Absolutely Positively **Wellington** City Council

Me Heke Ki Pōneke

Ordinary Meeting of Wellington Region Waste Management and Minimisation Plan Joint Committee Rārangi Take | Agenda

9:30am Rāhina Monday, 24 Hōngongoi July 2023 Wharekōrero Council Chamber Level 2 16 Cobham Court Porirua City

WELLINGTON REGION WASTE MANAGEMENT AND MINIMISATION PLAN JOINT COMMITTEE 24 JULY 2023

Absolutely Positively **Wellington** City Council Me Heke Ki Pōneke

MEMBERSHIP

Councillor Tom Hullena Councillor Steve Cretney Councillor Rebecca Gray **Councillor Jocelyn Prvanov Deputy Mayor Hellen Swales Councillor Andy Mitchell Councillor Quentin Duthie** Councillor Geoff Hayward **Councillor Iona Pannett**







Masterton District Council **Carterton District Council**

South Wairarapa District Council

Greater Wellington Regional Council

Kāpiti Coast District Council

Upper Hutt City Council

Hutt City Council

Porirua City Council

Wellington City Council



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poriruacity

Have your say!

You can make a short presentation to the Councillors at this meeting. Please let us know by noon the working day before the meeting. You can do this either by phoning 04-803-8334, emailing public.participation@wcc.govt.nz or writing to Democracy Services, Wellington City Council, PO Box 2199, Wellington, giving your name, phone number, and the issue you would like to talk about.

AREA OF FOCUS

Under the Waste Minimisation Act 2008 territorial authorities were required to develop a Waste Management and Minimisation Plan (WMMP) by 2012.

In 2011, 8 Councils in the greater Wellington region adopted the first regional WMMP. The Councils agreed that a Joint Committee should be established to oversee the implementation of the WMMP.

Quorum: 4 members

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1. Meeting Conduct

1.1 Apologies

The Chairperson invites notice from members of apologies, including apologies for lateness and early departure from the meeting, where leave of absence has not previously been granted.

1.2 Conflict of Interest Declarations

Members are reminded of the need to be vigilant to stand aside from decision making when a conflict arises between their role as a member and any private or other external interest they might have.

1.3 Confirmation of Minutes

The minutes of the meeting held on 12 June 2023 will be put to the Wellington Region Waste Management and Minimisation Plan Joint Committee for confirmation.

1.4 Items not on the Agenda

The Chairperson will give notice of items not on the agenda as follows.

Matters Requiring Urgent Attention as Determined by Resolution of the Wellington Region Waste Management and Minimisation Plan Joint Committee.

The Chairperson shall state to the meeting:

- 1. The reason why the item is not on the agenda; and
- 2. The reason why discussion of the item cannot be delayed until a subsequent meeting.

The item may be allowed onto the agenda by resolution of the Wellington Region Waste Management and Minimisation Plan Joint Committee.

Minor Matters relating to the General Business of the Wellington Region Waste Management and Minimisation Plan Joint Committee.

The Chairperson shall state to the meeting that the item will be discussed, but no resolution, decision, or recommendation may be made in respect of the item except to refer it to a subsequent meeting of the Wellington Region Waste Management and Minimisation Plan Joint Committee for further discussion.

1.5 Public Participation

A maximum of 60 minutes is set aside for public participation at the commencement of any meeting of the Council or committee that is open to the public. Under Standing Order 3.23.3 a written, oral or electronic application to address the meeting setting forth the subject, is required to be lodged with the Chief Executive by 12.00 noon of the working day prior to the meeting concerned, and subsequently approved by the Chairperson.

Requests for public participation can be sent by email to <u>public.participation@wcc.govt.nz</u>, by post to Democracy Services, Wellington City Council, PO Box 2199, Wellington, or by phone at 04 803 8334, giving the requester's name, phone number and the issue to be raised.

2. General Business

WELLINGTON REGION WASTE MANAGEMENT AND MINIMISATION PLAN - APPROVAL TO CONSULT ON DRAFT PLAN

Korero taunaki | Summary of considerations

Purpose

1. This report to Wellington Region Waste Management and Minimisation Plan Joint Committee seeks approval to consult on the Wellington Region Waste Management and Minimisation Plan 2023-2029.

Strategic alignment with community wellbeing outcomes and priority areas

Aligns with the following strategies and priority areas:

	 Sustainable, natural eco city People friendly, compact, safe and accessible capital city Innovative, inclusive and creative city Dynamic and sustainable economy
Strategic alignment with priority objective areas from Long-term Plan 2021–2031	 Functioning, resilient and reliable three waters infrastructure Affordable, resilient and safe place to live Safe, resilient and reliable core transport infrastructure network Fit-for-purpose community, creative and cultural spaces Accelerating zero-carbon and waste-free transition Strong partnerships with mana whenua
Relevant Previous decisions	 The Committee resolved in March 2023 to: Receive the information Note the update on the Waste Assessment and development of the Wellington Region Waste Management and Minimisation Plan (2023-2029) Note the updates on the key regional and local level work completed to implement the Wellington Region Waste Management and Minimisation Plan (2017-2023)
Significance	The decision is rated high significance in accordance with schedule 1 of the Council's Significance and Engagement Policy.

Financial considerations

- ⊠ Nil□ Budgetary provision in Annual Plan / Long-
term Plan□ Unbudgeted \$X
- 2. Consultation costs have been budgeted as part of the Waste Management and Minimisation Plan development project.

WELLINGTON REGION WASTE MANAGEMENT AND MINIMISATION PLAN JOINT COMMITTEE 24 JULY 2023

Risk

□ Low

□ Medium

🛛 High

Extreme

3. There is a legal requirment for territorial authorities to have a waste management and minimisation plan in place under the Waste Minimisation Act 2008.

Authors	Yvette Falloon, Regional Advisor WMMP
	Diljinder Uppal, Manager Zero Waste Strategy
Authoriser	Chris Mathews, Manager Waste, Water and Resilience Siobhan Procter, Chief Infrastructure Officer

Taunakitanga | Officers' Recommendations

Officers recommend the following motion

That the Wellington Region Waste Management and Minimisation Plan Joint Committee:

- 1) Receive the information.
- 2) Note the update on the development of the Wellington Region Waste Management and Minimisation Plan 2023-2029.
- 3) Note that the Wellington Region Waste Management and Minimisation Plan Joint Committee has been delegated responsibility to approve the Waste Management and Minimisation Plan 2023 – 2029 for consultation on behalf of the eight councils in the Wellington region.
- 4) Agree to formally consult on the draft Wellington Region Waste Management and Minimisation Plan 2023-2029 (attachment 1).
- 5) Agree to the Statement of Proposal (attachment 3).

Whakarāpopoto | Executive Summary

- The existing Wellington Region Waste Management and Minimisation Plan (WMMP) 2017-2023 was required to be reviewed by January 2023 in accordance with the Waste Minimisation Act 2008 (WMA).
- 5. It was formally agreed in December 2022 that the existing WMMP 2017-2023 would be revoked and replaced with a new WMMP.
- 6. A draft WMMP has been developed by the eight councils in the Wellington region for 2023-2029.
- 7. This paper is seeking approval to formally consult on the draft WMMP 2023-2029 under the special consultative procedure (S83 Local Government Act 2002).

Takenga mai | Background

- 8. Under the Waste Minimisation Act 2008 (WMA) a territorial authority is required to promote effective and efficient waste management and minimisation within its district.
- 9. For the purpose of achieving this, territorial authorities are required to adopt a waste management and minimisation plan (WMMP). In 2017 the WMMP 2017-2023 was prepared for the eight councils in the Wellington region and fulfilled the requirements under the WMA.
- 10. Section 50 of the WMA specifies the conditions to review the WMMP and requires all TAs review their WMMPs at intervals of not more than 6-years from the last review.
- 11. The review of the 2017-2023 Wellington Region WMMP was therefore required no later than January 2023. As part of this review, a decision had to be made to:
 - a) Amend the current WMMP
 - b) Revoke the current WMMP and substitute it with a new plan
 - c) Continue the current plan without amendment
- 12. In December 2022 a recommendation was made by the Wellington Region Waste Management and Minimisation Plan Joint Committee (Joint Committee) to each of the councils that the existing WMMP be revoked and substituted with a new plan. A formal decision was made by each of the councils to agree to this recommendation.

WELLINGTON REGION WASTE MANAGEMENT AND MINIMISATION PLAN JOINT COMMITTEE 24 JULY 2023

13. In late December 2023 the Ministry for the Environment (MfE) confirmed that they consider the Wellington region has fulfilled its obligations under the WMA to review its joint WMMP.

Development of the 2023-2029 WMMP

- 14. Between October 2022 and July 2023 work has been carried out by the eight councils in the Wellington region to develop a new joint WMMP for 2023 2029.
- 15. Beca was selected as the contractor to undertake this work and has been working closely with the eight councils in the Wellington Region on the development of the new WMMP. Porirua City Council (PCC) is managing the contract with Beca on behalf of the councils.
- 16. Throughout the WMMP development process several reports have been produced by Beca to inform the development of the WMMP. These reports were:
 - Report one: Stakeholder Engagement Strategy
 - Report two: Situational Review
 - Report three: Potential Broader Strategic Outcomes
 - Report four: Summary of Stakeholder Workshops
 - Report five: Options and Directions
 - Report six: Draft WMMP
- 17. Between December 2022 and May 2023 Beca has led several workshops with waste management and minimisation officers, wider council staff, and external stakeholders across the region to set the direction of the WMMP.
- 18. In addition to this, six internal workshops were held between officers of the eight councils. Through these workshops, the vision, objectives, targets and regional actions were developed. Considerations for the development of these items included:
 - Feedback from stakeholder engagement
 - Wellington Region Waste Assessment
 - *Te rautaki para | Waste strategy* and other central government work programmes
 - Local and regional priorities
 - Beca reports and feedback
- 19. Alongside regional engagement and workshops, internal and external stakeholder engagement was carried out by council officers at a local level in order to develop the Local Action Plans (Part B of the WMMP).
- 20. The initial draft of the WMMP 2023-2029 was presented to councillors of the Joint Committee at a workshop on 26 June 2023.
- 21. Following the workshop on 26 June 2023 an internal workshop was held between officers in the Wellington region to discuss the feedback provided and consider any further amendments required.

22. An updated draft WMMP has now been issued taking into consideration feedback provided to date.

Joint Consultation Process

- 23. In May 2023 a recommendation was made to pursue a joint consultation process for the public consultation of the draft WMMP 2023 – 2029. This option was recommended to ensure that the consultation process is undertaken in an efficient, effective, and consistent manner across the region.
- 24. Under the joint consultation approach the Joint Committee would be responsible for the special consultative procedure process, including approving the draft WMMP for public consultation.
- 25. Between May and June 2023, the eight councils in the Wellington region agreed to delegate responsibility to the Joint Committee to approve the draft WMMP 2023 2029 for public consultation.
- 26. The joint consultation will be project managed by Wellington City Council, with officers from across the eight councils making up the consultation delivery team.

Kōrerorero | Discussion

- 27. Under section 44 of the WMA, when a territorial authority is preparing, amending or revoking a WMMP the special consultative procedure set out in section 83 of the Local Government Act must be used. The most recent Waste Assessment undertaken by the Territorial Authrority (attachement 2) must be notified with the statement of proposal (attachement 3).
- 28. Joint Committee will hear all oral submissions and deliberate on submissions and proposed amendments. The final WMMP will be individually adopted by each of the eight councils in the Wellington region.

Kōwhiringa | Options

- 29. The Joint Committee may:
 - a) Agree to public consultation on the draft WMMP 2023-2029, or
 - b) Resolve not to approve the public consultation of the draft WMMP 2023-2029

Whai whakaaro ki ngā whakataunga | Considerations for decision-making

Alignment with Council's strategies and policies

30. Relevant council strategies and policies from the eight councils in the Wellington region were considered in the development of the draft WMMP 2023-2029.

Engagement and Consultation

- 31. The special consultative procedure is statutorily required under the Waste Minimisation Act (WMA) 2008 and the Local Government Act (LGA) 2002.
- 32. A regional approach to consultation is being planned, with officers across the region forming a Consultation Delivery Team. This will allow for a regional approach to consultation.
- 33. Each council will undertake their own engagement activities to support the WMMP Consultation.

Implications for Māori

34. The councils recognise the importance of its relationship with mana whenua and Māori in both creating and delivering on the new WMMP. The WMMP development process is guided by the principles of Tūpiki Ora and embraces protecting and enhancing the mauri of resources by working towards a circular economy approach.

Financial implications

35. Costs for public consultation have been budgeted as part of the WMMP development project. Costs will be split between the eight councils.

Legal considerations

- 36. Review of the Wellington Region Waste Management and Minimisation Plan is a legal requirement under the WMA.
- 37. Section 44 of the WMA requires the special consultative procedure be followed when preparing, amending or revoking a WMMP.

Risks and mitigations

38. There is a legal requirment for territorial authorities to have a waste management and minimisation plan in place under the Waste Minimisation Act 2008.

Disability and accessibility impact

39. Nil

Climate Change impact and considerations

40. Climate change and greenhouse gas emissions from waste were a key consideration in the development of the draft WMMP. The draft WMMP sets targets for the Wellington region for reduction of greenhouse gas emissions from waste, through reducing organics to landfill and reducing emissions from waste transport.

Communications Plan

41. A regional communications and engagement plan is currently being developed for the consultation and will be supported by individual council engagement plans.

Health and Safety Impact considered

42. The draft Waste Assessment 2023 was issued to Te Whatu Ora in November 2022 with a request to have formal Medical Officer of Health feedback. The Medical Officer of Health's letter is attached to the final Waste Assessment (attachment 2)

Ngā mahinga e whai ake nei | Next actions

43. The Joint Committee are advised of the following key dates:

Date	Activity
31 July – 1 September	Public consultation
18 September	Oral hearings
September – Late October	Consultation delivery team generate summary of submissions and recommendation reports.
October	Decisions on recommended changes made by WMMP Steering Group.
October (date TBC)	Joint Committee Workshop to provide an update on submissions received and recommended changes.
October - November	Updates made to the WMMP
4 December	Joint Committee to meet to recommend adoption of the WMMP.
4 December onwards	All councils to adopt the WMMP (2023-2029) and revoke the old WMMP. Please note the existing plan will remaining in effect until the new plan is adopted.

Attachments

Attachment 1.	Draft Wellington Region Waste Management and Minimisation Plan 2023 - 2029 I	Page 16
Attachment 2. Attachment 3.	Wellington Region Waste Assessment 2023 - Final $\underline{1}$	Page 80 Page 226

Wellington Region Waste Management and Minimisation Plan

2023 - 2029









SOUTH WAIRARAPA DISTRICT COUNCIL





Absolutely Positively **Wellington** City Council Me Heke Ki Põneke





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1 Executive summary

The eight councils of the Wellington region have come together to develop a Waste Management and Minimisation Plan (WMMP) that sets a vision, objectives, targets, and action plans, for achieving efficient and effective waste management and minimisation across the region over the next six years (2023-2029). It's the third joint WMMP that the Councils have developed which enables a more efficient and consistent approach to our waste management services and infrastructure. This WMMP outlines how the eight councils, mana whenua, community, industry, and businesses can work together to transform how waste is generated, managed, and minimised in the Wellington region. Reflecting this collaboration is the vision for this WMMP, which is:

Working together to minimise waste - for people, environment, and economy.

This WMMP addresses the key issues identified in the region's Wellington Region Waste Assessment 2023, which, at a high-level, has identified that our modern 'take-make-dispose' economy is no longer sustainable. We need to start moving towards a circular economy, where we keep resources in use for as long as possible then, where possible, recover products and materials and regenerate natural systems at the end of a products lifecycle. This approach aligns with Aotearoa New Zealand's *Te rautaki para | Waste strategy* and Aotearoa New Zealand's first emissions reduction plan - *Te hau mārohi ki anamata | Towards a productive, sustainable and inclusive economy*.

The Councils are committed to making this transition equitable and inclusive, recognising unique perspectives, and ensuring the costs, benefits and opportunities are distributed fairly. Mana whenua are also recognised as partners in the implementation of this WMMP. By minimising waste and valuing natural resources, the Councils are in alignment with mana whenua and their role to exercise kaitiakitanga for te taiao for current and future generations.

This joint WMMP addresses the identified issues by establishing the following objectives:

Objective 1	Waste and resource recovery systems support a reduction in greenhouse gas emissions from landfills and waste collections.
Objective 2	There is collective responsibility within the Wellington region for our resources and environment.
Objective 3	Residents, businesses, and other organisations are motivated to minimise waste.
Objective 4	Material circularity is increased through waste and resource recovery infrastructure and services.
Objective 5	It is accessible and convenient for residents, businesses, and other organisations to divert their waste.
Objective 6	Waste and resource recovery systems are traceable and transparent.
Objective 7	Resource recovery facilities and landfills provide regional resilience in case of emergency events.
Objective 8	Landfills are treated as finite.
Objective 9	Residual waste is managed safely and effectively in accordance with best practice.

The targets within this WMMP provide a clear and measurable way to determine how steps are taken, as a region, to achieve the objectives. The following ambitious targets have been set so that as a region, there is accountability.

- 1. Reduce the total amount of material that needs final disposal to landfill by:
 - 10% by 2027
 - 30% by 2030

We will work towards this by achieving the following sub-targets:

- a. Ensuring a regional construction and demolition processing facility is available by 2026
- b. Ensuring a regional organics processing facility is available by 2029
- c. Establishing three new resource recovery facilities in the Wellington region by 2030
- 2. Reduce emissions from biogenic methane by reducing the total amount of organic waste disposed to landfill by 50% by 2030
- 3. Reduce emissions from the transport of waste by 30% by 2030
- 4. Ensure all urban households have access to kerbside recycling collections by 2027
- 5. Ensure food scraps collection services are available to urban households by 2030
- 6. For each council to engage with and commit 20% of the business community to minimising waste

A Regional Action Plan and Local Actions Pans have been developed to identify how these objectives and targets will be met. The actions are grouped within priority areas according to their impact on te *pūnaha* whakarōpū para | the waste hierarchy.

- Providing and supporting education initiatives within the Wellington region that focus on waste minimisation and responsible consumption
- Supporting new and existing regional and local waste minimisation initiatives
- Improving the way we connect and collaborate across the region on waste management and minimisation initiatives
- Ensuring appropriate kerbside services are in place for recycling and organic waste
- Ensuring appropriate regional infrastructure is in place to meet our targets and objectives
- Investigating ways to effectively manage and monitor cross boundary and inter-regional waste flows
- Investigating options for future disposal of residual waste and what this may look like in the long term

Most importantly, while Councils play an important role in managing and minimising waste, we cannot do it alone. This WMMP aims to promote a collaborative approach across Councils, central government, communities, mana whenua, industry, and businesses who are all important in transitioning to a low-emission, circular and low-waste economy.

2 Introduction

Waste management and minimisation is a critical issue in the Wellington region and across Aotearoa New Zealand as a whole. The way New Zealanders currently consume products, based on a linear 'take-make-waste dispose' system, leads to large quantities of waste, where resources are not valued. It is also widely recognised that this current linear system, based on extraction of virgin materials, exponential growth, and overconsumption of natural resources is a significant contributor to greenhouse gas emissions and environmental degradation.

This WMMP still has waste reduction as a key focus, but its main intent is to start a move towards a circular economy, where we keep resources in use for as long as possible, then where possible, recover and circulate products and materials, and regenerate natural systems.

This joint WMMP addresses the key issues identified in the Wellington Region Waste Assessment 2023 (Waste Assessment) and aligns with Aotearoa New Zealand's *Te rautaki para | Waste strategy*, which provides a high-level road map for the nation to shift to a low-emissions, low-waste society built upon a circular economy by 2050.

To support this change, this WMMP acknowledges that everyone can play a role to protect and enhance the environment within the Wellington region. By addressing the Wellington region's waste, steps can be taken to reduce the impacts of climate change, put in place action to support designing out waste and pollution, keep resources in use for as long as possible, and safely manage the waste that can't be diverted.

To help achieve this, this WMMP establishes a vision, a list of objectives, a set of targets, and a suite of regional and local council actions that provide a plan for waste transformation in the region. It outlines how the eight councils, mana whenua, community, industry, and businesses can work together to transform how waste is generated, managed, and minimised in the Wellington region.

2.1 Transitioning to a low-emissions future

Aotearoa New Zealand's first emissions reduction plan - *Te hau mārohi ki anamata* | *Towards a productive, sustainable and inclusive economy* – was launched in 2022, and waste was identified as having an important role in meeting the 2030 and 2050 emission reduction targets.

While waste was only responsible for 4 per cent of Aotearoa New Zealand's gross emissions in 2021, 94 per cent of those emissions were from biogenic methane – a potent greenhouse gas¹ with a warming effect 28 times greater than carbon dioxide². This greenhouse gas is generated by organic waste like paper, food scraps and garden waste that breaks down in landfill without oxygen, producing biogenic methane.

National legislative and regulatory changes are signalling a push towards a circular economy (refer to **Figure 1**) and a drive to heavily reduce carbon emissions. A circular economy means redesigning products and services to reduce resource usage, keeping resources in use for as long as possible, and recycling or processing them when they reach the end of their life to reduce waste and support the regeneration of nature.

¹ New Zealand's Greenhouse Gas Inventory 1990–2021 snapshot (MBIE, 2023)

² Measuring emissions: A guide for organisations - Ministry for the Environment (2023)

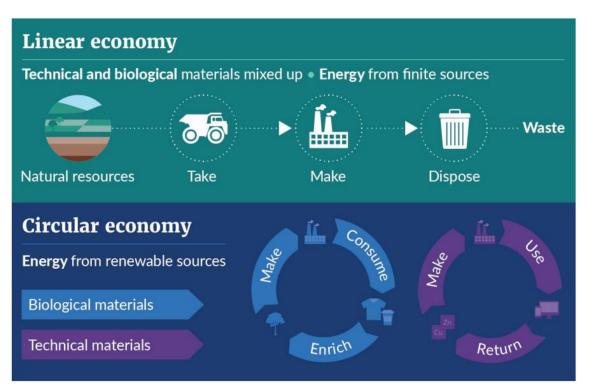


Figure 1: Characteristics of linear and circular economies (Source: Te rautaki para | Waste strategy)

2.2 Moving up the waste hierarchy to a circular economy

Te pūnaha whakarōpū para | *the waste hierarchy* (refer to **Figure 2** below) illustrates the most and least favoured methods to manage and minimise waste. The upper two levels of the hierarchy are defined by the Ministry for the Environment as:

- 1. **Reduce, rethink, redesign:** Reducing the resources being used and redesign to avoid producing waste
- 2. **Reuse, repair, repurpose**: Keeping things in use for as long as possible, without significant processing

These two levels are key to transitioning the Wellington region from a linear 'take-make-dispose' economy to a circular one, where waste and pollution are designed out, and resources are highly valued and used for as long as possible and where possible products and materials are recovered at the end of their lifecycle.

Further, protecting and regenerating natural systems is key to a circular economy, as is delivering equitable and inclusive outcomes where new opportunities work for all communities.

While keeping materials at their highest value and prioritising the first two levels of *te pūnaha whakarōpū para | the waste hierarchy* is at the heart of this WMMP, the Councils also acknowledge the importance of continuing to support activities at all levels of the hierarchy to ensure the delivery of effective waste minimisation activities.

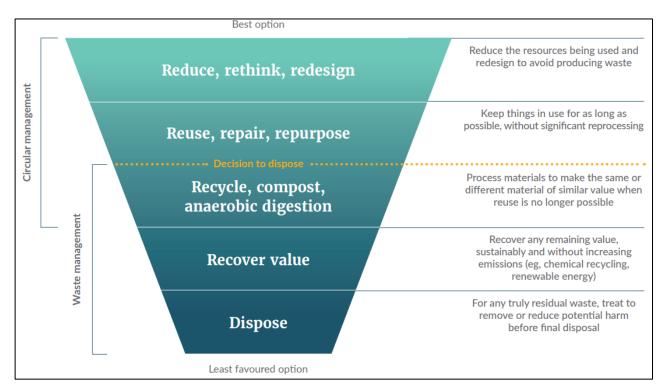


Figure 2: Te pūnaha whakarōpū para | The waste hierarchy (source: Ministry for the Environment, Te rautaki para | Waste strategy)

2.3 Why do we need a WMMP?

Section 43 of the Waste Minimisation Act 2008 (WMA) requires that territorial authorities adopt a Waste Management and Minimisation Plan (WMMP) to promote effective and efficient waste management and minimisation within their city or district³. Reviews of WMMPs must occur at least every six years.

For the eight councils in the Wellington region, this will be the third joint WMMP after the first Wellington Region WMMP was adopted in 2011. The eight councils are:

- Carterton District Council
- Hutt City Council
- Kāpiti Coast District Council
- Masterton District Council
- Porirua City Council
- South Wairarapa District Council
- Upper Hutt City Council
- Wellington City Council

While the previous WMMP (2017-2023) had a heavy focus on reducing waste, data from the Waste Assessment suggests recycling performance is static or in decline in most Wellington cities/districts. With the population in the Wellington region set to increase, the rate in which we are disposing of waste to landfill is unsustainable.

This WMMP covers all solid waste (including waste diverted to recycling, composting or otherwise) in the Wellington region, whether it is managed by Councils or not. Gas emitted from the three Class 1 landfills in

 $^{^{\}rm 3}$ Section 43 of the WMA.

the Wellington region continue to be managed by the facility operators, with gas required to be captured according to the National Environmental Standard for Air Quality 2004.

While Councils may not have a direct involvement in the management of all waste there is a responsibility for all Councils to at least consider the management of all waste and to provide access to services such as to households, and to suggest areas where other groups, such as businesses, could take action themselves.

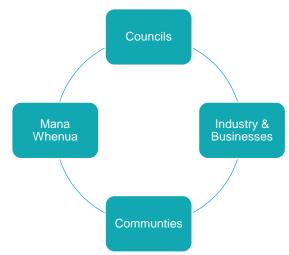
This WMMP covers the period from 2023 to 2029 but is intended to be relevant beyond 2030 as *Te rautaki* para | Waste strategy changes are established and embedded in at a national, regional, and local level. This WMMP is intended to align with *Te rautaki para* | Waste strategy and will be reviewed every six years⁴.

2.4 Who is impacted by this WMMP?

We all play a role in the waste management and minimisation system, whether as a producer of goods and services, consumer, or processor of waste. Therefore, everyone should familiarise themselves with this WMMP and consider their role and responsibilities within it.

Councils cannot achieve the vision, objectives, targets, or actions outlined in this WMMP alone. It will require joint effort, focus, and a willingness to change from everyone in our region.

The different roles and responsibilities of Councils, mana whenua, community, industry, and businesses are described in detail in section 5.1 of this WMMP, it includes details on how Councils may work in partnership with mana whenua and support other key stakeholders to implement this WMMP.



2.5 Recognition of Te Tiriti o Waitangi and Te ao Māori

We (the Councils) recognise mana whenua as partners in the implementation of this WMMP. This is not only because of our duty as partners under Te Tiriti o Waitangi but because mana whenua have a role in exercising kaitiakitanga (guardianship and protection) to ensure the environment is looked after to sustain current and future generations. As tangata whenua, mana whenua also possess unique perspectives, mātauranga Māori (indigenous knowledge), and tikanga (customs) that can collectively inform possible solutions for the Wellington region's waste management and minimisation issues.

In te ao Māori, traditional waste management practices are centred around sustainability and a circular, closed-loop system. There is a focus on not creating the waste in the first place and cycles of continual regeneration of nature. This involves returning all resources back to Papatūānuku (the earth). This process intends to reduce harm to the land, waterways, and oceans.

Whakapapa (the kinship between all living things: past, present, and future) is also key in te ao Māori. Whakapapa not only exists between people but between people and the planet. By having an understanding of the connection and responsibility between humans and living things, everyone can act more responsibility pto ensure our actions create balance in the natural environment. Inherent in te ao Māori, is the need for everyone to:

⁴ Section 50 of the WMA

- Recognise the value in natural resources and use them appropriately
- Think about how things are connected and how our actions affect them
- Step up in our responsibility to care for nature, what it gives us, as well as people
- Acknowledge that humans are an element of the environment and part of the overall system.

The work identified in this WMMP will be underpinned by the three commonly understood principles of Te Tiriti, which are:

- Participation we will maximise opportunities for Māori to participate in decisions that affect them.
- **Protection** we will support mana whenua to exercise kaitiakitanga of the environment and seek to ensure that the actions included in this WMMP achieve positive environmental, social, and economic outcomes for Māori.
- **Partnership** we remain committed to developing meaningful relationships and partnerships with mana whenua and to collaborate on waste management and minimisation practices and activities important to them.

This means working with Māori, for Māori, in a way that respects rangatiratanga (the right for Māori to make decisions for Māori) and aligns with te ao Māori, mātauranga Māori and kaitiakitanga.

To support this mahi, this WMMP includes a range of actions which seek to develop and strengthen partnerships between Councils and respective mana whenua within their rohe and explore ways of working collaboratively.

2.6 An equitable transition

The way waste is managed and minimised has the potential to create broader benefits for people, the environment, and the economy. Impacts resulting from the transition to a low-emissions, low-waste system, built upon a circular economy, will be identified and managed in a way that is fair and just across communities. The eight councils are committed to the equitable and inclusive guiding principles as outlined in *Te rautaki para | Waste strategy*:

- Recognising the unique perspectives, needs and approaches facing different local communities, businesses, hapū, iwi and whānau
- Ensuring the costs and benefits of change are distributed equitably among communities and across generations
- Developing and investing to create opportunities and jobs in local and regional communities

In addition, in Aotearoa New Zealand's first emissions reduction plan, *Te hau mārohi ki anamata* | *Towards a productive, sustainable and inclusive economy,* the Government has committed to developing a strategy to support New Zealanders in the transition to a low-emissions future.

Actions identified in the plan are:

- Initiatives to boost transition-aligned growth in the economy, providing jobs in low-emissions industries
- Reforms to the education and training system to ensure it supports people to develop the skills needed for a low-emissions economy
- Employment support, including retraining and skill-enhancement opportunities and access to income assistance to support workers and households

- Tools, advice and support to enable businesses to transition
- Transport, energy and waste initiatives to help mitigate impacts on households and whānau
- Work to monitor and assess impacts to enable the Government to better respond to impacts of the transition
- Public information and education and support for grassroots participation in policy making

By identifying potential benefits and maximising opportunities brought about by this transition to a low waste, low emissions society, policies and actions can be tailored accordingly to ensure everyone in the Wellington region is supported through this period of change.

3 Existing situation

The Wellington Region Waste Assessment 2023 (the Waste Assessment) provides an assessment of the current waste situation in the region and has been published alongside this WMMP. This section summarises the key findings from the Waste Assessment, within the following broad groupings:

- the legislative context influencing waste activities and outcomes in the region (Section 3.1)
- an overview of the Wellington region, including topographical and geographical context, demography, and economy (Section 3.2)
- volumes of waste streams entering landfills (Section 3.3)
- existing infrastructure and future demand (Section 3.4)
- the key issues and challenges facing the region (Section 3.5)
- what's already working well in the region (Section 3.6)

The Waste Assessment acknowledges that a key issue faced by the Councils in the development of this WMMP is the availability and accessibility of data, particularly on the activities of the private waste and diversion sector. This limitation does affect the ability of this WMMP to accurately describe flows of materials and quantities of recovered materials, which influences the framing of analysis presented below, but is a key focus of actions for this WMMP.

3.1 Policy drivers and legislative context

The overarching document for waste management in Aotearoa New Zealand is *Te rautaki para | Waste strategy*, which is the roadmap for the next three decades for a low-emissions, low-waste society built upon a circular economy. But there are numerous strategic, legislative and policy frameworks that influence waste collection, recycling, recovery, treatment, and disposal services in Aotearoa New Zealand.

We have considered each of these in the preparation of this WMMP, with a particular focus on policies directing us towards a low-emissions, low-waste, circular economy. **Figure 3** illustrates this broad framework.

New Zealand Waste Strategy					
Legislative Framework					
Waste Minimisation Act 2008	Local Government Act 2002	Hazardous Substances & New Organisms Act 1996	Climate Change Act 2002	Resource Management Act 1991	Other tools
Waste Minimisation & Management Plan	Bylaws	Regulations and group standards related to waste	Disposal facility	National Environmental Standards	International conventions
Waste Disposal Levy	Long-term plans			District and regional plans and resource consents	Ministry guideline codes of practice and voluntary initiatives
Waste Minimisation Fund					
Product stewardship					
Other regulations					

Figure 3: The strategic, legislative and policy frameworks that influence waste collection, recycling, recovery, treatment, and disposal services in Aotearoa New Zealand.

In particular, as with this WMMP, *Te rautaki para | Waste strategy* highlights that if the Wellington region wants to achieve transformational change, everyone, including the Councils, mana whenua, community, industry and businesses need to get involved. For the Councils in the Wellington region, this includes:

- Building on *Te rautaki para | Waste strategy* to implement this WMMP, which will assist in developing an Action and Investment Plan that will provide a greater level of detail on what is needed to deliver on said *Waste strategy*
- Exploring opportunities to work with other councils on new, or expanded, facilities and services that will contribute to a national network for circular management of resources
- Supporting local community groups and non-governmental organisations with their initiatives to reduce waste

- Linking with national behaviour change programmes to support and expand the reach of local activity
- Plan and resource the work needed to identify and manage landfills and other contaminated sites as part of a long-term regional waste management plan

Each of these focus areas are included within the Regional Action Plan, as set out in Section 6.2 of this WMMP.

Councils will also need to give effect to any regulations that are imposed by central government under the WMA. This currently includes the following:

- Providing household recycling and food scraps collections where they do not already exist, which are expected to be set out in regulations (an Order in Council) under section 48 of the WMA
- Standardising materials and the minimum standards for diverting waste from landfill, which are expected be set out in performance standards (via a notice in the gazette) under section 49 of the WMA
- Changing the reporting requirements to central government, which are expected to be set out in regulations (an Order in Council) under section 86 of the WMA
- Considering collection services and infrastructure if a regulated product stewardship scheme is proposed for a product in accordance with Part 2 of the WMA

It's also important to note that Councils will need to adapt to future legislative changes as the Government are currently developing new and more comprehensive legislation on waste to replace the WMA and the Litter Act 1979⁵. The new combined legislation is intended to put in place the tools and arrangements that will deliver *Te rautaki para | Waste strategy* and ensure, as a country, that funds generated by the expanded waste disposal levy are put to good use. It is expected that the new legislation will reset the purposes and principles, governance arrangements, and roles and responsibilities in waste legislation. The Ministry for the Environment expects the draft Bill to be introduced into Parliament by late 2023 or early 2024. Following this there will be an opportunity for public feedback during the select committee process with the aim to have the legislation enacted in 2025. The new waste legislation has the following intentions:

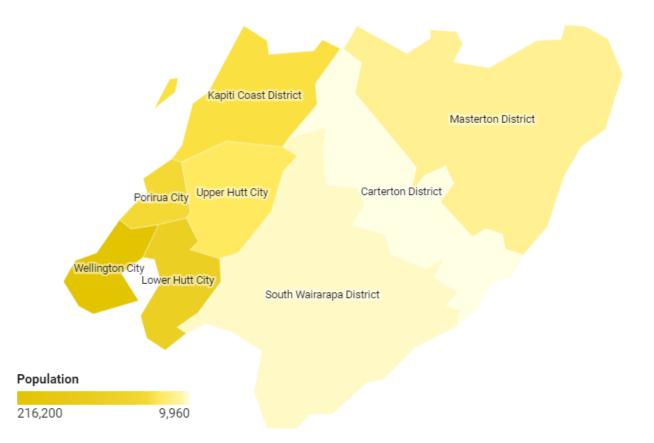
- Improve consistency in waste management by setting out clear roles and responsibilities for central and local government. This will mean a more consistent waste service for all New Zealanders as well as greater capacity to work together to achieve our waste reduction goals.
- Broaden the waste levy by expanding the scope of what the council portion of the waste disposal levy funds can be spent on. It will also change the way the waste levy is distributed between councils. This will be through a flat-rate allocation alongside the existing population-based calculation. The waste disposal levy will also be broadened to be able to apply to all forms of final disposal including waste-to-energy facilities.
- Increase regulatory powers to control products and materials. This includes adding:
 - o product bans
 - $\circ \quad \text{landfill bans}$
 - mandatory recycling
 - o environmental performance standards
 - o provision of information on environmental performance
 - o extended producer responsibility
- Introduce new tools to regulate how the waste management and resource recovery sector operates.

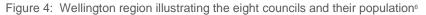
⁵ https://environment.govt.nz/what-government-is-doing/areas-of-work/waste/waste-legislation-reform/

- Enable a national licencing scheme to create a national register of operators and facilities. As well as support for national data collection and improved regulatory management and enforcement. It will also have the ability to set:
 - o entry requirements
 - o operating standards
 - o oversight
 - o sanctions.
- Introduce an electronic tracking system to make the movement of specified wastes (e.g., hazardous waste) transparent. It will promote accountability and strengthen compliance.
- Set new national waste standards and technical requirements for waste and resource recovery activities. This will include powers to ensure waste cannot be exported or imported unless destined for disposal or recycling in an environmentally sound manner.
- Change how all of us treat waste by clearly setting out who is responsible for waste at each part of its life. This will encourage individual and collective responsibility for how waste is generated, managed and disposed.
- Change how we monitor and enforce the legislation, with improved provisions for record-keeping and reporting obligations, and enforcement tools.

3.2 The Wellington region

Understanding topographical and geographical context, demography, and economic drivers in the region helps to provide context to the creation and management of waste and resources. The Wellington region poses several unique topographic and geographic challenges and opportunities when it comes to managing and minimising waste. The region's topography creates physical barriers between different parts of the region, as well as connections to the rest of Aotearoa New Zealand, as it is flanked by the sea and the Remutaka and Tararua Ranges. This topography has shaped urban development patterns and resulted in two main north-south urban development and movement corridors – with limited east-west connections.





The Wellington region includes the eight councils as illustrated in **Figure 4**. The region's population of nearly 550,000 people⁷ is concentrated in the larger metropolitan areas of Wellington, Porirua, and Lower Hutt, with the remaining population dispersed to the north throughout the Hutt Valley and along the coastline to Kāpiti, and into the predominantly rural Wairarapa in the west. This results in an inflow of around 82,000 workers every weekday from other districts and cities into Wellington City⁸.

This urban development pattern, and limited east-west transport connections, creates challenges for the movement of people and resources around the region. Particularly if a main north-south transport corridor (e.g. State Highway 1 or 2) is closed or disrupted. Resources need to move to and through the different areas of the region where people live, work and play, from producers and manufacturers to households and businesses, to the various landfills and recycling/reprocessing facilities located around the region. This highlights how waste is truly a regional issue, and therefore why a regional approach is needed to minimise waste.

Socio-economic characteristics, such as age, ethnicity, and social deprivation level vary within and across each of the Councils, therefore each council is likely to have unique vulnerabilities, challenges, and opportunities in regard to waste management and minimisation. Socio-economic characteristics are also likely to change over time. Across the Wellington region, the population is projected to age, with a larger proportion of the population expected to be aged 65 or over⁹. Māori, Pacific and Asian people are also

⁶ Facts & figures - WellingtonNZ.com

⁷ <u>https://ecoprofile.infometrics.co.nz/Wellington Region/Population</u>

⁸ https://www.nzta.govt.nz/assets/resources/keeping-cities-moving/Wellington-regional-mode-shift-plans.pdf

⁹ StatsNZ 2028 Population Projections (2018) baseline

expected to make up a larger share of the region's population¹⁰. In addition, the cost of living for the average household increased 7.7 percent in the 12 months to March 2023, and this trend of the upwards cost of living is anticipated to continue, placing increasing economic pressure on households¹¹¹². These socio-economic shifts further highlight the need for this WMMP to support an equitable transition to a low-emissions and low waste society (refer to section 2.6 above for more information about an equitable transition).

Gross Domestic Product (GDP) is an important economic indicator that measures the size of an economy. Traditionally, increasing GDP has resulted in increasing waste generation¹³. However, with a focus on circular economies, this traditional relationship between GDP growth and consumption of raw materials may change¹⁴. Of the key industries contributing to GDP within the Wellington region, the professional, scientific, and technical sector contributed the largest proportion of GDP (13.9%), followed by public administration and safety (12.5%)¹⁶. Often, the industry share of GDP in the region has a direct influence on the type and volume of waste produced and available for management but this is not the case in the Wellington region. For example, the two sectors which contribute to the largest proportion of GDP in the Wellington region do not have a corresponding waste steam which is the highest contributor to the waste composition in the region (such as materials common place in office-based roles e.g., paper, cardboard, food scraps). Instead, organic waste and construction and demolition (C&D) waste are the highest contributors to the waste composition in the region¹⁶ (as discussed further in section 3.3 of this WMMP).

The volumes and types of waste being produced and subsequently disposed of is anticipated to change. Influencing factors include: commercialisation of innovative technologies, sustainable product design, a keener focus on mapping behaviour-change pathways, as well as resource initiatives for waste reduction/recycling at both central and local government levels. However, this change will require wider initiatives such as investment in waste and resource management infrastructure as well as supporting legislative instruments.

¹¹ <u>https://www.stats.govt.nz/news/cost-of-living-remains-high-for-all-household-</u>

¹⁰ StatsNZ 2028 Population Projections (2018) baseline

groups/#:~:text=The%20cost%20of%20living%20for%20the%20average%20household%20increased%207.7,12%20months%20to%20 December%202022.

