORT**

### **Application accepted by Horizons – 1 August 2023**

- 3.1 Following the rejection of the application on 31 March 2023, the Project Team continued to work to address the matters raised by Horizons. With the various discussions with technical personnel an agreement was established on the best way forward and it was agreed with Horizons that Council resubmit its response. Council resubmitted this to Horizons on the 20 July 2023.
- 3.2 It was noted in the response to Horizons that Council remained of the opinion that the original application was sufficient to have been accepted by Horizons on 19 December 2022.
- 3.3 Horizons informed Council on 1 August 2023 that the application had been formally 'accepted' as complete. This was a significant milestone for Council and the Project Team.
- 3.4 Following the receipt of the acceptance notification from Horizons, Council formally withdrew its objection to Horizons original decision. It was deemed

that following the work undertaken by both parties there was no need to continue with the objection.

### **Horizons request further Information (section 92) – 17 August 2023**

- 3.5 On 17 August 2023, Council received Horizons request for further information regarding the consent application (also known as a section 92 request for further information of the RMA).
- 3.6 This request contains over 200 questions - additional information requests are not unusual to receive on consent applications, and extensive information requests are normal to receive on applications of this magnitude.
- 3.7 Due to the number and complexity of the questions raised, Council have requested additional time to consider this, and Horizons have granted this request. Council has until 29 September 2023 to advise Horizons the anticipated time frame for a response to the section 92 requests.
- 3.8 At the time of writing this report, the Project Team are still reviewing the additional information requested so it is unknown the length of time that will be necessary to respond to all of these – we anticipate we will be able to provide a verbal update on this at the Sustainability Committee meeting on 11 October 2023.
- 3.9 The Project Team are also developing their next scope of work for the project, based on the further information requested. The technical teams are also providing budget and scopes of work for this phase of the project.
- 3.10 Once Council informs Horizons of the length of time needed to respond to the further information request, the statutory processing time stops until these are responded to. Horizons will not start the statutory clock again until they are confident that the additional information has been provided, or unless Council provide an alternative response to the outstanding questions.
- 3.11 Following receipt of the information requested Horizons further questions may be raised and Council would need to either continue to answer these or provide an alternative response. Once all of the outstanding matters are closed out, or we have notified that we will not respond to the matters further, the processing clock restarts, and the application moves towards the notification process.

## **4. NEXT STEPS**

Work continues in parallel workstreams. An overview of these is outlined below.

### **Iwi Engagement**

- 4.1 We continue to connect and reach out to Iwi in relation to the project in anticipation of ongoing conversation and discussion relating to cultural impact.

### **Stakeholder Engagement**

- 4.2 The Project Reference Group was disbanded in late 2022 in line with the Terms of Reference established for the group. Although disbanded, this group have been kept informed throughout the process.

### **Nature Calls Steering Group**

- 4.3 Work has commenced on the development of the Nature Calls Steering Group. This stakeholder group will replace the Project Reference Group going forward in the post-lodgement phase.

Terms of Reference are being developed for this group with a report to be presented to Council on 1 November 2023.

### **River Monitoring- Summer flow monitoring and mixing study**

- 4.4 The river mixing study, which was due to take place over the summer, was delayed due to abnormal high unseasonal flows in the Manawatū River. With predicted dry weather coming, flows are continuing to be monitored to find an appropriate monitoring window.

### **Wastewater Treatment Plant Testing**

- 4.5 Seasonal Emerging Organic Contaminants testing has been undertaken at the Wastewater Treatment Plant (WWTP). The results from this investigation have recently been received by the Project Team and are being reviewed at the time of writing this report.

### **Biosolids Strategy**

- 4.6 Previous work identified that the Awapuni Landfill has limited capacity for future disposal of biosolids from the WWTP. Additional work has commenced on the Biosolids Strategy to determine opportunities for the use of biosolids going forward, with the focus on matters identified in the Biosolids Strategy Development Report that relate to:

- current biosolids disposal; and
- progressing future short and medium-term disposal options for biosolids from the treatment plant.

The Biosolids Strategy work packages were on hold pending the outcomes of the Emerging Organic Contaminants testing which has now been received.

In addition to the work outlined above, strategic conversations are ongoing with other local entities in the region on biosolids disposal as this is a regional challenge for other Council's.

**Property**

4.7 The Project Team continues to investigate property to receive the land discharge, as this is a fundamental part of the consent application. A specific property team have been identified and meet regularly to progress this workstream. Since the update in June 2023 the team continues to work on the following:

- Continuing to look at suitability of land within the Area of Interest (AOI).
- Multi-Criteria Assessment (MCA) - is being drafted to support site selection within the AOI. This work will support the Property Strategy.
- Initial discussions on detailed investigations that are required to address the further information received by Horizons.

**5. BUDGET**

- 5.1 The 2023/24 capital budget for the Nature Calls project is \$3,000,000. This will allow for the aforementioned work packages to continue throughout this financial year.
- 5.2 At the time of writing, Council Officers have been unable to report on financial spend to date for the 2023/24 financial year, Officers will update if able at the Committee Meeting.
- 5.3 Council Officers are currently working through the Long Term Plan (LTP), which will see the anticipated cost of the project going forward. This will come to Elected Members through the LTP process.

**6. COMPLIANCE AND ADMINISTRATION**

Does the Committee have delegated authority to decide?	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>
Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council's policies or plans?	<b>No</b>

**ATTACHMENTS**

Nil



## MEMORANDUM

**TO:** Sustainability Committee

**MEETING DATE:** 11 October 2023

**TITLE:** Palmerston North City-wide Emissions Inventory 2022

**PRESENTED BY:** David Watson, Climate Change Analyst

**APPROVED BY:** David Murphy, Chief Planning Officer

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### RECOMMENDATION TO SUSTAINABILITY COMMITTEE

- 1. That the Committee note that total net emissions for Palmerston North city for the 2022 calendar year were 690,590 tCO<sub>2</sub>e, which is a 30,078 tCO<sub>2</sub>e reduction compared to 2021 and a 70,273 tCO<sub>2</sub>e increase since the 2016/17 baseline.**
- 

#### 1. ISSUE

- 1.1 The Eco City Strategy 2021 set a target of a 30% reduction in CO<sub>2</sub>e emissions in Palmerston North by 2031, compared to the 2016/17 baseline. This inventory has been prepared to measure progress against this target (refer to attachment 1).
- 1.2 Total net emissions for the 2022 calendar year were 690,590 tCO<sub>2</sub>e. This is a 30,078 tCO<sub>2</sub>e reduction compared to 2021 and a 70,273 tCO<sub>2</sub>e increase since the 2016/17 baseline.
- 1.3 This inventory has been adjusted to reduce or remove errors noted in the calculation process for previous inventories. These changes have been applied to previous inventories including the baseline. This has resulted in significant changes to some areas.
- 1.4 In order to provide assurance that the current methodology is robust the 2022 inventory has been independently audited by a carbon auditing specialist and verified as accurate<sup>1</sup>.

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<sup>1</sup> The auditor's opinion is unmodified i.e., a "clean" opinion, no significant issues, misstatements, or concerns were identified during the verification process.

**2. BACKGROUND**

- 2.1 In 2016/17 Palmerston North City Council conducted its first citywide inventory to provide context for the Eco City Strategy's 25% citywide carbon emission reduction target. This inventory was conducted by AECOM and was presented to Council in 2018.
- 2.2 The city-wide target was revised as part of the 2021-31 Long Term Plan and is currently set at a 30% reduction from the 2016/17 baseline by 2031.
- 2.3 A detailed interrogation of the AECOM calculations in preparation for this inventory revealed some errors in the 2018 methodology. Work has been completed to correct these errors and has been retrospectively applied to previous inventories including the baseline. This means that whilst the absolute value in tonnes of CO<sub>2</sub>e has changed, the relative target has not.

**3. INVENTORY DETAILS**

- 3.1 City-wide emissions are reported in tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e) in order to provide a single comparable number for a variety of greenhouse gases such as methane and nitrous oxide.
- 3.2 In order to meet the 2031 target the city will need to reduce emissions by an average of 32,898 per year going forwards.
- 3.3 Per capita emissions are 7.4 tCO<sub>2</sub>e, a 5% reduction compared to 2021 and a 1% increase since 2016/17. Emissions are likely to vary widely between individuals.
- 3.4 It is worth noting that some areas of the inventory are based on data that is a pro-rata calculation from regional or national data using nationally published emissions factors. This introduces uncertainty into the data which currently is unable to be resolved further.

**4. KEY INFLUENCES ON CITY-WIDE EMISSIONS**

- 4.1 There have been two changes in emission of more than 1% from the 2021 inventory; a reduction in emissions from electricity use and an increase in emissions from forestry.