¹² <u>https://www.asb.co.nz/content/dam/asb/documents/reports/economic-note/asb-hh-cost-of%20living-update-2023.pdf?et_rid=MzI2NTU2OTEyODY0S0&et_cid=7054748</u>

¹³ Thabit, Q.; Nassour, A.; Nelles, M. Facts and Figures on Aspects of Waste Management in Middle East and North Africa Region. *Waste 2023*, *1*, 52-80. https://doi.org/10.3390/waste1010005

¹⁴ <u>https://www.worldbank.org/en/news/press-release/2022/12/06/world-bank-releases-its-first-report-on-the-circular-economy-says-decoupling-growth-from-resource-use-in-europe-achievab</u>

¹⁵ https://ecoprofile.infometrics.co.nz/Wellington%20Region/Gdp

¹⁶ Wellington Region Waste Assessment 2023

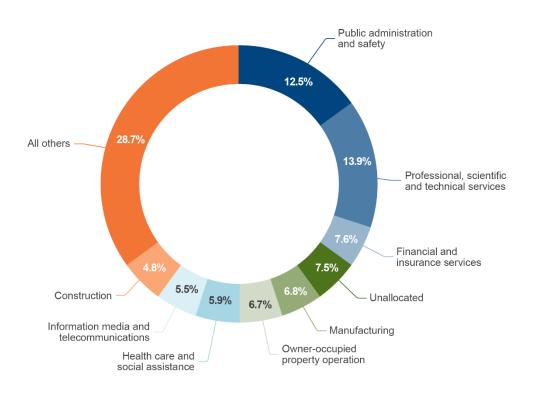


Figure 5: Proportion of Gross Domestic Product by Industry Type for the Wellington Region between 2001 and 2021

3.3 How much waste is there?

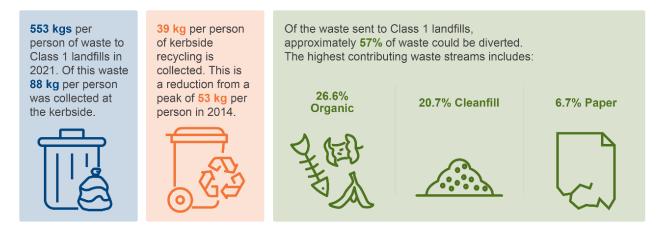
Access to reliable and transparent waste data is an issue across Aotearoa New Zealand. While we have some waste data for the region from previous years, comparing it decade on decade, or even year on year, is difficult due to inconsistencies in data, reporting requirements and lack of a national waste data framework. Improving both the quality and quantity of waste data is a core component of *Te rautaki para* | *Waste strategy*. These difficulties and assumptions are highlighted within the Waste Assessment.

Nevertheless, to plan for transformation, we need to start from somewhere. This requires us to review the data we do hold and understand how well our waste management and minimisation system is performing. This information is critical to setting a vision, objectives, targets, and actions for the next six years that will help us to address the issues and opportunities facing our region, and transform how we generate, manage, and minimise waste.

Aotearoa New Zealand is one of the highest generators of waste per person in the world. In 2018, we collectively sent 3.7 million tonnes of waste to Class 1 landfills (approximately 750 kgs per person). This is 49 per cent higher than the Organisation for Economic Co-operation and Development (OECD) average of 538 kgs per person¹⁷.

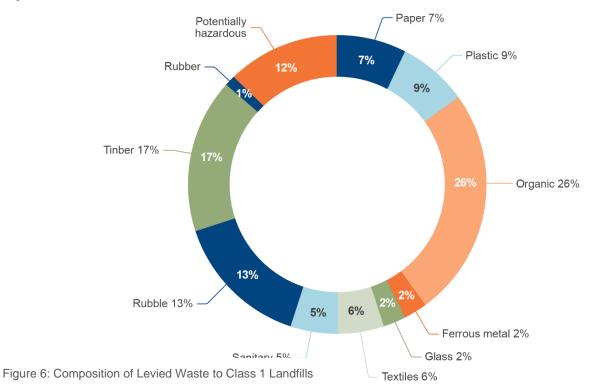
¹⁷ Ministry for the Environment. 2021. *Te kawe i te haepapa para | Taking responsibility for our waste: Proposals for a new waste strategy; Issues and options for new waste legislation*. Wellington: Ministry for the Environment.

At a regional level¹⁸:



With reference to the above diagram, the difference between the two figures is likely due to other countries restricting the import of certain recyclables, primarily mixed paper, and mixed plastic. An example of this is China's "National Sword Policy", which limited the flow of contaminated recycling exports to China and has led to lower overall recycling rates and stockpiling of recyclable materials domestically with Aotearoa New Zealand and other Western countries around the world.

The following graph summarises the primary composition of levied waste to Class 1 landfills in the Wellington region for 2021/22¹⁹



As our data improves, we will continue to explore opportunities to report progress on our targets. This reporting will be supported by central government, who are developing an online platform where up-to-date, aggregate data is publicly available.

¹⁸ Wellington Region Waste Assessment 2023

¹⁹ Wellington Region Waste Assessment 2023

As discussed in the Waste Assessment, there is potential to divert as much as 57% of levied waste from landfill with the development of new material collection and treatment systems within the Wellington region. For waste streams like organic waste, plastic waste and paper waste, the impacts of this diversion are significant and could lead to significant waste and emissions reduction potential (see figure to the right).

For more detail on the assumptions and data used to generate these estimates, please refer to section 5 and 6 of the Waste Assessment.

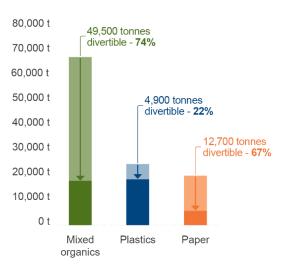


Figure 7: Diversion Potential of Levied Waste Streams to Class 1 Landfills

3.4 What about the future?

The factors that will impact future demand for waste services are difficult to predict, particularly given that the changes signalled within *Te rautaki para | Waste strategy* will take time to become entrenched in our daily lives.

Forecasting population within the Wellington region is an important step in understanding the likely demand on waste services into the future. It provides an indication of the likely investment required to support current and future waste infrastructure to ensure residents and ratepayers are provided with value for money, accessible, effective, and convenient services that support the regions in diverting waste from landfills. The forecasted population²⁰ for the Wellington region is expected to increase by about 42,000 people by 2030 and 180,000 people by 2054.

This growth is already reflected in construction activity in the region, with approximately 7% of the national number of dwellings under construction happening in the region²¹. But the additional population could require up to 150,000 new homes across the region, with two thirds of this intensification within existing urban areas and one quarter in Wellington City. While it is noted that the highest growth areas are located in the three districts in the Wairarapa, with a growth rate of approximately 51% occurring, this increase within the Wairarapa is still coming off a relatively low population base. This means the overall proportion of a regional population dominated largely by urban city residents will remain.

The implications of this intensification (and dispersed growth in some areas) means that Councils will need to establish robust waste management and minimisation systems and processes.

In addition to population growth, we also continue to consume more. As a whole, Aotearoa New Zealand has increased the volume of waste generated per capita from 2012 to 2019, with a total increase of approximately 48 per cent between 2010 and 2019²². There was a slight decrease in volumes in 2019 and 2020, with the decrease in 2020 likely driven by COVID-19. However, the downward trend has not continued into 2021, and longer-term trends suggest the rate of disposal to landfill is increasing.

²⁰ Population forecast 2020 to 2051 (sensepartners.nz)

²¹ Wellington Region Waste Assessment 2023

²² Waste reduction work programme. Wellington: Ministry for the Environment, August 2021.

While current forecasts suggest the rate of disposal to landfill will only increase, two of the region's landfills have resource consents set to expire within ten years. Southern Landfill, located in Wellington City and Spicer Landfill, located in Porirua will expire in 2026 and 2030, respectively. While there are plans to seek new resource consents for Southern Landfill, there are no guarantees these will be granted, which would severely limit future end-of-life disposal options in the region. This further emphasises the need to reduce the amount of waste generated and sent to landfill in the region.

In the medium to long-term, as the actions from the Regional and Local Action Plans within this WMMP are implemented, the region will be on track to see this trend reversed. We have allowed for this within our estimates of forecasted waste²³.

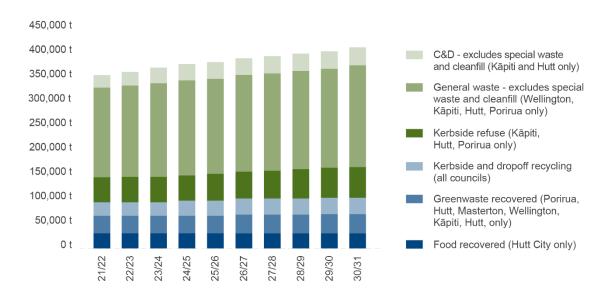


Figure 8: Total waste generated based on mid-level Population Projection with no change in systems or drivers

3.5 The challenges / issues we are facing

As highlighted in the Waste Assessment, there are a number of existing barriers or challenges holding the Wellington region back from an orderly transition to a low-emissions, low-waste society. As part of this WMMP, we recognise that these challenges need to be proactively addressed in the objectives, targets and actions put forward by the Councils and will require collaboration with stakeholders and partners across the region. The following section summaries the key challenges and issues we are facing in the waste management and minimisation system in the Wellington region.

For an explanation of how these challenges are addressed in our targets and action plans, please refer to Section 6 of this WMMP.

3.5.1 Weak pricing signals

Despite the increases to the waste disposal levy, disposal is still a cost-effective option for many businesses and industries. In many settings, the increases are simply incorporated into the cost of doing business. To achieve effective waste minimisation and change-ingrained disposal habits, alternate options must be accessible and convenient while also being competitive with disposal to landfill.

²³ Waste Region Assessment 2023

3.5.2 Limited data

Limited data, particularly on the activities of the private/commercial waste and recycling sector, limits Councils' ability to effectively plan for and respond to future demand. It also creates issues with tracking and reporting on progress against targets.

Waste movements across the Wellington region pose a challenge for data, as waste is often generated in one district, then transferred and/or consolidated in another district, before being sorted at a materials recovery facility (MRF) or disposed of in landfills. This includes materials disposed to class 2-4 landfills, where there are potentially high quantities of divertible/recoverable material that Councils may not have oversight over.

3.5.3 Recycling performance

The Wellington region has a below average level of recycling performance compared to other centres in Aotearoa New Zealand. The data available also suggests that recycling performance is static or declining within the Wellington region. Kerbside recycling and drop-off waste tonnages for the Wellington region showed a decreasing trend during 2020/21 and 2021/22. Contamination and poor recycling literacy is an ongoing issue.

3.5.4 Low diversion of organics from landfill

Food waste, green waste, and biosolids represent a significant proportion of recoverable material being landfilled. While a reasonable fraction of garden waste is composted, there is very little diversion of food scraps. This is potentially the biggest opportunity to improve diversion and reduce biogenic methane emissions from decomposing organic material.

3.5.5 Barriers to working together regionally

While the Wellington region has delivered on several key projects, barriers to enhanced regional collaboration could be due to different councils having conflicting priorities at a regional and local level. Councils have traditionally been inward-focused, with each council responding primarily to the drivers within their area. However, where synergies align, collaboration has been sought to take learnings and minimise reworking initiatives. In addition to this, differing ownership of assets, service delivery expectations, and varying general rates or waste levy funding levels all create differing imperatives and the scale at which a challenge can be addressed.

It may also be difficult to design regional initiatives that create successful outcomes across all Council jurisdictions as a regional approach often doesn't consider the nuances of each community makeup. For example, there are wide differences in typography, household income and ethnic make-up and councils being urban, rural or a hybrid of the two.

The local inward-focused approach to waste management has resulted in a range of systems, many of which have evolved over time and are not necessarily configured to deliver optimum results in terms of cost and waste minimisation performance. There are likely to be gains from a more consistent, standardised approach that utilises best practice, while allowing for flexibility to address local differences for example, more consistent approach to kerbside services and transparency of the flow of materials.

3.5.6 Increase in C&D waste from urban development

Population growth, urban development, and an increasing densification of housing through multi-unit dwellings is contributing to the C&D waste stream which includes a significant proportion of recoverable material. Up to 50% of NZ's waste to landfill comes from C&D²⁴. The region's solid waste bylaws have

²⁴ Saving Construction Waste, Ministry for the Environment (2021)

allowed for Multi-Unit Development Storage and Collection provisions, and waste minimisation plans for construction above a certain value. The implementation status of these provisions vary between Councils.

The previous and current waste assessments are reporting the current low level of infrastructure available to recover construction and demolition materials, including timber, concrete, brick, and plasterboard.

3.5.7 Consumption habits

Embedded consumption habits are unlikely to change significantly in the near future. This points to the continued generation of higher quantities of waste per capita in Aotearoa New Zealand than the OECD average. Councils have limited control over the production and importation of products consumed within Aotearoa New Zealand, and minimal influence over the established markets and systems for linear consumption that result in waste generation.

3.5.8 Need for new infrastructure

Communities, and the businesses and organisations that serve them, need to implement circular economy practices to reduce waste. This shift necessitates significant investment in new infrastructure and new services, such as regional organic waste processing as well as building awareness of, and community engagement with existing services, to divert resources from landfill. Currently, there is a lack of infrastructure available locally, regionally, and nationally to implement circular practices for the majority of materials currently viewed as waste.

3.5.9 Government legislation still in development

While Te rautaki para | Waste strategy has been released, some government policy and legislative changes in development will not come to fruition until after this WMMP is finalised, including the WMA and Litter Act 1979 reforms. As such, the region must develop and confirm its WMMP before the confirmed policy and legislative landscape is fully known.

3.5.10 Litter and illegal dumping

There is limited data available on the extent of litter and illegal dumping across the region, however it is a significant issue that negatively impacts our waterways, coastal environment, and urban areas. Increasing cost of living pressures can exacerbate the rate of illegal dumping, and the Litter Act 1979 only provides limited ability for infringing and enforcing penalties for those responsible.

3.5.11 Unforeseen events/waste resilience

Events (such as natural or human-made disasters, and pandemics) can result in high volumes of waste in a short period. Weather events are expected to become more commonplace as a result of climate change and may become cascading and compounding events that generate significant amounts of hazardous waste, including contaminated silt and sensitive debris.

The COVID pandemic interfered with recycling collections as waste had to be prioritised, and also faced workers in the front-line with significant risks from handling waste during this outbreak.

3.6 What is working well in the Wellington region today?

Whilst the Waste Assessment highlighted many challenges and barriers for this WMMP to address, the previous WMMP delivered a number of meaningful initiatives that were received well by stakeholders across the region. Notably, the stakeholders engaged as part of the stakeholder engagement workshops held to inform the development of this WMMP, identified a number of successful initiatives and programmes underway in the Wellington region. These are characterised and explained in more detail below:

Collaboration between Councils and community organisations, industry and businesses

There are many community/volunteer organisations working to minimise waste and support circularity within the Wellington region, working cooperatively and/or with Councils (i.e. sharing knowledge and resources, and partnering on initiatives). Waste Free Welly is a great example of a collaborative initiative that has provided a unified voice with Council and identifies key areas to work together and collaborate on projects.

Information and education campaigns

The Councils' own information and education campaigns, as well as the information change programmes of non-council organisations, are helping to create awareness of personal responsibility to reduce waste, and where and what people can recycle. Several strategies that have increased the impact of current communications strategies are:

- "Mainstream messaging" i.e. that takes away the "greenie" perspective of waste minimisation
- Tapping into social and environmental values people are motivated when they know they should care i.e. connecting waste with impact on the environment
- Targeting workplaces this can have a flow-on effect to people in their homes
- Targeting industries/businesses that can influence the design phase of products i.e. architects
- Use of social media as a tool for creating social "buy-in"
- Education in schools harnessing youthful energy. Children can also bring messaging home to their families.

Zero waste hubs, Community Resource Recovery Centres (CRC) and repair cafes

The establishment of zero waste hubs, CRCs and repair cafes in the Wellington region are helping to extend the life of materials, helping to reduce waste and support circularity in the region. Lots of CRCs have set up local drop-off points at the Sustainability Trust. This provides another great opportunity to engage with the public and upskill communities, businesses and other waste generators in identifying and engaging with alternatives to landfilling their waste.

Increased access to waste collection/processing/recycling services and initiatives

An increasing number and range of waste collection/processing/recycling services and initiatives that have been operating in the Wellington region within the last WMMP period were cited, including but not limited to:

- Green waste collections in new areas
- Green waste processing into compost and mulch
- Recycled crushed concrete for footpaths (this has been used in Wellington and Porirua)
- Recycling facilities accepting some types of demolition waste
- Recycling of untreated timber mulched for playgrounds, silt control, coloured landscaping etc.
- E-waste recycling i.e. repairing and bringing the item back up to specification
- Processing of cathode-ray tube (CRT) in televisions
- Processing of PVC / HDPE offcuts
- Some collection and reprocessing of single-use medical consumables (note: only a very small percentage of total products are diverted from landfill)

The Wellington region should be proud of the progress it is making towards a low-waste, low-emissions future. However, the Councils recognise that this WMMP needs to accelerate the transition and support communities, mana whenua, businesses, and industry to reach their waste reduction targets.

4 Vision, objectives and targets

Our WMMP vision, objectives, and targets provide a strategic framework for transforming the way the Wellington region generates, manages, and minimises waste.

They are the product of stakeholder engagement workshops held across the Wellington region to discuss the priorities for waste and resources, and what they wish to achieve as a region. These discussions were informed by the issues and opportunities identified in the Waste Assessment (and described above), and the information gathered as part of the stakeholder engagement workshops.

Consideration was also given to aligning with the Government's strategic direction set out in key documents such as *Te rautaki para | Waste strategy*.

4.1 Vision

The vision for this WMMP is:

Working together to minimise waste – for people, environment, and economy.

This vision seeks to foster a collaborative approach to the way resources are managed and minimised in the Wellington region. It will guide the system change needed for the entire region, with a focus on transforming how waste is generated, managed, and minimised. Key to this will be understanding our individual and collective roles and working together effectively (including within and between Councils). To achieve this, this WMMP supports the Wellington region's shift from managing waste to enabling a step-change to influencing the production of waste, including how materials are used and recovered, all in keeping *with te pūnaha whakarōpū para* | *the waste hierarchy*. It also means using the tools the region has available and the need to understand the complex interrelationships and the role of culture, economy, environment and society in minimising and disposing of waste.

4.2 Guiding principles

There are six principles at the heart of this plan. These principles guide how we will achieve our vision, objectives, and targets in this WMMP. They are informed by the Ministry for the Environment's *pūnaha whakarōpū para* | *waste hierarchy* and overarching *Te rautaki para* | *Waste strategy*. The principles set the direction for how we will work to implement our actions, focusing our attention on our priority areas and our desire to collaborate to achieve positive waste and broader social, cultural, and environmental outcomes for the Wellington region.

- Waste reduction We will take a leadership role in the reduction of waste in accordance with the levels of te *pūnaha whakarōpū para* | *the waste hierarchy* and will support those already engaged in waste reduction efforts. We will also look to increase material and product circularity.
- **Ōhanga āmiomio | Circular economy** We will promote a circular economy and contribute efforts to mitigate the environmental impacts of waste across the Wellington region by keeping materials at their highest value for as long as possible and increasing the reuse and recovery of resources.
- Environmental guardianship We recognise the natural environment is interconnected with people. We will take account of the limitations of our planet and finite resources by recognising the

need to protect, enhance, and restore ecosystems by valuing natural resources and making the best use of them for current and future generations.

- **Challenging mindsets** We recognise that resources are finite and that we need to change our habits and behaviours to focus on the circularity of materials, ensuring sustainable and responsible consumption, and reuse and recovery of products and materials. We will work to change people's perspectives across the Wellington region.
- Collaboration and participation We will look for opportunities to collaborate across the region as Councils as well as with mana whenua, businesses, industry, and communities. We will support and build mana whenua and community capacity and capability to deliver wider economic, social, cultural, and environmental benefits to our communities.
- Resilient waste and resource recovery system We will continue to invest in the Wellington region waste and resource recovery system and our data management systems in alignment with *Te rautaki para | Waste strategy* and the Action and Investment Plan to ensure they are fit for purpose going forward. We will manage any residual waste in accordance with best practice.

4.3 Objectives

To support the vision, this WMMP includes nine objectives that reflect the priorities, issues, and opportunities identified by the Councils and the stakeholders engaged as part of developing this WMMP. The objectives signal a significant shift in how the Wellington region thinks about waste, the services and infrastructure the region provides, how businesses, industry, mana whenua, and communities can contribute to making a difference for our region's future. These objectives aim to strike a balance between ambition and action.

Combined with the guiding principles, the nine objectives set the direction for the Wellington region's waste system. The nine objectives are as follows:

Objective 1: Waste and resource recovery systems support a reduction in greenhouse gas emissions from landfills and waste collections

The intent of this objective is to create systems that help reduce the amount of greenhouse gases emitted during waste management processes. This objective focuses specifically on emissions produced from disposal of waste to landfills and council-controlled collections (for example: waste, recycling, organics).

Objective 2: There is collective responsibility within the Wellington region for our resources and environment

The intent of this objective is to emphasise that everyone in the Wellington region shares the responsibility for protecting and conserving our resources and environment. This highlights the need for collaboration and cooperation among communities, mana whenua, businesses and industry, as well as advocacy to central government, in order to achieve sustainable waste management practices.

Objective 3: Residents, businesses, and other organisations are motivated to minimise waste

The intent of this objective is to promote waste minimisation at individual, business, and organisational levels. By encouraging communities, mana whenua, businesses and industry to minimise waste generation, and supporting those already doing so, this objective aims to foster a culture of waste reduction and resource conservation.

Objective 4: Material circularity is increased through waste and resource recovery infrastructure and services

The intent of this objective is to establish waste and resource recovery services and systems that promote material circularity. This means designing systems that enable the recycling, reuse, and repurposing of materials, reducing the reliance on raw resources and minimising waste sent to landfills.

Objective 5: It is accessible and convenient for residents, businesses, and other organisations to divert their waste

The intent of this objective is to ensure that residents and businesses have easy access to waste diversion options and that these options are convenient to use. By making waste diversion accessible and convenient, the aim is to encourage greater participation and compliance with sustainable waste management practices.

Objective 6: Waste and resource recovery systems are traceable and transparent.

This objective focuses on establishing traceability and transparency within waste and resource recovery systems. The intent is to create systems that allow for clear tracking and monitoring of waste, ensuring accountability and facilitating better decision-making for waste management.

Objective 7: Resource recovery facilities and landfills provide regional resilience in case of emergency events

The intent of this objective is to emphasise the role of waste and resource recovery infrastructure and services in the case of emergency event. Resilience of the waste management system should be considered when making regional decisions on infrastructure and services.

Objective 8: Landfills are treated as finite

This objective emphasises treating waste disposal infrastructure as a limited resource. This involves implementing strategies to extend the lifespan of existing disposal facilities, exploring alternative waste treatment methods, and promoting sustainable waste disposal practices.

Objective 9: Residual waste is managed safely and effectively in accordance with best practice

The intent of this objective is to ensure that any remaining waste after recycling and recovery processes is managed safely and effectively. The objective involves adhering to established best practices for waste management, including proper handling, treatment, and disposal methods to minimise potential environmental and health impacts.

4.4 Targets

The targets within this WMMP provide a clear and measurable way to determine how, as a region, steps are taken to achieve the objectives. The following targets have been set so that as a region, there is accountability. The targets are ambitious and they align with *Te rautaki para | Waste strategy*. These targets are also spread over the life of this WMMP to enable the Councils to manage costs over a longer period while the necessary changes to the region are embedded, rather than playing catch up once that change is already in place. The following targets apply across the Wellington region and progress against these will be measured and reported upon annually:

- 1. Reduce the total amount of material that needs final disposal to landfill by:
 - 10% by 2027
 - 30% by 2030

We will work towards this by achieving the following sub-targets:

- a. Ensuring a regional construction and demolition processing facility is available by 2026
- b. Ensuring a regional organics processing facility is available by 2029

- c. Establishing three new resource recovery facilities in the Wellington region by 2030
- 2. Reduce emissions from biogenic methane by reducing the total amount of organic waste disposed to landfill by 50% by 2030.
- 3. Reduce emissions from the transport of waste by 30% by 2030.
- 4. Ensure all urban households have access to kerbside recycling collections by 2027
- 5. Ensure food scraps collection services are available to urban households by 2030
- 6. For each council to engage with and commit 20% of the business community to minimising waste.

As highlighted previously, the existing data is limited for waste disposal and even more so for waste generation and diversion. While the Councils have objectives and actions directed at the upper two levels of the waste hierarchy, the data to support measuring targets associated with this is sparse and very limited. The Councils will continue to, over the course of this WMMP, identify how to obtain data and measure activity in the upper two levels of the waste hierarchy and contribute to achieving *Te rautaki para | Waste strategy* target for reducing the amount of material entering the waste management system. The Councils will refine the baseline measures for each of the targets during implementation but for the purposes of targets 1 - 2, the 2021/22 waste data from the Waste Assessment will be used as a baseline for measuring success.

5 How we will reduce waste and maximise the value of materials

It's important that this WMMP outlines the different roles and responsibilities within the system, and lays the foundations for a truly regional, collaborative approach to waste management and minimisation activities. Key to this will be identifying opportunities for partnership and collaboration and agreeing common principles to guide the work that we do together over the next six years, and beyond.

5.1 Roles and responsibilities

The following outlines the methods that will be used by the Councils and roles and responsibilities of the Councils, mana whenua, central government, community, industry, and businesses. It also outlines how all parties will work in partnership to implement this WMMP.

This working approach with stakeholders and partners will endeavour to:

- Protect and enhance the mauri of resources by working towards a circular economy approach
- Engage with, empower and involve our community in changing behaviour and solutions
- Apply a waste hierarchy approach, to increasingly shift our effort and focus towards enabling redesign, reduction and reuse.

5.1.1 Collective Ownership of the Waste Problem

Alongside the Councils, central government, mana whenua, communities, industry and businesses, all have a vital role to play in protecting the Wellington region's environmental resources. Each party needs to make responsible choices for managing and minimising our waste by understanding our individual and community impact on our region and our environment. As a collective issue, waste requires a collaborative solution. A model of collective responsibility and action is needed to achieve our vision. Transitioning from a 'take-make-dispose' society to a circular economy where we keep resources in use for as long as possible is a vital step toward minimising waste, circulating resources and adopting a low carbon, resource efficient system. The below sections outline the different roles required from all our stakeholders and partners in the Wellington region.

5.1.2 Councils' role

The councils of the Wellington region have many roles which are outlined below and described in terms of how they can influence waste outcomes. Alongside other stakeholders, we play an important role in the waste management and minimisation system. We influence outcomes through our role as key facilitators, funders, providers, regulators and coordinators of waste management and minimisation activities (described below). At the heart of this, the Councils in the Wellington region will continue to work together and facilitate conversations across the waste, community, and business sectors to build the relationships necessary to drive transformation and a reduction in waste.

- **Provider:** Councils have a role in providing or facilitating the provision of waste management and minimisation services such as resource recovery centres, transfer stations and landfills. Councils also work towards providing accessible and convenient options to encourage the recovery and recycling of materials. Councils can also influence waste reduction outcomes through procurement policies and practices.
- **Funder:** We invest and provide support for businesses and communities by funding initiatives which will help our cities and districts to avoid, reuse, recycle and recover resources and waste.
- **Partner:** We collaborate and partner with mana whenua and various stakeholders including communities, businesses, and industry to achieve waste minimisation outcomes. We recognise that local

and regional providers can deliver alongside Councils. Collaboration across our eight councils is also a priority as we look to collectively deliver actions to solve problems.

- **Facilitator:** We bring people together to discuss issues, share ideas and connect people. This includes working alongside mana whenua, communities, industry, and businesses to rethink waste and understand their part in driving behaviour change. By fostering engagement, Councils empower communities, mana whenua, businesses, and industry to participate in waste minimisation activities.
- Advocate: We advocate for system change in waste management on behalf of our communities. We will
 advocate for transformative policies, legislation, standards and guidelines from central government and
 the waste and business sectors. We will also advocate internally to ensure initiatives being delivered by
 our Councils are aligned with this WMMP.
- **Regulator:** We are responsible for developing waste management and minimisation policies and strategies that align with national policy. We utilise our bylaws and planning processes to influence cross sector outcomes to achieve waste minimisation. In the waste space, our regulatory role covers our regionally consistent Solid Waste Management and Minimisation Bylaw, trade waste and litter bylaws. We also have a role to play in influencing our city and district plans to support waste reduction.

To implement *Te rautaki para | Waste strategy* and other policies, central government has highlighted that the role of councils will change over the next 30 years. This includes improving data collection, requiring the implementation of standard kerbside collections (including food scraps), increasing available funding through the waste disposal levy. To meet Aotearoa New Zealand's commitment under the Emissions Reduction Plan, there will be a need for additional regional infrastructure for resource recovery. Councils are expected to plan for, support and in some cases provide infrastructure to support collection, recovery, reprocessing and disposal networks. To achieve this, central government have indicated that they will continue to allocate resources, funding, and grants in line with *Te rautaki para | Waste strategy* and the Action and Investment Plan, which will be counted on to deliver this WMMP.

5.1.3 The role of Central Government

The central government plays a crucial role in supporting this WMMP and its implementation. Central government provides the overarching policy frameworks, guidelines, legislation to guide and mandate the waste management practices across Aotearoa New Zealand, and access to funding for this transformation.

Within *Te rautaki para | Waste strategy*, central government has set national waste management goals and targets, aligning them with a vision for Aotearoa New Zealand to shift to a low-emissions, low-waste society built upon a circular economy by 2050. There are also interconnected policies and strategies developed or under development, including the Emissions Reduction Plan and Circular Economy and Bioeconomy Strategy, that discuss the existing waste issues and future opportunities.

Through its involvement, central government should help ensure a coordinated and integrated approach to waste management and minimisation in the Wellington region, promoting consistency, accountability, and positive environmental outcomes

5.1.4 The role of Communities

Individuals, households, and non-governmental organisations (NGOs) collectively play an instrumental role in waste management and minimisation in the Wellington region.

Councils have a key role in ensuring that diverse perspectives, values, needs, experiences, and aspirations are taken into account in community waste management and minimisation decisions.

By raising community awareness and understanding of waste generation, minimisation and management issues, through advocacy and education, we can inform and meaningfully contribute to driving positive cultural, systems and behavioural change.

We cannot transform the way we collectively generate, manage, or minimise waste without a social licence from our communities. The role of communities includes:

- Input and Feedback: Community members and/or organisations have the opportunity to provide input and feedback on waste management plans, policies, and initiatives. This can be done through public consultations, surveys, community meetings, or online platforms. Their perspectives help shape the direction of waste management and minimisation strategies and activities and ensure they align with community values and aspirations.
- Education and Awareness: Community members and/or organisations engaging and educating their community about waste generation, waste minimisation practices, recycling programs, and responsible waste disposal is crucial. This includes raising awareness about the environmental and financial impact of waste, promoting behaviour change, and providing information on how individuals and households can contribute to reducing waste. Community members can also play a role in sharing knowledge and supporting and encouraging others to adopt sustainable practices.
- Active Participation: Community members and/or organisations understand their responsibility to actively participate in waste reduction activities and initiatives and are empowered to do so. This can involve participating in recycling programs, composting, community clean-up events, or volunteering for local waste management projects. By actively engaging in these activities, community members and/or organisations contribute to tangible waste minimisation efforts and foster a sense of ownership and pride in their local environment.
- Collaboration with Local Organisations: Community members and/or organisations can collaborate with other local organisations (e.g. community groups, schools, businesses, non-profit organisations) and/or businesses to promote waste reduction initiatives. This may involve organising awareness campaigns, hosting workshops or events, or establishing partnerships to implement recycling programs or support local circular economy initiatives. By working with others, communities can have a larger and more enduring impact.

5.1.5 The role of Industry and Businesses

Both the waste industry and other commercial businesses (e.g. retailers, hospitality, manufacturers) play essential roles in the waste management and minimisation system. Building circularity into the industry and businesses' waste system will help to increase the Wellington regions waste system resilience by placing more responsibility onto individuals and businesses to make waste minimisation front of mind. A circular economy also offers the potential to create new employment opportunities, reduced consumption and disposal, and sustainable growth by increasing repair and resource recovery activities. The waste industry is a key manager of waste and recycling in the region and should be at the forefront of innovative technologies. Businesses also play an important role by reducing waste, complying with regulations, and fostering partnerships and innovation with industries, councils and communities.

5.1.5.1 The role of the waste Industry

The waste industry encompasses waste collectors and processors, recycling sorting and processing facilities, resource recovery centres, composting centres, and waste treatment facilities. The waste industry's role includes:

- Waste Collection: Waste collection companies play a crucial role in collecting and transporting waste from households, businesses, and public areas to appropriate facilities. They ensure safe transportation to designated locations.
- **Recycling and Resource Recovery**: Recycling facilities within the waste industry process recyclable materials collected from households and businesses. They sort, clean, and process

materials such as paper, plastic, glass, and metal to be turned into new products, thereby conserving resources and reducing waste.

- Waste Treatment and Disposal: Waste treatment facilities manage various waste streams, including hazardous waste or materials that cannot be recycled. They employ specialised processes to minimise environmental impacts and ensure safe disposal or treatment of waste in compliance with the relevant legislative frameworks.
- **Innovation and Technology:** The waste industry also plays a role in driving innovation and adopting advanced technologies for waste management. This includes exploring new methods of waste reduction, transportation, improving recycling processes, and finding sustainable alternatives for waste treatment.
- **Collaboration and Partnerships:** Industry can collaborate with Councils and other stakeholders to develop and implement waste management and minimisation initiatives. This may involve supporting community innovation and scaling it up or collaborating on community shared spaces for waste recovery or repair. Industry can also implement Council ideas for new resource recovery networks to respond to regional needs.

5.1.5.2 The role of Businesses

Other commercial businesses, including retail stores, restaurants, offices, and manufacturing facilities, also have a significant role to play in the waste management and minimisation system Their role includes:

- **Waste Reduction:** Businesses can actively implement waste reduction strategies, such as using their market strength to influence production processes, minimising packaging, promoting reusable products, and adopting practices that reduce waste generation at the source. This includes initiatives like bulk-purchasing, composting organic waste, and implementing internal recycling programs.
- **Compliance and Reporting**: Businesses need to adhere to waste management regulations and reporting requirements set by the Councils' Solid Waste Management and Minimisation Bylaw. This involves properly segregating waste, ensuring proper disposal of hazardous materials, and maintaining accurate records of waste generation and disposal.
- Collaboration and Partnerships: Businesses can collaborate with Councils and other stakeholders to develop and implement waste management initiatives. This may involve participating in community recycling programs, supporting local circular economy initiatives, or partnering with waste management service providers.
- Education and Awareness: Businesses can contribute to raising awareness and educating employees, customers, and suppliers about waste management best practices. This can include training programs, providing recycling bins and signage, and promoting responsible waste disposal within their premises.

5.2 Collaboration and partnerships

Councils cannot do all the work set out in this WMMP on their own. Rather, we need to bring together diverse perspectives and expertise from across industry, the businesses community, other councils, mana whenua, and communities to leverage creative thinking and collaborative efforts. Collaborating and partnering with mana whenua to integrate Māori values, mātauranga Māori (indigenous knowledge), and tikanga (customs) into waste management strategies, practices and decision-making processes will be particularly crucial to ensuring these meet the needs and aspirations of Māori.

By working together, we can drive innovation, foster collective responsibility, develop more efficient and sustainable practices, and ultimately make a larger, and more enduring impact. Collaborating will also help to ensure that infrastructure investments are well-informed, financially viable, and aligned with community needs. As highlighted in Section 2.5 of this Plan, the joint Councils remain committed to upholding the principles of kaitiakitanga (guardianship) and environmental care (taiao) and developing a meaningful partnership with mana whenua that delivers on Māori needs and aspirations for the waste sector.

Alongside this important mahi, this WMMP seeks to work collaboratively with mana whenua, including supporting and empowering whānau (families), hapū (sub-tribes), iwi (tribes), land trusts, Māori businesses, and communities in their efforts to reduce, recycle, and reuse waste as valuable resource opportunities, and actively involving mana whenua in waste management and minimisation decisions.

To achieve this, the Councils will seek to collaborate

and partner with mana whenua, industries and businesses, and communities. It will also look for opportunities to foster and facilitate information-sharing and innovation, collaboration and partnerships between key stakeholders, mana whenua and communities, to help synergise efforts and identify opportunities for improvement.

As highlighted below, there is already mahi (work), collaborations, and partnerships underway in the region to improve the region's resource recovery system. This WMMP will support and build on these, including (but not limited to):

- Zero waste hubs, Community Resource Recovery Centres (CRC) and repair cafes across the region
- Waste reduction and recycling initiatives (e.g. battery recycling triasl, soft plastic recycling, and waste education programmes in schools)
- Public information, education and behaviour change campaigns (e.g. Porirua City Council's "Three Strikes" scheme, Hutt City Council kerbside behaviour change and "Three Strikes" scheme, and Kāpiti Coast District Council's "love your waste" campaign
- Forums, co-operatives and partnerships between Councils, communities, businesses and industries, such as Waste Free Welly (community-led) and the Wellington Waste Forum (Council-led)
- Increased access to waste collection/processing/recycling services and initiatives.

Further information about how this WMMP will support collaboration and partnerships is included in the Regional and Local Actions Plans.

Together, the Wellington region has the ability to drive positive change and create a cleaner, greener future.

The Regional and Local Action Plans are roadmaps that identify what steps must be taken to achieve the objectives of this WMMP. Collectively, they set the wheels in motion and steer us toward the long-term achievement of this WMMP.

The action plans are a 'living' document that can be updated to reflect progress²⁵ made. The action plans can be reviewed and updated if changes are needed to ensure the Councils are heading in the right direction. This ensures that the Wellington region is agile and able to adapt and respond to any unforeseen or emerging issues, or changes in resource recovery initiatives, both nationally and internationally.

6.1 Key priority areas

The actions are grouped according to their impact on te *pūnaha whakarōpū para* | *the waste hierarchy*, which establishes a general priority to focus on keeping materials at their highest value. The overarching ambition is to eliminate the need to dispose of waste in the first place, which will help drive the transformation needed to meet our ambitious targets.

The key priority areas are:

- Providing and supporting education initiatives within the Wellington region that focus on waste minimisation and responsible consumption
- Supporting new and existing regional and local waste minimisation initiatives
- Improving the way we connect and collaborate across the region on waste management and minimisation initiatives
- Ensuring appropriate kerbside services are in place for recycling and organic waste
- · Ensuring appropriate regional infrastructure is in place to meet our targets and objectives
- Investigating ways to effectively manage and monitor cross boundary and inter-regional waste flows
- Investigating options for future disposal of residual waste and what this may look like in the long term.

6.2 Regional actions

The following section sets out the actions that the eight councils in the region will collectively undertake or support, with mana whenua partners and stakeholders, to deliver on the vision, objectives and targets of this WMMP. These actions will contribute to meeting the targets in Section 4.4.

²⁵ Under section 44 of the WMA 2008, Waste Management and Minimisation Plans can be updated without triggering the need for a formal review of the Waste Management and Minimisation Plan, as long as the changes are not significant and do not alter the direction and intent of the Waste Management and Minimisation Plan. A council's Significance and Engagement Policy is also a relevant consideration in making this determination.

Regional Action Plan

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
1	Reduce, rethink, redesign	Fund regional resources for the implementation of the Waste Management and Minimisation Plan (2023-2029), for example, human resources, research, and funding the formulation of the next WMMP. Where appropriate, look for opportunities to collaborate with other organisations to fund regional projects or initiatives.	All	Funder	Waste Levy General Rates	Ongoing
2	Reduce, rethink, redesign	Commit to strengthening a regional framework to support collaboration and connections between, the Councils, mana whenua, community groups, businesses, and other organisations. Collaborate on and support the design and delivery of regional waste management and minimisation projects and initiatives.	2, 3, 4	Partner, Facilitator	Waste Levy General Rates Other	2024
3	Reduce, rethink, redesign	Advocate for policies and initiatives at central government level that will improve outcomes for reuse and waste reduction initiative in the Wellington region. For example, the WMA and Litter Act reforms, product stewardship schemes, container return scheme, and the right to repair.	2	Advocate	Waste Levy General Rates	Ongoing
4	Reduce, rethink, redesign	Support, fund, and deliver regionally consistent behaviour change messaging, communications, and education programmes that focus on waste minimisation and responsible consumption.	2, 3	Funder, Facilitator	Waste Levy General Rates	2024 - 2025
5	Reduce, rethink, redesign	Continue to implement the regionally consistent solid waste management and minimisation bylaws and review current regulatory tools to ensure they are achieving the desired outcomes.	3, 4, 6	Regulator	General Rates Fees and Charges Waste levy	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
6	Recycle, compost, anaerobic digestion	Investigate, consider, trial, and implement options for establishment or improvement of regional infrastructure and services. This could include, but is not limited to, options for organic waste, C&D waste, biosolids, materials recovery facilities, and a region wide resource recovery network.	1, 4, 5	Partner	General Rates Targeted Rates Fees and Charges Waste Levy Other	Ongoing
7	Recycle, compost, anaerobic digestion	Investigate and implement methodologies to consistently measure and record material flows across the region.	6	Regulator	Waste Levy General Rates	2024 - 2025
8	Dispose	Implement consistent monitoring of litter across the region to understand the extent of the issue and consider, at a local or regional level, appropriate remediation and further actions to prevent harm to our natural environment.	2, 9	Partner	Waste Levy General Rates	2025 - 2026
9	Dispose	Ensure the Wellington region has a disaster management plan that identifies risks and hazards to landfills and other waste and resource recovery infrastructure in the region and provides information on how waste generated due to a disaster will be managed.	2, 7, 8, 9	Provider	General Rates Fees and Charges	Ongoing
10	Dispose	For residual waste, prepare a regional waste disposal plan which considers the lifecycle of landfills and other waste infrastructure in the region and provides possible disposal options for residual waste in the long term.	2, 7, 8, 9	Provider, Facilitator	General Rates Fees and Charges	2025 - 2026

We've also included a table below to demonstrate how the regional actions and targets put forward as part of this WMMP address the key challenges described in Section 3.5:

Regional Challenge:	Aligned Regional Actions/Targets:
Weak pricing signals	 Regional action #3 (Advocate for policies that will improve outcomes) Regional action #6 (Regional infrastructure, which could include options for organic waste and biosolids)
Limited data	 Regional action #7 (Investigate and implement methodologies to consistently measure and record material flows across the region)
Recycling performance	 Regional action #4 (Waste minimisation education and responsible consumption)
	 Regional action #7 (Measure and record material flows across the region)
Low diversion of organics from landfill	 Regional action #6 (Regional infrastructure, which could include options for organic waste and biosolids)
	Target 2 (Reduce emissions from biogenic methane)
	 Target 5 (Ensure food scraps collection services are available to urban households by 2030)
Barriers to working together regionally –	 Regional action #1 (Fund resources for implementation of this WMMP, and look for opportunities to collaborate)
Including partnering with mana whenua	 Regional action #2 (Commit to strengthening a regional framework to support collaboration)
Increase in C&D waste	Regional action #5 (Implement bylaws and review regulatory tools)
from urban development	 Regional action #6 (Establish or improve regional infrastructure and services),
	 Regional action #7 (Measure and record material flows across the region)
Consumption habits	Regional action #3 (Advocate for policies that will improve outcomes)
	 Regional action #4 (Waste minimisation and responsible consumption education)
	 Regional action #5 (Implement bylaws and review regulatory tools)
Need for new	 Regional action #2 (Delivery of regional projects and initiatives)
infrastructure	 Regional action #3 (Advocate for policies for reuse and waste reduction)
	 Regional action #6 (Regional infrastructure and services).
Government legislation still in development	Regional action #3 (Advocate for policies that will improve outcomes)
Litter and illegal dumping	Regional action #3 (Advocate for policies for reuse and waste reduction)
	Regional action #8 (Consistent monitoring of litter across the region)
Unforeseen events/waste resilience	Regional action #9 (Regional disaster management plan)

6.3 Local actions (by each council)

This section sets out the actions that the eight councils in the region will individually undertake to deliver on the vision and objectives of this WMMP, while ensuring that they meet the needs and concerns of their own communities. These actions will contribute to meeting the targets in Section 4.44.