*Electricity Generation*

- 4.2 These reductions are primarily related to weather; 2022 was very wet and this has resulted in a dramatic increase in hydro power generation leading to 87% of electricity being produced from renewable sources. This has resulted in a reduction in coal power generation from 50% in 2021 to 22% in 2022. Overall emissions from electricity have reduced by 20,427 tCO<sub>2</sub>e (41%) year on year as a result.
- 4.3 Given the strong El Nino effect currently predicted for summer 2023-24 it is unlikely that this will continue to be the case going forward. Increases in year-

on-year emissions from electricity generation are likely, although the trend should continue downwards as further renewable generation and storage are brought online.

*Forestry Emissions*

- 4.4 An additional 7.7 hectares of exotic forest was cleared in 2022 compared to the previous year resulting in an additional 8,366 tCO<sub>2</sub>e of emissions.
- 4.5 Wood availability<sup>2</sup>, a measure of the volume of forestry that could be harvested, in the southern north island increased from 3.7m m<sup>3</sup> in 2021 to 12m in 2022. This is part of a longer-term trend in forestry production due to the area of forest planted between 20 and 30 years ago that is now reaching maturity. Harvest numbers have been lower than predicted due to the use of forestry to generate carbon credits under the Emissions Trading Scheme (ETS).

**5. NEXT STEPS**

- 5.1 Inventories following the revised methodology will continue to be produced to track greenhouse gas emissions for Palmerston North City.
- 5.2 Additional effort will be required to continue and increase emissions reductions in the future. Programmes are proposed within the 2024-34 Long Term Plan following the Low Carbon Roadmap and aligned with national direction to further reduce emissions and help incentivise low carbon development over the term of the Long Term Plan.
- 5.3 We will continue to investigate measures to improve the efficiency and accuracy of future inventories.

**6. COMPLIANCE AND ADMINISTRATION**

Does the Committee have delegated authority to decide?	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>
Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council's policies or plans?	<b>No</b>
The recommendations contribute to Goal 4: An Eco City	
The recommendations contribute to the achievement of action/actions in Climate Change	

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<sup>2</sup> Wood Availability Forecast 2021 – Scenario 1

The action is: Develop a road map to achieving a low carbon city.	
Contribution to strategic direction and to social, economic, environmental and cultural well-being	Measuring progress towards the Eco City Strategy carbon reduction target.

**ATTACHMENTS**

1. Citywide Emissions Inventory Report 2022 - Attachment 1 [↓](#) 

## 2022 Citywide Emissions Inventory Report

		2016/17		2018		2019		2020		2021		2022	
Stationary Energy	Electricity Consumption	50049.88	215406	54676.57	220129	64032.20	240418	68924.06	238905	71579.12	244348	42152.12	211779
	Electricity T&D Loss	2935.99		2950.58		3001.46		3088.81		3149.43		3153.90	
	Petrol and Diesel	64433.04		64466.52		76503.99		73167.36		76939.99		75537.11	
	Natural Gas	47922.56		49331.71		49344.95		47926.34		47449.08		46746.39	
	Natural Gas T&D Loss	5472.56		5633.48		5634.99		5472.99		5418.49		5338.24	
	LPG	9522.54		9077.91		9329.07		9081.45		9538.17		9316.23	
	Landfill Gas	19427.29		18148.00		16973.00		15954.00		14974.00		14435.00	
	Coal	1452.25		1763.25		1660.40		1355.55		1188.40		1105.03	
	Biofuels	14189.49		14080.57		13938.06		13934.69		14111.45		13994.73	
Transportation	Petrol	131,037	234865	131,933	244525	128,088	233746	112,815	214679	121,414	231013	116,347	224225
	Diesel	91,792		101,110		94,580		89,876		100,402		98,098	
	Rail Emissions	1,611		819		0		0		0		753	
	Jet Kerosene	9,426		9,850		10,302		11,261		8,512		8,340	
	Av Gas	727		683		639		595		548		548	
	LPG	272		130		137		132		138		140	
Waste	Solid Waste Disposal	45,525	47351	52,691	52874	52,872	53053	52,502	52687	52,133	52347	51,761	51973
	Waste Water	1,826		183		182		185		214		212	
	IPPU (Industry)	26,889	26889	24,578	24578	24,712	24712	25,587	25587	26,147	26147	25,637	25637
	Agricultural	160,557	160557	177,710	177710	181,048	181048	180,608	180608	182,239	182239	186,312	186312
<b>Total gross emissions (excl. forestry)</b>		<b>685066</b>		<b>719816</b>		<b>732977</b>		<b>712467</b>		<b>736094</b>		<b>699926</b>	
Forestry	Exotic Forest Sequestration	-80039.29	-74484	-81112.47	-18114	-79785.49	-16891	-79369.15	-15331	-86219.91	-16207	-87790.55	-9336
	Native Forest Sequestration	-19491.23		-19416.14		-19341.04		-19265.95		-19190.85		-19115.75	
	Total Harvest Emissions	25046.99		82414.30		82235.53		83304.55		89203.80		97570.01	
<b>Total net emissions (incl. forestry)</b>		<b>610583</b>		<b>701701</b>		<b>716086</b>		<b>697137</b>		<b>719887</b>		<b>690590</b>	

Table 1. Palmerston North City-wide Emissions Data Table (tCO<sub>2</sub>e)

Figure 1 - Palmerston North City-wide Emissions (tCO<sub>2</sub>e)

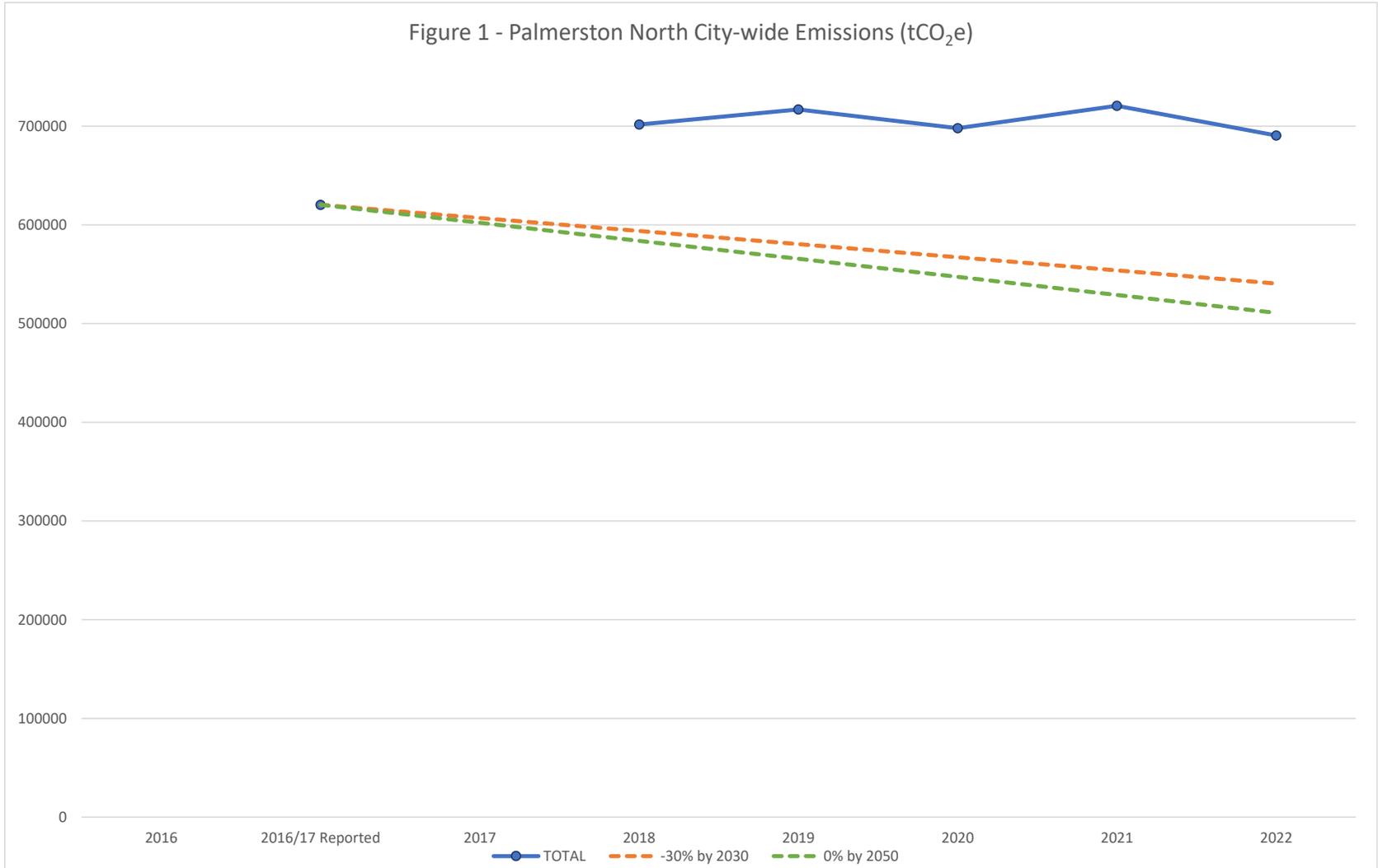
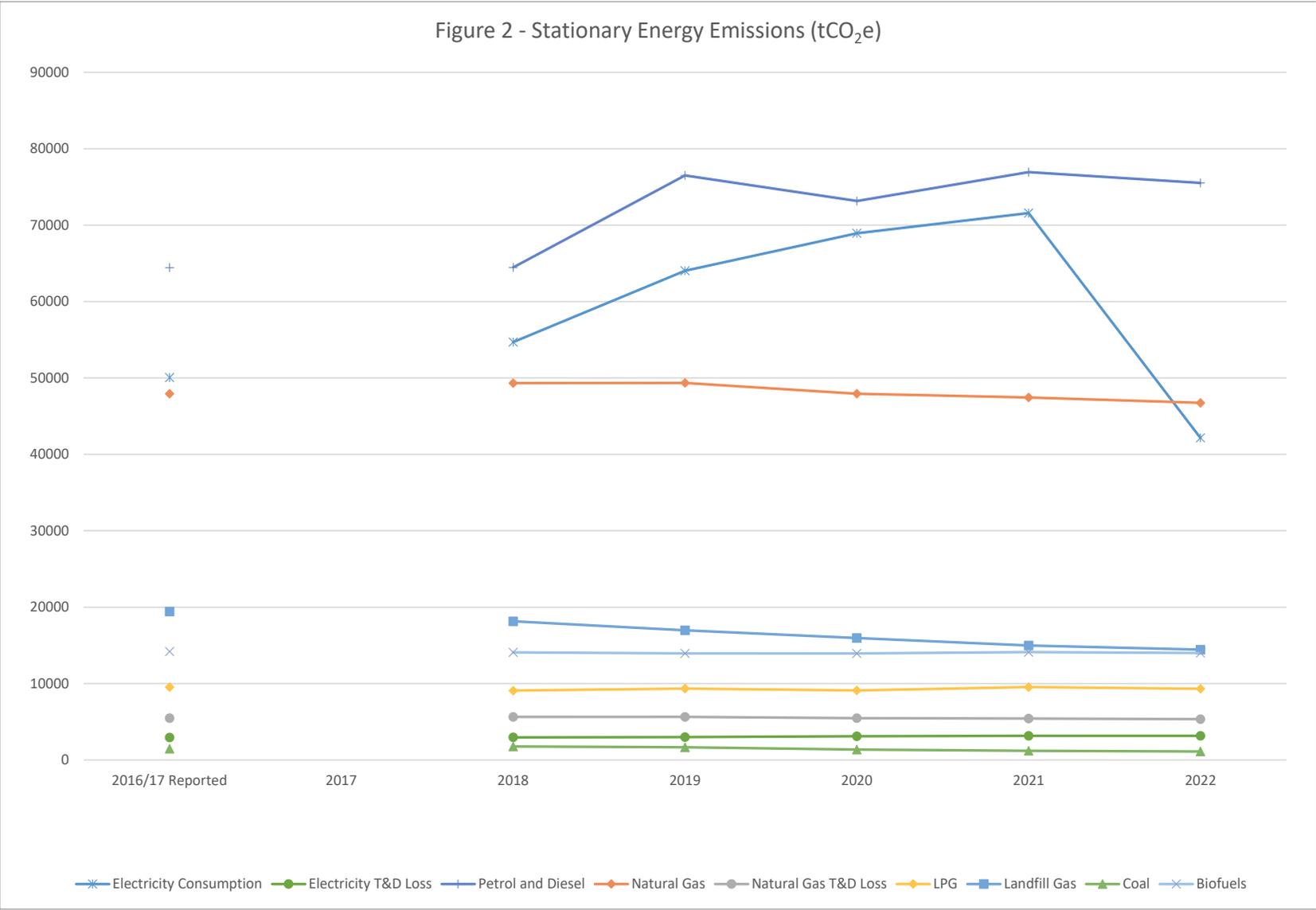


Figure 2 - Stationary Energy Emissions (tCO<sub>2</sub>e)



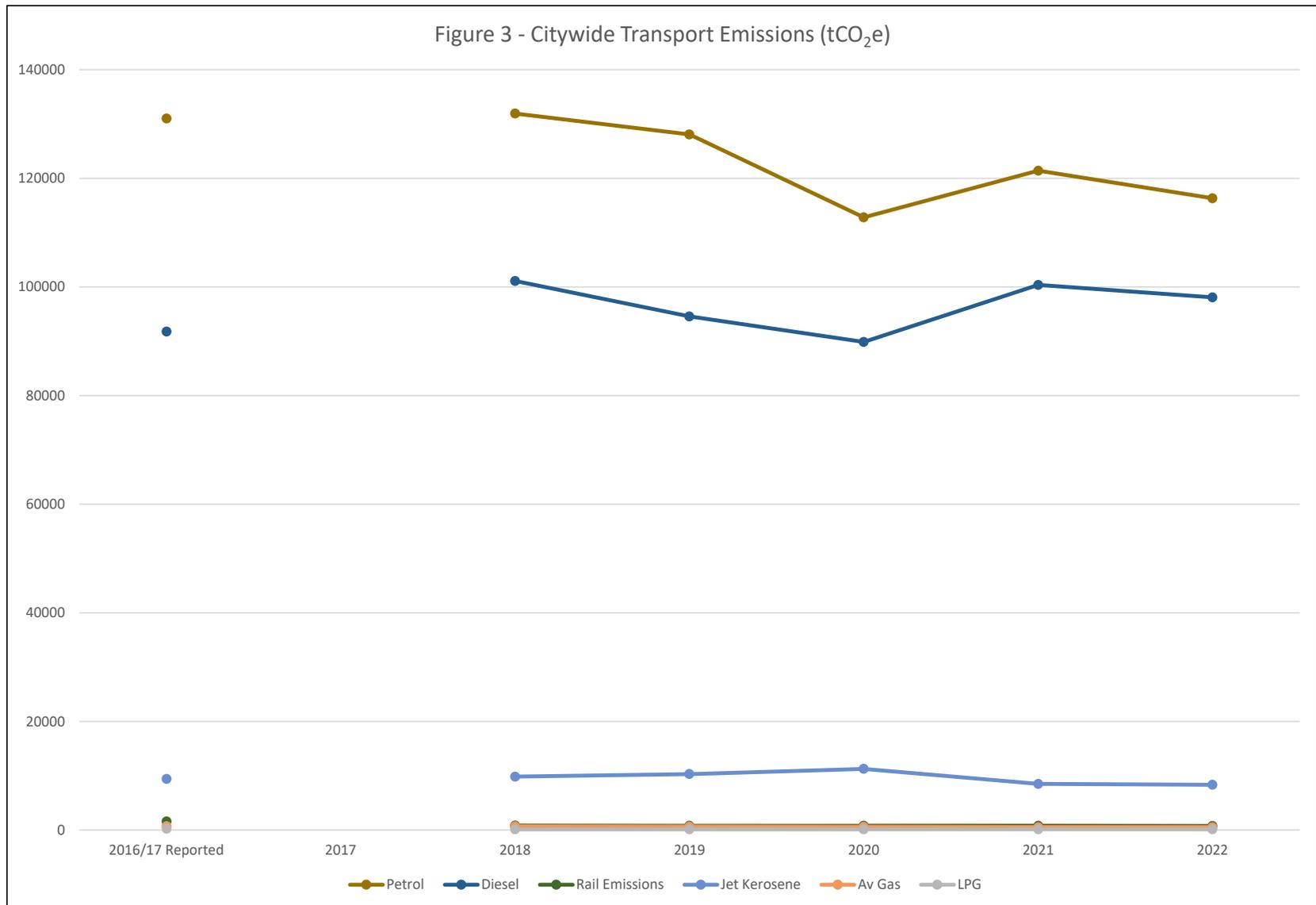


Figure 4 - Citywide Waste, IPPU & Agricultural Emissions (tCO<sub>2</sub>e)