Hutt City Action Plan

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
1	Reduce, rethink, redesign	Provide support to local iwi groups for waste minimisation initiatives.	2, 3	Partner	Waste Levy	Ongoing
2	Reduce, rethink, redesign	Investigate, consider, trial, and/or implement ways to demonstrate waste minimisation and circular economy principles in Council facilities, activities and procurement.	1, 2, 3	Provider	Waste Levy	Ongoing
3	Reduce, rethink, redesign	Support and facilitate pathways where appropriate for transitioning Lower Hutt to a circular economy.	4	Facilitator, Funder	Waste Levy	Ongoing
4	Reduce, rethink, redesign	Assist local businesses with waste minimisation practices by offering free waste audits, presentations and supporting solutions.	3, 5	Funder	Waste Levy	Ongoing
5	Reduce, rethink, redesign	Utilise the knowledge and resources of NGOs to deliver waste minimisation and behaviour change messaging to our community and other stakeholders.	2, 3	Partner	Waste Levy	Ongoing
6	Reduce, rethink, redesign	Continue to support and strengthen the relationships with our waste minimisation partners.	2, 3	Partner, Facilitator	Waste Levy	Ongoing
7	Reduce, rethink, redesign	Investigate, consider, trial, and/or implement ways to improve the availability of waste and climate related information to the public.	2, 5, 6	Facilitator	Waste Levy	Ongoing
8	Reduce, rethink, redesign	Share the ongoing achievements of businesses, NGOs and the community's efforts in reducing and diverting waste through Council forums and communications.	2, 3	Facilitator	Waste Levy	Ongoing
9	Reduce, rethink, redesign	Continue to implement solid waste management and minimisation bylaw provisions while monitoring and enforcing current provisions.	1, 2, 5	Regulator	General Rates	Ongoing
10	Reduce, rethink, redesign	Advocate for better waste outcomes to central government and other national bodies of influence.	2	Advocate	Waste Levy	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
11	Reduce, rethink, redesign	Investigate current, new and emerging technologies that support waste minimisation initiatives.	1, 4	Provider, Partner	Waste Levy General Rates	Ongoing
12	Reuse, repair, repurpose	Support regional investigations into the establishment of regional resource recovery networks to minimise waste. This could include, but is not limited to, options for organic waste, C&D waste, biosolids, materials recovery facilities, and a region wide resource recovery network.	2, 4, 5	Partner, Facilitator	Waste Levy Fees and Charges General Rates	Ongoing
13	Reuse, repair, repurpose	Collaborate with councils from the Wellington region to establish collections and processing of C&D waste aligned with reducing waste landfill.	2, 4, 5	Partner	Waste Levy Fees and Charges General Rates	2023 - Ongoing
14	Recycle, compost, anaerobic digestion	Investigate, consider, trial, and/or implement ways to reduce the disposal of food and/or green waste to landfill.	1, 2, 3, 5	Provider	Waste Levy General Rates Targeted Rates Other	Ongoing and Implement by 2030
15	Recycle, compost, anaerobic digestion	Work with Wellington Water Limited to explore options for the reduction and diversion of wastewater biosolids from landfill.	2, 4	Partner	Waste Levy	2023 - Ongoing
16	Recover value	Prioritise the decarbonisation of all Hutt City Council solid waste contracts by incorporating this approach into relevant Council procurement processes.	1, 2	Provider	General Rates	Ongoing
17	Dispose	Support regional investigations into methods/technology for monitoring and reducing illegal dumping, and litter and other contaminants from entering our infrastructure networks and natural amenities. Additionally, investigate, consider, trial, and/or implement remediation & further actions (including the use of	2, 9	Provider, Partner	Waste Levy	2023 - Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
		technology) to prevent harm to our natural environment caused by litter and/or illegal dumping.				
18	Dispose	Identify and action opportunities for ongoing improvements to the kerbside rubbish and recycling service.	6, 7, 8, 9	Provider, Partner	General Rate Targeted Rates	Ongoing
19	Dispose	Investigate, consider, trial, and/or implement ways to improve the service and operations at, and mitigate the environmental impacts from Silverstream Landfill.	6, 7, 8, 9	Provider, Partner	General Rates	Ongoing
20	Dispose	Continue to monitor and manage closed landfills to ensure relevant environmental and safety standards are met.	9	Provider	General Rates	Ongoing

Kāpiti Coast Action Plan

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
1	Reduce, rethink, redesign	Educate residents in waste minimisation by providing information and resources which may include workshops, talks, the Council website, social media, newspapers, pamphlets, and posters.	3, 5	Facilitator	Waste Levy General Rates	Ongoing
2	Reduce, rethink, redesign	Provide educational support to educational institutions on waste minimisation, which may include the Zero Waste Education programme, Paper4Trees, cloth nappies trial for pre-schools and Enviroschools.	3, 5	Provider, Funder, Facilitator	Waste Levy	Ongoing
3	Reduce, rethink, redesign	Support principles of Te Ao Māori and provide support to local iwi groups. This may include education programmes, grants, and event waste management advice.	3, 5	Partner	Waste Levy General Rates	Ongoing
4	Reduce, rethink, redesign	Provide annual contestable waste minimisation grants for community groups.	3, 5	Funder, Facilitator	Waste Levy	Ongoing
5	Reduce, rethink, redesign	Support effective waste management and minimisation at large events through implementation of the solid waste bylaw, and provide support with resource bookings, advice, planning meetings etc. Investigate options to increase number of post-event waste audits being submitted.	3, 4, 5	Regulator	Waste Levy	Ongoing
6	Reduce, rethink, redesign	Provide annual contestable Business Waste Minimisation Grants and explore options for streamlining the business Grants process.	3,5	Funder, Facilitator	Waste Levy	Ongoing
7	Reduce, rethink, redesign	Work with local businesses to investigate, consider, trial and implement initiatives that achieve waste reduction. Support and develop Pakihi Toitū o Kāpiti – Sustainable Business Kapiti – including the Business Waste Consultancy Programme.	3, 5	Facilitator	Waste Levy General Rates	2023 – onwards
8	Reduce, rethink, redesign	Advocate for better outcomes for waste at a regional and national level. Consider and respond to Government legislative changes, including	2	Partner	Waste Levy General Rates	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
		<i>Te rautaki para Waste strategy</i> , Waste Minimisation Act, Litter Act, and Resource Management Reforms.				
9	Reuse, repair, repurpose	Maintain or develop new leases for Council land, including using closed landfills for resource recovery operations. Continue to support waste minimisation groups with affordable leases, including Zero Waste Otaki and Otaihanga Zero Waste Hub.	4, 5	Partner	Other	Ongoing
10	Recycle, compost, anaerobic digestion	Ensure all households in urban areas have kerbside food scrap collection by 2030	3, 4, 5	Provider	Targeted Rates	By 2030
11	Recycle, compost, anaerobic digestion	Ensure all households in urban areas have access to kerbside recycling by 2027	3, 4, 5	Provider	Targeted Rates	By 2027
12	Recycle, compost, anaerobic digestion	Investigate, trial and implement support for waste minimisation projects in educational institutions, which may include waste audits, setting up recycling systems, composting information and provision of worm farms.	3	Facilitator	Waste Levy	Ongoing
13	Recycle, compost, anaerobic digestion	Support, create, or increase engagement in targeted educational campaigns and projects, which may include niche recycling programmes (batteries, e-waste, car seats), Love Food Hate Waste Campaigns, Waste Free Parenting/Period programmes, Love your Compost, Illegal Dumping reduction.	3	Facilitator	Waste Levy	Ongoing
14	Recycle, compost, anaerobic digestion	Explore options for satellite Zero Waste/Recycling hubs in the District in collaboration with community groups, businesses, NGO's and other organisations.	4, 7	Partner	Waste Levy General Rates	Ongoing
15	Recycle, compost,	Continue to support green waste diversion from landfill by composting or other methods.	1, 5	Partner	Waste Levy General Rates	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
	anaerobic digestion					
16	Recycle, compost, anaerobic digestion	Explore options for diversion of biosolids from landfill, which may include vermicomposting, in-vessel composting in collaboration with the wastewater team.	1, 5	Provider, Partner	Waste Levy General Rates	Ongoing
17	Dispose	Continue aftercare of closed landfills, including alternate leachate treatment methods for Otaihanga, maintenance of wetlands, and planting of native trees.	9	Provider	General Rates	Ongoing

Porirua City Action Plan

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
1	Reduce, rethink, redesign	Explore avenues to increase learning, connections, and drive commitment into waste reduction, including through the establishment and use of networks which promote collective responsibility for waste and climate action.	2, 3	Facilitator	Waste Levy	2024 - 2025 Onwards
2	Reduce, rethink, redesign	Collaborate on, provide, and support opportunities and initiatives for mana whenua to reduce waste and exercise kaitiakitanga and protect the natural environment from the impacts of waste and material management.	2, 3, 5	Partner	General Rates Waste Levy	Ongoing
3	Reduce, rethink, redesign	Support and deliver business programmes in Porirua to assist businesses to take responsibility of their material production and emissions.	1, 2, 3	Facilitator, Provider	Waste Levy Other	2023 - 2024 Onwards
4	Reduce, rethink, redesign	Embed waste minimisation practices, emissions reduction and circular economy principles into Council procurement, policy, and services including when planning for and establishing waste management and minimisation services and infrastructure.	1, 2, 3, 5	Provider	General Rates Waste Levy	2024 - 2025 Onwards
5	Reduce, rethink, redesign	Advocate to and collaborate with central government to inform policy decisions and initiatives for better waste outcomes and system changes.	2	Advocate	General Rates Waste Levy	Ongoing
6	Reduce, rethink, redesign	Ensure governance systems and adequate resources are in place to implement the WMMP.	2	Provider	General Rates Waste Levy	Ongoing
7	Reduce, rethink, redesign	Work with partners, stakeholders and internally to encourage innovation and remove barriers preventing them to set up businesses and activities which minimise was and are aligned with circular economy principles. This includes actively supporting those already innovating and building in circular principles into their organisations and activities.	3, 4, 5	Regulator, Funder	General Rates	Ongoing
8	Reduce, rethink, redesign	Encourage and support entrepreneurs, social enterprises, community groups and mana whenua to work collaboratively to innovate and set up enterprises which supports Porirua's transition into having a circular economy.	3, 4	Facilitator	Waste Levy Other	2024 – 2025 Onwards
9	Reduce, rethink, redesign	Explore pathways to a circular economy for Porirua over a long-term horizon.	1, 2, 4	Provider	General Rates Waste Levy Other	2026 - 2027 Onwards

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
10	Reduce, rethink, redesign	Support research and trials into solutions for the diversion or prevention of C&D and organic waste in collaboration with private industry and Mana Whenua.	1, 2, 3 4	Partner	Waste Levy Other	2024 - 2025
11	Reduce, rethink, redesign	Explore and assess emerging opportunities and innovation for reduction, reuse, recovery, recycling, treatment, and disposal of materials.	3, 4	Partner	General rates Fees and Charges Waste Levy Other	Ongoing
12	Reduce, rethink, redesign	In collaboration with businesses and other stakeholders, fund and allocate resources towards existing and new partners and stakeholders which provide behaviour change programmes to minimise waste.	2, 3, 5	Funder	Waste Levy Other	Ongoing
13	Reduce, rethink, redesign	Implement, use, review and evaluate Council regulations including bylaws, compliance activities and enforcement to support behaviour and system change to minimise waste.	3, 6	Regulator	General Rates	Ongoing
	.					
14	Reuse, repair, repurpose	Improve the accessibility, outreach, and availability of information on waste management and minimisation and litter to the range of diverse communities in Porirua.	2, 3, 5	Facilitator	General Rates Targeted Rates Waste Levy	Ongoing
15	Reuse, repair, repurpose	Collaborate with partners to provide information, connect, and coordinate options for material reuse, recovery and recycling accessible to businesses, communities and mana whenua.	3, 4, 5	Facilitator	General Rates Waste Levy	2023 - 2024 Onwards
16	Reuse, repair, repurpose	Collaborate with stakeholders including businesses, communities, and mana whenua to develop a resource recovery network in Porirua such as a community resource recovery park, construction and demolition facility, organic processing facility, repair cafes, tool libraries and community resource recovery hubs.	2, 3, 4, 5	Facilitator	General rates Fees and Charges Waste Levy Other	Ongoing
17	Reuse, repair, repurpose	Provide grants and funding to support re-use, repurposing, and recycling capacity in Porirua City.	3	Funder	Waste Levy	2024 - 2025 Onwards
18	Recycle, compost, anaerobic digestion	Investigate, consider, trial, and implement a comprehensive waste data and licensing system in collaboration with other territorial authorities and central government.	6	Regulator	General Rates Fees and Charges	2024 - 2025 Onwards

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
19	Recycle, compost, anaerobic digestion	Establish a data monitoring and reporting framework that supports Porirua to contribute to the measurement of Aotearoa achieving <i>Te</i> <i>rautaki para I Waste strategy</i> targets.	6	Regulator	General Rates	2024 - 2025 Onwards
20	Recycle, compost, anaerobic digestion	Work with partners and stakeholders to scale up interventions to divert and recover as much waste as possible.	4	Facilitator	Waste Levy Other	Ongoing
21	Recycle, compost, anaerobic digestion	Encourage the improvement of material recovery facilities in the Wellington region or consider the feasibility of establishing another material processing facility in the Wellington region.	4, 5, 6	Partner	Waste Levy Other	2024 – 2025 Onwards
22	Recycle, compost, anaerobic digestion	Actively seek ongoing improvements to the kerbside service to ensure Porirua City has accessible, equitable, and consistent waste and recycling collection services which reduces emissions and is efficient for service delivery.	4, 5, 6	Provider	General Rates Targeted Rates	Ongoing
23	Recycle, compost, anaerobic digestion	Provide for and implement organic collection and processing services to divert organic waste.	1, 4, 5	Provider	General rates Targeted Rates Waste Levy Other	Ongoing and Implement by 2030
24	Recover value	Explore options for beneficial use of landfill gas from Spicer Landfill.	1	Provider	Fees and Charges Other	Ongoing
25	Dispose	Improve information and data collection on litter and illegal dumping and explore research and initiatives to prevent litter from entering public spaces and the environment in Porirua City.	6, 9	Provider	General Rates Waste Levy	Ongoing
26	Dispose	Collaborate with mana whenua, partners, businesses, and the community to deliver community and business litter prevention action plans.	9	Partner	Waste Levy Other	2023 – 2024 Onwards
27	Dispose	Continuously improve and manage Spicer Landfill's service and operations.	9	Provider	Fees and Charges	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
28	Dispose	Investigate, consider, and where appropriate restrict materials entering Spicer Landfill where stable and viable alternatives exist for reuse, recovery, and recycling.	5, 8	Regulator	Fees and Charges Waste Levy	2025 - 2026
29	Dispose	Plan for and manage emergency waste and collection services in Porirua, alongside our wider Wellington regional partners.	7	Provider	General Rates	Ongoing
30	Dispose	Investigate and deliver pricing and funding mechanisms which incentivises waste reduction and the recovery of materials.	3, 5	Provider	General Rates Fees and Charges	2024 - 2025
31	Dispose	Investigate and consider long term disposal options for Porirua City alongside other councils in the Wellington region.	8, 9	Partner	Fees and Charges	2027 - 2028 Onwards

Upper Hutt City Action Plan

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
1	Reduce, rethink, redesign	Work with mana whenua to support a Māori worldview approach to waste minimisation.	All	Advocate	Waste Levy	Ongoing
2	Reduce, rethink, redesign	Support sustainability education providers to provide education to the public on waste minimisation such as Enviroschools, Kate Meads etc.	3, 5,	Funder	Waste Levy	Ongoing
3	Reduce, rethink, redesign	Continue to provide support and seed funding through the 'Environment and Waste Minimisation Fund' for example community groups and NGOs.	2, 5	Funder	Waste Levy	Ongoing
4	Reduce, rethink, redesign	Support community/ NGOs to promote and undertake waste minimisation initiatives such as, audits, education, processing and diversion.	3, 5	Facilitator	Waste Levy	Ongoing
5	Reduce, rethink, redesign	Support the implementation of all provisions in the Solid Waste Management and Minimisation Bylaw 2020.	1 ,2, 4, 5, 6, 8, 9	Facilitator, Regulator	Waste Levy	Ongoing
6	Reduce, rethink, redesign	Optimise local communication strategies, to support the implementation of WMMP actions.	2, 3, 5	Provider	Waste Levy	Ongoing
7	Reduce, rethink, redesign	Advocate to and collaborate with central government to inform policy decisions and initiatives for better waste outcomes and system changes for the residents and businesses.	2, 3, 5	Advocate	Waste Levy	Ongoing
8	Reduce, rethink, redesign	Support and deliver business programmes to assist businesses to take responsibility of their material production and emissions.	3, 5	Advocate	Waste Levy	Ongoing
9	Reduce, rethink, redesign	Embed waste minimisation practices and circular economy principles into Council facilities, procurement, policy, and services.	All	Facilitator	Waste Levy	Ongoing
10	Reduce, rethink, redesign	Increase staffing resources across the implementation of the WMMP.	All	Provider	Waste Levy General Rates	Ongoing
11	Reuse, repair, repurpose	Support and encourage repair, reuse organisations (such as repair cafes, Menz Shed and EarthLink etc).	2, 3, 4, 5, 6	Facilitator	Waste Levy	Ongoing
12	Reuse, repair, repurpose	Consider, trial and pilot reusable initiatives such as reusable cups/serviceware systems.	3, 4, 5, 8	Facilitator	Waste Levy	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
13	Recycle, compost, anaerobic digestion	Investigate and implement Council kerbside services for standardised kerbside recycling and organics.	All	Provider, Facilitator, Funder	General Rates Waste Levy	By 2027 and 2030
14	Recycle, compost, anaerobic digestion	Support local and or regional food scraps collection and processing.	1,2, 3, 4, 5, 6, 8	Provider, Facilitator, Funder	General Rates Waste Levy	By 2030
15	Recycle, compost, anaerobic digestion	Support regional Action 6, in resource recovery services and facilities such as Materials Recovery Facilities, C&D recovery.	2, 4,8, 9	Advocate	Waste Levy	Ongoing
16	Recycle, compost, anaerobic digestion	Promote and support waste minimisation at events and festivals.	3,4, 5	Facilitator	Waste Levy	Ongoing
17	Recycle, compost, anaerobic digestion	Support the recovery of e-waste, through promotion, collection events and or drop-off facilities.	3,4,5	Facilitator	Waste Levy	Ongoing
18	Recycle, compost, anaerobic digestion	Provide ongoing support to the Recycling Station drop off facility, to minimise contamination and increase recycling rates.	3, 4, 5, 6	Provider	Waste Levy	Ongoing
19	Dispose	Support domestic hazardous waste collection at the Silverstream landfill.	8, 9	Funder	Waste Levy	Ongoing
20	Dispose	Investigate and support ways to reduce litter and illegal dumping.	2	Facilitator	Waste Levy	Ongoing

Wairarapa Joint Action Plan

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
1	Reduce, rethink, redesign	Implement waste communication programmes for community outreach Extend existing communication programmes to focus on additional target audiences, such as retirees, new parents, businesses and less engaged sectors of the community. Focus on diverting waste, educate on the environmental impacts and assist with finding alternatives to households burning waste. Embed circular economy messaging into educational activities and communications. Develop a comms and educational plan to support the delivery of the waste communication programmes.	2, 3, 5	Partner, Facilitator	Waste Levy General rates	Ongoing
2	Reduce, rethink, redesign	Zero Waste and environmental sustainability education in schools Investigate, consider, trial and implement initiatives to support to schools (including ECE's) on waste minimisation, circular economy principles, and environmental sustainability practices.	3, 4	Partner, Facilitator, Funder	General Rates Waste levy	Ongoing
3	Reduce, rethink, redesign	Monitor to reduce use and disposal of hazardous materials Establish a process to record the amount of hazardous waste being disposed of in the region in collaboration with other councils in the Wellington region. To include private and Council contracted activities. Encourage reduced use of hazardous materials by promoting knowledge and awareness of alternatives to hazardous materials in the workplace and home. Coordinate collections for agricultural disposal with Agrecovery.	1,2, 3,4, 7, 8	Partner, Facilitator	Waste Levy Fees and Charges General Rates	Ongoing
4	Reduce, rethink, redesign	Advocate for waste product ownership Advocate to Government to incentivise producers to provide products as a service or for producers to retain ownership of their products throughout its life cycle such as product stewardship (e.g. tyres).	2	Advocator	Waste Levy General rates	Ongoing
5	Reduce, rethink, redesign	Encouraging circular economy principles at community level Investigate, consider, trial and implement initiatives that provide education and information on how we can embed circular economy principles at a community level. This will involve working with residents, local businesses and community groups	4, 8	Provider	Waste levy General rates	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
		to enable and encourage them to achieve a transition to a circular economy.				
6	Reduce, rethink, redesign	Implementing the WMMP at a local level Ensure we have enough resources/ staff to enable us to implement the actions of the WMMP.	2	Provider	General Rates Waste levy	Ongoing
7	Reduce, rethink, redesign	Encouraging waste network opportunities Look at ways to assist with establishing a network that provides information and advice for communities and businesses on opportunities to reuse, reduce and recycle within the region and beyond. Include website links, campaigns etc	2	Partner, Funder	General rates	Ongoing
8	Reduce, rethink, redesign	Investigate targeted waste streams Investigate, consider, trial and implement services for targeted waste streams that are not included in standardisation. This will include collaborating with local government organisations, non- governmental organisations and other key stakeholders to support Government regulated product stewardship schemes, as well as voluntary, industry-led product stewardship schemes that meet best practice.	1, 2, 4	Partner, Facilitator	Waste Levy	Ongoing
9	Reduce, rethink, redesign	Events led, Council supported waste management and minimisation Continue to support events and event organisers to reduce waste and work towards a circular economy.	2, 4	Partner	Waste Levy General Rates	Ongoing
10	Reduce, rethink, redesign	Business led; Council supported waste audits Investigate and implement business waste audits that provide advice on waste, recycling, carbon footprint and circular economy principles. Provide targeted, practical and resource- based support to aid businesses to become more sustainable and implement circular business models.	2, 4, 6	Facilitator	Waste Levy General Rates	Ongoing
11	Reuse, repair, repurpose	Support groups that promote diversion from landfill Work with and support community groups and the private sector to implement initiatives to support, promote and facilitate opportunities to divert materials and reusable items from landfill. Ensure initiatives are equipped to record material flow data to measure waste diverted from landfill.	4	Partner	Waste Levy Fees and Charges	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
12	Reuse, repair, repurpose	Divert construction and demolition waste Investigate, consider, trial and introduce solutions working with external parties to aid with the diversion of construction and demolition (C&D) waste. This could include audits of waste from C&D sites, working with planning teams to introduce site-specific waste management plans, embedding circular economy principles into planning policy, working with or providing C&D reuse sites regionally or locally.	1, 2, 3, 4, 5	Partner	General Rates Waste Levy Other	
13	Recycle, compost, anaerobic digestion	Options for an organic processing facility Investigate, consider and support whether a Wairarapa-based organic processing facility would be feasible or whether a regional approach should be taken. Work with external parties to implement.	1, 2, 4, 5	Partner	Waste Levy	2023 - 2024
14	Recycle, compost, anaerobic digestion	Investigate behaviour change systems for kerbside collections Ensure consistency with kerbside recycling collections, provide information on standard items allowed and monitor with audits and inspections. Investigate options for a three-strikes system for those not using kerbside recycling bins correctly so as to prevent contamination and increase diversion.	1, 3, 4, 5, 6	Provider	General Rates	Ongoing
15	Recycle, compost, anaerobic digestion	Establish organic food collection service Investigate, consider, trial and implement an organic kerbside collection for homes and businesses, also promote the benefits of home composting, and support community groups that are providing local solutions to food waste.	1, 3, 4	Provider	Waste Levy General Rates	Ву 2030
16	Recycle, compost, anaerobic digestion	Improve waste diversion facilities at landfill transfer stations Investigate, consider, trial and implement changes to the transfer and recycling stations to improve the facilities for waste diversion to reuse and recycling and make landfill a last resort stop.	1, 3, 4, 5, 8, 9	Provider	General Rates Waste Levy	By 2026
17	Recycle, compost, anaerobic digestion	Improve data collection on diverted materials Record the amount of material diverted to recycling each year, investigate, consider, trial and implement changes to improve	5, 6	Provider, Partner	Fees and Charges General Rates	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
		data collection and analysis for all wastes collected, to include but not limited to organics, hazardous, C&D. Investigate a licensing system in collaboration with other TA's and central government. Data collection could include SWAP analysis, waste assessments, audits of transfer stations, kerbside services.				
18	Recycle, compost, anaerobic digestion	 Enable better waste diversion and collection in rural and coastal areas Investigate, consider, trial and implement initiatives to achieve better waste diversion in rural and coastal areas. Initiatives could include: Providing extra collections in holiday areas during the busy season. Providing recycling facilities for visitors. Facilitating collection, transportation and disposal of hazardous wastes and providing information on management of such wastes. Ensuring recycling facilities are accessible within a 20-minute drive for 95% of the community. Investigating potential level of service changes. Exploring options for extra satellite recycling hubs in coastal and rural areas. 	3, 4, 5	Provider	General Rates Waste Levy	Ongoing
19	Recycle, compost, anaerobic digestion	Divert biosolids from landfill Work within the region and beyond to explore options to divert biosolids from landfill.	1, 9	Provider	General Rates	Ongoing
20	Recycle, compost, anaerobic digestion	Improve signage at landfill transfer stations Improve signage at landfill transfer stations to enable clear and consistent instructions to users.	3, 4, 5	Provider	Waste Levy General Rates	2023 - 2024
21	Dispose	 Reduce litter and illegal dumping Investigate ways to: reduce litter and illegal dumping, report on volume of litter and illegally dumped items to public, and educate public on the harm litter causes to the environment. 	2	Provider	Waste Levy General Rates	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
22	Dispose	Monitoring and implementing landfill transfer station management plans Develop and implement, comply and regularly revise management plans for each facility, prepare aftercare plan for closed landfills to include monitoring and testing as per resource consents.	9	Provider	General Rates	Ongoing

Wellington City Action Plan

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
1	Reduce, rethink, redesign	Deliver the benefits of reuse, repair and waste prevention through active use of Council regulations, compliance activities and enforcement.	1, 2, 4	Provider, Regulator	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
2	Reduce, rethink, redesign	Deliver lasting behaviour change interventions by making people understand the benefits of change and then helping them make that long term change easy.	1, 2, 3, 5	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
3	Reduce, rethink, redesign	Work with mana whenua partners and other stakeholders to give individuals courage to make a change in the world and inspiring them to reduce waste and live a more sustainable life.	1, 2, 3, 4	Provider, Partner, Facilitator	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
4	Reduce, rethink, redesign	Work with central government agencies to inform and shape system changes.	2, 4, 5	Advocate	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
5	Reduce, rethink, redesign	Work with mana whenua partners and other stakeholders to transform Wellingtonians' relationship with packaging and reusables.	1, 2, 3, 4	Facilitator	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
6	Reduce, rethink, redesign	Work with mana whenua partners and other stakeholders to support the redesign of systems.	2, 3, 4, 5	Partner, Provider	General Rates Targeted rates Waste Levy Fees and Charges	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
					Other General Rates	
7	Reduce, rethink, redesign	Support and encourage businesses, social enterprises, and charities to provide services and create local and regional markets for waste products and materials.	2, 3, 4, 5	Facilitator, Provider, Advocate	Targeted rates Waste Levy Fees and Charges Other	Ongoing
8	Reuse, repair, repurpose	Support the provision of consistent, equitable and accessible collection services, drop off points and community zero waste hubs.	1, 3, 4, 5	Provider, Partner	General Rates Targeted rates Waste Levy Fees and Charges Other	2027 - 2028
9	Reuse, repair, repurpose	Support Wellington's reuse, repair and recycling capacity by acting as a catalyst for other investment.	1, 4, 5, 6	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
10	Reuse, repair, repurpose	Deliver value for money and effective waste services to Wellingtonians.	3, 4, 5, 6	Provider, Partner	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
11	Reuse, repair, repurpose	Deliver sustainable waste services to Wellingtonians.	3, 4, 5, 6	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
12	Reuse, repair, repurpose	Encourage innovation to support delivery of Wellington's transition to a zero waste future.	2, 3, 4, 5	Provider	General Rates Targeted rates Waste Levy Fees and Charges	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options Other	Timeframe
13	Reuse, repair, repurpose	Monitor and evaluate waste streams to support effective policy making and insights.	2, 6	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	2024-2025 and onwards
14	Reuse, repair, repurpose	Deliver lasting behaviour change interventions by making people understand the benefits of change and then help them make that long term change easy.	2, 3, 4, 5	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
15	Reuse, repair, repurpose	Work with central government agencies to inform and shape system changes.	2, 4	Advocate	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
16	Reuse, repair, repurpose	Promote and encourage the reuse of materials for the same purpose and recover materials so that they can be re-used throughout Wellington.	1, 2, 3, 4, 5	Partner	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
17	Reuse, repair, repurpose	Increase the amount of material that is recovered, reused and recycled to minimise waste and reduce the amount of virgin materials used in production.	1, 2, 3, 4, 5	Funder	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
18	Reuse, repair, repurpose	Work with mana whenua partners and other stakeholders to scale up interventions that support the citywide goal to be a leader in minimising the use of resources and maximising resource reuse and recovery.	2, 3, 4, 5	Facilitator, Provider, Regulator	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
19	Recycle, compost, anaerobic digestion Recover value	Support the provision of consistent, equitable and accessible kerbside collection services, drop-off points and community zero waste hubs for Wellingtonians.	2, 3, 4, 5	Provider	General Rates Targeted rates Waste Levy User Charges Other	2026 - 2027
20	Recycle, compost, anaerobic digestion Recover value	Work together with households, producers, collectors and reprocessors to extract the maximum value possible from food that would otherwise be wasted.	1, 2, 3	Partner, Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing and implement by 2030
21	Recycle, compost, anaerobic digestion Recover value	Implement a kerbside organic collection and processing service to produce nutrient rich products from organic waste that can be applied to soil and/or generate energy, depending on the technology selected.	1, 4, 5	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing and implement by 2030
22	Recycle, compost, anaerobic digestion Recover value	Promote and encourage the reuse of materials for the same purpose and recover materials so that they can be reused throughout Wellington.	1, 3, 4, 5	Partner	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
23	Recycle, compost, anaerobic digestion Recover value	Work with mana whenua partners and other stakeholders to scale up interventions to support the citywide goal to be a leader in minimising the use of resources and maximisation of reuse and recovery.	2, 3, 5	Partner	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
24	Recycle, compost, anaerobic digestion Recover value	Create a waste ecosystem that demands and influences the right behaviours for desired outcomes.	3, 4, 5	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing

#	Waste Hierarchy Level	Action	Alignment with Objectives	Primary Role of Council	Funding Options	Timeframe
25	Recycle, compost, anaerobic digestion Recover value	Support the creation of markets for secondary materials.	2, 3, 4, 6	Facilitator, Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
26	Dispose	Manage the treatment and disposal of sludge.	1, 4, 8, 9	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing and Implement by 2025 - 2026
27	Dispose	Provide for and manage emergency waste.	6, 7, 8, 9	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
28	Dispose	Continue ongoing management of the Southern landfill and Wellington's closed landfills to support Wellington's transition to a zero-waste city.	1, 8, 9	Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing
29	Dispose	Work with mana whenua partners and other stakeholders to scale up interventions to recover and divert as much waste from landfill and ensure that any remaining waste is appropriately managed at Southern landfill to protect our environment.	2, 3, 4, 5, 8, 9	Partner, Provider	General Rates Targeted rates Waste Levy Fees and Charges Other	Ongoing

7 Funding this WMMP

Section 43 of the Waste Minimisation Act 2008 (WMA) mandates that councils provide information about how they will fund the implementation of this WMMP. The actions set out in this WMMP will be funded using the suite of sources and options available to the Councils in the delivery of waste management and minimisation services and activities, including:

- General Rates: A charge paid by all ratepayers
- Targeted Rates: Charges applied to properties receiving specific council services
- Fees and Charges: Fees and charges for user-pays collections, gate fees at landfills and transfer stations and regulatory fees e.g., licensing fees
- Waste Levy: The Government currently redistributes 50% of the levy funds from the waste disposal levy on a per capita basis to councils for this to be used for waste minimisation activities²⁶
- Other: Councils can apply for funds from central government including the waste minimisation fund or other funds related to reducing waste and waste related emissions. There may also be other funding mechanisms such as lease revenue, and private sector funding where the private sector may invest in, be part of a partnership or supply waste minimisation initiatives.

This WMMP identifies the potential funding sources for each action, as outlined in the Action Plan tables in Section 6.

Budgets to implement the actions outlined in Section 6 will be carefully developed as part of the region's Annual Plan and Long-term Plan (LTP) processes. This approach aims to implement as many actions as possible while controlling costs and seeking cost savings where possible.

With regard to the waste levy, each of the Councils currently receives a share from the Ministry for the Environment, based on a per capita basis. Prior to 2022, the rate was set at \$10 per tonne, but this has since increased to \$50 per tonne as at 1 July 2023. It is set for one further increase to \$60 per tonne by 1 July 2024.

The WMA requires that all waste levy funding received by councils must be "spent on matters to promote waste minimisation and in accordance with their WMMP". Waste levy funds can be spent on ongoing waste minimisation services, new services, or an expansion of existing services. The funding can be used for education and communication, policy research and reporting, to provide grants, or as infrastructure capital, and other activities in this WMMP.

The Councils intend to predominantly use their waste levy funds for a range of waste minimisation activities and services. The Councils may also use other funds available to them, or they can make an application for the Ministry for the Environment's contestable Waste Minimisation Fund, either separately, with other councils, or with another party. The contestable Waste Minimisation Fund provides additional funds for new initiatives or a significant expansion of existing activities.

Section 47 of the WMA gives councils the ability to give grants to a person, organisation, or group to promote or achieve waste management and minimisation. Under this WMMP, individual councils within the Wellington region can continue to give grants at its discretion and on any terms or condition it deems appropriate provided there is an allocated and approved budget for that activity.

²⁶ As discussed in section 3.1, central government is currently reviewing the distribution of the waste disposal levy in their reform of the Waste Minimisation Act 2008 and Litter Act 1979

8 Measuring progress

The proposed vision and objectives in this WMMP are supported by a set of detailed Regional and Local Action Plans that include both short-term and long-term actions for the Councils to achieve in collaboration with our partners and a wide range of stakeholders. The targets set in this WMMP are one of the ways that progress will be measured to achieve the vision and objectives and ensure accountability as part of delivering this WMMP.

The Councils will monitor, evaluate, and report on progress against the targets and regional actions on an annual basis. Progress will be reported to the Wellington Regional Waste Management and Minimisation Joint Committee (Joint Committee) overseeing this WMMP which will be made available to the public via Wellington City Council's website. The reporting will include a summary of progress and activities undertaken from the Regional Action Plan and will identify where unforeseen or emerging issues need to be addressed.

The Councils must also provide progress reports of expenditure of their waste levy funds to the Ministry for the Environment, alongside the waste diversion rates achieved as a result of this funding.

However, as highlighted in section 3.5 of this WMMP, the way the region's waste data is collected is difficult due to the large number of private and public waste services and facilities across the Wellington region. This has historically resulted in inconsistent monitoring and reporting of waste data. For the purposes of measuring progress for the actions presented alongside this WMMP, the 2021/22 waste data from the Wellington Region Waste Assessment 2023 will be used as a baseline, with the understanding that data accuracy is likely to improve over the duration of this WMMP.

Moving forward, the Councils will focus on their data collection, monitoring and reporting for the waste streams, services, and facilities that it can control. Councils will also work on obtaining information from activities in the upper levels of the waste hierarchy and waste generation so that progress towards objectives and targets can be determined. Data will be gathered through a variety of mechanisms including community satisfaction surveys, Wellington region records (e.g. call centre records, KPIs, etc.), licensing and data requirements, contractors, and Solid Waste Assessment Protocol (SWAP). The Councils will also give effect to any national data collection and reporting requirements that are mandated by central government and engage with the upcoming National Waste Data Framework development process to represent the needs and priorities of the Councils, Wellington region businesses and communities.

9 Glossary of terms

Terms	Definition
Action and Investment Plan	An Action and Investment Plan (AIP) is a supporting plan developed by the Government that will provide detail on what is needed to deliver on <i>Te rautaki para</i> <i>Waste strategy</i> . <i>Te rautaki para</i> <i>Waste strategy</i> and AIP governs planning and activity across central and local government. The Government prepares a new AIP roughly every five years.
Construction and demolition waste	Waste generated from any building work (including construction, renovation, repair or demolition); and includes but is not limited to concrete, plasterboard, insulation, nails, wood, steel, brick, paper, roofing materials, wool/textiles, cardboard, metals, plastic or glass, as well as any waste originating from site preparation, such as dredging materials, tree stumps, asphalt and rubble. Abbreviated to C&D waste throughout this WWMP.
Circular economy	In a circular economy, waste and pollution is designed out, resources are kept in use for as long as possible, then recovered and regenerated into new products and materials at the end of their lifecycle. Protecting and regenerating natural systems is key to a circular economy, as is delivering equitable and inclusive outcomes.
Class 1 Landfill	A Class 1 landfill is a site that accepts domestic solid waste. A Class 1 landfill generally also accepts construction and demolition waste, some industrial wastes and contaminated soils.
Class 2 Landfill	A Class 2 landfill is a site that accepts non-putrescible wastes including constructions and demolition wastes, inert industrial wastes, managed fill material and clean fill material.
Cleanfill	A cleanfill (properly referred to as a Class 4 landfill) is any disposal facility that accepts only material that, when buried, will have no adverse environmental effect on people or the environment.
Councils	The eight city and district councils in the Wellington region who have produced this plan: Carterton District Council, Hutt City Council, Kāpiti Coast District Council, Porirua City Council, South Wairarapa District Council, Upper Hutt City Council and Wellington City Council.
Dispose or Disposal	The final (or more than short-term) deposit of waste into or onto land set apart for that purpose, or the incineration of waste.
Diverted material	As defined within the Waste Minimisation Act 2008, means anything that is no longer required for its original purpose and, but for commercial or other waste minimisation activities, would be disposed of or discarded.
Domestic waste	Waste consisting of refuse, recyclable material, or organic matter (food waste and/ or garden waste) originating from any household or from the cafeteria, lunchroom or canteen of any commercial enterprise but does not include, commercial or industrial waste, prohibited waste, hazardous waste, trade waste, liquid waste, or construction and demolition waste.
Emissions Trading Scheme	One of the government's tools for reducing greenhouse gas emissions. Its purpose is to help meet international obligations under the Paris Agreement, and the 2050 target and emissions budgets for Aotearoa.
Food scraps	Any food scraps, such as from preparing meals, leftovers, scraps, and coffee grounds.
Green waste	Compostable plant material including lawn clippings, weeds, plants, and other soft vegetable matter, which by nature or condition, and being free of any

	contaminants will degenerate into compost. This does not include flax, bamboo, pampas, flowering gorse, palm trees or cabbage trees.
Hazardous waste	Waste that is reasonably likely to be or contain a substance that meets one or more of the classification criteria for substances with explosive, flammable, oxidising, toxic, corrosive or ecotoxic properties under the Hazardous Substances (Classification) Notice 2017. Hazardous waste does not include domestic waste, inorganic material, construction and demolition waste, or commercial or industrial waste.
Landfill	A disposal facility as defined in section 7 of the Waste Minimisation Act 2008, excluding incineration. Includes, by definition in the Waste Minimisation Act 2008 only those facilities that accept 'household waste'. Properly referred to as a Class 1 landfill.
Managed fill	A disposal site requiring a resource consent to accept well-defined types of non- household waste, e.g. low-level contaminated soils, or industrial by-products, such as sewage by-products. Properly referred to as a Class 3 landfill.
Ministry for the Environment	The Ministry for the Environment is the public service department of New Zealand charged with advising the New Zealand government on policies and issues affecting the environment, in addition to the relevant environmental laws and standards.
Materials Recovery Facility	A Materials Recovery Facility receives, separates, and prepares recyclables such as plastics, paper, cardboard, aluminium, and tins to be sold to an end buyer. The Materials Recovery Facility uses a combination of equipment, machines, and manual labour to separate and prepare the materials.
Organic waste	Organic waste is biodegradable matter, such as food scraps, garden cuttings, grass, and branches, that can be accepted at an organics processing facility. In the context of this WMMP, biosolids is excluded from this definition.
Recovery	 As defined in the Waste Minimisation Act 2008: a) Means extraction of materials or energy from waste or diverted material for further use or processing; and b) Includes making waste or diverted material into compost.
Recycling	The reprocessing of waste or diverted material to produce new materials.
Reduction	 As defined in the Waste Minimisation Act 2008, means: Lessening waste generation, including by using products more efficiently or by redesigning products; and In relation to a product, lessening waste generation in relation to the product.
Reuse	As defined in the Waste Minimisation Act 2008, means the further use of waste or diverted material in its existing form for the original purpose of the materials of products that constitute the waste or diverted material, or for a similar purpose.
Resource recovery park	A resource recovery park is the co-location of reuse, recycling, compost processing and manufacturing in a central facility. The public and commercial operators can bring waste to this facility at one time to be processed.
Solid waste	Waste resulting from industrial, commercial, mining, and agricultural operations, and from domestic activities. Includes sludge from a wastewater treatment plant water supply treatment plant and other discarded material.
Solid Waste Assessment Protocol	A classification and sampling technique to measure the quantity and composition of waste. Solid Waste Assessment Protocols (SWAP) can be carried out for kerbside collections or at transfer stations and landfills.