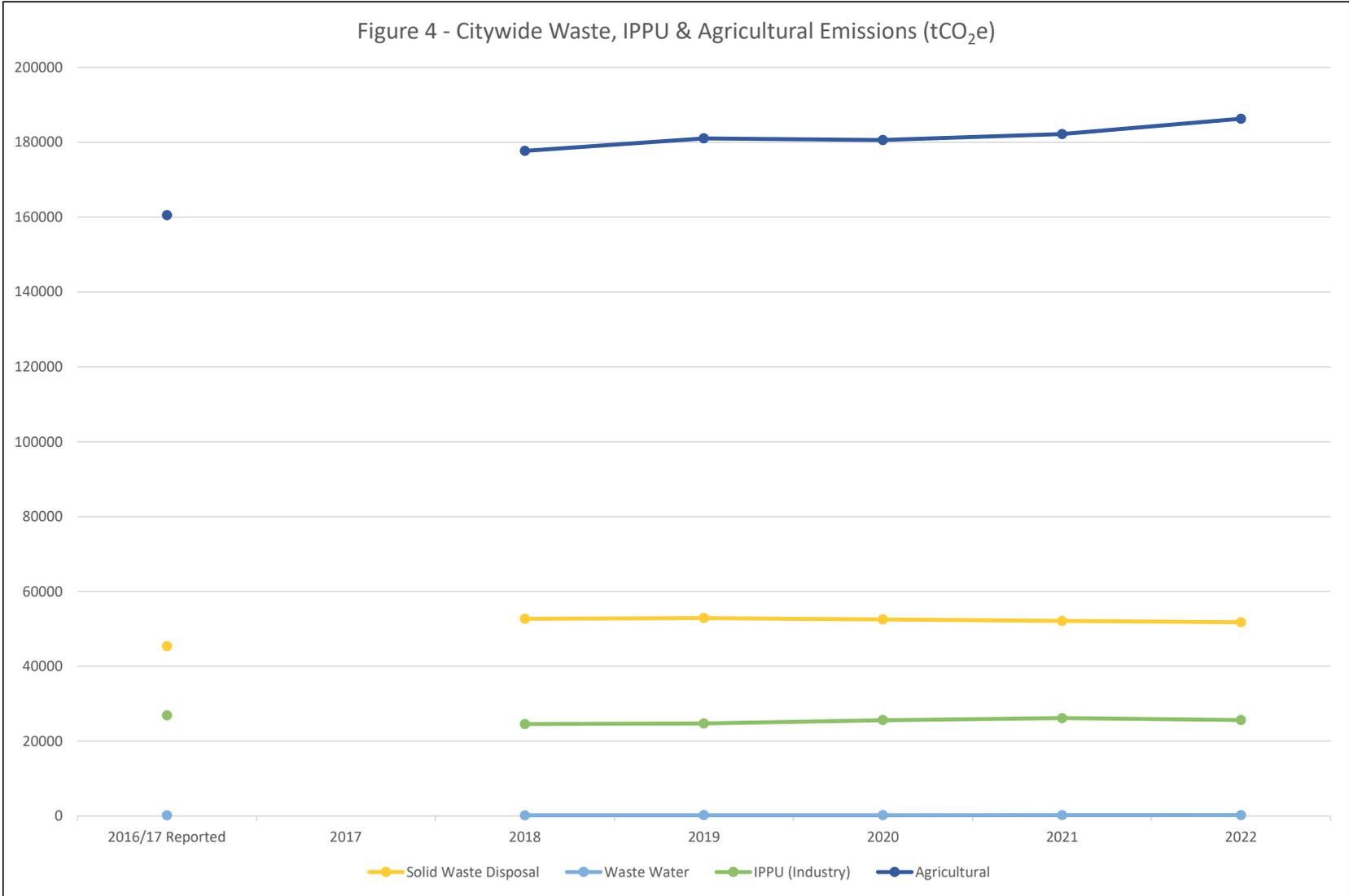
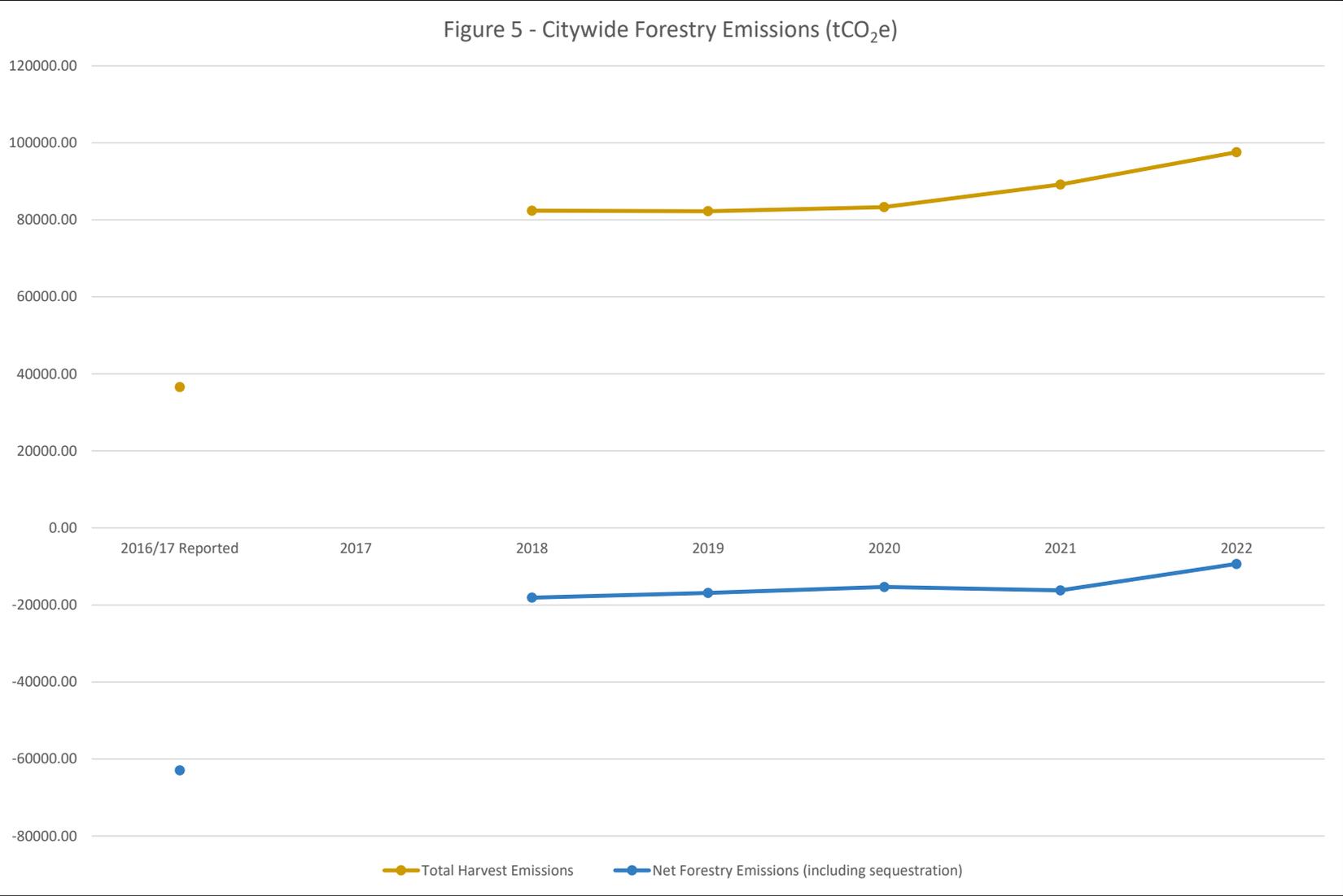


Figure 5 - Citywide Forestry Emissions (tCO<sub>2</sub>e)



## MEMORANDUM

**TO:** Sustainability Committee

**MEETING DATE:** 11 October 2023

**TITLE:** Palmerston North City Council Organisational Emissions Inventory 2022/23

**PRESENTED BY:** Adam Jarvis, Acting City Planning Manager; David Watson, Senior Climate Change Advisor

**APPROVED BY:** David Murphy, Chief Planning Officer

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### RECOMMENDATION TO SUSTAINABILITY COMMITTEE

1. That the Committee note that Palmerston North City Council organisational emissions have fallen from 26,444 tCO<sub>2</sub>e in 2015/16, to 18,155 tCO<sub>2</sub>e in 2022/23: a 31.5% reduction.
- 

#### 1. ISSUE

- 1.1 Through the Eco City Strategy 2021, Palmerston North City Council (Council) has set itself the target of a citywide 30% reduction in carbon emissions by 2031, compared to the 2015/16 baseline.
- 1.2 Council has previously questioned the time taken to produce inventories and the relevance of data produced several months after the end of a financial year. The change from Toitū Envirocare has allowed for a more rapid reporting timeframe.
- 1.3 The information provided below enumerates Council's corporate emissions (i.e. emissions resulting from Council activities) during the 2022/23 financial year. This report and the associated source data have been independently assessed against ISO14064-3.
- 1.4 As a result of Council actions, the organisation's emissions have fallen from 26,444 tCO<sub>2</sub>e in 2015/16, to 18,155 tCO<sub>2</sub>e in 2022/23: a 31.5% reduction. Non-landfill related emissions fell from 6,835 tCO<sub>2</sub>e to 5,858 tCO<sub>2</sub>e over the same period: a 14.3% reduction since 2015/16, and a 5.4% decrease from the previous 2021/22 period. A time series of emissions since the baseline year is provided in Figure 1.1 and 1.2.

## **2. BACKGROUND**

2.1 The organisations Internal Emissions Report is compiled from usage and emissions data from the following emissions sources:

- Council stationary energy use (electricity, piped natural gas)
- Wastewater processing emissions
- Vehicles (petrol, diesel)
- 'Small Plant Item' (petrol-powered chainsaws, leaf blowers, etc.)
- Diesel use by Council generators
- Methane release from Awapuni and Ashhurst Landfills
- Waste collected from all sites
- Air travel and taxi travel
- Staff commuting
- Air-conditioning unit gas refills
- Fertilizer use

2.2 This inventory is the first to be conducted entirely 'in-house' by Council officers. The inventory follows the Ministry for the Environment's standard emissions inventory methodology, and was externally audited by Edge Environmental Ltd.

2.3 An overview of Council's 2022/23 emissions inventory is provided below in Figure 2.1 and 2.2. These break down Council's emissions by emissions source in order to show those areas that could be targeted for further reductions. A detailed breakdown of the inventory data is provided in Attachment 1.

2.4 Note: The inventory is presented in terms of 'carbon dioxide equivalent' or 'CO<sub>2</sub>e'. This is because other gases such as methane and nitrous oxide have different relative impacts per unit weight. For example, the refrigerant R-22, typically only released in very small volumes, has a global warming potential 12,000 greater than carbon dioxide. CO<sub>2</sub>e accounting allows for the global warming potential of different greenhouse gases to be compared with one another.



Figure 1.2 Organisational Emissions Series

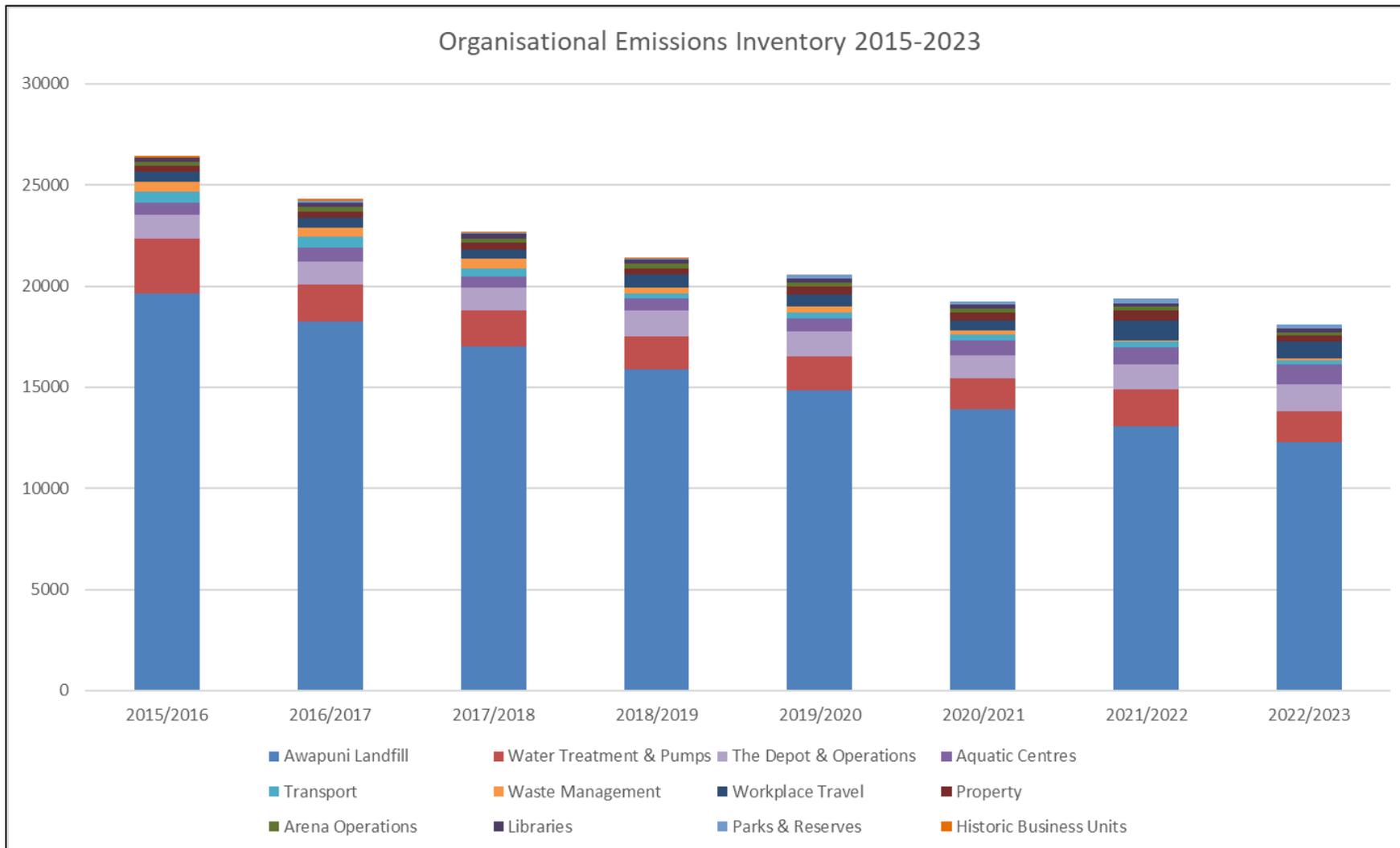
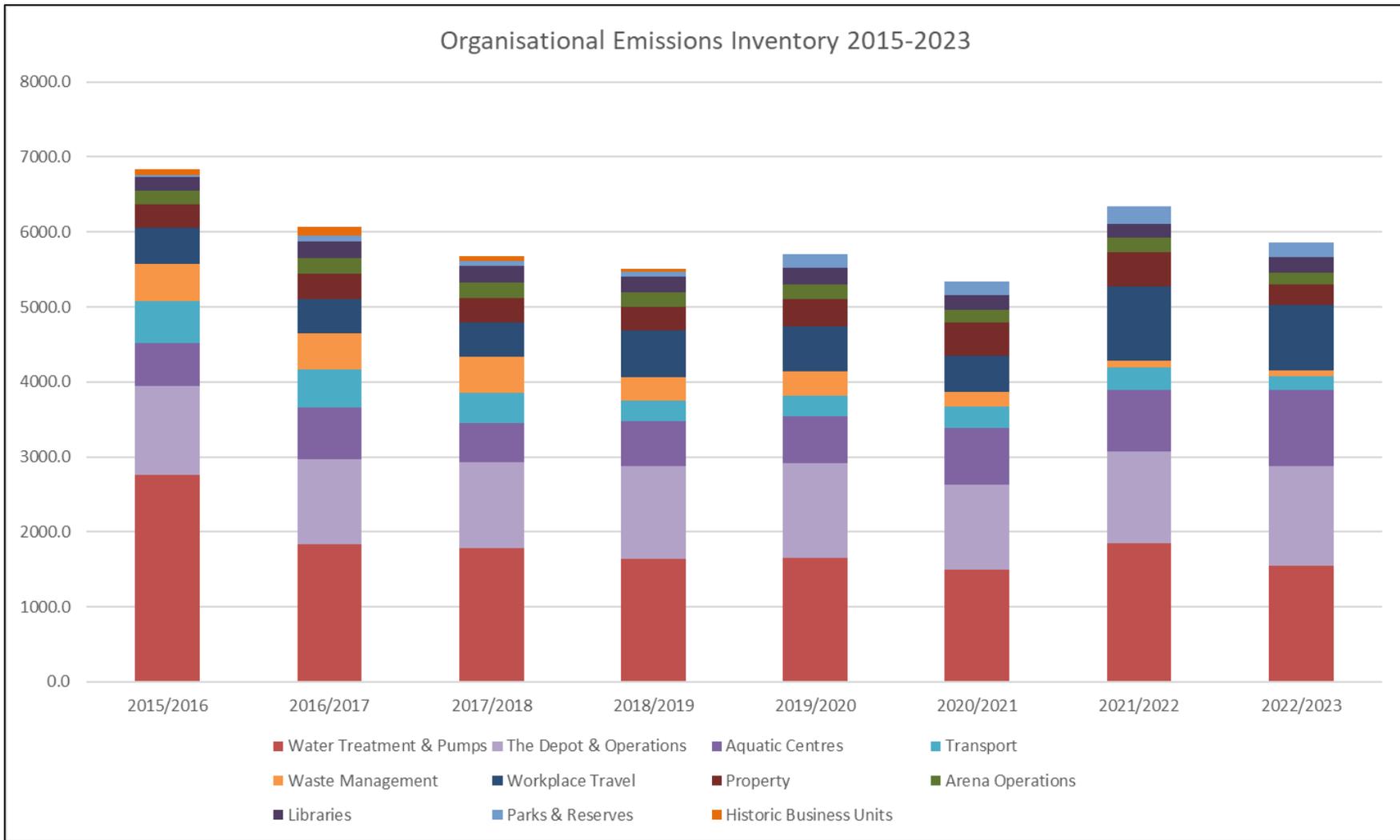