Te rautaki para waste strategy	Te rautaki para Waste strategy 2023 has been prepared by the Ministry for the Environment. It provides a high-level road map out to 2050 of how New Zealanders are tracking to transform how waste is generated and managed in Aotearoa.
Transfer station	Where different types of waste can be deposited by the public or commercial operators to be sorted and transported for recycling, reprocessing or landfill.
Treatment	Subjecting waste to any physical, biological, or chemical process to change its volume or character so that it may be disposed of with no or reduced adverse effect on the environment but does not include the dilution of waste.
Waste	As defined in the Waste Minimisation Act 2008 (WMA), waste means:
	a) anything disposed of or discarded; and
	 b) includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and
	to avoid doubt, includes any component or element of diverted material, if the component or element is disposed or discarded.
Wellington Region Waste Assessment 2023	A document summarising the current situation of waste management in the Wellington region. Abbreviated to the Waste Assessment throughout this WMMP.
Te pūnaha whakarōpū para The waste hierarchy	A list of waste management options with decreasing priority – usually shown as 'reduce, reuse, recycle, reprocess, treat, dispose'.
Waste Minimisation Act 2008	An act administered by the Ministry for the Environment to encourage a reduction in the amount of waste we generate and dispose of in New Zealand. The aim is to reduce the environmental harm of waste and provide economic, social and cultural benefits for New Zealand. Referred to as the WMA.
Waste Management and Minimisation Plan	City and district councils are responsible for promoting effective and efficient waste management and minimisation within their district. The WMA requires councils to adopt a Waste Management and Minimisation Plan as defined by section 43 of the WMA, which must be reviewed every six years.
Zero waste	A philosophy for waste management, focusing on council/community partnerships, local economic development, and viewing waste as a resource. Zero waste may also be a target.

10 Glossary of Māori kupu

Terms	Definition
Hāpu	A tribe or sub-tribe, consisting of a number of whānau sharing descent from a common ancestor
lwi	An extended tribe that is typically used to refer to a large group of people descended from a common ancestor and associated with a distinct territory
Mana whenua	Those who exercise customary authority or rangatiratanga over land or territory (chieftainship or decision-making rights).
Kaitiaki	Guardian/caregiver/steward
Kaitiakitanga	Guardianship/stewardship/protection of the environment
Mātauranga Māori	Māori knowledge or wisdom
Papatūānuku	The earth mother
Taiao	Earth, the natural environment
Te Ao Māori	The Māori world view
Te Tiriti o Waitangi	The Treaty of Waitangi
Tikanga	Customary values and practices

Wellington Region Waste Assessment

Prepared for the Councils of the Wellington Region





Wellington Region Waste Assessment

2023

Prepared for the Councils of the Wellington Region

DRAFT

Acknowledgement

To help us develop this waste assessment, waste officers from each of the eight councils of the Wellington Region carried out intensive data collation and analysis. The time, effort and commitment of all involved in this process and in support of this waste assessment is greatly appreciated.

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APPENDICES

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ABBREVIATIONS AND TERMS

Abbreviation and Term	Definition
CBD	Central Business District
CDC	Carterton District Council
Cleanfill	A cleanfill (properly referred to as a Class 4 landfill) is any disposal facility that accepts only cleanfill material. This is defined as material that, when buried, will have no adverse environmental effect on people or the environment.
C&D	Construction and Demolition materials
Diverted Material	Anything that is no longer required for its original purpose and, but for commercial or other waste minimisation activities, would be disposed of or discarded.
Domestic Waste	Waste from domestic activity in households
ETS	Emissions Trading Scheme
GDP	Gross Domestic Product
нсс	Hutt City Council
HSWA	Health and Safety at Work Act 2015
KCDC	Kāpiti Coast District Council
KNZB	Keep New Zealand Beautiful
Landfill	A disposal facility as defined in S.7 of the Waste Minimisation Act 2008, excluding incineration. Includes, by definition in the WMA, only those facilities that accept 'household waste'. Properly referred to as a Class 1 landfill
LGA	Local Government Act 2002
LTP	Long Term Plan
Managed Fill	A disposal site requiring a resource consent to accept well defined types of non-household waste (e.g., low-level contaminated soils or industrial by-products, such as sewage by-products). Properly referred to as a Class 3 landfill.
MDC	Masterton District Council
MfE	Ministry for the Environment
MRF	Material Recovery Facility
MSW	Municipal Solid Waste
NLA	National Litter Audit
NDR	No Data Received
NZ	Aotearoa New Zealand
NZ ETS	New Zealand Emissions Trading Scheme
PCC	Porirua City Council
PPR	Public Place Recycling
Putrescible, garden,	Plant based material and other biodegradable material that can be
greenwaste	recovered through composting, digestion or other similar processes.
RMA	Resource Management Act 1991
RRF	Resource Recovery Facility
RTS	Refuse Transfer Station
Service Delivery	As defined by s17A of the LGA 2002. Councils are required to review the costeffectiveness of current arrangements for meeting the needs of communities within its district or region for goodquality local

Abbreviation and Term	Definition	
	infrastructure, local public services, and performance of regulatory functions. A review under subsection (1) must consider options for the governance, funding, and delivery of infrastructure, services, and regulatory functions.	
SWDC	South Wairarapa District Council	
ТА	Territorial Authority	
UHCC	Upper Hutt City Council	
Waste	 Means, according to the WMA: a) Anything disposed of or discarded; b) Includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and c) To avoid doubt, includes any component or element of diverted material, if the component or element is disposed or discarded. 	
WA	Waste Assessment as defined by s51 of the Waste Minimisation Act 2008. A Waste Assessment must be completed whenever a WMMP is reviewed	
wcc	Wellington City Council	
WMA	Waste Minimisation Act 2008	
WMES	Regional Waste Minimisation Education Strategy	
WMMP	Wellington Region Waste Management and Minimisation Plan	
WWTP	Wastewater Treatment Plant	

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1 INTRODUCTION

This Wellington region Waste Assessment (Waste Assessment) has been prepared for the territorial authorities of the Wellington region in accordance with the requirements of the Waste Minimisation Act 2008 (WMA). This document provides background information and data to support the constituent councils' waste management and minimisation planning processes.

1.1 Purpose of this Waste Assessment

This Waste Assessment is intended to provide the background data and information to inform the development of the next Wellington region Waste Minimisation and Management Plan (WMMP). Included in the WMMP is the development of actions, objectives and targets to support the minimisation of waste and the maximisation of reuse and recovery.

As required by Part 4 Section 51 of the Waste Minimisation Act (WMA 2008) (see Section **1.2** for further detailed discussion), a waste assessment has a series of prescribed elements which must be included:

- a description of the collection, recycling, recovery, treatment, and disposal services provided within the territorial authority's district (whether by the territorial authority or otherwise)
- a forecast of future demands for collection, recycling, recovery, treatment, and disposal services within the district
- a statement of options available to meet the forecast demands of the district with an assessment of the suitability of each option
- a statement of the territorial authority's intended role in meeting the forecast demands
- a statement of the territorial authority's proposals for meeting the forecast demands, including proposals for new or replacement infrastructure
- a statement about the extent to which the proposals will:
- i. ensure that public health is adequately protected
- ii. promote effective and efficient waste management and minimisation

Further, Part 4 Section 51 of the WMA (2008) notes that a waste assessment is not required to contain any assessment in relation to individual properties. Section **1.2** below provides further information regarding the legislative context underpinning this Waste Assessment.

1.2 Scope of this Regional Waste Assessment

Territorial Authorities (TAs) are required as per the WMA (2008) to complete a review of the WMMP at least every six years (Part 4 Section 50 (1)), with the Waste Assessment to be completed in advance of this review (Part 4 Section 50 (2)). As reported in the 2016 Waste Assessment, while the WMMP is reviewed at least every six years, the time horizon of the 2017-2023 plan takes a longer 10-year timeframe which is aligned to councils Long Term Plans (LTPs). As such, this Waste Assessment also considers a 10-year timeframe where applicable.

Further, the focus of this Waste Assessment is on the solid waste fraction that is disposed (e.g., landfill), and where possible, to focus on the quantity of waste that is diverted. However, as reported in the 2016 Regional Waste Assessment, the Manatū Mō Te Taiao – Ministry for the Environment Waste Assessments and Waste Management and Minimisation Planning guidance for Territorial Authorities suggest including liquid (e.g.,

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biosolids) and gaseous (e.g., landfill gas capture) wastes in the scope of a WMMP; and by association these waste types to be included within the associated waste assessment.

As such and as reported in 2016, gas from the three Class 1 landfills in the Wellington region continue to be managed by the facility operator with gas captured according to the national environmental standard for air quality. Further, since the 2016 Waste Assessment, significant developments have been made in Wellington City to remove the disposal of biosolids from the Wastewater Treatment Plant (WWTP) to the Southern Landfill.

For the purpose of this Waste Assessment, solid waste will again be the focus of the report along with commentary on the changes in biosolid management.

In addition to assessing the solid waste component for the Wellington Region, this assessment also considers the effects on the environment, including that of the effect of waste activities on public health. Examples where waste activities interface with public health are listed in the 2016 assessment and are reproduced here noting all have continued relevance.

- Population health profile and characteristics
- Meeting the requirements of the Health Act 1956
- Management of putrescible wastes
- Management of nappy and sanitary wastes
- Timely collection of kerbside materials
- Locations of waste activities
- Management of spillage
- Litter and illegal dumping
- Medical waste from households and healthcare operators
- Storage and collection of waste materials
- Management of biosolids from the WWTP
- Management of hazardous waste (e.g., asbestos, e-waste)
- Management of private wastes (e.g., burning and burying)
- Management of closed landfills
- Health and safety consideration relating to collection and handling of waste materials

While the above health considerations may occur across any waste management and minimisation activity, including for example, collection of kerbside waste and illegal dumping, many can be minimised by implementing and/or developing appropriate mitigation measures, such as implementing convenient recycling drop-off locations, ensuring convenient, accessible, and equitable level of service to residents and ratepayers.

1.3 Structure of this Report

This report is structured into eleven discrete sections each representing an important building block in the development of the Waste Assessment, as follows:

- Section 1 Introduction
 - Purpose and scope of the Waste Assessment
- Section 2 Legislative Context for the Waste Assessment

- o National legislative context including additional regulations for consideration
- Section **3** Overview of the Wellington Region
 - Overview of the current region, including demographics, economic profile, waste and resource management sector and potential future changes to the region
- Section 4 Wellington region Infrastructure Review
 - Overview of the waste and resource management infrastructure in the region, district and regional services as well as waste minimisation initiatives provided
- Section **5** Situation Review
 - Overview and analysis of the current waste and resource management quantities as provided by each of the eight territorial authorities
- Section 6 Performance Measurement
 - Overview of the performance measurement per capita based on data provided by each of the eight territorial authorities, potential diversion rates and potential diversion of waste to Class 1 landfills
- Section 7 Future Demand and Gap Analysis
 - Overview of potential regulatory changes, economic and demographic trends that may influence waste streams across the Wellington Region
- Section 8 High-Level Review of the 2017-2023 Wellington region Waste Management and Minimisation Plan
 - Overview of the 2017-2023 WMMP including key issues, WMMP actions and progress against these
- Section 9 Statement of Options
 - Statement of options and proposals
- Section **10** Statement of Council's Intended Role
 - Overview of council's statutory obligations and powers and overall strategic direction and role
- Section **11** Statement of Proposals
 - \circ $\;$ Overview of the statement of extent including public health

This report brings together evidence-based information culminating with a look towards the future and the next Regional Waste Minimisation and Management Plan.

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2 LEGISLATIVE CONTEXT FOR THIS WASTE ASSESSMENT

The following sections outline the national waste legislative context to set the scene for the overarching guiding legislative instruments and strategies for this Waste Assessment and that help to shape and inform the Aotearoa waste sector as well as its many activities. Following the national overview, a local planning context is provided, acknowledging the range of local Long-Term Plans (LTPs) that each of the Wellington region councils have developed and implemented and which help to shape how waste is managed within the respective regions.

2.1 National Legislative Context

To manage waste and assist in the transition from a linear economy to ōhanga āmiomio – circular economy, a series of central and local government legislative instruments set the expectations and requirements to enable and facilitate this process, including the establishment of the New Zealand Waste Strategy – the overarching framework for managing and minimising waste.

To give effect to the Strategy, there are several legislative Acts that provide the drivers to enable waste management and minimisation in Aotearoa New Zealand:

- 1. The Waste Minimisation Act 2008 (WMA 2008).
- 2. The Local Government Act 2002 (LGA 2002).

Both Acts have relevance for this report and are discussed further below.

2.1.1 Waste Minimisation Act (WMA 2008)

The Waste Minimisation Act 2008 (WMA 2008) was established to provide a regulatory framework to encourage the reduction in the amount of waste produced and disposed of by New Zealanders with the aim to reduce environmental effects whilst generating economic, social and cultural benefits. The purpose of the Act is to:

'Encourage waste minimisation and a decrease in waste disposal in order to:

- Protect the environment from harm; and
- Provide environmental, social, economic, and cultural benefits.'

As noted in Section 1.1, this Waste Assessment is a requirement for the next WMMP. As required by the WMA (2008), territorial authorities are required to complete a review of the WMMP at least every six years (Part 4 Section 50, Item 1) with the Waste Assessment to be completed in advance of this review (Part 4 Section 50, Item 2).

The current Waste Assessment was written in 2016 with the WMMP adopted in 2017. This 2023 Waste Assessment report has been prepared to meet the requirements of the WMA (2008) and will support the development of the next WMMP. It is however noted that as at 2023 the WMA (2008) is currently under review with an updated legislative instrument anticipated to be available in time for the next Waste Assessment.

In addition to the WMA (2008), there are several additional legislative Acts that provide the drivers to enable waste management and minimisation in Aotearoa New Zealand:

- The Local Government Act 2002 (LGA 2002).
- The Resource Management Act 1991 (RMA 1991).
- New Zealand Emissions Trading Scheme and the Climate Change Response Act 2002.
- Climate Change Response Act 2002 and Climate Change Response (Zero Carbon) Amendment Act 2019.

These documents are discussed briefly in the following sections with a broader description included in Appendix A.

2.1.2 Local Government Act (LGA 2002)

The Local Government Act (LGA 2002) provides the legislative framework for democratically elected local authorities to promote the social, economic, environmental and cultural well-being of communities in the present and for the future. This includes taking "appropriate account of the principles of the Treaty of Waitangi" and facilitating "participation by Māori in local authority decision making processes".

2.1.3 The Resource Management Act 1991 (RMA 1991)

The Resource Management Act (1991) (RMA) is Aotearoa New Zealand's key environmental legislative document providing the framework for the sustainable management of environmental resources (including development activities). The RMA also manages and controls the environmental impacts of waste facilities such as disposal facilities, recycling and recovery facilities and cleanfills.

2.1.4 New Zealand Emissions Trading Scheme and the Climate Change Response Act 2002

In addition to the WMA (2008), LGA (2002) and the RMA (1991), the New Zealand Emissions Trading Scheme (NZ ETS) is a key tool for ensuring Aotearoa New Zealand meets domestic and international climate change targets from a range of activities, including disposal facilities defined within the Climate Change Response Act (2002)¹ (Act). Broadly, the NZ ETS was created through the Act in recognition of Aotearoa New Zealand's obligations under the Kyoto Protocol. The importance of the NZ ETS is the application of the Act and emission targets which applies to disposal facilities including landfills.

Further, Aotearoa New Zealand has made climate change commitments² under the United Nations Framework Convention on Climate Change (the Convention), the Paris Agreement and the Kyoto Protocol. Aotearoa New Zealand's targets are as follows:

- To reduce greenhouse gas emissions to 30% below 2005 levels by 2030;
- An unconditional target to reduce our greenhouse gas emissions to 5% below 1990 levels by 2020;
- A conditional target to reduce New Zealand's emissions to between 10% and 20% below our 1990 levels by 2020; and
- To reduce New Zealand's emissions to 50% below 1990 levels by 2050.
- 2.1.5 Climate Change Response Act 2002 and Climate Change Response (Zero Carbon) Amendment Act 2019

The Climate Change Response Act (2002) puts in place the legal framework to support Aotearoa New Zealand to meet its international obligations. Relatedly, the Climate Change Response (Zero Carbon) Amendment Act

² Our climate change targets | New Zealand Ministry of Foreign Affairs and Trade (mfat.govt.nz)

¹ Climate Change Response Act 2002. Public Act 2002 No 40, Date of assent 18 November 2002. Administered by the Ministry for the Environment

(2019) sets out the framework by which Aotearoa New Zealand can develop and implement clear climate change policies that:

- Contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5°C above pre-industrial levels; and
- All Aotearoa New Zealand to prepare for, and adapt to, the effects of climate change.

Enactment of the Climate Change Response Act (2002) is carried out under seven regulations, with the Climate Change (Waste) Regulations 2010³ of direct relevance to this report and Aotearoa New Zealand's commitment to reducing GHG emissions from the sector. Specifically, the Climate Change (Waste) Regulations 2010 sets out the information required and methodology to calculate emissions from operating disposal facilities. Under the Climate Change Response Act 2002, Aotearoa New Zealand is committed to reducing biogenic methane emissions by 10 per cent by 2030 and 24–47 per cent by 2050, relative to 2017 levels.

In addition to the above legislative Acts, the waste disposal levy is an additional significant influencing factor on regional waste minimisation and management initiatives, and which may present significant additional opportunities due to the increase and expansion of the levy. The Waste Disposal Levy is discussed further in Section **2.1.6** below.

2.1.6 Waste Disposal Levy

The cost of landfill disposal has also had an influence on product recovery with disparity amongst the national cost of landfill disposal resulting in disparate behaviours by the waste industry and different levels of investment throughout the country. The New Zealand government has confirmed an increase and expansion of the national waste disposal levy to divert more material from landfill recognising the ever-increasing amount of waste ending up in Aotearoa New Zealand's landfills⁴. Consequently, increased investment in alternatives to landfill disposal is anticipated in keeping with the objectives of the WMA (2008).

The waste disposal levy was introduced under the WMA (2008) to⁵:

- Raise revenue for the promotion and achievement of waste minimisation
- Recognise that disposal imposes costs on the environment, society and the economy

The levy was also established to encourage organisations and individuals to:

- Take responsibility for the waste they create
- Find more effective and efficient ways to reduce, reuse, recycle or reprocess waste

As at May 2023, the waste levy is \$30/tonne and will again increase to \$50/tonne from 01 July 2023. As reported, disposal facility operators are required to pay the levy based on the weight of material disposed of at their facility, and they may pass this cost on to the waste producer such as households and businesses. **Table 1** below summarises the increase and expansion of the waste levy.

As reported in the waste reduction strategy, levy increases will result in significantly more revenue estimated to increase from \$65 million from 01 July 2021 to \$270 million from 01 July 2024. The increased revenue is

3

 $https://www.legislation.govt.nz/regulation/public/2010/0338/latest/DLM3249508.html?search=ts_regulation%40 deem edreg_climate+change_resel_25_a&p=1$

⁴ Waste disposal levy | Ministry for the Environment

⁵ About the waste disposal levy | Ministry for the Environment

expected to create a significant opportunity for local and central government to invest in priority areas such as resource recovery infrastructure and systems, research and development, innovation, community projects, public information, and Te Ao Māori initiatives.

Table 1 Increase and I	Expansion of the	Waste Levy ⁶
------------------------	------------------	-------------------------

Landfill Class	Waste Types	01 July 2021	01 July 2022	01 July 2023	01 July 2024
Municipal landfill (Class 1)	Mixed municipal wastes from residential, commercial and industrial sources	\$20	\$30	\$50	\$60
Construction and demolition fill (Class 2)	Accepts solid waste from construction and demolition activities, including rubble, plasterboard, timber, and other materials	-	\$20	\$20	\$30
Managed or controlled fill (Class 3 and 4)	 One or more of: contaminated but non-hazardous soils and other inert materials (e.g., rubble) soils and other inert materials. 	-	-	\$10	\$10
Total Levy Revenue, estimate (\$ million)		\$65	\$150	\$210	\$270

As such, an increase in the waste disposal levy is anticipated to create more funding opportunities for waste minimisation initiatives for Aotearoa New Zealand's territorial authorities including those within the Wellington region, noting that at present:

- Half of the levy money goes to territorial authorities to spend on promoting or achieving waste minimisation activities set out in their Waste Minimisation and Management Plans (WMMPs).
- The remaining half of the levy money (excluding administration fees) is put into the contestable Waste Minimisation Fund for waste minimisation activities in Aotearoa New Zealand.

Further, it is acknowledged that Manatū Mō Te Taiao – Ministry for the Environment have signalled potential changes under the WMA 2008 review process, including allocations of funding.

2.1.7 Other Relevant Legislative Instruments

In addition to those Acts discussed in Section **2.1.1** to Section **2.1.5**, several other legislative instruments have relevance and applicability to this Waste Assessment, including:

- Te Tiriti o Waitangi The Treaty of Waitangi
- Litter Act 1979
- Health and Safety at Work Act (HSWA) 2015
- Ozone Layer Protection Act 1996

See Appendix A for a full description of the above listed legislative instruments. Further, this section does not preclude the addition of other legislative instruments and/or updates to existing legislation and regulations, including for example, the current central government initiative to update the WMA (2008) and Litter Act (1979).

⁶ About the waste disposal levy | Ministry for the Environment

2.2 Wellington Region Waste Regulatory Instruments

The following sections outline the range of local waste regulatory instruments available to each of the eight territorial authorities to help manage and minimise waste.

2.2.1 Council Solid Waste Bylaws

In order to regulate and manage waste within territorial authority areas, the WMA (2008) provides for the establishment of solid waste bylaws which enable councils to serve as local regulators.

Since the 2016 Waste Assessment, each of the eight territorial authorities have updated, or are in the process of updating their Solid Waste Management and Minimisation Bylaws. These bylaws are required as per the WMA (2008). The Regional Waste Management and Minimisation Plan (2017-2023) set out a key priority for the eight territorial Wellington region authorities which resulted in the development of regionally consistent bylaws for the eight councils.

The purpose of the revised bylaws is to support the following elements and ensure consistency across the eight councils:

- a. The promotion and delivery of effective and efficient waste management and minimisation as required under the Waste Minimisation Act 2008;
- b. The implementation of the Wellington region Waste Management and Minimisation Plan;
- c. The purpose of the Waste Minimisation Act 2008 and the goals in the New Zealand Waste Strategy 2010, being to encourage waste minimisation and a decrease in waste disposal to protect the environment from harm; and provide environmental, social, economic, and cultural benefits;
- d. The regulation of waste collection, transport and disposal, including recycling, waste storage and management;
- e. Controls regarding the responsibilities of customers who use approved solid waste services, and the licensing of waste collectors and waste operators;
- f. The protection of the health and safety of waste collectors, waste operators and the public; and
- g. The management of litter and nuisance relating to waste in public places.

Further, the Bylaws are made pursuant to section 56 of the Waste Minimisation Act 2008, sections 145 and 146 of the Local Government Act 2002, section 64 of the Heath Act 1956, and section 12 of the Litter Act 1979.

Table 2 below summarises the current solid waste management and minimisation bylaws for the Wellington region territorial authorities (in alphabetical order).

Table 2 Wellington Region Solid Waste Management and Minimisation Bylaws

Territorial Authority	Bylaw
Hutt City Council	Solid Waste Management and Minimisation Bylaw (2021)
Kāpiti Coast District Council	Solid Waste Management and Minimisation Bylaw (2021)
Porirua City Solid Waste	Solid Waste Management and Minimisation Bylaw (2021)
Management and Minimisation	
Bylaw 2021	
Upper Hutt City Council	Solid Waste Management and Minimisation Bylaw (2020)
Wairarapa region (Carterton	Wairarapa Solid Waste Management and Minimisation Bylaw (2021) and the
District Council, Masterton District	Wairarapa Solid Waste Management and Minimisation Bylaw Controls (2021)

Territorial Authority	Bylaw
Council and South Wairarapa	
District Council)	
Wellington City Council	Solid Waste Management and Minimisation Bylaw (2020)

2.2.2 Local Planning Context

Acknowledging the national legislative context and framework documents, this Waste Assessment has been developed to support the development of the updated Regional Waste Management and Minimisation Plan, noting that both documents are foundation reports in the establishment of appropriate waste management and minimisation activities and targets within the Wellington Region.

Further, the following council Long-Term Plans (LTP) are important foundation documents for the development of this Waste Assessment and help to set out councils priorities, programme and projects over a 10-year period. As such, the LTPs for the individual councils in the Wellington region is based on the outputs of the Waste Assessment as well as acknowledgment of the WMMP outcomes specific to the waste sector. The importance of the LTPs is to show what councils will seek to achieve over the 10-year period, the significance and/or importance of these activities and the expected costs to achieve the activities.

As such, for councils to provide clarity and transparency on progress against LTP activities, an Annual Plan is produced in each of the two years between LTP reviews and which set out what the council plans to do over the following 12-month period to move towards achieving the activities of the LTP; including setting out the annual budget. A key step in the Annual Plan process as for the LTP is the ability for the public to submit on the documents before they are adopted. By following this consultative approach, communities and other interested stakeholders and individuals have an active voice in helping to shape the respective council activities.

A broad overview of the Long-Term Plans for each of the councils in the Wellington region and specifically those waste focussed elements are provided in Section **2.2.2.1** to Section **2.2.2.8** below (in alphabetical order).

2.2.2.1 Te Kaunihera-Ā-Rohe O Taratahi – Carterton District Council

As reported, Carterton District Council has developed a ten-year plan (Ten-Year Plan – Te Māhere Ngahurutanga 2021-2031⁷) that sets out the council priorities, programmes and projects for the next ten years and shows how the activities will contribute to improving the community's well-being and achieve progress towards the community outcomes.

To progress the Long-Term Plan, the Carterton District Councils vision focusses on 'a welcoming and vibrant community where we all enjoy living' supported by a range of community, environmental, economic, and cultural outcomes, including for example the following outcomes which influence and shape waste minimisation and management:

- An environmentally responsible community committed to reducing our carbon footprint and adapting to the impacts of climate change;
- Quality fit for purpose infrastructure and services that are cost-effective and meet future needs; and
- Te Āo Māori/ Māori aspirations and partnerships are valued and supported.

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⁷ 2021-31-LTP-document-Final-signed.pdf (cdc.govt.nz)

In addition to the Long-Term Plan, Carterton District Council has also adopted the Ruamāhanga Strategy – Carbon Reduction Strategy which commits the council to the following and which will further influence waste minimisation and management activities in the district:

- Reducing gross emissions;
- Increasing the amount of greenhouse gas sequestered; and
- Reducing biogenic methane emissions by 10% below 2017 levels, in 2030.

It is also important to note here that Carterton District Council undertakes many joint operations with neighbouring councils including Masterton and South Wairarapa District Councils as well as Greater Wellington Regional Council, and in so doing undertaking joint operations such as a common waste management contract.

2.2.2.2 Te Awa Kairangi – Hutt City Council

As reported, Hutt City Council has developed a 10-year Long-Term Plan 2021-2031 (E whakatika ana i ngā mea matua: getting the basics right) to support the city's vision of "a city where everyone thrives". The key priorities for the next 10-years are as follows:

- Investing in infrastructure | Whakangao i ngā poupou hapori
- Inreasing housing supply | Hei Ähuru Mowai mo te Katoa
- Caring for and protecting our environment | Tiaki Taiao
- Supporting an innovative, agile economy and attractive city | Taunaki Ōhanga Auaha, Tāone Whakapoapoa
- Connecting communities | Tūhono Hapori
- Financial sustainability | Whakauka Ahumoni

As reported, the 10-year plan sets out a plan to support Hutt City achieve zero carbon by 2050 by making operations more sustainable and climate friendly by for example, better manging waste disposal, reducing the amount of waste going to landfill to increase its longevity and to develop the ability to manage asbestos.

2.2.2.3 Te Kaunihera o Te Awa Kairangi ki Uta – Upper Hutt City Council

As reported, Upper Hutt City Council has developed a 10-year Long-Term Plan 2021-2031 with the following vision:

"We have an outstanding natural environment, leisure, and recreational opportunities, and we are a great place for families to live, work, and play"

As reported in the Long-Term Plan, council is committed to taking a sustainable development approach in all activities with a key target to become a carbon neutral organisation by 2035. Further, as part of councils sustainable work, it is required to promote effective and efficient waste management and minimisation within the city.

2.2.2.4 Me Huri Whakamuri, Ka Titiro Whakamua – Kāpiti Coast District Council

As reported, Kāpiti Coast District Council has developed a 20-year Long-Term Plan (Our plan for securing our future – Toitū Kāpiti) that focusses on the Kāpiti Coast Districts future needs, the challenges and the outcomes the Kāpiti Coast District area. The four key decisions underpinning the plan are:

- 1. Take a bigger role in housing
- 2. Rebuild Paekākāriki seawall in timber with improved beach access

- 3. Set up a CCO (Council-Controlled Organisation)
- 4. Explore whether council may be able to have a role in the airport.

The Long-Term Plan also recognises the need to reduce emissions and to support the community to minimise waste and reduce emissions by:

- Leading by example through reducing council's carbon emissions to be carbon neutral by 2025
- Embedding sustainable practices within council service delivery
- Facilitating and empowering community projects and initiatives
- Educating and promoting sustainable practices in the community to see a reduction in carbon and waste
- Restoring our environment through dune restoration and native planting
- Ensuring our freshwater quality and protection through our stormwater network

2.2.2.5 Te Kaunihera Ā-Rohe O Whakaoriori – Masterton District Council

The Masterton District Council Long-Term Plan (Stepping Up Long-Term Plan 2021-31) sets out what the council intends to achieve over a ten-year timeframe and to help achieve councils vision: *Masterton/Whakaoriori offers the best of rural provincial living.*

As reported in the Long-Term Plan, Masterton District Council provides solid waste services to the community to contribute to the following community outcomes:

- A sustainable and healthy environment
- A thriving and resilient economy
- Efficient, safe and effective infrastructure

As per the Plan, the key waste management priorities over the next 10-years are as follows:

- Undertaking renewal work at the Nursery Road Transfer Station. \$290,640 has been allowed across the 10 years of the Long-Term Plan for this.
- Undertaking landfill capping. \$264,520 has been allowed across the ten years of this Long-Term Plan.
- Implementing the Solid Waste Bylaw that has been developed with councils across the Wellington region. This bylaw is being progressed as part of the joint Waste Management and Minimisation Plan.

2.2.2.6 Porirua District Council

The Porirua City Council Long-Term Plan (Porirua – our people, our harbour, our home 2021 – 2051) sets out the 30-year plan to help achieve the vision of: our people, our harbour, our home. As reported, in June 2019, Porirua City Council declared a climate change emergency. Further, to accelerate Porirua's response to this declaration, the council has agreed to invest an additional \$6 million across years 2022/23 and 2023/24 to reduce greenhouse gas emissions from council facilities, reduce organic waste going to the landfill and accelerate the transition of council's fleet to electric vehicles where possible.

2.2.2.7 Kia Reretahi Tātau – South Wairarapa District Council

As reported in the South Wairarapa District Council 2021-2031 ten-year Long-Term Plan (Te Pae Tawhiti), waste minimisation activities fall within the environmental wellbeing strategic driver (sustainable living, safe and secure water and soils, waste minimised, biodiversity enhanced) with the following key action areas:

• Enhancing 3 water delivery and environmental quality

- Take active measures to adapt and mitigate the impacts of climate change
- Minimise waste and provide environmentally sustainable council services
- Empower and enable our community to drive behavioural change for the benefit of the environment

A key focus for council as reported is on minimising waste volumes by promoting the waste management hierarchy "reduce, reuse, recycle, reprocess, treat, dispose". Further, and as reported, the council also working with other councils in the region to look at Wairarapa-wide solutions to solid waste management.

2.2.2.8 Me Heke Ki Pōneke – Wellington City Council

Wellington City Council's 10-year Long-Term Plan 2021-2031 (Tō mātou mahere ngahuru tau) sets out the long-term strategic vision of: Wellington 2040 – an inclusive, sustainable and creative capital for people to live, work and play. This vision as reported, is supported by four community outcomes that reflect each of the four dimensions of wellbeing and are at the centre of the long-term plan:

- Environmental a sustainable, climate friendly eco capital
- Social a people friendly, compact, safe and accessible capital city
- Cultural an innovative, inclusive and creative city
- Economic a dynamic and sustainable economy

The Long-Term plan also sets out priority objectives for the first three years with priority 5 of 6 directly relevant to the management of waste:

• An accelerating zero-carbon and waste-free transition: with communities and the city economy adapting to climate change, development of low carbon infrastructure and buildings, and increased waste minimisation.

3 OVERVIEW OF THE WELLINGTON REGION

This section provides a high-level demographic and economic overview of the territorial authorities that make up the Wellington region to provide context to the production and management of waste and resources within the region.

3.1.1 Introduction

The Wellington region is located in the lower North Island of Aotearoa New Zealand and comprises eight territorial areas with a total resident population of approximately 544,000⁸ as reported in 2021 (**Figure 1**). The region includes a diverse range of land uses including both dense city areas, suburban and rural communities, with the region's population reflective of this. As such, this diversity is also reflected in the types and quantities of waste and resources produced within each of the eight territorial areas. Further discussion of waste types and quantities can be found in Section **5**.

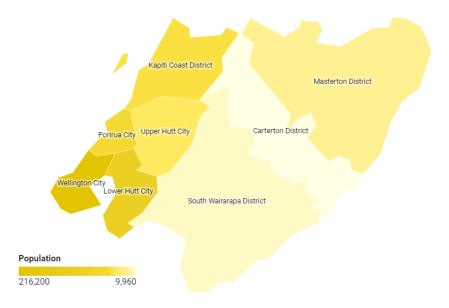


Figure 1 Wellington Region illustrating the Eight Territorial Authorities and Population Spread⁹

Additionally, **Figure 1** clearly illustrates the predominant regional population lies within the Wellington City, Lower Hutt and Porirua City areas and it is probable that due to the close proximity of these areas that residents may travel between territorial authorities for work and other activities.

3.1.2 Demographics

As noted in Section **3.1.1** above, the Wellington region has experienced steady annual growth as illustrated in **Figure 2** with the largest and most consistent increases reflected from 2014 onwards. Further, with a total resident population of approximately 543,500 (2022), the largest proportion resides in Wellington City (39%) followed by Lower Hutt (21%) and Kāpiti Coast District and Porirua City both at 11%. The remaining four

^{8 &}lt;u>https://ecoprofile.infometrics.co.nz/Wellington Region/Population</u>

⁹ Facts & figures - WellingtonNZ.com

authorities report populations of less than 10% of the Wellington region (**Table 3**). However, of interest is the annual growth rate experience by each of the eight territorial authority areas, with the Masterton District reporting the highest annual growth rate of 2.5% between 2018 and 2020 followed by South Wairarapa District and Carterton District all reporting annual growth changes at or above 2%. All remaining districts reported annual growth rates of between 1.3 and 1.9% (**Table 3**). As such, it is probable that the current population spread throughout the main centres may differ in the coming years should growth rates continue to increase across the semi-rural and rural districts and as a result the waste profiles within these districts may also change accordingly.

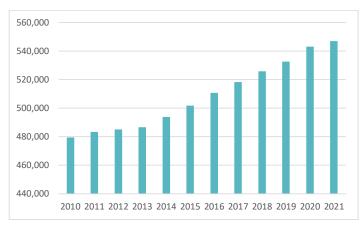


Figure 2 Total Population of the Wellington Region reported between 2010 and 2021¹⁰

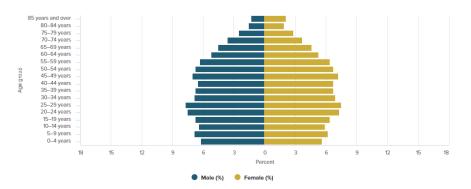
	2018	2019 ¹²	2020	2021	2022	Average Annual Change 2018-2020 Number Percent		Approximate Proportion of the Wellington Region
Kāpiti Coast District Council	55,200	56,100	57,200	57,400	57,600	1,000	(%) 1.9	Population (%) 11
Porirua City	58,900	59,800	60,600	61,100	61,600	890	1.5	11
Upper Hutt City	45,400	46,200	46,800	47,300	47,700	720	1.6	9
Lower Hutt City	108,600	109,900	111,800	112,200	112,500	1,600	1.5	21
Wellington City	211,200	212,900	216,500	215,400	213,100	2,700	1.3	39
Masterton District	26,400	26,900	27,700	28,400	29,000	670	2.5	5
Carterton District	9,510	9,660	9,890	10,100	10,250	190	2	2
South Wairarapa District	10,900	11,100	11,400	11,600	11,750	250	2.2	2
Total Regional Population	526,110	532,560	541,890	543,500	543,500	-	-	-

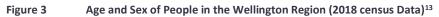
Table 3 Wellington Region Estimated Resident Population¹¹

¹⁰ https://ecoprofile.infometrics.co.nz/Wellington Region/Population/Growth

¹¹ Subnational population estimates: At 30 June 2022 (provisional) | Stats NZ ¹² Subnational population estimates: At 30 June 2021 (provisional) | Stats NZ

While population growth and spread throughout the region is an important factor to help understand waste flows and quantities, other factors such as age also help to provide greater clarity on the makeup of waste and associated resources. Within the Wellington region, the median age as reported by Stats NZ is 37 years with **Figure 3** illustrating the spread of peoples age and sex. While age may be considered a proxy for the types and quantities of waste that may be produced within a district and/or wider region, it is only one influencing factor and cannot be considered in isolation of other factors including, accessibility to and equity of services and the impacts that seasonality and health events.





Further, when comparing the Wellington region population to that of wider Aotearoa New Zealand, it is clear that population growth has declined from 2020 to 2021 (**Figure 4**). While there are a range of factors that would contribute to a decline, it is likely that reduce immigration due to COVID-19 border closures during the same period will be the main causative factor. With borders now reopening, it is plausible that population growth rate within the Wellington region will again begin to increase and shows signs of pre-2020 rates (**Figure 4**).

¹³ Place Summaries | Wellington Region | Stats NZ



Figure 4 Population Growth Rate of the Wellington Region Compared with wider New Zealand reported between 1997 and 2021¹⁴

Further, when looking at the population and density of residents across the region, dwelling count is an interesting factor to help understand the pressures that may be placed on households and the resulting influence this may have on household waste production. For example, the Wellington region has approximately 11% of the national number of occupied dwellings (186,225) with approximately 7% of the national number construction (1,068), which when combined suggest that the Wellington region population and dwelling occupancy is set to continue to increase (**Table 4**). With this in mind and acknowledging the previous demographic information, the resultant waste quantities and types are also expected to increase proportionately. However, with an increased focus on redesign of products, behaviour change, reduction and recycling of resource recovery initiatives both at a central government and local government levels, the amount of waste being produced and subsequently disposed of is anticipated to change accordingly. However, this change will require wider initiatives such as investment in waste and resource management infrastructure as well as supporting legislative instruments.

Dwelling Type	Wellington Region (count)	% of Wellington Region	New Zealand (count)	% of New Zealand
Occupied Dwelling	186,225	92%	1,664,313	89%
Unoccupied Dwelling	14,754	7%	191,649	10%
Dwelling under Construction	1,068	1%	15,972	1%
Total Private Dwellings	202,047	100%	1,871,934	100%

Table 4 Dwelling Occupancy Status in the Wellington Region Compared with New Zealand¹⁵

¹⁴ <u>https://ecoprofile.infometrics.co.nz/Wellington Region/Population/Growth</u>

¹⁵ Place Summaries | Wellington Region | Stats NZ

3.1.3 Economy

3.1.3.1 Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is an important economic indicator that measures the size of an economy. For the Wellington region GDP in 2021 declined -0.5% to \$43,623million, with a similar reduction seen throughout Aotearoa New Zealand with national GDP dropping -1.2%. **Figure 5** below illustrates the change in GDP across the Wellington region and nationally illustrating a significant and sharp decline from late 2019/early 2020. While a range of factors are likely responsible, the occurrence of the global COVID-19 pandemic is likely to be the key contributing factor, and which continues to influence regional and national GDP levels. As such, it is important to contextualise this decline as GDP growth throughout other global countries are also showing signs of contraction and slowing of markets.



Figure 5 Gross Domestic Product Growth Reported for the Wellington Region between 2001 and 2021¹⁶

Further, of the key industries contributing to GDP within the Wellington region, public administration and safety (13.1%) followed by professional, scientific and technical services (12.8%) (Figure 6) contributed to more than \$3,300million or approximately 40% of the regions GDP (Table 5).

¹⁶ https://ecoprofile.infometrics.co.nz/Wellington Region/Gdp

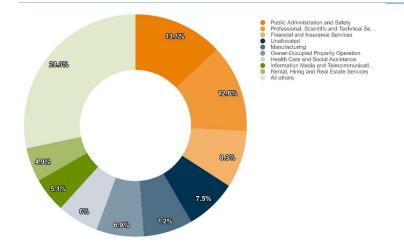


Figure 6 Proportion of Gross Domestic Product by Industry Type for the Wellington Region between 2001 and 2021¹⁷

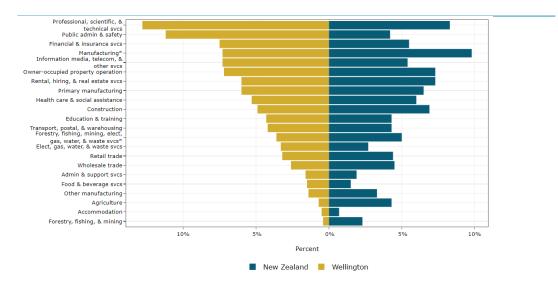
Table 5 Main Industry Contributors to Gross Domestic Product within the Wellington Region¹⁸

Industry	Proportion of Gross Domestic Product (\$million)
Public administration and safety	\$1,738M
Professional, scientific and technical services	\$1,577M
Financial and insurance services	\$631M
Health care and social assistance	\$618M
Construction	\$588M
All other industries	\$2,973M
Total Increase in GDP	\$8,125M

Further, when comparing the GDP by industry types within the Wellington region to those of New Zealand, it is clear that the Wellington region has a much higher GDP contribution associated with the professional, scientific and technical services and public administration and safety than that of the wider New Zealand (**Figure 7**). This most likely due to the higher proportion of administrative and office-based roles within Wellington City, as the capital of Aotearoa New Zealand and comparatively less agriculture and forestry and fishing-based industries within the wider region than compared with wider Aotearoa New Zealand. As reported in the 2016 Waste Assessment Report, the type of industries comprising the Wellington region have a direct influence on the type of waste produced and available for management. For example, the high proportion of administrative roles would suggest a waste stream comprising materials common place in office-based roles (e.g., paper, cardboard, food scraps) compared with agricultural and rural waste comprising for example, agricultural chemical containers, treated timber and livestock waste.