Figure 1.3 Organisational Emissions Series Excluding Landfills



Values	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Unit	tCO2e	tCO2e	tCO2e	tCO2e	tCO2e	tCO2e	tCO2e	tCO2e
Landfills	19609	18254	17021	15895	14866	13923	13055	12256.8
Water Treatment <sup>1</sup> & Pumps	2759.7	1838.8	1779.3	1635.2	1651.9	1494.3	1851.6	1552.5
Logistics and Support	1185.5	1133.2	1150.8	1247.8	1258.9	1134.0	1216.0	1325.8
Aquatic Centres	574.9	684.6	524.9	589.2	635.3	760.6	830.7	1013.6
Transport Infrastructure	561.3	514.0	402.2	281.8	271.2	286.2	300.0	187.1
Waste Management <sup>2</sup>	488.5	483.4	476.5	302.6	326.3	188.0	84.9	80.1
Workplace Travel	479.3	453.6	459.2	631.0	597.5	490.6	986.1	871.5
Property	312.8	334.4	324.5	308.0	357.3	439.7	456.2	271.2
Arena Operations	192.9	205.7	206.5	205.8	199.3	162.2	195.6	157.5
Libraries	170.3	223.3	227.7	208.6	218.6	194.6	185.5	202.9
Parks & Reserves	28.1	77.2	66.7	60.6	186.2	182.3	228.5	196.6
<b>Total</b>	<b>26444*</b>	<b>24324.2*</b>	<b>22691.8*</b>	<b>21400.4*</b>	<b>20568.5</b>	<b>19255.5</b>	<b>19390.3</b>	<b>18115.6</b>

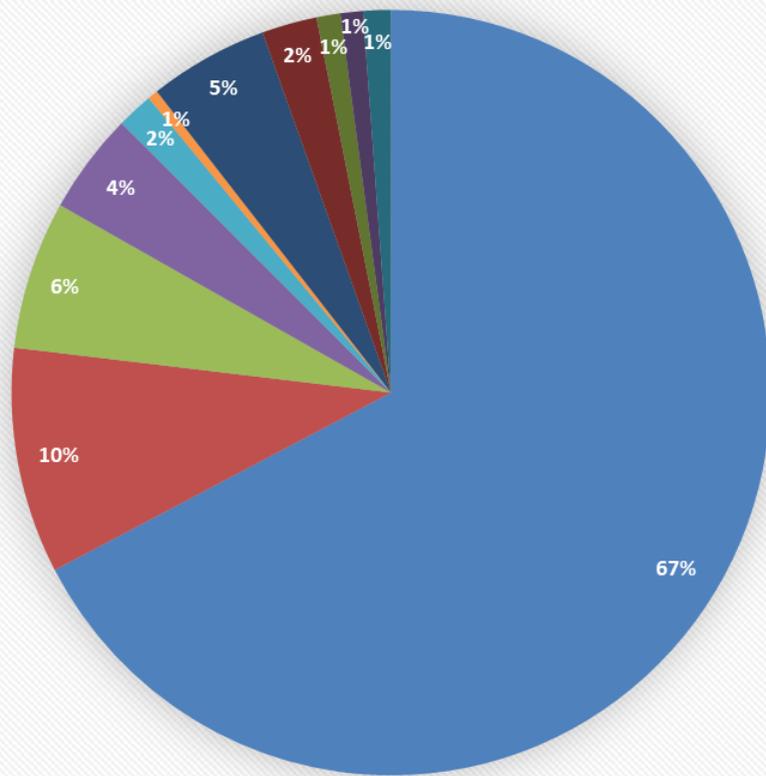
**Table 1 Organisational Emissions 2015/16 – 2022/23**

<sup>1</sup>Water Treatment: Wastewater treatment emissions were determined using the measured flow quantity and quality data and the Intergovernmental Panel on Climate Change (IPCC) 2019 modelling approach. The model includes various inherent assumptions. Changes in assumptions could change this number significantly.

<sup>2</sup>Waste Management: Solid waste emissions are determined from a first order decay model based on the IPCC modelling approach. Changes in assumptions could change this number significantly.

\*Totals include historic business units not attributed to an active Unit

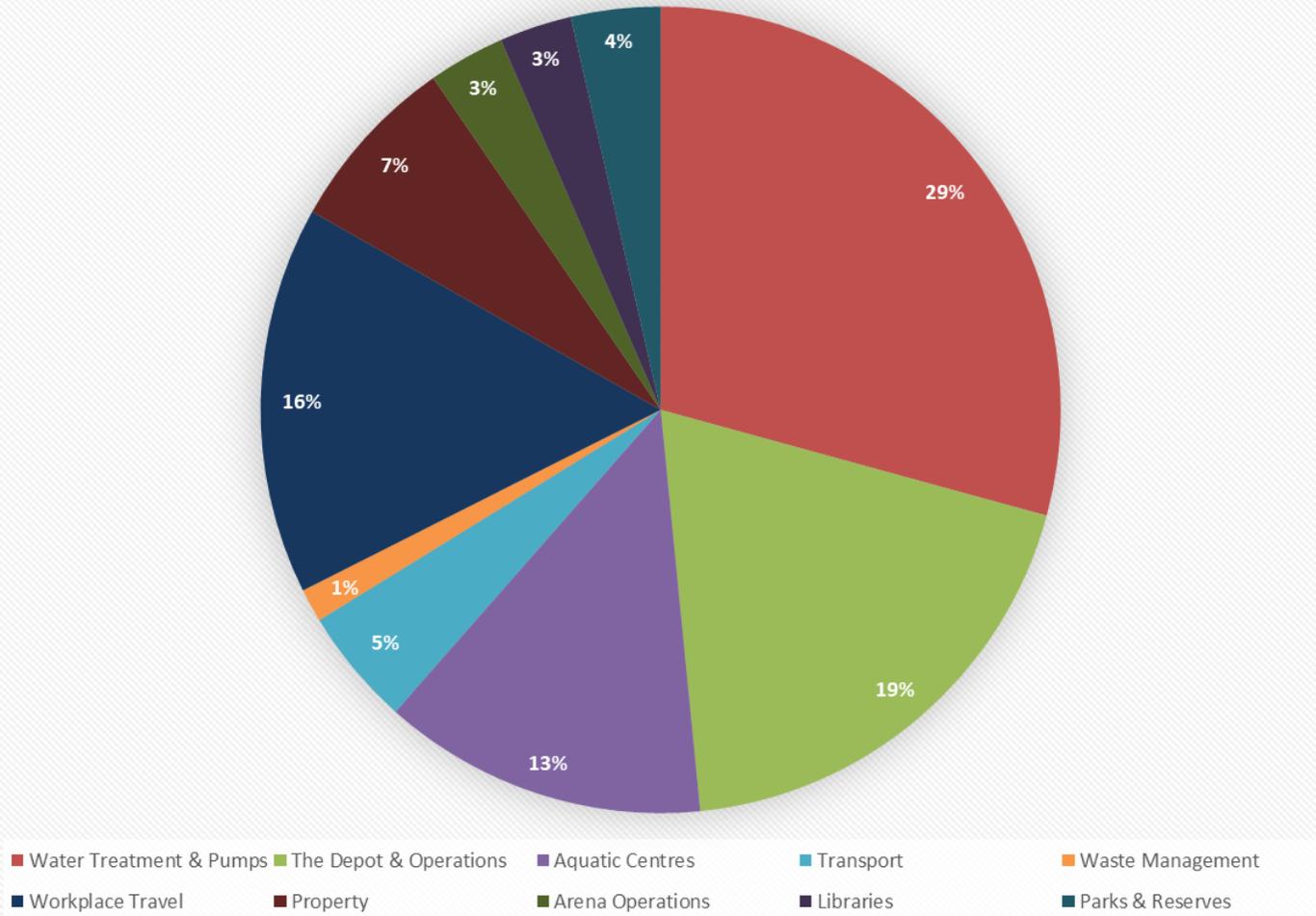
## Organisational Emissions Inventory 2022-23



- Awapuni Landfill
- Water Treatment & Pumps
- The Depot & Operations
- Aquatic Centres
- Transport
- Waste Management
- Workplace Travel
- Property
- Arena Operations
- Libraries
- Parks & Reserves

Figure 2.1 Organisational Emissions Summary

### Organisational Emissions Inventory 2022-23



**Figure 2.2 Organisational Emissions Summary Excluding Landfill Emissions**

### 3. DISCUSSION

- 3.1 Gross emissions generated by Council have reduced by 31.5% since 2015/16. Barring substantial increases in non-landfill emissions it can be concluded that the current organisational emissions target has now been met.
- 3.2 Three areas of emissions have increased year-on-year:
- Aquatic Centres (+22%): Due primarily to the upgrade and re-opening of Freyberg Aquatic Centre which now using significant volumes of gas for heating, partially offset by energy efficiency upgrades at the Lido.
  - Libraries (+9%): Due to a return to historic usage rates of the Library bus and an increase in gas use at Youth Space and the City Library.
  - Logistics and Support (+9%): Due to a moderate increase in heavier vehicle use (i.e. trucks and heavy plant equipment)
- 3.3 The three areas of emissions that have decreased the most year-on-year:
- Transport Infrastructure (-38%): This area is primarily traffic and street lighting. Reductions are primarily due to the reduction in the electricity emissions factor. This is a by-product of renewable energy generation. In 2022/23, the eighth wettest year on record allowed hydropower to operate at full capacity for most of the year, while coal electricity generation halved.
  - Arena Operations (-20%): Another heavy electricity-using facility which followed the same trend discussed above.
  - Water Treatment & Pumps (-16%): Due to the reduction in the electricity emissions, due to the factors discussed above.
- 3.4 The auditor highlighted three areas for improvement in the inventory:
- a) To include Transmission and Distribution (T&D) losses in the inventory. This would add between 102 tCo2e and 157 tCO2e to the total emissions but would not greatly affect the relative value (i.e. we would still have met the 30% reduction target).
  - b) Improve traceability of data and emission factor uncertainty calculations. This would help to highlight the risk (and error bars) associated with the inventory.
  - c) Improve traceability of input data. To enable easier auditing in the future.

**4. NEXT STEPS**

- 4.1 The primary vehicle for the delivery of Council emission reductions is the \$1,000,000 'Low Carbon Fund'. The fund is allocated each year towards the projects that will deliver the greatest operational emission reductions per net-present dollar spent (i.e. taking future cost savings into account), with a 30% weighting towards wider strategic benefits. The draft budget for the 2024 Long Term Plan includes operating provision to facilitate specialist assessments and accelerate the allocation process.
- 4.2 To inform future capital investment and benchmark performance, Council will continue to collect corporate emissions data and report these annually.
- 4.3 Council may wish to revisit the 30% reduction target through the upcoming 2024-34 Long Term Plan process to extend our ambition for reductions into the future. Through an updated 'Zero Carbon Feasibility Study', officer advice/modelling will be presented to the first Sustainability Committee in 2024 to help inform direction setting.

**5. COMPLIANCE AND ADMINISTRATION**

Does the Committee have delegated authority to decide? If Yes quote relevant clause(s) from Delegations Manual 5. To receive reports from the lead portfolio councillor for: • Climate Change.	<b>Yes</b>
Are the decisions significant?	<b>No</b>
If they are significant do they affect land or a body of water?	<b>No</b>
Can this decision only be made through a 10 Year Plan?	<b>No</b>
Does this decision require consultation through the Special Consultative procedure?	<b>No</b>
Is there funding in the current Annual Plan for these actions?	<b>Yes</b>
Are the recommendations inconsistent with any of Council's policies or plans?	<b>No</b>
The recommendations contribute to Goal 4: An Eco City	
The recommendations contribute to the achievement of action/actions in Climate Change	
The action is: Monitor, and have externally audited, PNCC greenhouse gas emissions	
Contribution to strategic direction and to social, economic, environmental and cultural well-being	The emissions inventory and management plan detail Council's progress on reducing its own internal corporate emissions in line with the Eco City Strategy goal.

**ATTACHMENTS**

- 1. 2022-23 PNCC Emissions Data Table [↓](#) 

BUSINESS UNIT	ACTIVITY	QUANTITY	DATA UNCERTAINTY	EMISSION FACTOR	EMISSION FACTOR UNCERTAINTY	CALCULATED EMISSIONS
CUSTOMER/CITY POUND	ELECTRICITY	17511	2%	0.000074	N/A	1.2989
CUSTOMER/LIBRARIES/ASHHURST LIBRARY	ELECTRICITY	11532	2%	0.000074	N/A	0.8554
CUSTOMER/LIBRARIES/AWAPUNI LIBRARY	ELECTRICITY	10560	2%	0.000074	N/A	0.7833
CUSTOMER/LIBRARIES/CITY LIBRARY	ELECTRICITY	524636.43	2%	0.000074	N/A	38.9163
CUSTOMER/LIBRARIES/CITY LIBRARY	NATURAL GAS	750620	2%	0.000194	2.4%	145.2686
CUSTOMER/LIBRARIES/HIGHBURY LIBRARY	ELECTRICITY	9951	2%	0.000074	N/A	0.7381
CUSTOMER/LIBRARIES/MOBILE LIBRARY	DIESEL	2330.36	2%	0.002715	0.9%	6.3266
CUSTOMER/LIBRARIES/ROSLYN LIBRARY	ELECTRICITY	10323	2%	0.000074	N/A	0.7657
CUSTOMER/LIBRARIES/YOUTH SPACE	ELECTRICITY	29469	2%	0.000074	N/A	2.1859
CUSTOMER/LIBRARIES/YOUTH SPACE	NATURAL GAS	36466	2%	0.000194	2.4%	7.0573
CUSTOMER/WILDBASE RECOVERY CENTRE	ELECTRICITY	49408	2%	0.000074	N/A	3.6650
LOGISTICS & SUPPORT/DEPOTS	ELECTRICITY	174279.782	2%	0.000074	N/A	12.9277
LOGISTICS & SUPPORT/DEPOTS	NATURAL GAS	9615	2%	0.000194	2.4%	1.8608
LOGISTICS & SUPPORT/NURSERY	NATURAL GAS	80013	2%	0.000194	2.4%	15.4850
LOGISTICS & SUPPORT/TANKERS	DIESEL	115468.34	2%	0.002715	0.9%	313.4818
LOGISTICS & SUPPORT/TANKERS	PETROL REGULAR	12130.39	2%	0.002455	1.8%	29.7822
LOGISTICS & SUPPORT/VEHICLES/HEAVY PLANT	DIESEL	17104.24	2%	0.002715	0.9%	46.4358
LOGISTICS & SUPPORT/VEHICLES/HEAVY TRUCKS	DIESEL	133411.59	2%	0.002715	0.9%	362.1954

LOGISTICS & SUPPORT/VEHICLES/LEASED VEHICLES	DIESEL	10641.71	2%	0.002715	0.9%	28.8909
LOGISTICS & SUPPORT/VEHICLES/LEASED VEHICLES	PETROL REGULAR	16099.3	2%	0.002455	1.8%	39.5265
LOGISTICS & SUPPORT/VEHICLES/LIGHT TRUCKS	DIESEL	50670.07	2%	0.002715	0.9%	137.5628
LOGISTICS & SUPPORT/VEHICLES/LIGHT PLANT	DIESEL	1097.51	2%	0.002715	0.9%	2.9796
LOGISTICS & SUPPORT/VEHICLES/MEDIUM TRUCKS	DIESEL	15586.7	2%	0.002715	0.9%	42.3159
LOGISTICS & SUPPORT/VEHICLES/MOWERS	DIESEL	12499.51	2%	0.002715	0.9%	33.9346
LOGISTICS & SUPPORT/VEHICLES/MOWERS	PETROL REGULAR	3025.09	2%	0.002455	1.8%	7.4271
LOGISTICS & SUPPORT/VEHICLES/POOL VEHICLES	DIESEL	48237.59	2%	0.002715	0.9%	130.9589
LOGISTICS & SUPPORT/VEHICLES/POOL VEHICLES	PETROL REGULAR	17546.72	2%	0.002455	1.8%	43.0802
LOGISTICS & SUPPORT/VEHICLES/QUAD BIKES	DIESEL	4	2%	0.002715	0.9%	0.0109
LOGISTICS & SUPPORT/VEHICLES/QUAD BIKES	PETROL REGULAR	425.23	2%	0.002455	1.8%	1.0440
LOGISTICS & SUPPORT/VEHICLES/TRACTORS	DIESEL	20927.96	2%	0.002715	0.9%	56.8167
LOGISTICS & SUPPORT/VEHICLES/UTILITY VEHICLES	DIESEL	2815.65	2%	0.002715	0.9%	7.6441
LOGISTICS & SUPPORT/VEHICLES/UTILITY VEHICLES	PETROL REGULAR	4645.01	2%	0.002455	1.8%	11.4043
PARKS & RESERVES/AQUATIC CENTRES/ASHHURST	ELECTRICITY	88898	2%	0.000074	N/A	6.5942
PARKS & RESERVES/AQUATIC CENTRES/ASHHURST	NATURAL GAS	432806.24	2%	0.000194	2.4%	83.7616
PARKS & RESERVES/AQUATIC CENTRES/FREYBERG AQUATIC CENTRE	ELECTRICITY	242534	2%	0.000074	N/A	17.9906