18 https://ecoprofile.infometrics.co.nz/Wellington Region/Gdp

¹⁷ https://ecoprofile.infometrics.co.nz/Wellington Region/Gdp





3.1.3.2 Work and Labour Force

When looking at the composition of the Wellington region economy, the work and labour force are two key aspects for consideration as both underpin GDP. **Figure 8** clearly shows that the Wellington region compared to the national 2018 census data has a higher proportion of full-time employed workers (approximately 53%) and slightly fewer part-time employees (approximately 14%). However, while the 2018 census data has reported a slightly higher proportion of unemployed people (4.4%) in the Wellington region compared with the national average of (4%), this difference can be considered minor for the purpose of this report. Taking a deeper look into the 2018 census occupations of people in the Wellington region compared to the wider Aotearoa New Zealand, 'professionals' represent approximately 32% of the Wellington region occupations and which is significantly above the New Zealand percentage of 23%. Managerial occupations represent the second highest percentage at approximately 17% followed by 'clerical and administrative workers' at approximately 12% and again above the national average of approximately 11% (**Figure 9**).

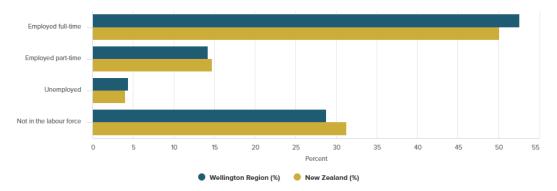
Acknowledging the current COVID-19 pandemic and the impacts this has had on global and local economies, Figure 10 illustrates the key industries that are currently contributing to growth in the Wellington Region. Of note, 'public administration and safety' has seen an annual growth of 9.3% with an additional 3,463 jobs established since 2020 which reported 37,075 jobs in this industry. Similarly, health care and social assistance saw an annual increase of 4.5% with an additional 1,301 jobs established since 2020 which reported 28,723 jobs. Unsurprisingly, the construction industry saw an annual growth of 3.8% with an additional 936 jobs established since 2020 numbers of 24,462 jobs; most likely attributed to the significant increase in residential and commercial construction across the industry and which has been broadly seen nationally. However, and in comparison, the accommodation and food services industry saw a contraction with -6.1% annual growth rate reported with a loss of 1,234 jobs since 2020 numbers of 20,383 jobs. Similarly, the administrative and

¹⁹ https://ecoprofile.infometrics.co.nz/Wellington Region/Gdp/GrowthIndustries

support services and retail trade industries both saw a contraction of -4.4% (a loss of 699 jobs) and -1.4% (a loss of 329 jobs), most likely attributed to the COVID-19 pandemic affecting hospitality spend and retail sales.

Further, while the total personal income for people in the Wellington region varied, the four main income categories were reported in the 2018 census data as (Figure 11):

- \$70,001-\$100,000 (11.2% of people; 9.6% nationally)
- \$40,001-\$50,000 (8.9% of people; 9.7% nationally)
- \$15,001-\$20,000 (8.6% of people; 9.9% nationally)
- \$100,000-\$150,000 (7.1% of people; 4.7% nationally)





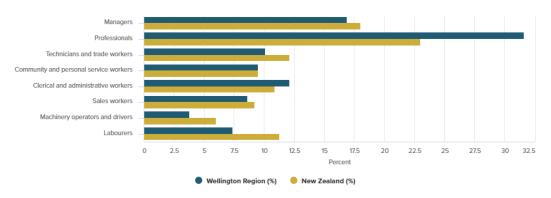
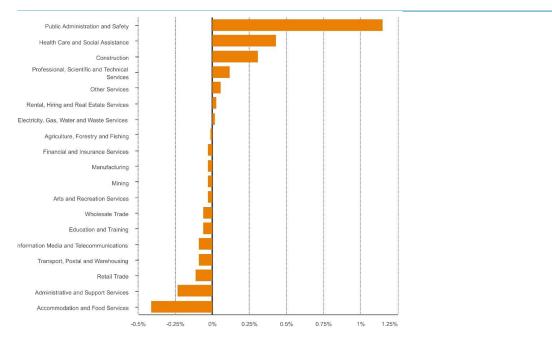


Figure 9 Occupations for People in the Wellington Region compared with New Zealand, 2018 Census Data²¹

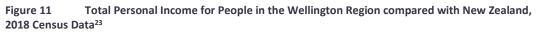
²⁰ Place Summaries | Wellington Region | Stats NZ

²¹ Place Summaries | Wellington Region | Stats NZ









As was reported in the 2016 Waste Assessment and acknowledging the 3.8% annual growth of the construction industry, it is clear that the Wellington region is experiencing a significant increase in the construction of new multi-unit houses with a 33.2% increase (2,091 multi-unit houses) from 2020 (1,570 multi-unit houses), and which is almost reflective of pre-COVID levels in 2019 of 47.9% (**Table 6**). Similarly, in 2021 there was a reported 5.2% increase in the number of consented houses, however when compared to previous

²² https://ecoprofile.infometrics.co.nz/Wellington Region/Employment/GrowthIndustriesBroad

²³ Place Summaries | Wellington Region | Stats NZ

years and excluding the 2019-2020 periods due to COVID-19, the percentage change is significantly lower than reported between 2016 to 2018. While this might signal a decline in the construction of houses due to market demand it is probable that this decline is a result of greater emphasis being placed on the construction of higher density housing; a theme seen throughout Aotearoa New Zealand.

		Yea	r ended D (Numb				1			ed Decembei ge from Previ)
	2016	2017	2018	2019	2020	2021	2016	2017	2018	2019	2020	2021
Houses	1,233	1,432	1,595	1,540	1,487	1,565	25.6	16.1	11.4	-3.4	-3.4	5.2
Multi-Unit Houses	759	862	1,136	1,680	1,570	2,091	2.7	13.6	31.8	47.9	-6.5	33.2
TOTAL	1,992	2,294	2,731	3,220	3,057	3,656	15.7	15.2	19.0	17.9	-5.1	19.6

Table 6 Annual Number and Percentage Change of New Dwellings Consented in the Wellington Region²⁴

3.1.4 Overview of Potential Future Changes to the Region

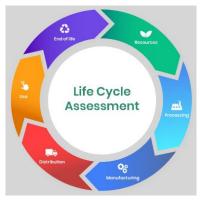
At the time of writing, the Ministry for the Environment is working on developing several key waste and resource management initiatives along with appropriate legislation and updating several key existing legislative instruments. Acknowledging the development of several key new initiatives are not yet in place at the time of writing this Waste Assessment, it is expected that the below list will largely be in effect over the coming years and as such will influence and shape the waste management and resource recovery activities carried out by each of the councils in the Wellington Region.

- Development of a new national waste strategy and new legislation to better regulate how we manage products and materials circulating on our economy
- Development of a long-term infrastructure plan to provide a national view of the waste investment Aotearoa New Zealand needs over the next 15-years
- Standardising kerbside recycling to make it simpler and easier for people to recycle correctly
- Container return scheme to incentivise people to return their empty beverage containers for recycling in exchange for a small refundable deposit (20-cents proposed)
- Developing end-of-life solutions for the six priority products:
 - o Plastic packaging
 - o Tyres
 - o Electrical and electronic products (e-waste including large batteries)
 - Agrichemicals and their containers
 - o Refrigerants
 - o Farm plastics
- Phasing out certain single-use plastic items and hard-to-recycle plastic packaging (e.g., type #3 PVC containers, type #6 polystyrene drink packaging)
- Diversion of business food scraps from landfill to reduce greenhouse gas emissions and make better use of organic material
- Reducing construction and demolition waste via designing waste out and developing systems for diversion and reuse to move towards more circular systems for building materials used

²⁴ Building consents issued: December 2021 | Stats NZ

4 WELLINGTON REGION WASTE INFRASTRUCTURE OVERVIEW

To provide an understanding of how waste and resources are managed within the Wellington region, this section aims to provide an overview of the range of infrastructure options available through the eight territorial authorities. Where possible, infrastructure has been aligned to the waste hierarchy to show case how individual and collective authorities currently manage waste and resources, whilst also providing an overview of the potential opportunities to maximise reuse and recovery of materials and products throughout a products lifecycle.



4.1 Overview of Wellington Region Waste Infrastructure

The following sections provide an overview of the waste and resource management infrastructure in the Wellington region and are based on the outputs of the 2016 Regional Waste Assessment. Of note, the information has been presented to broadly align with the waste hierarchy (Figure 12) beginning with infrastructure that aligns with reducing, rethinking and redesigning followed by reuse, repair and repurposing, to recovery and recycling of materials through to disposal, including landfilling and littering. The intent of this approach is to acknowledge the efforts within the region to recover and reuse as much material as possible to avoid disposal to landfill, thereby supporting efforts to reduce per capita waste production.

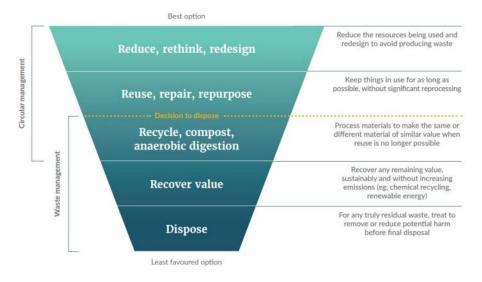


Figure 12 Waste Hierarchy (Te rautaki para | Waste Strategy)²⁵

²⁵ Te-rautaki-para-Waste-strategy.pdf (environment.govt.nz)

Further, it is important to note here that since the 2016 Waste Assessment Report there have been efforts undertaken by each of the eight councils to reduce the amount of waste produced; however the unfortunate global COVID-19 health pandemic has had significant impacts regionally and nationally resulting in reduced ability for the Wellington region to meet the primary²⁶ waste reduction target of reducing total waste sent to Class 1 landfills from 600kg per person to 400kg per person by 2026. However, each territorial authority has remained committed to achieving this primary target and has where able, continued to progress initiatives, albeit at a slower rate due to the impacts COVID-19 has had across the waste and resource management sector.

As noted, the following sections are broadly aligned to the waste Most hierarchy and the material life-cycle as follows:

- Reuse
 - Resource Recovery Centres (Section 4.1.1)
- Recycle
 - Recycling and Reprocessing Facilities (Section 4.1.2)
 - Refuse Transfer Stations (Section 4.1.3)
- Treat and Dispose
 - Landfills (Section 4.1.4)
 - Hazardous Waste Facilities and Services (Section 4.1.5)



Littering has been included in this report as it represents an important pathway by which materials enter the environment, thereby bypassing council managed material recovery and recycling services (e.g., kerbside recycling, public place recycling). Littering is discussed further in Section **4.1.6**.

4.1.1 Resource Recovery Centres

For clarity, a resource recovery centre is defined here as a location that primarily provides a service to the public whereby resources are collected, sorted, transported and on sold via a range of methods (e.g., resource recovery shops, social media platforms). These centres may include shops located at a transfer station and/or landfill site, community recycling centre and reuse stores. A resource recovery centre may also bulk collect materials (e.g., paper and cardboard) for collection and transportation for further processing (see Section **4.1.2** for further discussion). While this report generally focusses on the waste and resources that are controlled and/or influenced by council activities, it is important to recognise and acknowledge the connection with other non-council facilities such as hospice shops and other community stores as providing complementary recovery of resources.

Further, the above description also recognises the WasteMINZ Recycling & Resource Recovery Sector Group vision:

A Resource Recovery Sector Group working with the people of Aotearoa to maximise the recovery and delivery of high-quality materials for remanufacturing that aligns with a move to a circular economy, and which keep products and materials in use, at their highest level.

Across the Wellington Region, a range of public drop-off facilities and second-hand stores are managed by councils, and which accept a wide range of materials (e.g., household goods, building materials, clothing and

²⁶ as set out in the Regional Waste Management and Minimisation Plan (2017-2023)

textiles). These facilities include but are not limited to Wairarapa Resource Centre (Masterton), Otaihanga Resource Recovery Facility (Kāpiti Coast), 'Tip Shop' (Wellington City). Supporting these council facilities are a wide range of complementary facilities accepting a range of materials from paint (e.g., Paintwise, Resene), e-waste, used cartridges (e.g., Cartridge World), car parts (e.g., scrap metal yards, mechanics) and scrap metal (e.g., various scrap metal yards). As the continued focus on resource management and diverting resources from landfill becomes more mainstream coupled with diversification of facilities to both accept and reprocess materials, it is probable that the number, location and type of facilities that accept material will continue to grow and expand throughout the Wellington Region.

The following section further discusses the range of recycling and reprocessing facilities throughout the Wellington Region, and which represent the next stage in the management of a product and/or materials lifecycle.

4.1.2 Recycling and Reprocessing Facilities

There are a range of recycling and reprocessing facilities throughout the Wellington region. For clarity, these facilities relate to the collection, sorting, processing and conversion into new products but does not include the use of these materials for energy production (e.g., energy from waste facilities).

Table 7 has been adapted from the 2016 Waste Assessment and includes information of materials that are currently recycled and reprocessed within the Wellington Region. All data has been provided by each of the councils (except Carterton where no data was available) in the Wellington Region. Further, as has been discussed in Section **4.1.1** above, the range of recycling and reprocessing facilities are also supported by a wide and diverse range of smaller supporting facilities which may undertake indirect activities that support recycling and reprocessing (e.g., dismantling).

Facility Type	Council Area	Materials	Description	
Composting	Wellington	Accepts food waste and greenwaste	Capital Compost, Static pile windrow, Southern landfill	
	Masterton	Accepts greenwaste	Nursery Road, Static pile windrow	
	Carterton	Accepts greenwaste	Mulched and spread at site	
South Wairarapa		Greenwaste	Collected from Greytown and Featherston and taken to Martinborough transfer stations where it is mulched and spread on site, Lake Ferry Road	
	Kāpiti	Accepts greenwaste	Composting NZ, Static pile windrow. Drop off and processing facility is in Otaihanga and there is a satellite drop off location at the Otaki RTS.	
	Porirua	Greenwaste	McMud Earthworks	
CnD Waste	Wellington	Timber, metal, concrete, brick, etc	Woods Waste GoodRock Recycling, Waikanae	
Drop-Off	Wellington	Used paint	4 Paintwise paint drop off point	
		Nappies	8 Envirocomp sites	
		Soft plastics (plastic bags)	Various retail sites (Warehouse, New World, Pak'n'Save)	
		E-Waste (drop off)	Second Treasures (Southern landfill)	
	Masterton/ South	Greenwaste	Mulched and spread at site. Windrows at Masterton	
	Wairarapa/ Carterton	Tyres	Collected at all sites for a cost, and sent to Auckland for recycling.	

Table 7 Details of Recycling and Reprocessing Facilities in the Wellington Region

Facility Type	Council Area	Materials	Description
		Agricultural chemicals	Collected by Ag recovery monthly
		Oil	Collected by third party
		E- Waste drop off	Taken for processing/ reuse by third party
		Used Paint	Paintwise drop-off at all stations
		Household batteries	Processed by Upcycle. Collected at all stations
		Scrap metal	Collected at all sites and on sold by operator
		Car batteries	Collected at all sites and on sold by operator
		Cal batteries	
		Soft plastics (plastic bags)	Processed by Future Post , collected at all stations
		Recycling (paper and	
		cardboard, tins and cans,	
		plastic containers 1, 2 and	
		5, glass)	
	Kāpiti	Used paint	1 Paintwise paint drop off point and Otaihang Reuse Shop
			Various retail sites (New World and
		Soft plastics (plastic bags)	Countdown supermarkets)
		E-waste (TVs, whiteware,	
		fridges/freezers, small	Otaihanga RRF and Otaki RTS
		electronic items, batteries,	
		Recycling (paper and	
		cardboard, tins and cans,	
		plastic containers 1, 2 and	Otaihanga RRF and Otaki RTS
		5, glass)	
		Child carseats (Seatsmart	
		programme)	Otaihanga RRF
		1 0 /	Oteihearea BBE
	Upper Hutt	Household hazardous Soft plastics (plastic bags)	Otaihanga RRF Various retail sites (Warehouse, New World)
	Hutt City	Paint	Resene and Dulux outlets
	Hutt City	Failt	
			Following retails sites:
			Countdown (Petone)
		Soft plastics (plastic bags)	The Warehouse (Petone, Queensgate)
			New World
			Pak N Save (Petone)
		E-Waste	Noel Leeming (LH depot for TechCollect)
		L-Waste	Earthlink (items scrapped onsite)
	Porirua	Used paint	1 Paintwise paint drop off point
		Fluorescent and ECO lightbulbs	Interwaste
		Household goods	Kiwi Community Assistance Porirua
		uPVC pipe	Plumbing World
		Household batteries	Bunnings Warehouse
		Soft plastics (plastic bags)	Various retail sites (Warehouse, New World, Pak'n'Save)
		Tetra Pak	Earthlink, remanufacturer into saveBOARD. Drop off for recycling at Spicer Landfill
			Electronic waste drop-off locations:
		E-Waste	Trash Palace, Earthlink, IT Recyla, Remarkit, E
		E-Waste	
		Crean wasts	Cycle
		Green waste	Compositing New Zealand drop-off
	and the second	Used oil	Spicer landfill accepts used vehicle oil
			Exide Technologies, Barry & Mexted and
		Car batteries	Macauley Metals
		Car batteries Printer cartridges	

Facility Type	Council Area	Materials	Description	
E-Waste Processing	Wellington	E-waste dismantling, refurbishments and reuse	ReMarkIT	
0	Upper Hutt	E-waste	Remarkit, Recycling for charity	
Hazardous	Wellington	Free drop off of domestic hazardous wastes	Up to 20L/kg per visit, Southern landfill	
	Hutt City	Hazardous and chemical wastes	Waste Management Technical Services	
	Porirua	Hazardous quarantine and medical waste	Broken Hill Rd, Porirua	
MRF	Masterton	Further separation of kerb sorted recyclables	Wairarapa Environmental MRF	
	Hutt City Wellington	Comingled Kerbside Collection	OJI FS (collects items/materials from Wellington region but is based in Seaview)	
Other Organic	Wellington, Kāpiti	Food rescue	Kaibosh and Kiwi Community Assistance	
Plastics Reprocessing	Porirua	Polystyrene	Poly Palace, Remanufacture into panel insulation products	
	Otaki	PVC and crushed rubber	Matta Products (playground and syrfacing products)	
	Petone	Extruded plastics	Flight Plastics	
Re-Use Stores	Wellington	Building materials	No.8 Recyclers	
		Household items	Second Treasures (Southern landfill)	
		Cartridges	Cartridge World	
		Car parts	Various	
	Masterton	Building materials	Renovators Ltd, Rummages	
		Household items	Wairarapa Resource Centre	
	Carterton	Household items	Second-hand goods retailers	
		Building materials		
	South Wairarapa	Household items, clothing	Second hand stores	
		Large household and some outdoor supplies	Amua in Featherston takes wood, some leftover building supplies, and larger household items.	
	Kāpiti	Household items	Otaihanaga RRC and various second-hand stores	
		Building materials	Kāpiti Building Recyclers Ltd, Ace Building Recycle Barn	
		Cartridges	Cartridge World, Second Image	
		Car parts	Various	
	Upper Hutt	Building materials	Recyclers, James Henry Joinery, The Timber Reclaimers	
		Cartridges	Cartridge World	
		Car parts	Hillside auto wreckers	
	Hutt City	Building materials	Various	
		Household items	Earthlink Op shops Second-hand good retailers	
		Cartridges	Cartridge World	
		Car parts	Various	
	Porirua	Building materials	The Building Recyclers	
		Household items	Trash Palace, Free for all, various charity store eg St Vincent De Paul Op Shop, Salvation Army	
		Cartridges	Cartridge World	
		Clothing	Save Mart	
		Car parts	Various	
Scrap Metal	Wellington	Ferrous and non-ferrous	Wellington Scrap Metals	
	Masterton/Carterton/South Wairarapa	Ferrous and non-ferrous	Wairarapa Scrap Metal Ltd	
	Kāpiti	Ferrous and non-ferrous	Rameka Metal Recyclers Ltd	

Facility Type	Council Area	Materials	Description
	Upper Hutt	Ferrous and non-ferrous	Upper Hutt Metals
	Hutt City	Ferrous and non-ferrous	Macaulay Metals Ingot Scrap Metals Sims Pacific General Metal Recyclers Total Recycling Ltd
	Porirua	Ferrous and non-ferrous	Drop-off sites: AKB Ingot Scrap Metals, Wellington Scrap Metals, Macauley Metals
Rendering	Wellington	Animal by-products form meat processing	Taylor Preston Ltd
Recovery to Gas	Hutt City	Landfill gas to energy	Silverstream Landfill, Hutt City
	Wellington	Landfill gas to energy	Southern Landfill, Wellington

4.1.3 Refuse Transfer Stations

As reported in the 2016 Waste Assessment Report, recycling collectors and the public have access to twelve refuse transfer stations throughout the Wellington region (**Table 8**). It is important to note here that the Waikanae Greenwaste and Recycling Centre is no longer available as this facility closed for recycling drop-off in August 2021 and then for greenwaste drop-off in July 2022. For clarity, refuse transfer stations are commonly commercial operations with limited public access, and serve as a point of disposal, consolidation and sorting before materials are transported to either landfill for final disposal, or to alternative recovery pathways (e.g., additional recycling, reuse, repurposing). It is worth noting here that commercial operators may also refer to a transfer station as a resource recovery park or resource drop-off centre to highlight the industries transition to providing modern facilities that accommodate a wider range of services.

The twelve facilities are also supported by the three regional landfills which also accept a wide range of materials for drop-off, including greenwaste and recyclable items. **Table 8** has been adapted from the 2016 Assessment to ensure consistency.

Table 8 Refuse Transfer Stations within the Wellington Region and Resources Accept	ted
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Refuse Transfer Station	Owner / Operator	Hours of Access	Materials Accepted
Seaview Recycle and Transfer Station (Hutt City)	Waste Management (NZ) Ltd	Monday – Saturday 7.30am - 5.00pm Sunday and Public Holidays 8.30am - 4.30pm	Refuse Recycling Greenwaste
Otaihanga Resource Recovery Facility (Kāpiti Coast)	Kāpiti Coast District Council / Midwest Disposals Ltd	Monday to Saturday 8.00am – 5.00pm Sunday and Public Holidays 9.00am – 5.00pm	Refuse Recycling E-waste (largely free but some fees apply to certain items)
Waikanae Greenwaste and Recycling Centre (Kāpiti Coast)	Facility Closed as of 15 Jul	y 2022	
Ōtaki Refuse Transfer Station (Kāpiti Coast)	Kāpiti Coast District Council / Midwest Disposals Ltd	Monday to Saturday 8.00am – 5.00pm Sunday and Public Holidays 9.00am – 5.00pm	Refuse Recycling Greenwaste E-waste (largely free but some fees apply to certain items)

Refuse Transfer Station	Owner / Operator	Hours of Access	Materials Accepted
Martinborough Transfer Station (South Wairarapa District)	South Wairarapa District Council / Wairarapa Environmental	Wednesday: 10.00am – 4.00pm Saturday: 10.00am – 4.00pm Sunday: 10.00am – 4.00pm Agricultural recycling only from 1.00pm – 3.00pm on the third Wednesday of each month	Refuse Recycling Greenwaste E-waste (free of charge)
Greytown Recycling Station (South Wairarapa District)	South Wairarapa District Council / Wairarapa Environmental	Tuesday: 1.00pm – 3.30pm Saturday: 10.00am – 12.00pm Sunday: 10.00am – 1.00pm	Recycling Greenwaste
Featherston Recycling Station (South Wairarapa District)	South Wairarapa District Council / Wairarapa Environmental	Thursday: 11.00am – 3.00pm Saturday: 11.00am – 3.00pm Sunday: 11.00am – 3.00pm	Recycling Greenwaste
Pirinoa Recycling Station (South Wairarapa District)	South Wairarapa District Council / Wairarapa Environmental	Wednesday: 1.00pm – 3.00pm Saturday: 10.00am – 12.00pm Sunday (May to August): 3.00pm – 5.00pm Sunday (September to April): 4.00pm – 6.00pm	Recycling Greenwaste
Castlepoint (Masterton District)	Masterton District Council / Wairarapa Environmental	Wednesday: 9.00am–12.00pm Sunday: 11.00am–3.00pm	Refuse Recycling Greenwaste
Riversdale (Masterton District)	Masterton District Council / Wairarapa Environmental	Wednesday and Sunday: 1:30pm– 4:30pm Sundays in December, January and February: 1:30pm–7:30pm	Refuse Recycling Greenwaste
Masterton (Masterton District)	Masterton District Council / Wairarapa Environmental	Monday-Friday: 7:30am–4:30pm Saturday: 8:30am–4:30pm Sunday and Public holidays: 10am– 4pm ANZAC Day: 1pm–4:30pm Closed on Christmas Day, New Year's Day and Good Friday	Refuse Recycling Greenwaste
Dalefield Road Transfer Station (Carterton District)		Tuesday-Friday: 9.00am – 11.00am Saturday: 9am–12pm Sunday: 1:30pm–4:30pm	Refuse Recycling Greenwaste
Woods Waste (Ngaio, Wellington)	Woods Waste	No public access	Refuse Recycling

4.1.4 Landfills

This section provides an overview of the types of landfills operating throughout the Wellington region and which accept a range of materials for disposal. In general, and as reported by Manatū Mō Te Taiao – Ministry for the Environment, landfills are facilities for the final controlled disposal of waste in or onto land. Under the Resource Management Act 1991, landfills must have consent conditions which are appropriate to the material they accept (e.g., municipal solid waste, construction and demolition, hazardous waste). The information contained in the following sections reflects that provided in the 2016 Waste Assessment and includes updates and additional components where appropriate.

4.1.4.1 Class 1 Landfills

There are three Class 1 landfill disposal facilities in the Wellington region (all located on the western boundary of the region) which accept municipal solid waste from around the region (Figure 13). Table 9 details the three landfills including the approximate annual tonnage accepted, consent expiry and capacity and current advertised general waste gate fees.

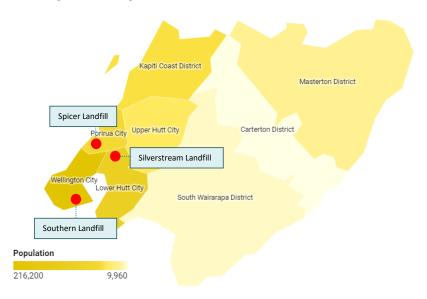


Figure 13 Approximate Location of the Three Wellington Region Landfills

Table 9 Class 1 Landfills in the Wellington Region

Disposal Facility	Location	Approximate Annual Tonnage Accepted	Consent Expiry	Advertised General Waste Gate Fee
Southern Landfill	Wellington	100,000	Current cell capacity to approximately 2026 Valley capacity for 100yrs	Domestic vehicles \$245.50 per tonne Commercial \$196.07 per tonne ²⁷
Bonny Glen landfill (Mid West Disposals)	Rangitikei District (outside of region)	Up to 250,000	Consented to 2050	\$166.19
Levin landfill (Horowhenua DC)	Horowhenua District (outside of region)	30,000	Consented to 2037	\$163.50
Silverstream	Lower Hutt	141,000	Consented to 2055	All vehicles \$189.75 per tonne ²⁸

 ²⁷ Southern Landfill, Tip Shop and Recycle Centre - Landfill charges - Wellington City Council – data provided Wellington City Council
 ²⁸ Landfill location and charges, and litter penalties | Hutt City Council

Disposal Facility	Location	Approximate Annual Tonnage Accepted	Consent Expiry	Advertised General Waste Gate Fee
Spicer Landfill	Porirua	80,000	Consented to 2030, at current fill rate, capacity to 2028	Domestic \$27.50 - \$73.00 (per vehicle or per trailer) Commercial \$18 9.97 per tonne ²⁹
Martinborough Closed Landfill	Martinborough	No data provided	September 2010	Not applicable
Martinborough Transfer Stations	Martinborough	No data provided	September 2010	Not applicable

While the region has good access to a range of landfills, including landfill capacity to service a growing regional population, the geography of the region and the location of the landfills means that districts including Masterton, Carterton and South Wairarapa must transport waste material long distances. Further, weather events and seasonality (e.g., winter weather road closures) also influence the accessibility of the roading network and therefore the ability to transport waste when required. **Table 10** below reports ³⁰ the approximate travel distances from each region to the three regional landfills.

Table 10 Approximate Travel Distances (kilometres) to the Three Region Based Landfills

Territorial Authority	Southern Landfill	Spicers Landfill	Silverstream Landfill
Carterton District Council	91	85	61
Hutt City Council	24	29	12
Kāpiti Coast District Council	64	42	52
Masterton District Council	106	100	76
Porirua City Council	28	5	25
South Wairarapa District Council	88	82	60
Upper Hutt City Council	41	35	11
Wellington City Council	8	24	28

As reported in the 2016 Waste Assessment, this report also acknowledges that Bonny Glen landfill located outside of the Wellington region accepts waste from Kāpiti Coast District Council and the councils of the Wairarapa District.

4.1.4.2 Closed Landfills

As reported in the 2016 Waste Assessment the following description remains current:

'Most closed landfills in the Wellington region have become open space areas and are used as sports fields or passive recreation reserves. In many cases, the extent of the fill in the closed landfill is not known with any

³⁰ Extracted from the 2016 Regional Waste Assessment Report

²⁹ Spicer Landfill hours and fees - Porirua City

degree of accuracy. There are approximately eighty closed landfill sites in the Wellington region, of which thirty-three are within Wellington City council area.'

4.1.4.3 Cleanfills (Class 2-4 Landfills)

Within the Wellington region, the Class 2-4 landfills are reported to directly compete with Class 1 landfills. The difference between these landfills grades is based on the cost of disposal with the Class 2-4 landfills generally less expensive than Class 1 landfills. **Table 11** below summarises the range of Class 2-4 landfills present within the Wellington region including the approximate consent timeframes.

Table 11 Class 2-4 Landfills in the Wellington Region

Facility Name	Landfill Class	Approximate Consent Expiry
C&D Landfill	2	June 2026
(Happy Valley, Owhiro Bay, Wellington)		
Colonial Knobb Farm Holdings Ltd	4	September 2039
(Broken Hill Road, Porirua City)		
Masterton Landfill	4	September 2045
(Nursery Road, Masterton District)		
Higgins Quarry*	4	February 2049
(Kāpiti Coast District)		
T&T Landfill	4	June 2049
(Happy Valley, Owhiro Bay, Wellington)		
Carterton Transfer Station	4	2016
(Dalefield Road,		
Carterton District)		

*Note, Higgins Quarry is included here for reference but has been closed for the past 5-years but may re-open.

4.1.5 Hazardous Waste Facilities and Services

Hazardous Waste is any waste that is defined as follows:

- Contains hazardous substances at sufficient concentrations to exceed the minimum degrees of hazard specified by Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 under the Hazardous Substances and New Organism Act 1996, or
- Meets the definition for infectious substances included in the Land Transport Rule: Dangerous Goods 2005 and NZ Standard 5433: 2007 Transport of Dangerous Goods on Land, or
- Meets the definition for radioactive material included in the Radiation Protection Act 1965 and Regulations 1982.

Examples of hazardous waste include but are not limited to:

- Corrosives (acids and alkaline)
- Explosives and fireworks
- Flammable liquids (e.g., fuels, paints and solvents)
- Flammable gases and aerosols (e.g., LPG and spray cans)
- Flammable solids (e.g., sodium metal, sulphur, silicon powder)
- Oxidising materials (chlorine, iodine, hypochlorite-bleach, peroxides)
- Toxics (cleaning fluids, pesticides and other garden chemicals).

As reported by the Manatū Mō Te Taiao – Ministry for the Environment, the lack of formal record keeping and reporting on waste flows in the past has led to limited information on hazardous waste throughout Aotearoa New Zealand. Additionally, as a large proportion of hazardous waste is reported to be managed by private waste operators, much of this data is commercially sensitive and not shared by the operators. This has led to paucity of information and a subsequent incomplete picture of hazardous waste volumes.

Further, it is acknowledged that local authority trade waste bylaws control a large proportion of New Zealand's hazardous wastes, of which as much as 70–85% are liquid and discharged to municipal wastewater treatment systems. As reported by the Manatū Mō Te Taiao – Ministry for the Environment, in 2004, solid hazardous waste was estimated to account for 11% of waste disposed of in landfills. About one-quarter of this waste is rendered inert (stabilised) at waste treatment facilities before disposal.

Table 12 provides a summary of council known hazardous waste operators from across the Wellington region (excluding Carterton District Council, Masterton District Council and South Wairarapa District Council where no data was available).

Hazardous Waste Operator	Location
Dawson Waste Services	Owhiro Bay, Wellington
Waste Petroleum Combustion (Oil Recovery)	Throughout North Island
Enviropaints Ltd	Ōtaki, Kāpiti Coast
Upcycle, Domestic Battery collection	Auckland
Silverstream and Spicer Landfills:	Stokes Valley, Lower Hutt
- house + garden chemicals	Broken Hill Road, Porirua
- leftover oil + petrol + diesel	
- batteries	
- paint	
- gas bottles	
Various Retailers/Service Providers :	Various councils
- paint retailers	
 dive shops (gas bottles) 	
 lighting outlets (fluorescent light bulbs) 	
Envirowaste (NZ) incorporating ChemWaste.	127R Gracefield Road, Gracefield, Lower Hutt
Offer a hazardous waste collection and transport service	5010
(request is made online)	
Waste Management (NZ) Technical Services	97/99 Port Road, Seaview, Lower Hutt 5010
Offer a hazardous waste collection and processing service	
(request is made online)	
InterWaste Services	Broken Hill Rd, Porirua
Clear Air Asbestos Management Limited	Gracefield, Lower Hutt
Legacy Contracting Limited	35 Broken Hill Road, Porirua
Intergroup Limited	Gracefield, Lower Hutt
T G Civil Limited	Aotea, Porirua
Paintwise -Resene	Masterton
Ag Recovery Foundation - agricultural chemicals	Wellington
Macauley Metals - Car batteries	Wellington
Exoil Ltd - oils	Palmerston North

Table 12 Hazardous Waste Operators from across the Wellington Region

4.1.6 Waste Disposed of to the Environment

4.1.6.1 Environmental Litter

Acknowledging the current processes offered by each of the councils to manage and minimise waste disposal and maximise resource recovery, littering of materials and products is acknowledged as a significant environmental risk. Littering also represents the loss of potentially valuable resources from the material life cycle.

To reduce the amount of litter entering the environment, public place recycling (PPR) has been offered in locations around the Wellington region (e.g., Wellington City, Kāpiti Coast) and nationally as part of a joint initiative between Love NZ/Be a Tidy Kiwi and delivered by the Packaging Forum. The scheme provided dedicated bins for the collection of general rubbish, glass and mixed recyclables with an aim to reduce the amount of materials going to landfill (**Figure 14**).



Figure 14 Public Place Recycling Bins

Case Study – Wellington City Public Place Recycling

In 2018³¹³² Wellington City Council implemented the PPR bins at eight locations around the Central Business District (CBD) and ran the trial until mid-July 2021 after which time the trial stopped and the bins were removed. While approximately 36 tonnes per annum of recycling was captured and diverted from landfill the cost to service the bins, including processing were reported to be over \$6,500 per tonne which was ten times the cost per tonne for kerbside recycling. In comparison, Wellington's kerbside recycling collections divert approximately 11,200 tonnes per year from landfill.

While cost of servicing the scheme was an important consideration in stopping the trial, other factors including central government initiatives such as the imminent pending decision on implementing a Aotearoa New Zealand Container Return Scheme is anticipated to have a significant effect on how the public view and value recyclables. Specifically, by placing a value (e.g., proposed 20-cents) on items that are commonly littered (i.e., single-use beverage containers), it is anticipated that people will want to redeem the container and therefore avoid littering and the need for widespread PPR bins.

Further, Wellington City Council also recognises and encourages reusable options for reducing single-use packaging waste as well as encouraging Wellingtonians to make smart choices about what is consumed.

³¹ News and information - Public Place Recycling trial ends, stations to be removed - Wellington City Council

³² Reducing your waste - Public Place Recycling project - Wellington City Council

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Additionally, the council also recognised that future funding was better focussed on waste reduction initiatives which align with the waste hierarchy.

For this Waste Assessment, the process of littering has been included here to recognise that not all materials are correctly disposed of using council and/or commercially operated services. A such, illustrating the loss of materials (e.g., household recyclable items) via environmental littering helps to provide further clarity on the efficacy of council provided services. However, it is important to note that not all littered material can be collected via council services. Further discussion regarding environmental litter within the Wellington region can be found in Section **5.2.9**.

4.1.6.2 Rural Waste Disposal

In 2020, the Manatū Mō Te Taiao – Ministry for the Environment made farm plastics, and agrichemicals and their containers priority products under the Waste Minimisation Act (2008). Farm plastics and agrichemicals along with four other products were prioritised as part of a wider plan to reduce the amount of rubbish ending up in landfills or the environment. By prioritising the products, a product stewardship scheme will be required to provide a 'cradle to grave' approach to minimising the environmental impacts of these products and their packaging. The six priority products are as follows:

- Agrichemicals and their containers
- Farm plastics
- Plastic packaging
- Tyres
- Electrical and electronic products (e-waste including large batteries)
- Refrigerants

The Agrecovery Foundation³³ is currently working with the the Manatū Mō Te Taiao – Ministry for the Environment to make the transition from a voluntary product stewardship scheme to a regulated scheme. The revised scheme includes identifying ways to improve access to recycling services and optimising packaging design for reuse or recyclability. The regulated scheme includes all agrichemicals and their containers, up to and including 1L, or equivalent packaging for dry goods that are used for:

- any horticulture, agricultural and livestock production, including veterinary medicines;
- industrial, utility, infrastructure and recreational pest and weed control;
- forestry;
- household pest and weed control operations; and
- similar activities conducted or contracted by local and central government authorities.

As reported by the Agrecovery Foundation, this includes but is not limited to all substances that require registration under the Agricultural Compounds and Veterinary Medicines Act 1997, whether current or expired, and their containers (packaging), which are considered hazardous until they have been triple-rinsed.

While rural waste is not a consistent waste stream throughout the Wellington Region, local authorities such as South Wairarapa, Carterton and Masterton are likely to be influenced by this waste stream due to the inclusion of rural and farming communities within their boundaries. However, the collection of rural waste

³³ Agrecovery | Priority Products

data is significantly limited throughout Aotearoa New Zealand and so any discussion of rural waste in this Waste Assessment should be treated with caution and not relied upon.

4.2 Overview of Waste Services in the Wellington Region

The following sections provide an overview of the range of waste services provided by councils within the Wellington Region. The intent of this section is to highlight the current services and to help inform future opportunities.

This section also discusses the importance of behaviour change, stakeholder engagement and Mana Whenua partnership initiatives occurring throughout the region, and which underpin and help shape the range of waste services provided in the districts. Behaviour change initiatives are also critically important to facilitate and support placing more emphasis on waste prevention and maximising the benefits and use of materials over disposal.

4.2.1 Council Waste Services

The following sections have been separated into kerbside council provided services to provide clarity on the range of services offered within the Wellington Region, specifically:

- Recycling
- Refuse
- Organics

Commentary on service changes since the 2016 Waste Assessment has been included where appropriate.

4.2.1.1 Kerbside Recycling

A review of council provided recycling services has been summarised in **Table 13** with discussion of key items below. At present, all councils provide a rates funded kerbside recycling service using either bins or bags, except for Kāpiti Coast District Council and Upper Hutt City Council where private commercial collection arrangements are in place. Kāpiti Coast District Council licenses the private collectors to ensure recycling services are included with all waste collection contracts and provides free recycling drop-off at the Otaihanga Resource Recovery Facility and the Ōtaki Resource Recovery Centre. Upper Hutt City Council provides a rates-funded drop-off to the Upper Hutt Recycling Station or private commercial collection arrangements.

A review of kerbside recycling provided by each of the eight local authorities identified a change in the type of plastics which are now collected and recycled. Specifically, where plastic grades 1-7 were collected and reported in the 2016 Waste Assessment, these have now reduced to either 1 and 2 only, or 1, 2 and 5.

Additionally, while there was difference in collection timing and bin sizes, there was general consistency across the eight councils in the range of materials collected, particularly with glass commonly collected separately and via crates. Of note, the current central government initiative to standardise kerbside collections is expected to influence the provision of council kerbside recycling service, including potential service contract amendments.