PARKS & RESERVES/AQUATIC CENTRES/FREYBERG AQUATIC CENTRE	NATURAL GAS	1246331.91	2%	0.000194	2.4%	241.2044
PARKS & RESERVES/AQUATIC CENTRES/LIDO AQUATIC CENTRE	ELECTRICITY	2070307	2%	0.000074	N/A	153.5705
PARKS & RESERVES/AQUATIC CENTRES/LIDO AQUATIC CENTRE	NATURAL GAS	2637787.78	2%	0.000194	2.4%	510.4948
PARKS & RESERVES/CEMETERIES	ELECTRICITY	29570	2%	0.000074	N/A	2.1934
PARKS & RESERVES/CEMETERIES	NATURAL GAS	400984	2%	0.000194	2.4%	77.6030
PARKS & RESERVES/CITYWIDE RESERVES	ELECTRICITY	290452.306	2%	0.000074	N/A	21.5451
PARKS & RESERVES/CITYWIDE RESERVES	NATURAL GAS	6461	2%	0.000194	2.4%	1.2504
PARKS & RESERVES/LOCAL RESERVES & SPORTSFIELDS	ELECTRICITY	152521.1638	2%	0.000074	N/A	11.3137
PARKS & RESERVES/LOCAL RESERVES & SPORTSFIELDS	FERTILISER USE NITROGEN	12650	2%	0.004799	54%	60.7116
PARKS & RESERVES/LOCAL RESERVES & SPORTSFIELDS	NATURAL GAS	87870	2%	0.000194	2.4%	17.0056
PROPERTY	HCFC-22 (R-22, GENETRON 22 OR FREON 22)	-5	2%	1.76	N/A	-8.8000
PROPERTY/CIVIC ADMINISTRATION BUILDING	ELECTRICITY	1480210.412	2%	0.000074	N/A	109.7985
PROPERTY/CIVIC ADMINISTRATION BUILDING	NATURAL GAS	703215	2%	0.000194	2.4%	136.0942
PROPERTY/COMMUNITY CENTRES	ELECTRICITY	130891	2%	0.000074	N/A	9.7092
PROPERTY/COMMUNITY CENTRES	NATURAL GAS	25534	2%	0.000194	2.4%	4.9416
PROPERTY/PUBLIC TOILETS	ELECTRICITY	68522.75	2%	0.000074	N/A	5.0829
PROPERTY/PUBLIC TOILETS	NATURAL GAS	33219	2%	0.000194	2.4%	6.4289
PROPERTY/SOCIAL HOUSING BUILDINGS	ELECTRICITY	36363.22183	2%	0.000074	N/A	2.6973
PROPERTY/SOCIAL HOUSING BUILDINGS	NATURAL GAS	27028	2%	0.000194	2.4%	5.2308
THREE WATERS/STORMWATER PUMP STATIONS	ELECTRICITY	128360	2%	0.000074	N/A	9.5214

THREE WATERS/WASTEWATER PUMP STATIONS	ELECTRICITY	294972	2%	0.000074	N/A	21.8803
THREE WATERS/WASTEWATER TREATMENT	ELECTRICITY	2497873.762	2%	0.000074	N/A	185.2864
THREE WATERS/WASTEWATER TREATMENT	NATURAL GAS	145559	2%	0.000194	2.4%	28.1702
THREE WATERS/WASTEWATER TREATMENT	WASTEWATER PRECALCULATED (TCO2E)	1198	20%	1.000000	0.0%	1198.0000
THREE WATERS/WATER TREATMENT & PUMPS	ELECTRICITY	1478583.774	2%	0.000074	N/A	109.6779
TRANSPORT/CITY BUS TERMINAL	ELECTRICITY	15204	2%	0.000074	N/A	1.1278
TRANSPORT/STREET LIGHTING	ELECTRICITY	2441208.37	2%	0.000074	N/A	181.0831
TRANSPORT/TRAFFIC SIGNALS	ELECTRICITY	66537.2	2%	0.000074	N/A	4.9356
WASTE MANAGEMENT	WASTE LANDFILLED LFGR MIXED WASTE	548	20%	0.000232	40%	0.1270
WASTE MANAGEMENT/ASHHURST LANDFILL	WASTE TO LANDFILL (CO2E)	78.4	20%	1.000000	0.0%	78.3733
WASTE MANAGEMENT/AWAPUNI LANDFILL	CH4	0.050	20%	28	N/A	1.4040
WASTE MANAGEMENT/AWAPUNI LANDFILL	N2O	0.001	20%	0.265	N/A	0.0003
WASTE MANAGEMENT/AWAPUNI LANDFILL	WASTE TO LANDFILL (CO2E)	12256.8	20%	1.000000	0.0%	12256.7809
WASTE MANAGEMENT/WASTE MANAGEMENT OPERATIONS	ELECTRICITY	2400.798777	2%	0.000074	N/A	0.1781
MARKETING & COMMUNICATIONS/ARENA OPERATIONS	ELECTRICITY	974957.9512	2%	0.000074	N/A	72.3201
MARKETING & COMMUNICATIONS/ARENA OPERATIONS	NATURAL GAS	440055	2%	0.000194	2.4%	85.1645
WORKPLACE TRAVEL/AIR TRAVEL	DOMESTIC (AVERAGE)	159433	6360	0.000306	UNKNOWN	48.7695
WORKPLACE TRAVEL/HIRE CARS AND TAXIS	TAXI (HYBRID)	356	2%	0.000055	N/A	0.0196
WORKPLACE TRAVEL/HIRE CARS AND TAXIS	COMPANY CAR (PETROL)	4623	2%	0.000206	N/A	0.9535
WORKPLACE TRAVEL/STAFF COMMUTING	BUS TRAVEL (CITY)	47238.82911	2%	0.000060	UNKNOWN	2.8343

WORKPLACE TRAVEL/STAFF COMMUTING	CAR MEDIUM HYBRID	320477.4908	2%	0.000130	N/A	41.7116
WORKPLACE TRAVEL/STAFF COMMUTING	MOTORCYCLE	6,376.22	2%	0.000113	N/A	0.7204
WORKPLACE TRAVEL/STAFF COMMUTING	PRIVATE CAR (DIESEL)	492267.698	2%	0.000268	N/A	132.1238
WORKPLACE TRAVEL/STAFF COMMUTING	PRIVATE CAR (PETROL)	2545351.609	2%	0.000252	N/A	640.8073
WORKPLACE TRAVEL/STAFF COMMUTING	TAXI (HYBRID)	1772.532175	2%	0.000055	N/A	0.0976
WORKPLACE TRAVEL/STAFF COMMUTING	BATTERY ELECTRIC VEHICLE	168210.2318	2%	0.000017	N/A	2.8573
WORKPLACE TRAVEL/STAFF COMMUTING	ELECTRIC BICYCLE	18041.50276	20%	0.000005	N/A	0.0902
<b>TOTAL</b>						<b>18,115.0647</b>
PALMERSTON NORTH CITY COUNCIL	ELECTRICITY DISTRIBUTED T&D LOSSES	13328037.92	2%	0.000009	UNKNOWN	114.6414
PALMERSTON NORTH CITY COUNCIL	NATURAL GAS DISTRIBUTED T&D LOSSES	3564987.782	2%	0.000007	UNKNOWN	25.4218



## COMMITTEE WORK SCHEDULE

TO: Sustainability Committee

MEETING DATE: 11 October 2023

TITLE: Committee Work Schedule

### RECOMMENDATION TO SUSTAINABILITY COMMITTEE

1. That the Sustainability Committee receive its Work Schedule dated October 2023.

### SUSTAINABILITY COMMITTEE WORK SCHEDULE - OCTOBER 2023

<del>11 Oct 2023</del>	<del>Wastewater discharge consent project – quarterly update</del>	<del>Chief Infrastructure Officer</del>		<del><a href="#">11 May 2022 clause 26-22</a></del>
<del>11 Oct 2023</del>	<del>Waste management and minimisation plan 2019 – annual progress report</del>	<del>Chief Infrastructure Officer</del>		<del><a href="#">9 September 2020 clause 17-20</a></del>
<del>11 Oct 2023</del>	<del>Citywide emissions inventory 2022</del>	<del>Chief Planning Officer</del>	<del>Pending external audit results</del>	<del><a href="#">climate change plan ongoing action #3</a></del>
<del>11 Oct 2023</del> 22 Nov 2023	Low carbon roadmap - options to achieve the city-wide goal of 30% reduction in emissions by 2031	Chief Planning Officer		<a href="#">30 March 2022 clause 6-22, climate change plan ongoing action #5</a>
March 2024	Update on the Low Carbon Fund FY2023/24	Chief Planning Officer		16 august 2023 clause 23-23
March 2024	Waste management and minimisation plan	Chief Infrastructure Officer	Aligned with LTP process	Terms of reference

March 2024	PNCC zero carbon feasibility study - options emissions reductions scenarios	Chief Planning Officer	Aligned with LTP process	<a href="#">environmental sustainability committee 21 september 2022 clause 22-22</a>
May 2024	Environmental Sustainability Report 2023	CE Unit Manager	Last report presented May 2022	<a href="#">terms of reference of the committee</a>
May 2024	Opportunities for native species re-introductions in the turitea reserve area - update (incl projected funding requirements)	Chief Planning Officer	Last update presented Jun 2023	<a href="#">17 november 2021 clause 38.21</a> <a href="#">7 june 2022 clause 16-23</a>
Aug 2024	PNCC Organisational Emissions Inventory 2023/24	Chief Planning Officer	Last report presented Oct 2023	<a href="#">climate change plan ongoing action #1</a>
2024 TBC	Manawatū-Whanganui Climate Joint Action Committee Update	Chief Planning Officer	Last presented Aug 2023	<a href="#">climate change plan ongoing</a>