Table 13	Summary of Kerbside Recycl	ling Services and Co	urrent Charges	
Local Authority	Type of Kerbside Collection Service	Materials Accepted	Cost	Collection Contractor
Carterton District Council	140L bin (fortnightly, alternating weeks with bins) Crate (glass only) (fortnightly, alternating weeks with bins)	Bins – plastics 1 and 2, tins, paper and cardboard, cans Crates – glass only	\$105.90 incl GST per unit for kerbside (refuse & recycling) collection service. Small value in General rates	EarthCare
Hutt City Council	120L or 240L bin (collected fortnightly) Crate (collected fortnightly on alternating weeks with bins)	Bins – paper and cardboard, tins and cans, plastic containers 1, 2 and 5 Crates – glass only	\$111 per year	Waste Management NZ Ltd
Kāpiti Coast District Council	No council funded service – licensed private commercial contractors provide a combined rubbish and recycling service within urban residential zones.	Bins – paper and cardboard, tins and cans, plastic containers 1, 2 and 5, Crates only - glass	See note below	EnviroWaste (also trading as Clean Green and Budget Waste) Low Cost Bins Lucy's Bins Waste Management (previously trading as Transpacific)
Masterton District Council	140L bin (fortnightly, alternating weeks with crates) Crate (glass only) (fortnightly, alternating weeks with bins)	Bins – paper and cardboard, tins and cans, plastic containers 1, 2 and 5 Crates – glass only	\$89 (incl GST) pa per urban property able to use the kerbside collection service \$220 (incl GST) pa per beach property \$0.000045 per \$ of CV charged as a rate per urban property.	EarthCare
Porirua City Council	240L bin (mixed recycling) (fortnightly) 140L bin for glass (every four weeks)	Bins – paper and cardboard, tins and cans, plastic containers 1, 2 and 5, glass	\$57 per property per annum	Waste Management NZ Ltd
South Wairarapa District Council	140L bin (fortnightly, alternating weeks with bins) Crate (glass only) (fortnightly, alternating weeks with bins)	Bins – paper and cardboard, tins and cans, plastic containers 1, 2 and 5 Crates – glass only	\$3.00 per yellow bag, \$17.50 for glass crate \$198 per year for refuse charge	EarthCare
Upper Hutt City Council	Rates-funded drop-off to Upper Hutt Recycling Station OR Private bin service	Bins – paper and cardboard, tins and cans, plastic containers 1, 2	\$300K	Private bin service – Low-Cost Bins, Waste Management

Local Authority	Type of Kerbside Collection Service	Materials Accepted	Cost	Collection Contractor
		and 5 (caps off), glass, Tetra Pak		
Wellington City Council	User pays bags (fortnightly) 45L crate (glass only) (fortnightly) 140L bins (allocated properties only) (fortnightly)	Paper and cardboard, tins and cans, plastics, glass	Homes in the city centre - 10 bag pack for \$3.10 (5 for glass 5 for general recycling) Homes outside the city centre - 26 bag pack for free each year with further 26 packs available for \$13 Glass crate \$15	Suburban – EnviroWatse CBD – Fulton Hogan

*Kāpiti collection charges can be found on the respective websites of the four commercial licenced collectors that offer collection services. The annual charge per user covers recycling and rubbish in one charge and ranges from \$191.70 to \$420 for the weekly collection of an 80L, 120L, 140L or 240L rubbish bin and the alternating fortnightly collection of a recycling bin and glass crate. There are also fortnightly, monthly and pay as you throw options available that further affect the price, thus financially incentivising low waste producers.

4.2.1.2 Kerbside Refuse

A review of council provided recycling services has been summarised in **Table 14** with discussion of key items below. Across the eight councils, household refuse is collected and managed via one of three mechanisms:

- Rates funded
 - Carterton District Council, Hutt City Council, Masterton District Council and South Wairarapa District Council
- User pays
 - Upper Hutt City Council, Wellington City Council and Porirua City Council
 - Private commercial collection
 - Kāpiti Coast District Council

Generally, household refuse is collected via either bins or bags with an associated service cost.

Table 14	Summary	of Kerbside Refuse Services and Current Charges	
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Local Authority	Type of Kerbside Collection Service	Cost	Collection Contractor
Carterton District Council	Rubbish bags (weekly)	\$2.80 per bag and includes the cost of collection and disposal	EarthCare
Hutt City Council	80L bin (weekly) 120L bin (weekly) 240L bin (weekly)	\$105 per year \$148 per year \$296 per year	Waste Management NZ Ltd
Kāpiti Coast District Council	Licenced private collectors: 80L bin (weekly, fortnightly or Pay as U Go) 120L bin (weekly, fortnightly or monthly)	See note below	EnviroWaste (also trading as Clean Green and Budget Waste) Low Cost Bins Lucy's Bins

Local Authority	Type of Kerbside Collection Service	Cost	Collection Contractor
	140L bin (weekly or Pay as U Go) 240L bin (weekly, fortnightly, monthly or Pay as U Go)		Waste Management (previously trading as Transpacific)
Masterton District Council	Rubbish bags (weekly)	\$4.00 per bag or 5 bag pack for \$20	EarthCare
Porirua City Council	70L council bags (weekly)	\$3.50 per bag or 10 bag pack for \$35	Civic Group
South Wairarapa District Council	Rubbish bags (weekly)	\$3.00 per bag, includes collection and disposal	EarthCare
Upper Hutt City Council	User pays bags (weekly)	Bag cost set by retailers	Waste Management
Wellington City Council	User pays 50L bags (weekly)	\$3.29 per bag or 5 bag pack for \$16.45	Suburban – EnviroWaste CBD – Fulton Hogan

*Kāpiti collection charges can be found on the respective websites of the four commercial licenced collectors that offer collection services. The annual charge per user covers recycling and rubbish in one charge and ranges from \$191.70 to \$420 for the weekly collection of an 80L, 120L, 140L or 240L rubbish bin and the alternating fortnightly collection of a recycling bin and glass crate. There are also fortnightly, monthly and pay as you throw options available that further affect the price, thus financially incentivising low waste producers.

4.2.1.3 Kerbside Organics

Of the eight councils in the Wellington Region, Hutt City Council is the single local authority that currently provides residents with an option to collect organics (i.e., greenwaste only) from kerbside via a rates funded system. This four-weekly service uses a 240L bin at a cost of \$101³⁴ per year. Using their Waste Levy Grant, the Kāpiti Coast District Council have funded community groups and small businesses to establish decentralised food scrap collection services:

- Pae Cycle (in Paekākāriki for residents and businesses)
- Organic Wealth Food to Farm (District-wide for businesses and residents)

Two private licenced collectors also offer wheelie bin garden waste collection services. This garden waste service can be in an 80L, 140L or 240L bin collected weekly, fortnightly or Pay as U Go.

While no other council offers a council funded service, all support residents and ratepayers to collect and separate organics (i.e., greenwaste and food scraps) and home compost, where able. The Kāpiti Coast District Council runs the Love your Compost programme which is designed to support residents to home compost. The support provided includes composting system vouchers, resources, workshops and other incentives.

It is also acknowledged that the Ministry for the Environment via the newly released Te rautaki para | Waste strategy includes making food scrap collection services available to households in all urban areas (i.e., towns of 1,000 people or more) by 2027. Alongside the provision of household food scrap collection services, the Ministry for the Environment is also looking to get businesses ready to separate food scraps from general waste by 2030. To reduce business food waste sent to landfill, the government is proposing that all businesses should separate food waste from their general waste. Businesses would then choose what they do with their food scraps with some potentially being used as stock food or turned into compost or digestate. Businesses

³⁴ Rubbish, recycling and garden waste bins | Hutt City Council

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are also encouraged to look for opportunities to further reduce their food waste by donating edible food or explore opportunities for upcycled food products³⁵.

As such, it is probable that one or more additional Wellington region councils will have implemented a kerbside organics service before the next Waste Assessment. Additionally, it may also present opportunities for territorial authorities to provide opportunities (e.g., collection, processing, end-market relationships) to their local businesses.

Further changes to Aotearoa New Zealand's waste and resource management industry are also further discussed in Section **8.1.4**.

Case Study – Para Kai Miramar Peninsula Trial

In September 2020, Wellington City Council initiated a 12-month Para Kai Trial comprising a weekly kerbside food scrap collection service and household home composting. The intent of the trial was to understand how much food scraps could be diverted from landfill through kerbside collections and home composting. The trial was carried out on the Miramar Peninsula and representative of Wellington's demographics, socioeconomics, and



topography. Of the trial participants, 500 households trialled a weekly kerbside food scrap collection service with another 450 households trialling a home composting system in either a worm farm, compost bin or bokashi system.

Of the food scraps collected from kerbside, approximately 33,000kg was diverted from landfill with an average food scrap reduction per household of approximately 40%. In comparison, approximately 13,000kg of food scraps was diverted from landfill using the range of home composting systems; an average food scrap reduction per household of approximately 16%. Key findings³⁶ reported through the trial survey indicated that a kerbside collection service is the most effective method for diverting food scraps from landfill with home composting systems also supporting diversion of food scraps from landfill. Further, from a willingness to participate perspective, at least four out of five respondents across both the kerbside collection and home composting systems due to the flexibile food scrap collection service a more convenient method than home composting systems due to the flexibility in the types of food scraps accepted. As such, the level of interest and willingness from residents to continue collecting food scraps suggests that a city-wide roll-out of a food scraps collection service complemented by ongoing home composting methods would support Wellington City Councils Te Atakura – First to Zero greenhouse gas emission reduction initiatives.

³⁵ <u>Separation-of-business-food-waste-Snapshot-of-the-consultation.pdf (environment.govt.nz)</u>

³⁶ Para Kai Trial Phase One Survey Topline Report (wellington.govt.nz)

³⁷ 2022-04-27-agenda-inf-final.pdf (wellington.govt.nz)

Case Study – Porirua, Hutt and Wellington City Councils Business Case for Organic Waste Facility and Collections

Porirua, Hutt and Wellington City Councils are currently (commissioned in 2022³⁸) undertaking a business case to understand the options available to manage their food scraps. Acknowledging that Porirua and Hutt City Councils receive approximately 90,000 tonnes per annum of organic waste at Spicer and Silverstream landfills, the intent of the project is to inform options to manage business and household food scraps across the districts and wider region. While the outcomes of this project are not available at the time of writing, this project may provide valuable insights for other neighbouring authorities should they also seek to investigate and implement a kerbside food scrap collection service.

4.2.2 Waste Minimisation and Behaviour Change Initiatives

Focused and relevant behaviour change initiatives developed in partnerships with Mana Whenua and supported by stakeholder engagement are critical elements to support council waste minimisation goals and objectives. Effective behaviour change supports the development and implementation of initiatives focussed on a reduced waste future for the Wellington Region, whilst supporting stakeholders to envisage opportunities to minimise waste, save money and have a benefit to the wider environment. Further, partnership with Mana Whenua is a critical component to ensure culturally appropriate outcomes and considerations support goals in minimising use of resources and maximising reuse and recovery. Additionally, engagement with stakeholders including but not limited to community organisations, resident and ratepayer associations has the benefit of establishing and maintaining these partnerships and relationships, development and implementation of Local Action Plans will inevitably benefit from access to the breadth and depth of external knowledge and resources. It also recognises that council may have limited capacity and capability to undertake all projects and so acknowledges the opportunity to partner and work with external individuals and/or organisations that may be better suited to deliver on projects.

Across the eight Wellington region councils, waste minimisation and behaviour change activities (e.g., education campaigns) are often provided via council websites and direct engagement with stakeholders (e.g., schools, community organisations). As reported in the 2016 Waste Assessment Report, these activities generally focus on reduction, reusability, recyclability of resources, such as:

- Steps to reduce household food scraps (e.g., meal planning, home composting)
- Event waste minimisation and management planning
- Educational video series
- Opportunities to maintain and repair products or borrow, rent, share items
- Provision of information (e.g., weblinks, downloadable brochures)
- Options to reuse items to give item another life

Table 15 provides a high-level summary of the range of waste minimisation and behaviour change initiatives across the Wellington region councils. It is worth noting that while **Table 15** focusses on council initiatives there are a range of external initiatives operated by, for example, community, social enterprise, Mana Whenua and businesses that collectively contribute the Regions broader waste minimisation efforts.

³⁸ GETS | Porirua City Council - Organic Waste Facility and Collections

Council	Education Institutions	Community	Businesses
Carterton District Council	EnviroSchools Ruamāhanga Strategy – Climate Change Strategy and Action Plan and website information Website information and links to supporting organisations	Website information and links to supporting organisations Climate Change Strategy and Action Plan and website information	Climate Change Strategy and Action Plan and website information Website information and links to supporting organisations
Hutt City Council	EnviroSchools Website information and links to supporting organisations	Website information and links to supporting organisations	Website information and links to supporting organisations
Kāpiti Coast District Council	EnviroSchools In house delivery of Zero Waste Education Programme in schools Waste Levy Grants Website information and links to supporting organisations	Website information and links to supporting organisations Waste Levy Grants Workshops – Love your Compost Campaign. Talks to community groups, site visits. Events waste management Waste audits and advice	Waste Levy Grants Website information and links to supporting organisations Emissions reduction toolkits for households and businesses – website information emissions. Waste audits. Collaboration projects via Pakihi Toitū ō Kāpiti – Kapiti's sustainable business network
Masterton District Council	EnviroSchools Online Wasted Video Series Website information and links to supporting organisations	Website information and links to supporting organisations Online Wasted Video Series Love Food hate Waste NZ campaign	Love Food hate Waste NZ campaign Online Wasted Video Series Website information and links to supporting organisations
Porirua City Council	EnviroSchools Love Food hate Waste NZ campaign Waste Free Living Compost Classroom programme Website information and links to supporting organisations	Website information and links to supporting organisations Love Food hate Waste NZ campaign Waste Free Living Community event waste management support	Love Food hate Waste NZ campaign Waste Free Living Recycling Soft Plastics Working with Shopping Villages (Recycling Rewards Programme) Event waste management Website information and links to supporting organisations
South Wairarapa District Council	EnviroSchools Love Food hate Waste NZ campaign Website information and links to supporting organisations	Website information and links to supporting organisations Love Food hate Waste NZ campaign	Love Food hate Waste NZ campaign Wairecycle – kerbside recycling and rubbish collection information for businesses and commercial customers

 Table 15
 Waste Minimisation and Behaviour Change Initiatives of the Wellington Region

Council	Education Institutions	Community	Businesses
			Agricultural container recycling information
Upper Hutt Cit Council	 Y EnviroSchools Battery recycling trial Website information and links to supporting organisations 	Website information and links to supporting organisations Battery recycling trial	Battery recycling trial Website information and links to supporting organisations
Wellington Cit Council	y EnviroSchools Website information and links to supporting organisations Event waste management Capital compost community grants Zero waste education for schools	WasteFree Welly Sustainability Trust Event waste minimisation support Home composting support Landfill tours Website information and links to supporting organisations Para Kai Miramar Peninsula Trial Event waste management Household battery recycling	Workprogramme working alongside businesses to provide waste minimisation material Website information and links to supporting organisations Event waste management Business waste audit supporting links and information Information to reduce food waste

4.2.3 Joint Solid Waste Initiatives and Services

Acknowledging the breadth and depth of local council initiatives to minimise waste and maximise reuse and recovery of resources, this section further explores the range of current joint solid waste initiatives and services provided across the region (see Section **4.2.3.1**). This section also looks ahead to the future and explores the potential joint opportunities that may be available in recognition of current central government transforming recycling initiatives, including (see Section **4.2.3.2**):

- Waste sector emission reductions
- Container Return Scheme
- Improvement to kerbside recycling
 - Collection of a standardised set of materials in kerbside recycling and food scrap collections
 - o All councils to provide a kerbside food scraps collection service to urban households
 - o Require reporting for both council and private kerbside collections
 - Set councils a minimum baseline performance and a high achieving target for kerbside diversion
 - \circ $\;$ Consideration given to collecting glass or cardboard and paper separately
 - o All councils provide a kerbside recycling collection to urban households
- Separation of business food waste
 - \circ $\;$ Require all businesses to collect food scraps separately from other waste materials

4.2.3.1 Current Joint Initiatives

In addition to individual council initiatives, the 2017-2023 Regional Waste Management and Minimisation Plan includes a set of regional actions that are shared between the eight councils. **Table 16** summarises these actions and provides an indication of their individual status. It is also important to note that several major global events (i.e., China National Sword, COVID-19 global health pandemic) have had a significant impact on

individual and collective council ability to progress development and implementation of initiatives. Recognising these external factors is important context in understanding the status of the suite of regional actions. However, all councils in the Wellington region have been progressing initiatives and preparing for the potential central government Transforming Recycling initiatives that will inevitably influence and shape waste and resource management throughout the Region.

Regional Actions	Description	Status Summary
Develop and implement a regional bylaw, or a suite of regionally consistent bylaws	Set standards and gather data so they can plan and manage waste better	Individual and joint bylaws have been developed and adopted in 2021 (see Section 2.2.1)
Implement Waste Data Framework Regional engagement	Consistent, high-quality data will help us track our progress. More consistent regional communications and education around waste services and waste minimisation will help households and communities to be inspired and supported so	Development of a waste licensing framework is currently underway. A Wellington region Joint Waste Committee has been established with sharing of knowledge and opportunities. Collective sharing of and knowledge exchange
Optimise collection systems	they can play their part. Work to improve collections so that they maximise diversion and are cost effective to communities.	between councils to maximise opportunities. Ongoing individual council work programmes to assess value for money and effectiveness for ratepayers as well as monitoring the potential developments regarding central government Transforming Recycling initiatives.
Resource recovery network	Make sure the Wellington region has the facilities to divert more material like construction and demolition waste, food and/or biosolids, and other organic waste.	Individual councils are progressing initiatives to investigate the range of waste streams including opportunities for regional collaboration focussed on organics processing and recovery of resources. Hutt City, Porirua City and Kapiti are collaborating and have applied and obtained waste levy funding from MfE for resource recovery project.
Beneficial use of biosolids	This is a large waste stream that, if we divert it, will make a big contribution to our regional targets.	Wellington City Council has made significant progress towards developing the Sludge Minimisation project with the aim to have a solution in place by 2026. Kāpiti has significantly reduced its emissions and disposal to landfill by drying its biosolids since around 2005. Trials for reuse of the dried biosolids has been carried out and exploration of reuse options is on-going.
Shared governance and service delivery	Potential to join together as a region to deliver higher levels of service more efficiently.	Recognising the Joint Regional Steering Committee, progress is being made in identifying and potentially delivering joint services to maximise opportunities. Ongoing

Table 16	Summary of Wellington Region Actions ³⁶	£
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³⁹ Regional Waste Management and Minimisation Plan 2017-2023

Regional Actions	Description	Status Summary
		collaboration will be a key focus of the steering group moving forward recognising the potentially significant developments proposed by Central Government.
Resourcing for regional actions	Make sure the region has the means to deliver on what we set out in the plan.	Resourcing to support local action plans is a key consideration to ensure delivery of projects and initiatives and may also require new and innovative opportunities including partnering with Mana Whenua, community, and business organisations in recognition of the breadth and depth of available knowledge.
Collaborate and lobby	Work with other local government organisations, NGOs and other key stakeholders on undertaking research, lobbying and actions on various waste management issues such as (but not limited to) product stewardship, electronic waste, tyres, plastic bags, etc.	Where possible the Wellington region councils collaborate, with more opportunities to progress these relationships potentially available once central government confirms direction on several transforming recycling initiatives (e.g., Container Return Scheme).

Several additional joint initiatives are discussed in more detail below.

Wellington Region Waste Minimisation Education Strategy

The development of the Wellington region Waste Minimisation Education Strategy (WMES) was an output of the 2017-2023 Wellington region Waste Management and Minimisation Plan. As reported⁴⁰, the WMES seeks to provide a consistent region education strategy for each council to engage communities and businesses in a cohesive and constructive way, helping people to better understand the benefits of adopting a waste minimisation culture. Through greater understanding and instilling the motivation to change current waste related behaviours, benefits to the region's population include reducing the waste of valuable resources, improving our region's economic efficiency (saving money), and reducing our impacts on the environment. The WMES also states, identifying a preferred methodology for undertaking future regional actions related to each target waste stream. By focussing on target waste streams, as identified in the WMMP, through initiatives that successfully engage communities and stakeholders, behaviour change outcomes that yield economic, environmental, social and cultural benefits to all can be achieved.

⁴⁰ Wellington Region Strategy (swdc.govt.nz)

Recognising the WMES and the strategic guidance provided for within the strategy, each council in the Wellington region has their own unique waste minimisation and behaviour change initiatives which reflect the diverse communities within each district. As such, for the WMES to be effective there should be sufficient flexibility to reflect the uniqueness of the Wellington districts. The WMES should also reflects the range of

audiences, rather than require a 'one size fits all' approach to behaviour change and waste minimisation activities.

Wellington Regional Event Waste Reduction Guide

Recognising the opportunity to minimise waste from events as well as connect with and help educate the public on waste minimisation initiatives, the Wellington Regional Event Waste Reduction Guide⁴¹ was developed. All eight Wellington region councils have endorsed this Guide which helps event organisers to minimise waste from the earliest planning stages by setting out clear and accessible steps to support event waste minimisation. These steps include:

- How to become a waste minimisation hero
- Understanding how to reduce, reuse and recycle
 - o In public areas
 - At back of house
 - During set up/pack down
 - Developing a site plan
- Appointing an on-site waste operations manager
- Engaging stakeholders
- Sharing your message pre-event, during event and post-event
- Writing a waste-free event plan

As such, the Guide provides Wellington region councils with consistent and clear foundation information with which event organisers can access and implement across the region. This clarity then supports a streamlined approach to undertaking event waste minimisation activities across the region.

⁴¹ <u>Reducing waste at your event (mstn.govt.nz)</u>

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Wellington Regional Event Packaging Guidelines

As with the Wellington Regional Event Waste Reduction Guide, the eight Wellington region councils have also

endorsed the Event Packaging Guidelines⁴². The Packaging Guidelines provide event organisers, stallholders and food and beverage vendors information to reduce waste generated through their products and services by providing a range of alternative options, including:

- Compostable food packaging materials
- Setting out which materials can be accepted for recycling at events (e.g., plastic grades 1 and 2, tins and cans, glass bottles and jars, cardboard and paper)

The guidelines also set out what products and materials should be avoided, including:

- Avoiding the use of bioplastics (e.g., compostable coffee cups and lids)
- Avoiding compostable/biodegradable/corn-starch bags
- Use of branding that uses non-toxic inks
- Setting out products that cannot be recycled or composted (e.g., paper or cardboard lined with plastic, foil or wax, compostable/plant based 'hard' plastics, aluminium foil)



As such, the Regional Event Packaging Guidelines provides the important consistency of messaging and transparency of which products should be used and avoided. Of note, with the rapidly evolving range of packaging products available on the market, these guidelines will likely require revision at specific time intervals to ensure information is accurate, up-to-date and reflects any new and or emerging products that could be used and/or should be avoided at events.

Event Waste Plans

As a new requirement under the regionally consistent bylaw, events over a certain size are required to submit a plan prior to the commencement of their event. They are also required to submit a post event waste analysis report.

The councils of the Wellington region developed this tool together to ensure a regionally consistent approach to planning resources and data required.

4.2.3.2 Future Joint Initiative Opportunities

There are currently a range of central government initiatives underway that are anticipated to influence and shape waste minimisation and resource recovery initiatives in the Wellington Region. The following list provides a high-level indication of potential future joint opportunities including a brief description:

Container return scheme

⁴² <u>Regional-Event-Packaging-Guidelines-1.pdf (mstn.govt.nz)</u>

- Consideration given to accessible locations for residents and ratepayers to return eligible scheme containers.
- Organics processing
 - Consideration given to a single regional facility or a network of facilities to support a range of providers and build-in system resilience.
- Resource Recovery / Zero Waste Network
 - Consideration given to establishing a network of resource recovery centres that focus on circular economy principles and promoting the repair, recovery and reuse of materials (note, this is in part already occurring between PCC, HCC and KCDC).
 - Note, KCDC is expected to establish a zero waste hub in 2023 (which will be part of the zero waste network).
- Construction and Demolition waste collection and reuse network
 - Consideration given to the large quantities of construction and demolition waste that could be recycled and/or repurposed.
 - Note, KCDC first focus is developing a construction and demolition hub within the zero waste hub.
- Plastic processing and remanufacturing
 - The government is planning to phase out certain hard-to-recycle plastics and six single use items between 2022 to 2025. Acknowledging the current global market constraints for Aotearoa New Zealand's recycled materials an opportunity to establish and/or invest in local manufacturing, processing technologies and/or upgrades to council owned facilities may present regional collaborative opportunities.
- Central government advocacy
 - Collective regional advocacy to central government to inform and shape legislative instruments before being issued for consultation and provide a collective regional voice on submissions.

Further investigation will be needed to determine the exact opportunity and the how each could be progressed at a regional level (noting several councils within the Wellington region are progressing joint initiatives).

4.2.4 Waste Minimisation and Other Council Services

As the effects of human consumption on the environment, specifically climate change is acknowledged and strategies developed to focus on minimising impacts, strategies to minimise waste disposal and associated emissions are now recognised as key areas for consideration. As such, many councils are now developing or have implemented respective climate change strategies which include goals and targets to reduce emissions from key contributing sectors such as transport and waste. Examples of such strategies in place within the Wellington region are included in **Table 17**.

Table 17	Wellington Region Council Climate Change Strategies
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Council	Strategy	Focus
Carterton and South Wairarapa District Councils	Ruamāhanga Climate Change Strategy	 During the period 2020 – 2030, Carterton and South Wairarapa District Councils aim to: Reduce their gross greenhouse gas emissions; Increase the reservoirs, therefore the amount of greenhouse gas sequestered every year;

Council	Strategy	Focus
Hutt City Council	Lower Hutt Climate Action Pathway Te Ara Whakamua o Te Awa Kairangi ki Tai, entitled 'Our race against time Ka whati te tai, ka pao te tõrea	• Reduce biogenic methane by 10% below 2017 levels. As a community accelerate efforts to halve Lower Hutt's direct emissions by 2030 and reach net zero by 2050. Lower Hutt's main source of greenhouse gas emissions are transport, stationary energy and waste. Industry and agriculture are minor sources of emissions.
Kāpiti Coast District Council	Climate Emergency Action Framework	The vision at the heart of the Climate Emergency Action Framework is a thriving, vibrant and strong Kāpiti that has reduced its carbon footprint significantly, transitioned to a low- carbon future, and prepared for challenges and opportunities that come from responding to the climate crisis. Kāpiti Council has certified for emissions reductions since 2010 and has reduced it's emissions from council services by 78% (excluding waste water emissions). Council continuous it's emissions reduction journey towards the target of being carbon neutral by 2025 (date is under review). Council is now working towards setting Districtwide emissions targets.
Masterton District Council	Climate Action Plan (in development)	Council established a climate change Focus Group to help draft a set of proposed actions for the district's Climate Action Plan. Eight climate change themes were consulted on, including 'Waste and Circular Economy – how we reduce our consumption and repurpose old items'.
Porirua City Council	Rautaki o Te Ao Hurihuri Climate Change Strategy	Focus areas are: 1. Mitigation: A zero-carbon council 2. Adaptation: A resilient city 3. Transition: A low-carbon future
Upper Hutt City Council	Sustainability Strategy 2020 and Our Sustainability Plan 2021- 2024	 Focus on Sustainability Goals: Carbon reduction – council will be a carbon neutral organisation by 2035 Natural environment – we will prioritise protecting and enhancing our natural environment. Resilient and inclusive community – our community will be resilient, adaptable and inclusive. Waste – we will reduce waste.
Wellington City Council	Te Atakura – First to Zero	Council has committed to ensuring Wellington is a net zero emission city by 2050, with a commitment to making the most significant cuts (43%) in the next 10 years.

Further, the implementation of such strategies set clear targets and expectations for each of the eight councils as well as having clear influence on the development of tailored and appropriate waste minimisation and management activities. While each council is responsible for developing their own individual local waste action plan in accordance with the Wellington region Waste Management and Minimisation Plan, each plan considers wider strategic targets including climate change targets. Additionally, the Wellington region Waste Management and Minimisation Plan sets out the agreed regional targets which may also consider appropriate targets to meet local and nationally agreed climate change emission targets.

4.2.5 Council Service Funding

Table 18 provides a summary of the respective council expenditure related to council provided waste services.

 All data presented has been provided by the respective TA authority.

Council	Expenditure (\$)							
	Landfill/RTS	Collections	Other	Total	Waste Minimisation (Levy Eligible)			
Carterton	\$588,000	\$256,000	\$138,000	\$982,000	No data available			
Hutt City	\$12,819,142	\$9,304,287	\$698,249	\$22,821,678	\$498,733			
Kāpiti	\$274,000	\$-	\$359,000	\$633,000	\$182,000			
Masterton	\$3,082,305	\$1,032,851	\$1,005,900	\$5,121,056	\$166,479			
Porirua	\$6,966,000	\$1,299,000	\$188,300	\$8,453,300	\$312,700			
South Wairarapa	\$738,947	\$724,977	\$417,655	\$1,881,579	No data available			
Upper Hutt	\$20,000	\$312,630	\$-	\$332,630	\$105,970			
Wellington	\$13,310,000	\$13,562,000	\$284,000	\$27,156,000	\$1,773,000			

Table 18 Summary of 2021/22 Expenditure

The data provided by each of the Wellington region TAs summarises the ways in which council services are funded. Total expenditure ranged from approximately \$27million for Wellington City Council to approximately \$333,000 in Upper Hutt Council. Further, in recognition of the significant investment in waste minimisation across the TAs, **Table 18** provides a summary of the levy eligible waste minimisation expenditure for 2021/22. The spread of waste minimisation expenditure reflects the significant effort placed by each TA to progress activities to support and encourage waste diversion, including those activities as included in the WMMP Local Action Plans. Noting the government changes to the Aotearoa Waste Strategy including changes to kerbside collection systems, it is anticipated that investment in waste minimisation activities will continue to increase.

4.2.6 Current Joint Solid Waste Initiatives and Services across the Wellington Region

The following list summarises the range of shared services councils currently work together on and include those also reported within the 2016 Waste Assessment:

- Landfill ownership and management Wellington and Porirua have joint ownership of Spicers landfill
- Facility usage Hutt and Upper Hutt– agreement for usage of Silverstream landfill, all councils in the Wairarapa use Masterton's Nursery Road Resource Recovery Centre
- Bulk haulage the Wairarapa councils have a joint agreement for haulage of waste to landfill
- Waste management and minimisation planning all the councils of the region are participating in the development of the Waste Assessment and WMMP
- Investigation of a regional network of resource recovery centres
- Waste operator licensing
- Joint initiative between Porirua City Council and Hutt City Council to investigate organic processing options. The options analysis also includes Wellington City Council.
- Promoting and supporting waste minimisation at events development of regional guides on 'reducing waste at your event' and 'event packaging guidelines'.
- Optimisation of regional communications regional officers meet regularly and collaborate where appropriate.
- Wellington Regional Waste Education Strategy ensure systems and resources are in place to support implementation.

4.2.7 Assessment of Council Services

4.2.7.1 Collection Services

Collection services vary across the Wellington region which recognise the different council jurisdiction needs. As reported in the 2016 Waste Assessment commentary was included regarding the potential substantial benefit of greater standardisation and adoption of industry practice (e.g., moving to two stream recyclable collection with glass collected separately) and move towards smaller bin sizes for refuse. This would be complemented with greater options for people to divert materials from disposal, for example, donation to recycling centres. However, any modification to council services will require either a contract renewal or amendment and will also need to consider and account for all health and safety matters as per the Health and Safety at Work Act 2015.

Further, in early 2022, the government consulted the public on improvements to household kerbside recycling in recognition that large amounts of recyclable material are lost to landfill, long-term plan to reduce waste, litter and emissions and increase resource recovery and to transform our systems to build a more circular future for Aotearoa New Zealand. The government also consulted on two other proposals, namely a container return scheme for single-use beverage containers and separation of food scraps from general waste for all businesses. Supporting these three proposals was recognition that globally many countries have already progressed on this journey and so Aotearoa New Zealand as a global citizen is also now faced with ensuring foundations are established to ensure a low-emission future by establishing best-practice recycling systems and improving national recycling rates.

The Ministry for the Environment has recently (2023) released Te rautaki para | Waste strategy which sets out several key areas that will be progressed over the coming years, including:

- Making materials collected from households for recycling the same across Aotearoa New Zealand from 2024
- Ensuring kerbside recycling services are provided to households in urban areas (i.e., towns of 1,000 people or more) by 2027
- Making food scraps collection services available to households in all urban areas by 2030

Each of the above three areas will bring significant changes to the way in which councils of the Wellington region provide services to their residents and ratepayers.





For example, standardised kerbside collections will require councils to collect a standard set of materials in household kerbside recycling across all of Aotearoa New Zealand as well as providing all urban households with a food scraps collection. To reduce confusion and improve the quality and quantity of collected material, collections will be standardised to include glass bottles and jars, paper and cardboard, plastics 1, 2 and 5 and aluminium, steel tins and cans. Further, the requirement to implement a kerbside food scrap collection will also require councils to consider the end-fate of the material and therefore the type of processing required. This might include composting and/or anaerobic digestion which in turn will provide valuable nutrients and energy which can be returned to the soils or be used in other activities (i.e., energy).

Further, the implementation of a container return scheme for Aotearoa New Zealand was consulted on in 2021 which would incentivise people to return their empty beverage containers for recycling in exchange for a small refundable deposit. While around 6,400 submissions were received from the consultation process (including standardised kerbside collections, food scrap collections and a container return scheme) with most submitters supportive of the initiatives, the government has as at March 2023 deferred⁴³ work on the container return scheme. No further updates on the anticipated timing to restart work on the container return scheme was available at the time of writing.

Where Councils currently do not provide kerbside collection services the standardised kerbside collection and food scrap collection proposal could present a challenge and may eventually require councils to provide one or more services.

4.2.7.2 Other Services

As reported in 2016, the provision of other waste services across the Wellington region councils is variable. Most councils have school environmental education programmes and there are a variety of services available to provide advice and support to the community and businesses in some areas. Further, all councils provide litter and illegal dumping clean up, with public place recycling services not consistent throughout the region.

4.2.8 Assessment of Non-Council Services

To minimise repetition, a list of non-council waste and recycling providers that operate within the Wellington region are summarised in **Table 7**. These providers provide services in, for example, composting, C&D waste management, drop-off facilities (e.g., used paint, soft plastics, e-waste dismantling), e-waste processing, hazardous waste management, plastic reprocessing, re-use stores and scrap metal recyclers.

As reported in 2016, the three landfills in the region are council---controlled, the operation of two of these are contracted to the large waste companies: Waste Management NZ Ltd and EnviroWaste Services Ltd, with the third managed by another significant national landfill operator, HG Leach.

Of particular concern to councils in the Wellington region and similarly across wider Aotearoa New Zealand is the increasing proportion of the kerbside refuse market that is controlled by private waste operators and influence this has on councils progressing and subsequently meeting their respective waste minimisation outcomes. While commercial operators provide a valuable service to regions with limited or no council provided kerbside collection, care must be taken to minimise any potential perverse outcomes that may result in greater volumes of waste collected via private operators.

Further, while there are a range of commercial operators servicing the Wellington Region, there are still areas of the market that would benefit from greater investment (e.g., private or public), therefore providing off-take for diverted and recovered materials:

- Construction and demolition material recovery
- Organic waste processing
- Recycling and reprocessing of a range of materials e.g., plastics, recoverable materials

⁴³ Freeing up more government bandwidth and money to focus on the cost of living | Beehive.govt.nz

5 SITUATION REVIEW

5.1 Overview

The intent of this section is to provide an overview of the waste flows within the Wellington Region.

The information included in this section has been presented to broadly align with the waste hierarchy with waste quantities and composition presented as bulleted below. Where data was available, quantity, and composition of waste disposed via environmental pathways have been included to provide a holistic view of waste flows.

- Resource Recovery
- Recycling and Reprocessing
- Refuse Transfer Stations
- Residual Waste Management



5.2 Waste Quantities

5.2.1 Class 1 Landfill Quantities

The tonnes per annum of waste disposed of to Class 1 Landfills from across the Wellington region has been estimated from data provided by seven of the eight Wellington councils.

The analysis is based on the following:

- All data was provided by Wellington City Council, Masterton District Council, South Wairarapa District Council, Kāpiti Coast District Council, Hutt City Council, Carterton District Council and Porirua City Council. No data was available for Upper Hutt City Council.
- Hutt City Council and Porirua City Council (i.e., 2022 SWAP report) provided data has been extrapolated from the 2014 and 2022 SWAP Report.
- Levied waste figures are calculated using the data provided by each of the councils. In some cases, the levied waste data sum exceeds the aggregated total of general, special and sludge waste resulting in a higher total waste to Class 1 sum.
- Total waste to Class 1 landfills in the Wellington region is a sum of the levied waste and cleanfill data for each of the council provided data points.
- For comparison, the tonnage for 2014/15 extracted from the previous waste assessment is also shown.

The estimates from the past six financial years 2016/17 to 2021/22 are presented in **Table 19**. As reported in the previous waste assessment, tonnages for separate waste streams, based on the activity sources of the waste materials. The levied waste by disposal facility is presented in **Table 20**.

Table 19 Waste to Class 1 Landfill in the We	llington Region
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Class 1 Landfill (tonnes/annum)	Year							
	2014/15 ⁸	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
General ¹	252,536	231,918	235,124	234,531	236,766	251,627	186,039	
Special ¹	17,717	24,151	28,887	34,211	42,918	38,631	6,766	
Sludge ¹	31,823	28,473	29,388	29,200	27,534	33,382	25,441	
TOTAL ²	-	284,542	293,399	297,942	307,218	323,639	218,247	
Levied Waste ³	302,076	411,264	432,116	430,110	440,720	449,655	302,586	
Levied Waste minus TOTAL ⁴	-	126,722	138,717	132,168	133,502	126,016	84,340	
Cleanfill⁵	24,942	107,254	130,169	91,276	101,532	129,741	84,993	
						F70 200	207 5 70	
TOTAL ⁶	327,018	518,518	562,285	521,386	542,252	579,396	387,579	

¹General excludes: Upper Hutt City, Special excludes: Masterton District Council, South Wairarapa District Council, Kāpiti Coast District Council, Carterton District Council, Sludge excludes: Masterton District Council, South Wairarapa District Council, Carterton District Council, Upper Hutt City data

²Total General, Special, Sludge

³Total Levied Waste as provided by councils

⁴Difference between Levied Waste data provided by councils versus sum total of General, Special, Sludge

⁵Excludes South Wairarapa District Council, Upper Hutt City and Carterton District Council data

⁶This total is based on Levied Waste and Cleanfill

⁷Based on data provided by the council and the difference between the Total waste data and Levied Waste data ranged between 63% and 68% leaving a difference of between 32% and 37% that is not accounted for

⁸2016 Waste Assessment data

The four categories of waste clearly show an increase in tonnage over the first five-year period (i.e., 2016/17-2020/21) then a decrease in 2021/22. While COVID-19 activities may be a contributing factor, the paucity of data available is also a contributing factor to this lower total tonnage. As such, the 2020/21 tonnage is expected to be more representative of the current situation – noting though that COVID-19 is acknowledged as having had a significant influence on the waste sector during this time period. Broadly, general waste (i.e., construction and demolition, domestic kerbside, industrial/commercial, landscaping and residential waste) has remained relatively consistent over the period with some moderate fluctuations across the time period. Interestingly, 2020/21 shows a decrease in general waste reported from across the Wellington region and may in part be due to the effects of COVID-19 on waste disposal behaviours along with council access to specific waste tonnage data.

Special waste showed a similar trend with again a significant reduction in 2020/21, increasing again in 2021/22. Tonnages of sludge remained relatively consistent over the six-year period. However, total levied waste showed a marked increase between 2016/17 and 2019/20 which is likely due to the provided council data exceeding the aggregated total of general, special and sludge waste (see above bullet notes).

Further, cleanfill tonnages fluctuated between 2017/18 and 2021/22 likely due to increasing construction demand across the region before tonnages significantly reduced in 2020/21. Overall, the total waste to Class 1 landfills in the Wellington region has increased significantly between 2016/17 to 2020/21 before reducing significantly in 2021/22 (387,579tonnes). However, caution should be taken when interpreting this data given several council aggregate data (i.e., general, special, sludge) exceeds the aggregated total. It is recommended that the Regional Wellington Waste Minimisation and Management Plan (WMMP) provide mechanisms to support the reporting of data via contracts and other activities alongside any central government initiatives to

support improved data capture and reporting. Further, based on data provided by the councils and the difference between the total waste data and levied waste data ranged between 68% and 72% leaving a difference of between 28% and 32% that is not accounted for.

Levied Waste to Class 1 Landfill (tonnes/annum)	2014/15	2016/17	2017/18	Year 2018/19	2019/20	2020/21	2021/22
Bonny Glen and Levin	45,214	43,232	40,748	38,723	34,285	38,730	40,789
Silverstream	125,885	123,824	121,519	125,226	129,839	153,537	143,464
Southern	81,492	93,642	102,470	95,414	97,745	89,288	85,223
Spicer	49,485	55,269	63,132	69,505	74,032	73,783	83,510
Wainuiomata	NDR	NDR	NDR	NDR	NDR	NDR	NDR
Total	302,076	315,967	327,868	328,868	335,901	355,338	352,986

 Table 20
 Levied Waste from the Wellington Region – by Class 1 Landfill

NDR - no data received

More detailed data on the quantity of waste disposed of at the individual Class 1 landfills and transfer stations in Wellington region is provided in Appendix C.

5.2.2 Cleanfill (Class 2-4 Landfills) Quantities

It is acknowledged that in addition to Class 1 landfills, there are Class 2-4 landfills that accept waste. However, from the information provided by the councils of the Wellington Region, there is little to no available recording methods and data to determine the quantities of waste disposed of to these landfills (i.e., the risks associated with estimating regional tonnages from minimal data sets). As such, determining the quantities disposed of across Wellington is not possible and estimating the quantities may lead to significant errors in the total waste disposal calculations. As such and in recognition of the paucity of information, the disposal quantities to Class 2-4 landfills cannot be included in this waste assessment. It is recommended that the Wellington region Waste Management and Minimisation Plan provide mechanisms for and options for councils to obtain this information in preparation for the next assessment. It should be noted here that the waste bylaw licensing system is currently in progress.

5.2.3 Summary of Waste Disposed of to Land

Taking the information provided in the preceding sections and acknowledging no data can be provided for Class 2-4 landfills, **Table 21** provides a summary of the waste disposed of across the Wellington Region. Broadly, from the data provided by the Wellington region councils (noting Masterton District Council, South Wairarapa District Council, Kāpiti Coast District Council and Carterton District Council did not provide completed data), it is estimated that a total of 387,579tonnes of solid waste were disposed of to landfill in the Wellington region in 2021/22, equating to approximately 550kg per person. Further, noting the lack of Class 2-4 landfill tonnages and the risks associated with estimating regional tonnages from minimal data sets, these tonnages have not been included in this assessment. It is recommended that the Wellington region Waste Management and Minimisation Plan provide mechanisms to enable councils to collect this data in order to support a comprehensive assessment for the next waste assessment.

Table 21Waste Disposed to Land - 2021/22

Waste Disposed of to Land in the Wellington Region 2021/22	Tonnes 2021/22	% of Total	Tonnes/Capita/Annum
Levied Waste to Class 1 Landfills			
General ¹	186,039	48%	0.340
Special ¹	6,766	2%	0.012
Sludge ¹	25,441	7%	0.047
TOTAL ²	218,247	56%	0.399
Levied Waste ³	302,586	-	-
Levied Waste minus TOTAL ⁴	84,340	-	-
Non-Levied Waste to Class 1 Landfills			
Cleanfill⁵	84,993	22%	0.155
Waste to Class 2-4 Landfills			
All Waste	ND	ND	ND
TOTAL ⁶	387,579	78%	0.554
TOTAL ⁽³⁾ /Levied Waste ⁷	72%	-	-

*ND No available data

¹General excludes: Upper Hutt City, Special excludes: Masterton District Council, South Wairarapa District Council, Kāpiti Coast District Council, Carterton District Council, Sludge excludes: Masterton District Council, South Wairarapa District Council, Carterton District Council, Upper Hutt City data

²Total General, Special, Sludge

³Total Levied Waste as provided by councils

⁴Difference between Levied Waste data provided by councils versus sum total of General, Special, Sludge

⁵Excludes South Wairarapa District Council, Upper Hutt City and Carterton District Council data

⁶This total is based on Levied Waste and Cleanfill

⁷Based on data provided by the councils and the difference between the total waste data provided by council and levied waste data provided was 65% leaving a difference of 35% that is not accounted for.

5.2.4 Composition of Waste to Class 1 Landfills

This section presents the composition of waste disposed of at Class 1 landfills in the Wellington region during the 2021/22 financial year. For comparison with the previous waste assessment, the 12 primary classifications used in the Solid Waste Analysis Protocol (SWAP) are used. All data has been provided by each of the Tas and represents their best estimate of volumes. **Table 22** summarises the composition of levied waste sent to Class 1 landfills in the Wellington Region.

The composition has been calculated as follows:

- All data was provided by Wellington City Council, Masterton District Council, Carterton District Council, South Wairarapa District Council Kāpiti Coast District Council, Hutt City Council, and Porirua City Council. No data was available for Upper Hutt City Council.
- Porirua City Council data is based on the composition of levied waste reported in their 2020 SWAP data with tonnage data obtained from council records. All figures are based on estimates.
- Kāpiti Coast District Council data is extracted from a SWAP survey conducted at a transfer station and therefore does not include the biosolids/sludge proportion sent directly from the wastewater treatment plant to Silverstream landfill.
- Hutt City Council data is extracted directly from their 2022 SWAP report which considers; (1) that all potentially hazardous waste is epical waste, (2) classifies rubble as cleanfill, new plasterboard and

other – as such, the cleanfill component has been removed and consequently the percentages for Hutt City Council will not equate to 100%.

 No 'General Waste and Special Waste – Excludes Cleanfill' data was available for Kāpiti Coast District Council and so the effect of this has resulted in a higher tonnage for 'General Waste – Excludes Special Waste and Cleanfill'.

The primary composition of levied waste to Class 1 landfills in the Wellington region for 2021/22 are summarised in **Table 22** for general waste – excluding special waste and cleanfill (**Figure 15**), and general waste and special waste – excluding cleanfill (**Figure 16**). Further detailed breakdown is included in Appendix C.

Broadly, organic material represented the largest proportion (approximately 30%) of the waste disposed to Class 1 landfills, followed by timber (approximately 17%) and rubble (approximately 13%). Combined these three waste streams represented approximately 60% of the total waste being disposed of to Class 1 landfills. Paper (approximately 8%) and plastic (approximately 10%) also represented significant waste streams and which may present an opportunity to increase recyclable capture rates. Compared to the previous waste assessment, the organic waste stream has remained relatively consistent, however there has been a reduction in plastics disposal to landfill from the previous approximate 13% to a current approximate 8%. This may be representative of greater plastic recycling capture rates and individual awareness of recycling (e.g., council supported behaviour change initiatives).

Further, as discussed above, it is recommended that the WMMP provide mechanisms to support improved recyclable capture rates from across the Wellington Region.

Table 22	Composition of Levied Waste to Class 1 Landfills in the Wellington Region
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Composition of Levied Waste to Class 1 Landfill 2021/22	General Waste – Excludes Special Waste and Cleanfill		General Waste and Special Waste – Excludes Cleanfill		
	Tonnes 2021/22 % of Total To		Tonnes 2021/22	% of Total	
Paper	18,875	8	16,516	7	
Plastic	22,616	10	20,236	9	
Organic	66,811	29	56,387	25	
Ferrous Metal	6,674	3	5,226	2	
Glass	7,067	3	4,656	2	
Textiles	14,721	6	12,248	6	
Sanitary	11,518	5	10,097	5	
Rubble	29,777	13	28,840	13	
Timber	39,374	17	37,702	17	
Rubber	2,858 1		1,990	1	
Potentially Hazardous	7,387	3	27,253	12	
Total	228,226	100%	221,450	100%	

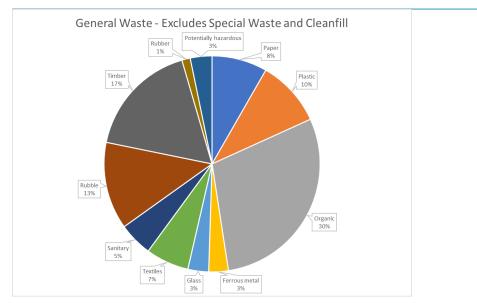


Figure 15 Composition of Waste to Class 1 Landfills in the Wellington Region 2021/22 – General Waste – Excludes Special Waste and Cleanfill

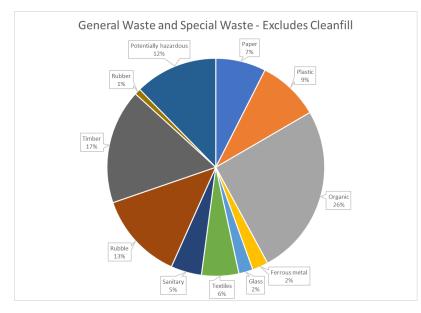


Figure 16 Composition of Waste to Class 1 Landfills in the Wellington Region 2021/22 – General Waste and Special Waste – Excludes Cleanfill

5.2.5 Activity Source of Waste

This section provides a summary of the levied waste disposed of to Class 1 landfills in the Wellington Region. The composition is again presented using the seven 'activity sources' as presented in the previous waste assessment and as specified in the New Zealand Waste Data Framework.

The activity source of waste to Class 1 landfills has been calculated as follows:

- All data was provided by Wellington City Council, Kāpiti Coast District Council, Hutt City Council, Upper Hutt City Council and Porirua City Council. No data was available for Carterton District Council, South Wairarapa District Council and Masterton District Council.
- Hutt City Council and Porirua City Council data is extracted from their 2022 SWAP reports with data extrapolated to provide the respective activity source tonnages. Hutt City Council note there may be discrepancies in the total tonnages for the area and which will be reflected in the overall regional totals.
- Data presented is for the 2021/22 year.

Table 23 summarises the activity source of waste disposed of to Class 1 landfills in the Wellington Region,

 specifically received from those councils where data was available.

Activity Source of Levied Waste to Class 1 Landfills in Wellington	General Waste – Excludes Special Waste			General Waste and Special Waste – Excludes Cleanfill		
	Tonnes 2021/22	% of Total	2021/22 Tonnes	% of Total		
Construction and demolition	23,586	8%	18,575	7%		
Domestic kerbside	47,668	17%	33,192	12%		
Industrial/ commercial/ institutional	130,981	47%	125,135	44%		
Landscaping	7,781	3%	6,946	2%		
Residential	54,747	20%	53,077	19%		
Specials	14,578	5%	44,291	16%		
TOTAL	279,341	100%	281,216	100%		

Table 23 Activity Source of Waste to Class 1 Landfills in the Wellington Region

Industrial/commercial/institutional waste was reported to be the largest source of levied waste disposed of the Class 1 landfills in the Wellington region (approximately 44%), likely due to the nation-wide increasing trend in construction related activities (e.g., housing). This was followed by residential waste (approximately 18%) and domestic waste (approximately 12%). In comparison to the previous waste assessment, the total tonnage of both general waste – excluding special waste showed moderate increases.

5.2.6 Diverted Materials

With increasing focus on reducing, reusing, recycling, and recovering products and materials, councils are continuing to provide resource recovery activities for residents, whilst also investigating new opportunities to reduce the amount of waste disposed to landfill.

The establishment of resource recovery centres/network/hubs and/or facilities and efficient Material Recovery Facilities (MRFs) has become increasingly important (e.g., OJI Fibre Solutions' sorting and baling plants in Seaview). For example, clear PET (plastic grade 1: clear plastic bottles) is processed in Wellington by Flight Group Ltd with the plastic recycled into food grade packaging, coloured PET (plastic grade 2: milk bottles, laundry bottles) are processed by Astron Recycling - Pact Group in Auckland where the material is reprocessed

into plastic feedstock for new products, aluminium and steel cans are sent to Macauley Metals where the products are sent overseas to be reprocessed, colour sorted glass is sent to Auckland where the glass is mixed with raw materials and melted down to make new bottles and jars, and paper and cardboard is sent either to the OJI Fibre Solutions mill in Penrose, Auckland or Kinleith, respectively.

For clarity and consistency, resource recovery centres/network/hubs and/or facilities is hereafter referred to as a Resource Recovery Facility (RRF). An RRF is defined as a facility that caters to the reuse, recovery and resale of products and materials. Similarly, for clarity, a MRF is referred to here as a facility that accepts (e.g., kerbside recycling), separates and prepares single-stream recycling materials to be sold to end buyers.

Materials collected at a RRF vary from household items, organic waste, electronics through to hazardous items (e.g., paints) and recyclable containers (i.e., those items commonly collected in kerbside recycling collections – glass, aluminium/tin, paper and cardboard, plastic grades 1, 2 and 5). Similarly, a MRF will commonly accept kerbside recycled materials (e.g., plastic grades 1, 2 and 5, glass, aluminium) with sorting (e.g., optical sorters, trommels, magnets) to prepare single stream recycling materials. It is worth noting here that since the previous waste assessment report was published, several councils have made changes to their kerbside recycling collections by reconfiguring the materials accepted to improve consistency of collections across the region. This is also in line with the central government proposal to standardise national kerbside recycling.

This section provides a summary of available information to highlight the significant efforts the Wellington region has placed into reduction and recycling activities - two of the highest elements of the waste hierarchy. It is also important to highlight here that while this section presents a summary of council information, there are a myriad of organisations operating throughout the region, all of which support recovery and reuse of products and materials. These organisations include, but are not limited to:

- Sustainability Trust
- WasteFree Welly
- KaiCycle
- Hospice NZ
- Salvation Army Opportunity Shops
- Opportunity shops
- Scrap metal yards
- E-waste recyclers
- Organic waste recyclers
- Construction and demolition waste recyclers

Available data for private organisations was limited and so the quantities of recovered resources cannot be accurately determined in view of the broader waste flows. However, where data was available for recovery of council managed resources this has been presented in the following sections to illustrate the composition and relative quantities.

Case Study – Southern Landfill Tip Shop and Recycle Centre⁴⁴

⁴⁴ Southern Landfill, Tip Shop and Recycle Centre - Tip Shop and Recycle Centre - Wellington City Council

As part of Wellington City Council initiatives to reduce and reuse materials and divert waste away from landfill disposal, the Tip Shop and Recycle Centre provides the public with a convenient and accessible opportunity to engage with councils waste minimisation efforts. The Tip Shop, located at the Southern Landfill provides the public an opportunity to drop-off and donate unwanted items rather than throwing these items out. Additionally, the shop offers visitors an opportunity to buy a range of collected items, including, but not limited to:

- Clothing
- Books
- Toys
- Household items
- Building and gardening materials
- Electronics
- Tools
- Sporting equipment

While most items are accepted free of charge, items such a TVs and computer monitors incur a small charge to support activities including electrical checks.

Additionally, the Recycling Centre enables the collection of glass bottles and jars, paper and cardboard, plastic packaging (i.e., numbers 1, 2 and 5 only), aluminium cans and tins in dedicated recycling bins which are then collected and recycled separately.

Other supporting activities at the site include the opportunity for the public to purchase water tanks and Capital Compost garden products, as well as bottle recycling crates and council rubbish bags.

Case Study – Trash Palace45

As part of Porirua City Council initiatives to reduce and reuse materials and divert waste away from landfill disposal, Trash Palace located at Spicer Landfill provides the public with an opportunity to drop-off and donate items for resale or recycling. Trash Palace

accepts a range of items, generally free of charge, including but not limited to:

- Clothing
- Books
- Toys
- Whiteware (charges may apply)
- Building and gardening materials
- Electronics (charges may apply)
- Scrap metal







⁴⁵ Welcome to the iconic Trash Palace in Porirua, New Zealand - Trash Palace

Car batteries

Additionally, Trash Palace also operates a Building Recycling Centre focussing on the collection and resale of a range of building materials including:

- Doors
- Windows
- Bathroom and laundry materials
- Bricks

5.2.6.1 Resource Recovery Quantities

To understand the potential diversion quantities of recovered and repurposed materials, access to consistent and complete data is needed. However, in many cases, recovery centres/network/hubs and/or facilities record data in terms of sales and not volumes. As such quantity cannot always be used as a measure of potential diversion from such facilities. Generally, there is inconsistent resource recovery initiatives across the Wellington region combined with inconsistencies in the types of materials recovered. Where information was available from the region, this has been summarised below. Importantly, while there is no current standard resource recovery network or materials collected from throughout the Wellington Region, significant efforts have been made by the respective districts to address this with plans in place (e.g., Climate Change Strategies) to recover and reuse more materials before they are disposed of to landfill.

Porirua City Council estimated that the total diversion from Trash Palace during the period July 2021 to June 2022 was approximately 797 tonnes⁴⁶. Unfortunately, while no categories were recorded to provide greater detail on the tonnage split, the types of materials accepted by the facility provide the best indication of the tonnage makeup. In comparison, the quantity of materials diverted from the Southern Landfill Tip Shop was not available at the time of writing, however Wellington City Council is in the process of determining how this information can best be captured going forward. However, given this limitation for the Tip Shop, data is available for the recycling tonnages collected at the Tip Shop and Recycling Centre.

Additionally, the percentage of materials that could be diverted from landfill provides another lens of potential diversion quantities. For example, the Wellington City Council Solid Waste Analysis Protocol (SWAP) (2018) indicated that:

- approximately 12% (72 tonnes/week) of the combined kerbside waste stream could have been recycled through council's kerbside recycling collection or at a drop-off facility; and
- approximately 55% (322 tonnes/week) of organic materials could have been composted.

As such, a total of approximately 67% (394 tonnes/week) of kerbside waste could be diverted from landfill disposal by either recycling or organic processing.

Further, data provided by Kāpiti Coast District Council report approximately 714 tonnes of recovered materials (car tyres, whiteware, scrap metal and clothing) was diverted from landfill disposal during the 2020/21 period. An additional 108 individual items of TV's (592 units), child car seats (70 units) and fridges/freezers (419 units) were also reported by Kāpiti Coast District Council to have been diverted from landfill disposal. This represents a significant reduction in the amount of waste Kāpiti Coast District Council sends to landfill. It also suggests that over the coming years this amount, and the types of materials diverted from landfill will continue to

⁴⁶ Information provided by Porirua City Council

increase, thereby supporting ongoing waste minimisation efforts, reduced per capita waste generation and contribute to lower emissions from waste disposal.

Alongside the above council examples, Upper Hutt City Council is also progressing resource recovery initiatives with the collection of car seat (53 sets during July 2021-April 2022) and collecting approximately 360kg (August 2021-April 2022) of batteries as part of the Upcycle battery collection programme.

As summarised in **Table 24**, and where data was available, the combined volumes of drop-off recycling/bulk recycling and kerbside recycling tonnages from Upper Hutt City Council and Wellington City Council have remained relatively stable since 2016/17 with minor fluctuations in annual volumes recorded. Kāpiti Coast District Council's tonnages show a slight decrease from 2019/20. This is due to a better understanding of how the stations across district consolidate their recycling before sending out of district for processing. The 20/21 data onwards is closer to what is happening. Of note has been the effects of a changing global recyclable material market and the global health pandemic, both events having had significant impacts on Aotearoa New Zealand's local and domestic waste markets. For example, anecdotal evidence suggests that the stay-at-home orders during the COVID-19 Level 4 health response resulted in increased online shopping both for groceries and other items which resulted in greater levels of packaging received at the household and therefore presented to kerbside recycling. Similarly, the volumes of household residual waste were also reported to increase as more people worked from home (and are continuing to do so) and as a result present more residual waste to kerbside refuse collections.

Table 24	Combined Drop-Off Recycling/Bulk Recycling Station and Kerbside Recycling Tonnages ⁴⁷
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Council	Tonnes per Annum					
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Carterton District Council	778	736	646	723	622	815
Hutt City Council	7,734	8,105	8,056	7,539	5,724	3,608
Kāpiti Coast District Council ⁴⁸	1,561	1,452	1,039	3,824	4,535	4,027
Masterton District Council	4,397	4,629	4,883	5,069	4,928	5,809
Porirua City Council	2,946	2,842	2,900	3,213	3,342	2,453
South Wairarapa District Council	1,087	1,180	1,254	1,282	1,231	1,401
Upper Hutt City Council	827	1,245	1,559	1,302	1,420	1,602
Wellington City Council	11,184	11,122	11,381	10,679	10,768	10,013
TOTAL	30,514	31,311	31,718	33,631	32,570	29,728

5.2.6.2 Kerbside Recycling and Drop-Off Facilities

The tonnage data for kerbside recycling and drop-off facilities in the Wellington region is summarised in **Table 25** below.

The following points relate to Table 25 below:

• All data was provided by Wellington City Council, Kāpiti Coast District Council, Hutt City Council, Porirua City Council, Upper Hutt City Council, Carterton District Council, South Wairarapa District Council and Masterton District Council.

⁴⁷ Data provided by each of the Councils and/or supplemented with data from relevant SWAP surveys
⁴⁸ For the 16/17 – 19/20-year Kāpiti Coast District Council was counting the recycling out of both transfer stations.
However, they are consolidated at the larger facility before being sent away for sorting. The 20/21 data reflects this better understanding and explains the drop in recycling total in comparison to previous years. 20/21 is a clearer representation to what is happening in the district.

- Kāpiti Coast District Council data represents operating collectors and it is noted to not provide an
 accurate reflection of recycling activities carried out during the 2016-2019 period. The data from 2019
 onwards provides an accurate picture of all residential kerbside collection taking place within the
 district. The drop-off data provided is "kerbside recyclable material" and other recovered materials
 such as tyres, whiteware, scrap metal and clothing. It does not include count only items such as TVs,
 child car seats and fridge/freezers.
- Hutt City Council data reported for 2019/20 and 2020/21 are impacted by COVID-19 recycling was diverted to landfill, average contamination for drop-off facilities for this period was 25.08%, contamination has been included in all figures, drop-off facilities ceased in 2021 due to the high levels of contamination. Hutt City Council is unsure why a sudden decrease in kerbside recycling occurred in 2021/22.
- Porirua City Council data only includes weights from kerbside collection and the bulk recycling station at Spicer Landfill. It does not include diverted material from Trash Palace.

Broadly, kerbside recycling and drop-off waste tonnages consistently increased from 2016/17 to 2019/20 but then showed signs of a decreasing trend during 2020/21 and 2021/22 (**Table 25**). However, while this may be a result of COVID-19, it is unclear whether this trend will continue. Further, with the potential implementation of a New Zealand Container Return Scheme, it is likely that the kerbside recycling tonnages will decrease due to the change in quantities presented for collection.

Tonnes/annum	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Kerbside Recycling	21,672	21,926	21,865	23,727	24,027	21,400
Drop-Off Facilities	8,842	9,385	9,853	9,904	8,542	8,328
Total	30,514	31,311	31,717	33,630	32,569	29,728

Table 25 Kerbside Recycling and Drop-Off Facilities in the Wellington Region

5.2.6.3 Composition of Kerbside Recycling

The tonnage data for the composition of kerbside recycling across the Wellington region is summarised in **Table 26** below.

The following points relate to Table 26 below:

- All data was provided by Wellington City Council, Hutt City Council, Porirua City Council, Upper Hutt City Council, Masterton District Council, South Wairarapa District Council and Carterton District Council. No data was available from Kāpiti Coast District Council.
- Wellington City Council tonnage data includes kerbside and drop off recycling.
- Upper Hutt City Council provided aggregated data for plastic containers 1,2, 5, aluminium cans and steel cans therefore for consistency all other council provided data has been aggregated to reflect this.
- Upper Hutt City Council data (except glass) has been extracted from the 2022 Lower Hutt kerbside audit. Glass was estimated based on glass comprising 39% of all Lower Hutt recycled material (39% taken from Auckland City Council

https://ourauckland.aucklandcouncil.govt.nz/news/2021/01/recycling-right-in-2021/. The percentages provided are adjusted percentages that take into account the estimated glass figure; the 2022 kerbside audit estimated contamination of 11.9% or 8.56%. Scoop testing audits completed by the MRF consistently place contamination between 17.9% and 19.7%.

• Porirua City Council data are based on a scoop test from OJI Fibre Solutions and council glass tonnages from 2021/22.

Broadly, **Table 26** shows that mixed paper (38%, 7,778 tonnes/annum) and glass bottles and jars (41%, 8,269 tonnes/annum) represented the two largest kerbside recyclable streams, followed by the aggregated category of plastic containers (1,2,5), aluminium and steel can at 13% (2,735 tonnes/annum). Lastly, contamination in 2021/22 was reported at 8% (1,592 tonnes/annum).

Composition of Kerbside Recycling – 2021/22	Tonnes/Annum	% of Total	
Mixed Paper		7,778	38%
Glass Bottles and Jars		8,269	41%
Plastic Containers 1, 2, 5, aluminium cans, steel cans		2,735	13%
Contamination		1,592	8%
	Total	20,375	100%

5.2.7 Commercially Collected Diverted Materials

The availability to commercially collected diverted materials from across the Wellington region was limited with only Wellington City Council, Kāpiti Coast District Council, Hutt City Council and Porirua City Council providing data. It is though acknowledged that across the Wellington region commercially collected materials may include concrete, clothing and textiles and e-waste, however, tonnage data for these waste streams was not available or accessible at the time of this assessment. It is recommended that the WMMP provides for councils to obtain this data to help inform knowledge of material diversion.

Of note, Kāpiti Coast District Council reported that commercially collected data on diverted materials is difficult to separate as often as these can be mixed into a residential collection (depending on the size of the business) or collection runs span multiple territorial authorities. The data presented by Kāpiti Coast District Council should be used with caution as it is unlikely to provide a comprehensive indication of commercial tonnages. It is recommended that the WMMP provides for councils to obtain this data to help inform knowledge of material diversion. No further commentary on commercially collected diverted materials for the remaining council areas is included here.

With the limited available data, approximately 37,311 tonnes/annum comprising cardboard/paper/containers and scrap metal was diverted in 2021/22 from across Wellington, Kāpiti, Hutt and Porirua (**Table 27**). However, this number is likely to underestimate what is actually diverted in these council areas. Additionally, while the remaining six councils were not able to access data, it is expected that actual commercially collected diverted tonnage is significant. As reported above, it is recommended that the WMMP provides for councils to obtain this data to help inform knowledge of material diversion.

Table 27 Commercially-Collected Diverted Materials in the Wellington Region

Diverted Materials, excluding Council and Private Domestic Kerbside Recycling Collections	Tonnes/Annum 2021/22
Cardboard/paper/containers	25,678
Scrap metal	11,633
Total	37,311

5.2.8 Diversion of Organic Material

Across the Wellington Region, greenwaste (including wood waste) and food waste are the two primary organic material streams collected and diverted. Compared with the previous waste assessment, no data was available to provide clarity on the tonnes per annum of meat waste diverted and as such is excluded from **Table 28** below. As reported in the previous assessment, greenwaste is collected on a commercial basis from residential properties and separately at transfer stations and landfills. Across the Wellington region greenwaste is processed by a range of commercial operators including Capital Compost (Wellington), Nursery Road (Masterton), Envirocomp (South Wairarapa) and Composting NZ (Kāpiti Coast).

Additionally, Kaibosh and Kiwi Community Assistance in Wellington also collect and redistribute rescued food throughout the Wellington community. It is recommended that the WMMP provides for councils to obtain comprehensive organic material diversion data to help inform knowledge of organic diversion across the region. This information will also help to support council led or a regional approach to organic management whilst supporting initiatives, for example, food rescue and community outreach where needed.

Table 28 summarises the diversion of greenwaste and food waste from across the Wellington Region. Broadly, the largest proportion comprised greenwaste (including wood waste) followed by recovered food waste. Interestingly, the tonnes per annum for all categories were significantly greater than compared with the previous waste assessment. In summary, there was an increase of 18,050 tonnes/annum greenwaste and food waste diverted from landfill.

Organic Waste Diversion – 2021/22	Tonnes per Annum – 2015	Tonnes per Annum – 2021/22
Greenwaste and wood waste	19,785	38,529
Food waste – composted	1,121	5,387
Food waste – recovered	200	20,239
Total	46,106	64,156

Table 28 Diversion of Greenwaste and Food Waste in the Wellington Region

5.2.9 Wellington Region Litter Profile

The management of litter across Aotearoa New Zealand places a significant amount of pressure on council resources to clean up litter including clean up along roadside verges and open public recreational spaces. Along with litter causing gross contamination, it can also impact the quality of our waterways and beaches as well as having a negative impact on visual amenity.

In 2022⁴⁹, Keep New Zealand Beautiful (KNZB) undertook a National Litter Audit (NLA) which compiled data through the physical inspection and visual counting of litter in a number of specific, fixed sites. As reported by KNZB, the NLA provides empirical data on regions, the quantities, types and locations and brands of litters deposited across the country. For the purpose of this Waste Assessment, the NLA data for the Wellington region has been reviewed, the results of which are discussed in this section.

While litter is not commonly included within waste assessments, understanding the broad regional profile for the Wellington region is important to provide a holistic overview of the waste ecosystem. For this purpose,

⁴⁹ National Litter Audit. Keep New Zealand Beautiful (November 2022)

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litter has been included in this Waste Assessment and it is recommended that future assessments include further detailed discussion of litter within the broader Wellington region waste profile.

Overall, the 2022 NLA reported the average number of litter items recorded across the 40 surveyed Wellington region sites was 144 litter items per 1,000m², 0.73kg of litter per 1,000m² and 19.99 litres of litter per 1,000m² (**Table 29**).

Territorial Local Authority	Total Area Audited (m²)	ltems per 1,000m ²	Weight (kg) per 1,000m²	Volume (ltr) per 1,000m²
Carterton District	4,350	75	0.33	3.49
Kāpiti Coast District	3,450	189	0.91	22.15
Lower Hutt City	4,300	142	0.44	10.05
Masterton District	4,500	122	0.77	11.12
Porirua City	4,897	145	0.92	16.92
South Wairarapa District	4,020	84	0.58	20.28
Upper Hutt City	4,044	263	1.25	28.41
Wellington City	4,560	145	0.66	47.78
Wellington Region Overall	34,121	144	0.73	19.99

Table 29 2022 Wellington Region Litter Summary

As reported, retail sites were recorded as having the highest number of litter items (590 items), industrial sites (251 items) the second highest number of litter items followed by residential sites (138 items), carparks (91 items) and public recreational spaces (28 items) contributing the lowest number of litter items (**Figure 17**).

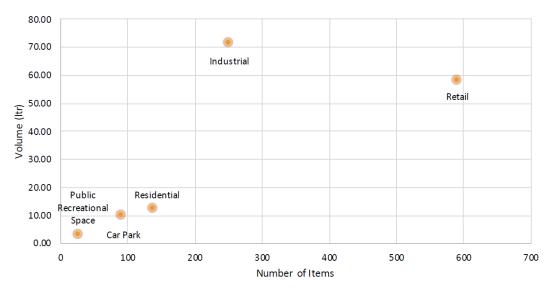


Figure 17 Wellington 2022, Items and Volume per 1,000 m² by Site Type⁵⁰

As reported, since 2019, there have been increases in the number of litter items, estimated volume and weight per 1,000 m² of litter in the Wellington region. **Figure 18** below is extracted from the KNZB NLA report and illustrates the data collected in 2019 and the increase in the above-mentioned measures.

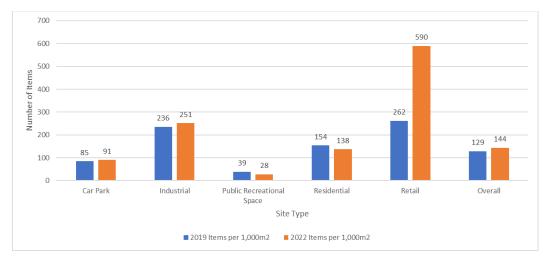


Figure 18 Items per 1,000 m² by Site Type: Comparison Over Time

Of the litter material types recorded since 2019, cigarette butts/vaping were the most frequently identified per 1,000m² with plastic litter the second highest. While paper/cardboard items were recorded as contributing the largest volume per 1,000m² to the overall litter stream, this category of litter contributed only moderately to the number of items recorded. **Figure 19** below is extracted from the KNZB NLA report and illustrates the data collected in 2019 and the increase in the above-mentioned measures.

⁵⁰ National Litter Audit. Keep New Zealand Beautiful (November 2022)

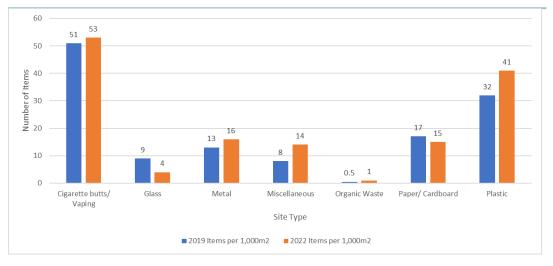


Figure 19 Items per 1,000m² by Main Material Type

In comparison to the national litter audit data, the Wellington region was on par with the national average of the number of litter items at 144 items (**Table 30**). Further, at a national level retail sites were reported to have the most litter items followed by industrial sites with cigarette butts and vaping items the most prevalent litter items. This is consistent with the results of the Wellington region although results for the Wellington region were lower for both weight and volume of litter than compared with the respective national averages.

Table 30Summary of the 2022 Litter Audit Results for the Wellington Region Compared with theNational Average

	ltems per 1,000m ²	Weight (kg) per 1,000m ²	Volume (lts) per 1,000m ²
Wellington Region	144	0.73	19.99
New Zealand Average	144	1.16	32.04

Case Study – Hutt City Council Beach Litter Monitoring

Hutt City Council has been reported as a litter hotspot, particularly Petone Beach, and subject to intensive community clean-up efforts arranged by Sustainable Coastlines. In the 2023 report produced by Sustainable Coastlines and summarising litter within Hutt City, it was reported that alongside litter originating from within the district, approximately 80% of the litter comes from neighbouring areas including Wellington City Council and Upper Hutt City Council. As reported, it is likely that litter enters the Petone coastal environment via Te Awa Kairangi (Hutt River) and the local stormwater system, with coastal litter influenced by storms and currents. **Figure 20** below extracted from the 2023 Sustainable Coastlines Report for Hutt City Council illustrates the percentage of litter items collected from across three sites Petone Beach Water Ski Club, Hikoikoi Reserve and Hinds Point, Pencarrow Coast. Further and as reported, the Petone Beach Water Ski Club site was the most heavily polluted with a density of 2,258 litter items per 1,000m², followed by Hikoikoi Reserve with 133 items per 1,000m² and Hinds Point, Pencarrow Coast at 87 items per 1,000m². As such, the results of the Hutt City Council and broader KNZB national litter audit surveys highlight the need for councils to monitor litter volumes in standard ways to allow meaningful comparison in their respective districts noting

the contribution litter has to waste being disposed of to landfill. It also highlights the opportunities for public communication regarding 'away from home consumption' and the methods to manage the associated litter (e.g., appropriate disposal of takeaway containers).

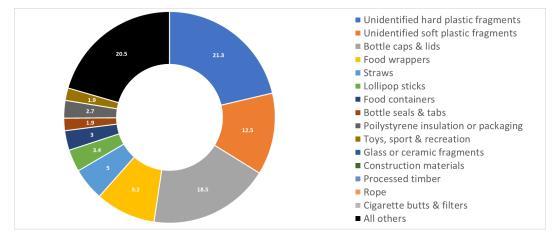


Figure 20 Percentage of Top Litter Items recorded from Hutt City

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6 PERFORMANCE MEASUREMENT

6.1 Overview

For consistency and to support comparisons the following sections have been aligned with the previous 2016 Waste Assessment. Information has been extracted from the previous Waste Assessment where appropriate. The data presented in this section has been provided, where available, by each of the eight Wellington region councils.

6.1.1 Per Capita Waste to Class 1 Landfill

As reported in the 2016 Waste Assessment, The total quantity of waste disposed of at Class 1 landfills in a given area is related to a number of factors, including:

- The size and levels of affluence of the population
- The extent and nature of waste collection and disposal activities and services
- The extent and nature of resource recovery activities and services
- The level and types of economic activity
- The relationship between the costs of landfill disposal and the value of recovered materials
- The availability and cost of disposal alternatives, such as Class 2---4 landfills
- Seasonal fluctuations in population (including tourism).

To ensure consistency with the previous Waste Assessment, the Statistics NZ population estimate and the Class 1 landfill waste data from Section **3**, the per capita per annum waste to landfill in 2021/22 from the Wellington region has been calculated (**Table 31**).

Table 31 Waste Disposal per Capita across the Wellington Region

Calculation of Per Capita Waste to Class 1 Landfills in the Wellington Region	on –2021/22
Population Estimate (Stats NZ 2021/22 Estimate)	543,500
Total Waste to Class 1 Landfill (Tonnes 2021/22)	218,247
Tonnes/Capita/Annum of Waste to Class 1 Landfills	0.402

In summary, in 2021/22, approximately 0.402 tonnes (approximately 402kg) of levied waste was disposed of at Class 1 landfills for each person in the Wellington region.

As noted in the previous Waste Assessment, the movement of waste across territorial authority boundaries makes it difficult to estimate per capita waste disposal rates for the individual council across the region. Similarly, the access to accurate and specific data is often complex and challenging for each council and as a result the above tonnes per capita per annum figures should be considered with caution.

Further, the following assumptions apply and have been extracted for consistency from the previous Waste Assessment:

- All waste from Upper Hutt City and Hutt City is disposed of at Silverstream landfill
- All waste from Wellington City and Porirua City is disposed of at Southern landfill and Spicer landfill
- All waste from Kāpiti Coast District is disposed of to transfer stations, which then goes to Bonny Glen, or to Spicers landfill in the district

• All waste from Carterton, Masterton, and South Wairarapa Districts is disposed of at the transfer stations in the districts

As such, based on these assumptions, which as reported previously are known not to be entirely accurate, per capita disposal rates for the four waste catchments are provided in **Table 32** below. The estimates include special wastes but exclude unlevied cleanfill materials.

Waste Disposal per Capita – by Waste Catchment (2020/21 and 2021/22)

	•	,	,		
Calculation of per Capita Waste to Cla	iss 1	Kāpiti Coast	Wellington	Hutt City	Wair
1		District	and partners		

Calculation of per Capita Waste to Class 1	Kapiti Coast	Wellington	Hutt City	Wairarapa
Landfills	District	and Porirua		
	2020/21			
Population (Stats NZ 2020/21 Estimate)	57,200	277,100	111,800	48,900
Total Levy Paid Waste to Class 1 Landfills	28,034	163,071	151,344	17,918
(Tonnes 2020/21)				
Tonnes/Capita/Annum of Waste to Class	0.490	0.588	1.354	0.366
1 Landfill				
	2021/22			
Population (Stats NZ 2021/22 Estimate)	57,400	276,500	112,200	50,100
Total Levy Paid Waste to Class 1 Landfills	27,839	168,733	NDR	20,791
(Tonnes 2021/22)				
Tonnes/Capita/Annum of Waste to Class	0.485	0.610	-	0.415
1 Landfill				

Note: Upper Hutt City is excluded from the calculation as no data was available. NDR: No data received

From the available data provided in 2020/21, the rate of waste per capita disposed of to Class 1 landfills was greatest from Hutt City (noting Upper Hutt is excluded as there was no available data) followed by Wellington and Porirua (0.588 tonnes/capita/annum), Kāpiti Coast District (0.490 tonnes/capita/annum) and lastly the Wairarapa catchment (0.366 tonnes/capita/annum). In comparison to 2021/22, the rate of waste per capita for the Kāpiti Coast District reduced slightly (0.485 tonnes/capita/annum) with moderate increases for both Wellington and Porirua (0.022 tonnes/capita/annum) and the Wairarapa catchment (0.049 tonnes/capita/annum). As reported in the previous assessment, the low disposal rate from the Wairarapa catchment is likely associated with a lower level of industrial and commercial activity and a higher proportion of rural properties. Further, it is expected that a substantial proportion of waste produced in the Wairarapa catchment is disposed of on-site or on-farm.

Further, the following is extracted from the 2016 Waste Assessment and remains current:

"The high disposal rate from Upper Hutt City and Hutt City could be associated with higher levels of industrial and commercial activity than in the other areas. Additionally, waste from other areas is understood to be transported to Silverstream landfill for disposal. As the major waste collectors' depots are all in Hutt City, it is likely that collection vehicles often dispose of their final load of waste at Silverstream landfill. Quantitative information on any other cross---boundary movements of waste to Silverstream is not available."

6.1.2 Per Capita Domestic Kerbside Refuse to Class 1 Landfills

The following description is extracted from the 2016 Waste Assessment and remains largely current for this assessment:

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Table 32

"The quantity of domestic kerbside refuse disposed of per capita per annum has been found to vary considerably between different areas. There are several reasons for this variation.

Kerbside refuse services are used primarily by residential properties, with small---scale commercial businesses comprising a relatively small proportion of collections (typically on the order of 5---10%). In districts where more businesses use kerbside wheelie bin collection services --- which can be related to the scale of commercial enterprises and the services offered by private waste collectors - - the per capita quantity of kerbside refuse can be higher. There is relatively little data in most areas on the proportion of businesses that use kerbside collection services, so it is not usually possible to provide data solely on residential use of kerbside services.

The type of service provided by the local territorial authority has a considerable effect on the per capita quantity of kerbside refuse. Councils that provide wheelie bins (particularly 240---litre wheelie bins) or rates---funded bag collections generally have higher per capita collection rates than councils that provide user---pays bags. The effect of rates--- funded bag collections is reduced in those areas where the council limits the number of bags that can be set out on a weekly basis.

Evidence indicates that the most important factor determining the per capita quantity of kerbside refuse is the proportion of households that use private wheelie bin collection services. Households that use private wheelie bins, particularly larger, 240---litre wheelie bins, tend to set out greater quantities of refuse than households that use refuse bags. As a result, in general terms the higher the proportion of households that use private wheelie bins in a given area, the greater the per capita quantity of kerbside refuse generated.

Other options that are available to households for the disposal of household refuse include burning, burying, or delivery direct to a disposal facility. The effect of these on per capita disposal rates varies between areas, with residents of rural areas being more likely to use one of these options."

Further, the 2021/22 disposal rate of domestic kerbside refuse for the Wellington region⁵¹ has been calculated to be approximately 88 kg per capita per annum. It is stressed that this figure is an estimate using the data provided by three of the eight councils in the Wellington Region, specifically, Kāpiti Coast District Council, Hutt City Council and Porirua City Council. It is recommended that the WMMP provides measures to support the collation and recording of specific data categories to support future detailed calculations. Further, to provide a more accurate estimate, it is recommended that each council complete SWAP surveys to allow kerbside quantities to be quantified and provide mechanisms for council to collect data that that is controlled by private waste collectors.

6.1.3 Per Capita Kerbside Recycling

The per capita recycling rates for the Wellington region are summarised in **Table 33** below. It is noted that kerbside recycling rates have decreased compared with the previous Waste Assessment. Broadly, the per capita rate of kerbside recycling in the Wellington region has remained relatively stable between 2016/17 to 2020/21, with a marked decrease in 2021/22. The main outcome of this was noted by Hutt City Council where a sudden decrease in kerbside recyclables was reported but the reason for this was unknown. At present, during 2021/22 approximately 39kg of kerbside recycling is collected for every resident across the Wellington Region. For comparison, the 2014/15 data presented in the previous Waste Assessment is shown.

⁵¹ noting Masterton District Council, South Wairarapa District Council, Upper Hutt City Council and Carterton District Council are excluded from the calculation as no data was available

Table 33 Per Capita Kerbside Recycling – Kg/Ca	apita/Annum
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Kerbside recycling	2014/15	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Kerbside recycling	26,375	21,672	21,926	21,865	23,727	24,027	21,400
Population	496,900	501,800	526,110	532,560	541,800	543,500	543,500
Kg/Capita/Annum	53	43	42	41	44	44	39

The per capita recycling rates for the individual territorial authorities are summarised in Table 34 below.

Table 34 Per Capita kerbside recycling – Kg/Capita/Annum – By Area

Kerbside Recycling Includes Council and private Collections – Kg/Capita/Annum	2018/19	2019/20	2020/21	2021/22
Carterton	68	75	63	81
Hutt	74	69	51	32
Kāpiti Coast	11	52	59	57
Masterton	185	188	178	205
Porirua	49	54	55	40
South Wairarapa	115	115	108	121
Upper Hutt	34	28	30	34
Wellington	54	50	50	46
Regional Average	74	79	74	77

Note: Includes kerbside recycling and drop-off facility data

As reported in 2016, there are several factors that should be considered noting the range of per capita recycling rates between the councils:

- The number of households in each area served by kerbside recycling collections has not been taken into account in the calculations
- Residents of rural areas, both those with kerbside recycling and those without, may be more likely to use drop-off facilities than residents of urban areas because of the convenience factor
- Many residents of Carterton District may use Masterton transfer station for their recycling drop-off
- Porirua City Council has reported public interest and engagement in kerbside recycling has reduced over time and that recyclable materials may be diverted through other pathways that are not currently measured as part of the waste assessment process
- COVID-19 has impacted recycling rates across the Wellington region during the 2019/20 and 2020/21 periods

6.1.4 Recovered Materials

Section **5.2.1** presented the composition of waste disposed of at Class 1 landfills from across the Wellington region (noting several councils did not provide completed data sets). Further, Section **5.2.6** the diversion from landfill disposal of several waste materials was summarised. As completed the 2016, by combining the two data sets, a high-level mass balance for these materials can be estimated (noting current data limitations provided by each of the councils) and diversion rates estimated for each. **Table 35** provides a summary of this data with Appendix C providing full data. Caution should be taken when interpreting this data due to the limited data provided by the councils. It is anticipated that the below tonnages will underestimate the actual

potential diversion volumes and so it is recommended that the next Wellington region Waste Management and Minimisation Plan provide mechanisms for councils to report on and collect data to inform the diversion rate by material type.

Table 35 Recovered Materials – 2020/21-2021/22

Diversion Rates of Selected Recoverable Materials	Mixed Paper and Containers	Scrap Metal	Greenwaste and Wood Waste ³	Food Waste⁴
Kerbside Recycling Collections ¹	20,375	0	0	0
Commercial recycling Collections ²	25,678	11,633	0	0
Composted	0	0	38,529	5,387
Food Waste Recovered	0	0	0	20,239
Subtotal	46,053	11,633	38,529	25,626
Class 1 Landfill (potential recoverable component)	21,027	16,211	25,578	23,966

¹excludes Kāpiti Coast District Council

²includes Wellington City Council, Hutt City Council, Porirua City Council (scrap metal) and Wellington City Council, Hutt City Council, Porirua City Council and Kāpiti Coast District Council (mixed paper and containers) only. No data was provided by all other councils. ³excludes Carterton District Council and Upper Hutt City Council.

⁴excludes Upper Hutt City Council, Carterton District Council, Masterton District Council, South Wairarapa District Council, Wellington City Council, Kāpiti Coast District Council

6.1.5 Potentially Recoverable Materials from Class 1 Landfills in the Wellington Region

An estimate of the composition of waste disposed of to Class 1 landfills in the Wellington region has been provided in Section **5.2.5**. As produced in the 2016 Waste Assessment, the twelve primary categories recommended by the SWAP have been used. The diversion potential of waste disposed of to Class 1 landfills is summarised in **Table 36** below. It is also noted, that recovering 100% of all waste materials from the waste stream is not possible and so a proportion of materials will inevitably be disposed of to landfill or another pathway, acknowledging that in some cases new markets will need to be developed. The diversion estimates presented in **Table 36** below as such represent a best estimate rather than an actual figure. The figures do though provide some indication of the potential opportunities to recover waste materials. As with the primary composition presented in **Table 22**, the diversion potential is presented for both general waste – excluding special waste and non-levy paid cleanfill – and general waste and special waste combined – excluding non-levy paid cleanfill.

Table 36 Potentially Recoverable Materials of Levied Waste to Class 1 Landfills

Diversion Potential of I Landfills in the Welling			aste – Excludes ste and Cleanf		aste and Special cludes Cleanfill
Primary Category	Secondary Category	Tonnes 2021/22	% of Total	Tonnes 2021/22	% of Total
Paper	Recyclable	12,680	6%	12,456	7%
Plastics	Recyclable	4,921	2%	2,544.6	1%
Putrescibles	Kitchen/Food	23,966	12%	21,949	12%
Putrescibles	Greenwaste	25,578	13%	18,784	11%
Ferrous Metals	All	14,885	7%	4,764	3%
Non-Ferrous Metals	All	1,326	1%	1,303.2	1%
Glass	Recyclable	3,426	2%	3,659	2%
Textiles	Clothing/Textiles	6,052	3%	4,110.5	2%

Diversion Potential of Lo Landfills in the Wellingt			aste – Excludes ste and Cleanf		aste and Special cludes Cleanfill
Primary Category	Secondary Category	Tonnes 2021/22	% of Total	Tonnes 2021/22	% of Total
Rubble	Cleanfill	13,655	7%	10,533	6%
Rubble	Plasterboard	1,730	1%	1,193	1%
Timber	Untreated/Unpainted	334	0%	-	0%
Potentially Hazardous		7,169	4%	24,384	14
TOTAL D	IVERTABLE POTENTIAL	115,722	57%	105,680	60%

Broadly, between 57% and 60% of both waste streams could be diverted from landfill disposal. As reported in 2016, the top three largest divertible components are cleanfill (20.7%) followed by kitchen/food waste (14.3%) and greenwaste (12.3%). Paper recyclables also appear as an opportunity for greater diversion with 6.7% potentially divertible from landfill. A similar trend is again reported in 2021/22 (**Table 36**). It is also worth noting here that councils within the Wellington region are progressing great initiatives to significantly reduce the quantities of organics being disposed of to Class 1 landfill, including investigating local and regional approaches to the processing of organic material. It is also worth noting that the Ministry for the Environment is too proposing to require no further disposal of organic material to Class 1 landfills which if enacted, would result in all councils implementing some mechanism to collect and divert and process organic material from their territorial area.

7 FUTURE DEMAND AND GAP ANALYSIS

The intent of this section is to provide an overview of the future demand for waste and resource management services acknowledging the wide range of factors that are expected to contribute to this. The key factors discussed in this section include:

- Future population of the Wellington Region
- Economic activity and waste management
- Changes in Lifestyle and Consumption
- Changes in Waste Management Approaches

The ability to have awareness of the key challenges and opportunities will support the councils of the Wellington region to prepare for upcoming changes and ensure residents and ratepayers are brought along on the journey.

7.1 Future Population of the Wellington Region

Population projections⁵² for the councils within the Wellington region are summarised in **Table 37** below. Broadly, the forecasted population growth from across the Wellington region show increases between 31% (Wellington City) and 57% (Carterton District) across the range of TAs. This information is important for each TA to support estimating future demand on existing waste services and forecasting any additional infrastructure construction and/or upgrades to existing facilities and services. Of particular note, is the projected population growth in the Carterton District which is forecasted to grow from a population of approximately 9,547 in 2018 to 13,016 in 2038 and further to 14,968 in 2051. As such, understanding the relative projected growth will support important decisions to be made and planning undertaken to cater for this increased growth.

Area	2018	2028	2038	2048	2051	Percentage change between 2018-2051 for the 50th percentile
Carterton District	9,547	11,324	13,016	14,606	14,968	57%
Masterton District	26,400	31,644	36,054	39,635	41,012	55%
South Wairarapa District	10,939	12,992	14,782	16,320	16,830	54%
Kapiti Coast District	55,127	64,198	72,956	80,793	83,288	51%
Porirua City	58,852	67,646	75,402	83,308	85,854	46%
Upper Hutt City	45,368	52,442	58,598	63,736	65,751	45%
Lower Hutt City	108,557	122,288	135,553	148,466	152,786	41%
Wellington City	211,222	228,392	247,692	268,114	276,472	31%
Total Forecasted Regional Population	526,012	590,926	654,053	714,978	736,961	-

Table 37 Forecasted Population Growth Rates from across the Wellington Region

⁵² Population forecast 2020 to 2051 (sensepartners.nz)



Further, based on the Statistics New Zealand population projections for 2018-2048, the following high, medium, and low population projections are reported for the Wellington region (Figure 21, Table 38).

Figure 21 Forecasted Wellington Region Population Projection between 2023 and 2048

Table 38 Forecasted Change in the Wellington Region Population

	Population Change	Average Annual Change (%)	
High	134,200	0.950%	
Medium	58,000	0.475%	
Low	-15,310	-0.025%	

Forecasting population within the Wellington region is an important step in understanding the likely demand on waste services into the future. It provides an indication of the likely investment required to support current and future waste infrastructure to ensure residents and ratepayers are provided with value for money, accessible and convenient services that support the regions' goal to significantly reduced waste disposal to landfill.

As reported in the previous Waste Assessment, the 'medium' population growth estimate has been selected to provide an estimate for future increased demand for waste services.

7.2 Economic Activity and Waste Management

As reported by the OECD, total kilograms waste/capita has remained relatively stable and below the 550kg/capita (Figure 22). However, New Zealand has shown an increasing trend of waste production per capita from approximately 740kg/capita in 2017 to approximately 781kg/capita in 2018; an increase of 41kg/capita. Further, New Zealand has shown continual increases in waste generated per capita from 2012 onwards (Figure 22). It is also reasonable to conclude that as New Zealand's population continues to grow, the waste generated per capita will also increase if the current status quo of waste minimisation and management activities remains the same. However, it is recognised that greater effort at a national and local level is needed to reduce the amount of wate produced per capita and so significant efforts are being made by TAs to develop and

implement greater recovery of resources (e.g., diverting organics from landfill disposal), establish a wider network of recovery facilities (e.g., resource recovery centres) and improved service provision (e.g., cost effective and convenient ratepayer services).

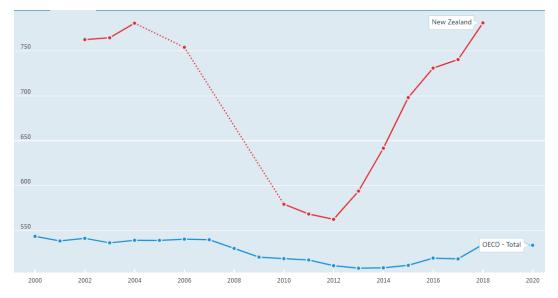


Figure 22 OECD Municipal Waste Compared with New Zealand Total Kilograms/Capita⁵³

7.3 Changes in Lifestyle and Consumption

As noted in the previous Waste Assessment and which remains current, community expectations relating to recycling and waste minimisation are anticipated to lead to increased demand for recycling and material recovery services.

Further, central government has also recognised the importance of providing mechanisms to support greater recovery of resources before they are disposed to landfill. In this regard, central government is beginning to transition the New Zealand economy from a linear (take-make-dispose) to a more circular economy where resources and materials are kept in circulation for longer. To support this transition, initiatives such as the proposed Container Return Scheme are set to disrupt the current waste system by placing more responsibility on beverage producers for the products they produce. As such, each single-use beverage container will have a deposit applied to it which will support individual behaviour change by placing a value on each single-use beverage container. The intent of this approach is to incentivise individuals and reduce the amount of single-use beverage containers being littered to our environment.

Further, while these are standalone initiatives, they are part of a much wider and holistic approach to minimising waste.

⁵³ Waste - Municipal waste - OECD Data

7.4 Changes in Waste Management Approaches

As noted in the previous Waste Assessment, there are a range of drivers and mechanisms to manage waste, and which will continually evolve and adapt to a changing economy. The following list provides a high-level summary of these and where applicable reflects those reported in the previous assessment:

- Statutory requirement in the Waste Minimisation Act 2008 to encourage waste minimisation and decrease waste disposal with a specific duty for TAs to promote effective and efficient waste management and minimisation and to consider the waste hierarchy in formulating their WMMPs.
- Requirement in the New Zealand Waste Strategy 2010 to reduce harm from waste and increase the efficiency of resource use
- Increased cost of landfill. Landfill costs have risen in the past due to higher environmental standards under the RMA, introduction of the Waste Disposal Levy (currently \$30 per tonne and set to progressively increase over the next couple of years up to \$60tonne from 01 July 2024) and the New Zealand Emissions Trading Scheme. While these have not been strong drivers to date, there remains the potential for their values to be increased and to incentivise diversion from landfill.
- Collection systems. More convenient systems encourage more material recovery. Conversely, more
 convenient recycling systems with more capacity help drive an increase in the amount of recycling
 recovered.
- Waste industry capabilities. As the nature of the waste sector continues to evolve, the waste industry is changing to reflect a greater emphasis on recovery and is developing models and ways of working that will help enable effective waste minimisation in cost-effective ways.
- Local policy drivers, including actions and targets in the WMMP, bylaws, and licensing.
- Recycling and recovered materials markets. Recovery of materials from the waste stream for recycling and reuse is dependent on the recovered materials having an economic value.

7.5 Summary of Demand Factors and Future Projections

The above summary information suggests that as population continues to grow in Aotearoa New Zealand so to will the per capita waste generated if the status quo continues. However, with greater focus on minimising disposal of waste to landfill and increasing the recovery of resources along with ensuring materials and products are kept in circulation for a long as possible, it is anticipated that the per capita waste produced will either stabilise or begin to reduce over time. However, it must also be acknowledged that Aotearoa New Zealand is a global citizen and as such is also at the influence of overseas markets for recycled products and materials. As such, there is potential for greater investment onshore to process materials such as plastics into higher value products compared with exporting offshore for processing.

Further, it is expected that several waste streams will be significantly impacted upon over the coming years. Most notably, construction and demolition waste is expected to continue to increase due to housing and construction demand, and volumes of organics set to decrease from landfill disposal with the Ministry for the Environment proposal to remove organics from Class 1 landfills. Similarly, volumes of kerbside recycling are expected to be impacted over the coming years with the potential implementation of a Container Return Scheme. This scheme is expected to reduce the volume of kerbside recyclables presented for collection noting that individuals and households will be encouraged to separately collect eligible containers for the appropriate refund. Similarly, many New Zealand jurisdictions are progressing the development of resource recovery centres, either individual or networked, to provide communities with a location to drop-off unwanted items

for repurposing, or products (e.g., greenwaste) for collection and processing. Combined, these efforts are expected to support the goal to reduce waste disposed to landfill and to ultimately ensure materials and products are kept in circulation for as long as possible (i.e., circular economy).

7.5.1 Projections of Future Demand

Total waste and recovered material quantities in the Wellington region have been estimated to grow slowly between 2021/22 and 2030/31; a similar outcome to that reported in the previous Waste Assessment (**Figure 23**). To ensure consistency with the previous assessment, it has again been assumed that kerbside refuse, and all recyclables (kerbside and drop-off) will grow in line with the medium average annual population change (0.475%) with all other waste types (construction and demolition (excluding special waste and cleanfill), greenwaste, food waste and general waste (excluding special waste and cleanfill) will grow at a rate of 2% per annum in line with GDP.

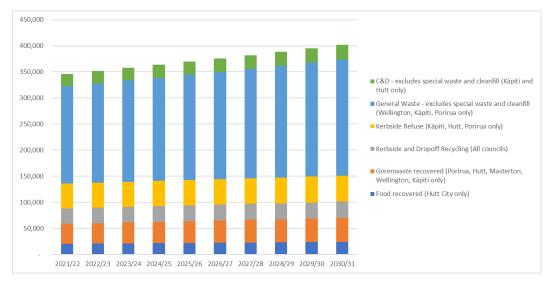


Figure 23 Mid-Level Population Projection (no change in systems or drivers)

In addition, understanding the projected number of additional households across the Wellington region provides an indication on the demand for future waste services. **Figure 24** below indicates that household numbers (medium projected level – StatsNZ) will steadily increase in Wellington City with moderate to static growth in the remaining districts. This trend was also reported in the previous assessment albeit with higher projected household numbers.

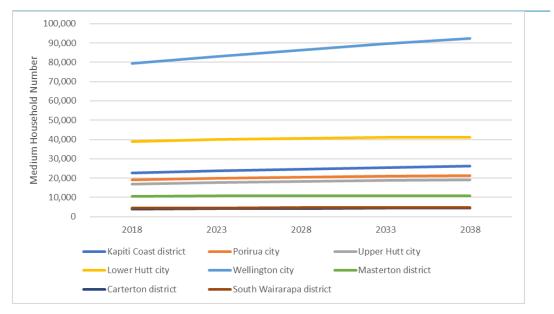


Figure 24 Medium Number of Household Projection across the Wellington Region⁵⁴

7.6 Future Demand Gap Analysis

As reported in the 2016 Waste Assessment, the aim of waste planning is to achieve effective and efficient waste management and minimisation. From this Waste Assessment the following gaps have been identified. It is recommended that the WMMP acknowledges the below list, and where possible makes recommendations and/or suggested mechanisms to support improved waste management and minimisation throughout the Wellington Region.

- Data quality and management of data
- Access to commercial operator data where private services are provided
- The number of cleanfill and associated tonnages
- Council market share of kerbside refuse and recycling collections
- The relatively low amount of kerbside recycling per capita compared with the previous Waste Assessment
- The low diversion rate of organics, including both greenwaste and food waste
- Requirement for appropriate infrastructure to receive and process the Wellington region's organic waste
- Councils operate a range of different funding and contractual models, which can present a barrier to greater regional collaboration
- Information about the amount and type of waste that is going to unregulated disposal (e.g., littering, farm pits, cleanfill and burning) is unavailable at present
- Recycling performance declining

⁵⁴ Subnational family and household projections: 2013(base)–2038 | Stats NZ

- Preparation for the proposed Container Return Scheme and implications on kerbside recycling collections as well as contractual relationships with Material Recovery Facilities
- Diversification of the current resource recovery sites throughout the Wellington region and opportunities to provide a coordinated network
- Identifying opportunities for greater sorting and recovery of construction and demolition materials, reducing the requirement for disposal

7.6.1 Waste Streams

The following priority waste streams could be targeted to further reduce waste disposed of to landfill. Where relevant, information has been extracted from the 2016 Waste Assessment and further expanded where required.

- Kerbside recyclables (i.e., single-use beverage containers) in line with the proposed Container Return Scheme
- Reuseable goods including but not limited to whiteware, clothing, household items
- More kerbside recyclables both from domestic and commercial properties
- Organic waste, particularly food waste both from domestic and commercial properties
- Industrial and commercial plastic is a significant part of the waste stream which may be able to be recycled
- Farm waste is a relatively unknown quantity and increased awareness of the problems associated with improper disposal may drive demand for better services
- Construction and demolition waste in particular timber is a significant part of the waste stream which may be able to be recovered
- E-waste collection and processing capacity in the district, while better than many areas, has room for improvement
- Safe and beneficial use of biosolids
- Waste tyres may not be a large proportion of the waste stream, however the effectiveness of the management of this waste stream is unknown
- Investment in infrastructure will be required to manage increased quantities of waste diverted from landfill disposal

7.6.2 Hazardous Waste

As reported in 2016 and included here potentially hazardous household wastes such as paint, oil, and chemicals are collected at transfer stations. There is a need to review the provision of these services at the transfer stations to ensure proper storage and management procedures are followed, so as to protect the health of workers, the public and the environment.

For clarity, the below list is included from the 2016 Waste Assessment given the ongoing relevancy to the current assessment.

- Reviewing management procedures of hazardous wastes at transfer stations
- Undertaking more detailed monitoring and reporting of hazardous waste types and quantities, including medical waste
- Improving public information about correct procedures for managing hazardous wastes, including medical waste and asbestos
- Continuing to introduce waste bylaw licensing. This will improve information on hazardous waste movements and enable enforcement of standards

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7.6.3 Asbestos Waste

As reported in 2016, some commonly used products that contain asbestos include roof tiles, wall claddings, fencing, vinyl floor coverings, sprayed fire protection, decorative ceilings, roofing membranes, adhesives and paints. The most likely point of exposure is during building or demolition work. All three Class 1 landfills in the region are consented to take asbestos and operators must comply with consent conditions and operational Health and Safety requirements.

7.6.4 Medical Waste

The Pharmacy Practice Handbook⁵⁵ states:

"Members of the public should be encouraged to return unused and expired medicines to their local pharmacy for disposal. Medicines, and devices such as diabetic needles and syringes, should not be disposed of as part of normal household refuse because of the potential for misuse and because municipal waste disposal in landfills is not the disposal method of choice for many pharmaceutical types. Handling and disposal should comply with the guidelines in NZ Standard 4304:2002 – Management of Healthcare Waste."

As reported in 2016 and relevant for this assessment, medical waste removal and disposal are currently adequately catered for in the region in respect of institutional wastes. Sources of medical waste from households have no special provision.

7.6.5 E-Waste

The Ministry for the Environment declared in July 2020 six priority products ⁵⁶ for regulated product stewardship. Included in this list is e-waste (electrical and electronic products – including large batteries). A national product stewardship scheme is currently in development to manage the nations e-waste with submission of a final recommendations report due to be issued to the Ministry for the Environment in November 2022. At present, the scheme manager application(s) for priority product stewardship scheme accreditation, including asking for regulations to be enacted to support the scheme is set for 2023⁵⁷.

Currently, there are a limited number of collection points in the region at the transfer stations and resource recovery facilities and there is no consistent region wide approach to e-waste management. This is consistent with the previous 2016 Waste Assessment.

⁵⁵ Disposal of unwanted medicines | New Zealand Pharmacy Network (wordpress.com)

⁵⁶ Regulated product stewardship | Ministry for the Environment

⁵⁷ E-Waste Product Stewardship – New Zealand - TechCollect

8 HIGH-LEVEL REVIEW OF THE 2017-2023 WELLINGTON REGION WASTE MANAGEMENT AND MINIMISATION PLAN

8.1 High-Level Review of the 2017-2023 Regional Waste Management and Minimisation Plan

An initial review of the 2017-2023 WMMP was undertaken to inform the current Waste Assessment, and to help identify potential improvements to the effectiveness of a new WMMP. The key points emerging from the initial review are noted below. For consistency, the following sections follow that of the previous Waste Assessment.

8.1.1 Data

The data contained in the 2016 Waste Assessment and the 2017-2023 WMMP provided a good basis using the data that was available at the time. The data was of variable quality, with gaps leading to problematic extrapolations being made and applied to the Wellington Region. Further, there was limited data regarding rural wastes, privately managed waste disposal sites and quantities of materials that were recovered from across the Wellington Region.

8.1.2 Key Issues

The 2016 Waste Assessment and 2017-2023 WMMP rightfully identified many of the key issues facing the region. For clarity, these have been summarised in the below list:

- Poor data quality and availability of data
- Lack of data to illustrate the problem of environmental litter and illegal dumping
- Lack of data for the Wellington region rural waste sector
- Lack of comprehensive litter data for the Wellington Region
- Lack of commercial sector data and availability of commercial operator data where kerbside services are provided

8.1.3 Issues not Addressed

The following list summarises several items that were not covered in the previous 2017-2023 WMMP or which have since emerged:

- Recycling rates
 - The previous and current Waste Assessment are reporting the quantities of materials being recycled by households is relatively low across the region and is showing continued decline.
 - The deferral (as at May 2023) of a Container Return Scheme is expected to have an impact on the volumes of kerbside recyclable material being presented for kerbside collection.
 - The implementation of standardised kerbside collections across Aotearoa New Zealand is expected to influence and shape the volumes of materials collected at kerbside and available for processing.
 - \circ $\;$ The implementation of kerbside food scraps collections to urban households.
- Recovery of construction and demolition materials
 - The previous and current Waste Assessment are reporting the current low level of infrastructure available to recover construction and demolition materials, including for example, concrete, brick, wood, plasterboard.

8.1.4 New and In Development Guidance and Legislation

At the time of writing, the Ministry for the Environment released Te rautaki para | Waste strategy which sets the high-level direction for the next 30-years for a low emissions, low waste society built on a circular economy. Alongside Te rautaki para | Waste strategy, the Ministry for the Environment is developing more comprehensive waste legislation to replace the current Waste Minimisation Act 2008 and the Litter Act 1979. The intent of the new legislation is to support the delivery of Te rautaki para | Waste strategy and the waste actions as set out in the Emissions Reduction Plan.

In addition to Te rautaki para | Waste strategy and more comprehensive legislation, the Ministry for the Environment has set out several key areas that will be progressed over the coming years, including:

- Making materials collected from households for recycling the same across Aotearoa New Zealand from 2024
- Ensuring kerbside recycling services are provided to households in urban areas (i.e., towns of 1,000 people or more) by 2027
- Making food scraps collection services available to households in all urban areas by 2030

Alongside the provision of household food scrap collection services, the Ministry for the Environment is also looking to get businesses ready to separate food scraps from general waste by 2030.

Further, the implementation of a container return scheme for Aotearoa New Zealand was consulted on in 2021 which would incentivise people to return their empty beverage containers for recycling in exchange for a small refundable deposit. While around 6,400 submissions were received from the consultation process (including standardised kerbside collections, food scrap collections and a container return scheme) with most submitters supportive of the initiatives, the government has as at March 2023 deferred ⁵⁸ work on the container return scheme. No further updates on the anticipated timing to restart work on the container return scheme was available at the time of writing.

In addition to the above, the Ministry for the Environment is working on developing several additional waste and resource management initiatives as bulleted below. Acknowledging the development of several key new initiatives are not yet fully in place at the time of writing this Waste Assessment, consideration of these has been integrated into the analysis where relevant and appropriate. It is anticipated that the below list will largely be in effect at the time of the next Waste Assessment.

- Development of a long-term infrastructure plan to provide a national view of the waste investment Aotearoa New Zealand needs over the next 15-years
- Developing end-of-life solutions for the six priority products:
 - Plastic packaging
 - o Tyres
 - o Electrical and electronic products (e-waste including large batteries)
 - o Agrichemicals and their containers
 - o Refrigerants
 - Farm plastics
- Phasing out certain single-use plastic items and hard-to-recycle plastic packaging (e.g., type #3 PVC containers, type #6 polystyrene drink packaging)

⁵⁸ Freeing up more government bandwidth and money to focus on the cost of living | Beehive.govt.nz

 Reducing construction and demolition waste and move towards more circular systems for building materials used

8.1.5 2017-2023 WMMP Wellington Region Actions

The 2017-2023 WMMP proposed nine regional actions as summarised in **Table 39** below. The intent of the regional actions was to set out the key areas that the councils would collectively carry out or support to deliver on the WMMP.

Table 39	2017-2023 Summary	of Regional Actions
	2017-2023 Summary	of Regional Actions

Regional Action	What it will do		
Develop and implement a regional bylaw, or a suite of regionally consistent bylaws	This will help councils set standards and gather data so they can plan and manage waste better.		
Implement Waste Data Framework	Consistent, high-quality data will help track progress.		
Regional engagement	More consistent regional communications and education around waste services and waste minimisation will help households and communities to be inspired and supported so they can play their part.		
Optimise collection systems	We will work to improve collections so that they maximise diversion and are cost effective to communities.		
Resource recovery network	This will make sure we have the facilities to divert more material like construction and demolition waste, food and/or biosolids, and other organic waste.		
Beneficial use of biosolids	This is a large waste stream that, if we divert it, will make a big contribution to our regional targets.		
Shared governance and service delivery	There is potential to join together to deliver higher levels of service more efficiently.		
Resourcing for regional actions	This will make sure we have the means to deliver on what we set out in the plan.		
Collaborate and lobby	We can work with other local government organisations, NGOs and other key stakeholders on undertaking research, lobbying and actions on various waste management issues such as (but not limited to) product stewardship, electronic waste, tyres, plastic bags, etc.		

In addition to the nine regional WMMP actions, each of the Wellington region councils produce individual or collective Local Action Plans that set out how each will deliver on the WMMP while ensuring that they meet the needs and concerns of their own communities.

8.1.6 2017-2023 WMMP Implementation Plan

To support and guide the development and implementation of the 2017-2023 WMMP, the Wellington region WMMP Joint Governance Committee was established. This committee is currently made up of elected members from each council and is responsible for overseeing the development and implementation of the WMMP. Oversight of regional level actions is undertaken by the WMMP Joint Governance Committee, with implementation of the actions managed through the Regional Officer Steering Group and when funding is available and/or approved. Additionally, and in acknowledgment of the significance of the WMMP to the region, a WMMP planner role was established with each council providing funding support through their respective Annual and Long-Term Plans. As noted in the 2017-2023 WMMP, a range of indicative metrics for each of the nine regional actions was developed, however the context-appropriate metrics were noted to be developed and agreed as part of the individual council implementation plans. No detailed implementation

plan, including responsibility, resources or delivery timeframes were included in the 2027-2023 WMMP. This information may be included within the individual council implementation plans that was not available for inclusion in this Waste Assessment.

8.1.7 2017-2023 WMMP Progress to Date

Potentially as a result of the last two points, limited progress has been made on implementing the actions contained in the 2011 WMMP. Only four of the 19 actions have been taken forward, with only the education strategy having so far been completed. Work on a regional solid waste bylaw is complete, there has been some progress on biosolids investigation, and development of a subsequent WMMP is underway.

9 STATEMENT OF OPTIONS

This section sets out the key issues raised in this Waste Assessment (Section **9.1**) and the range of options for further council consideration to address the key matters (Section **9.2**). For clarity, the list of options provides a high-level review of the strategic importance of each option, the potential impact on current and future demand for waste services in the region and councils anticipated role in implementing the option. The range of options follows the structure of the previous assessment as follows:

- Regulation
- Measuring and Monitoring
- Communication and Education
- Collection Service
- Infrastructure
- Leadership and Management

It is recommended that further detailed investigations be carried out on each of the following options before any are selected and/or implemented. The intent for this is to ensure that a full and comprehensive investigation is undertaken to underpin any decision making.

9.1 Key Issues to be Addressed by the Next Wellington Region Waste Management and Minimisation Plan

Following on from Section **8.1.2** and Section **8.1.3**, the key matters addressed in this Waste Assessment that have the greatest effect on the eight councils ability to meet their statutory obligations are included in the below bulleted list. The list has been extracted and amended from the previous Waste Assessment as many of the key issues remain relevant to the current assessment:

- Data quality and management of data
 - A lack of data, particularly on the activities of the private waste and recycling sector, limits councils' ability to effectively manage waste in the region. This constrains ability to plan for and respond to future demand
- Disposal of unknown quantities of waste to Class 2-4 landfills
 - While the data on Class 2-4 landfills that is available to the councils is very limited, it is likely that considerable quantities of recoverable materials are disposed of to these facilities.
- Suboptimal overall recycling performance.
 - The Wellington region has a below average level of recycling performance compared to other centres in NZ.
- Recycling performance static/declining.
 - Not only is recycling performance weak overall, but data suggests it is static or declining in most areas.
- Sewage sludge/biosolids management.
 - The primary disposal pathway for biosolids is landfill. Where this material has high moisture content it can create landfill management issues. It also represents a high fraction of organic waste that could potentially be recovered for beneficial use.
- Low diversion rate on organics.

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- While a reasonable fraction of garden waste is composted, there is very little diversion of food scraps and there is further room to capture and process more garden waste and food scraps (i.e., either combined [food and green waste] or separately as food only and green only). Food and green waste represent the largest fractions of material being landfilled and so this is potentially the biggest opportunity to improve diversion and reduce landfill greenhouse emissions emitted from decomposing organic material.
- Councils operate a range of different funding and management models.
 - Perhaps the greatest barrier to enhanced collaboration is that waste is managed in divergent ways among the constituent councils and each council responds primarily to the particular drivers within their area. Differing ownership of assets, service delivery expectations, and rates funding levels all create differing imperatives.
- Unrealised potential for greater joint working in council service delivery.
 - The locally focused approach to waste management has resulted in a range of systems, many of which have evolved over time, and are not necessarily configured to deliver optimum results in terms of cost and waste minimisation performance. There are likely to be gains from a more consistent approach that utilises best practice (e.g. more consistent approach to kerbside services).
- Recycling rates.
 - The previous and current Waste Assessment are reporting the quantities of materials being recycled by households is relatively low across the region and is showing continued decline.
 - The deferral (as at May 2023) of a Container Return Scheme is expected to have an impact on the volumes of kerbside recyclable material being presented for kerbside collection.
 - The implementation of standardised kerbside collections across Aotearoa New Zealand is expected to influence and shape the volumes of materials collected at kerbside and available for processing.
- Recovery of construction and demolition materials.
 - The previous and current Waste Assessment are reporting the current low level of infrastructure available to recover construction and demolition materials, including for example, concrete, brick, wood, plasterboard.

Additional items include:

- Lack of data to illustrate the problem of environmental litter and illegal dumping.
- Lack of data for the Wellington region rural waste sector.
- Lack of comprehensive litter data for the Wellington Region.
- Lack of commercial sector data and availability of commercial operator data where kerbside services are provided.

9.2 Options

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Maintain existing bylaw regimes	 Maintaining bylaw status quo would have limited positive effect on any of the key issues. 	Social/Cultural: uneven understanding of the waste flows in the district Environmental: variable ability to guard against environmental degradation through illegal disposal, variable ability to require environmental performance standards are met (e.g. recyclable material is separated) Economic: No change to current systems. Health. Limited ability to monitor and enforce actions of current providers and ensure public health is protected	A lack of data and controls on private operators limits councils' ability to effectively manage waste in the region. This constrains ability to plan for and respond to future demand	Councils would implement and enforce existing bylaws; monitoring and reporting on waste quantities and outcomes. Minor changes will be required to align with the National Waste Data Framework.
Review Solid Waste Bylaws	 Data quality and management of data Disposal of unknown quantities of waste to Class 2-4 landfills Suboptimal overall recycling performance 	Social/Cultural: better understanding of the waste flows in the district, wider range of services offered to residents Environmental: would increase diversion from landfill and information about disposal	Improved bylaws would, as a minimum, require reporting of waste material quantities. Collecting waste data is imperative to planning how to increase waste minimisation across council provided services and commercial waste	Councils would develop and enforce the bylaws; monitoring and reporting on waste quantities and outcomes The solid waste bylaw Should not be an unreasonable hindrance on private business seeking to take advantage of

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
	 Recycling performance static/ declining Low diversion rate on organics 	practices and could potentially guard against environmental degradation through illegal disposal <i>Economic:</i> increase cost for operators; additional resources will be required to monitor and enforce the regulatory system <i>Health.</i> Greater monitoring of providers to ensure no adverse health risks occur	streams The bylaw could also be used to require minimum performance standards. This could be a key mechanism for addressing waste streams currently controlled by the private sector and how they provide their collection services. Requiring provision of a recycling collection to all customers and preventing the use of large bins for refuse collection, could decrease the amount of waste sent to landfill. The amount of recyclables requiring processing would increase.	opportunities to take part in waste minimisation and waste management activities. This includes how waste, recovery, diversion, recyclables, and disposal is defined within the document. In considering a licensing approach, the councils should seek to liaise with the other outer regional initiatives. Consistency across regions would help reduce unnecessary administrative burden for private operators, and unintended consequences such as less wellregulated areas becoming a target for undesirable practices, such as clean filling, and poorly managed waste facilities.

9.2.2 Measuring and Monitoring

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Status Quo	 Maintaining data status quo would not have a positive effect on any of the key issues 	Social/Cultural: uneven understanding of the waste flows in the district in particular in respect of	A lack reliable information to monitor and plan for waste management in the region	Councils currently gather data on waste streams they manage or facilities or services they own as well as information

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
		recovered material and material to other than Class 1 disposal facilities <i>Environmental</i> : Limited ability to monitor and report on environmental outcomes <i>Economic</i> : Limited understanding of waste flows restricts ability to identify waste recovery opportunities and creates risk around waste facility and service planning which increases costs. <i>Health</i> . Lack of data on potentially harmful wastes and their management		supplied by the private sector through licensing or similar
Implement National Waste Data Framework	 Data quality and management of data 	Social/Cultural: improved knowledge of waste flows and better information available to the public on waste and recovery performance <i>Environmental</i> : Improved ability to monitor and manage waste collection and disposal information and make appropriate planning and management decisions <i>Economic</i> : improved understanding of waste flows resulting in better targeted	The Waste Data Framework would enhance the ability to share and collate information improving overall knowledge of waste flows. It currently only covers material to disposal however.	Councils would implement the Waste Data Framework by putting standard protocols in place for the gathering and collation of data. This would enable sharing and consolidation of data at a regional level

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
		waste and recovery services and facilities. <i>Health</i> . Potential for improved data on hazardous and harmful wastes		
Audit waste stream at transfer stations and kerbside every 4-6 years and before and after significant service changes and monitoring of waste flows through contract for	 Data quality and management of data 	Social/Cultural: Identifying material streams for recovery could lead to job creation <i>Environmental</i> : Ability to identify materials and waste streams for potential recovery and reduction <i>Economic</i> : Ability to identify materials and waste streams for potential recovery and reduction, giving rise to new business opportunities and reduction of disposal costs <i>Health</i> . Potential for improved data on hazardous and harmful wastes	Would not impact on the status quo prediction of demand directly, but would assist in identifying recovery opportunities which could impact facility provision	Councils would maintain existing service arrangements Minor changes would be required to align with the National Waste Data Framework
Increase monitoring to gather more information in strategic areas, such as commercial waste composition; waste management in rural areas; cleanfill, construction and demolition waste. Audit cleanfill waste streams wherever possible to	 Data quality and management of data Disposal of unknown quantities of waste to Class 2-4 landfills 	Social/cultural: could raise awareness of waste management in areas where currently very little is known; enable greater monitoring of providers to ensure no adverse health effects occur. Identifying material streams for recovery could lead to job	Analysis of available data has shown that there are gaps in knowledge and understanding of waste streams. Availability of more data, and tailoring of services accordingly, could increase demand for recycling services and reduce waste to landfill.	Councils could initiate and oversee research, studies and audits; and feed results into future iterations of waste assessments and WMMP. Councils may need to develop bylaw and licensing systems to gather more data.

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
understand composition of waste.		creation. Environmental: increased ability to identify additional/altered services to increase diversion of waste from landfill. Economic: there may be additional costs for new programmes put in place. Ability to identify materials and waste streams for potential recovery and reduction, giving		
		rise to new business opportunities and reduction of disposal costs. <i>Health</i> . Potential for improved data on hazardous and harmful wastes		

9.2.3 Communication and Education

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Continue existing education programmes	 Suboptimal overall recycling performance Recycling performance static/declining 	Social/Cultural: community will be aware of options, engaged in the waste management process, and take a level of ownership of waste issues. Environmental: education programmes aim to establish and support positive	Awareness of waste issues and behaviour would not change significantly from current situation.	Councils would continue to fund and coordinate a wide range of education programmes.

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
		behaviours that reduce environmental impact. <i>Economic:</i> currently funded. <i>Health.</i> Public informed of health risks of waste materials and appropriate disposal pathways		
Extend existing communication programme to focus on current and additional target audiences (e.g., low users)	 Suboptimal overall recycling performance Recycling performance static/declining 	Social/cultural: community will be more aware of options and more engaged in the waste management process, taking a higher level of ownership of the issue. Environmental: education programmes would seek to establish, support and extend positive behaviours that reduce environmental impact. Economic: could potentially be funded through waste levy funding. Health. Information regarding health risks of waste materials and appropriate disposal pathways would reach a wider audience. More vulnerable sectors of the public informed of health risks related to waste management. Messages better targeted to audiences needs	Expanding the target audience may improve results in increased recycling and decreased unwanted behaviour such as landfilling and other land disposal.	Councils would fund and/or coordinate education programmes.

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Extend existing communication programmes to support any new ratesfunded services provided by the councils (e.g., food scrap or food and greenwaste collections)	 Suboptimal overall recycling performance Recycling performance static/declining 	Social/cultural: community will be more aware of options and more engaged in the waste management process, taking a higher level of ownership of the issue. Information regarding health risks of waste materials and appropriate disposal pathways would reach a wider audience <i>Environmental</i> : education programmes would seek to establish, support and extend positive behaviours that reduce environmental impact <i>Economic</i> : could initially be funded through waste levy funding when new services are introduced; subsequent communications would be ratesfunded <i>Health</i> . Information regarding health risks of relevant waste materials and appropriate management targeted to audiences needs	Depending on the new rates- funded services that are provided, this could potentially contribute to a significant reduction in demand for landfill, and an increase in demand for recycling services and processing. Education alone will not support behaviour change. Pathways need to be provided for residents and businesses to take action on education messages.	Councils would fund and coordinate education programmes.
Regional co-ordination and delivery of waste education programmes	 Data quality and management of data Suboptimal overall recycling performance 	Social/cultural: More consistent messaging and better leverage on education spend assisting community to	The data suggests there is significant potential to reduce, reuse and recycle more waste. Communities should reduce	Regional coordination and delivery would be undertaken on behalf of councils (through a jointly funded position or

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
	 Recycling performance static/declining 	be more aware of options and more engaged in the waste management process. <i>Environmental:</i> Enhanced ability to establish positive behaviours that reduce environmental impact. <i>Economic:</i> consider funding through waste levy funds. <i>Health.</i> Information regarding health risks of relevant waste materials and appropriate management able to be targeted to audiences needs	their reliance on residual waste collections and demand for recycling services will increase.	structure). Local needs could be met by working more closely with specific councils and the community

9.2.4 Collection Service

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Status Quo. Different types of collection services and mechanisms for provision are continued throughout the region	 Maintaining collections status quo would have a limited positive effect on any of the key issues 	Social/Cultural: Council and the collection contractor have a responsibility to mitigate the risks associated with kerbside bag collections. Private operators do not necessarily always provide the appropriate levels of service, for example, at peak times. Environmental: no new impacts. Economic: no new	Not expected to impact on the status quo prediction of demand.	Each council's role is varied depending on their service provision configuration.

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Councils seek to standardise collection systems (noting MfEs proposed standardised kerbside collection methodology) and methodologies and procure shared services where there are clear strategic advantages	 Data quality and management of data Declining council kerbside refuse market share Suboptimal overall recycling performance Recycling performance static/declining Councils operate a range of different funding and management models Unrealised potential for greater joint working in 	impacts. <i>Health</i> . Vulnerable sectors of the community may chose not to access waste services due to cost. In some areas there is limited capacity to reduce costs through recycling <i>Social/Cultural</i> : The impacts will vary depending on the configurations of services that are implemented. In general, council and the collection contractor have a responsibility to mitigate the risks associated with kerbside bag collections. Private operators do not necessarily always provide the appropriate levels of service, for example, at peak times. <i>Environmental</i> : The impacts will vary depending	Demand The impacts will vary depending on the configurations of services that are implemented. It could be expected that standardising of services would lead to overall improved levels of diversion due to wider participation in recycling and the ability to present more consistent messages to the community	Currently each council's role is varied depending on their service provision configuration. Varying roles would be expected to continue but each councils role could change – for example if one council takes a lead role in contract management for a shared service. Councils will need to consider shared service arrangements as part of their S17A reviews and this should inform future procurement
	council service delivery	On the configurations of services that are implemented. It could be expected that standardising of services would lead to overall improved levels of service provision including recycling <i>Economic:</i> The impacts will vary depending on the configurations of services that are implemented. Shared services		programmes

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
		should lead to more economically efficient outcomes and reduce total costs to the community. <i>Health</i> . The impacts will vary depending on the configurations of services that are implemented. Vulnerable sectors of the community may chose not to access waste services due to cost. Where there is limited capacity to reduce costs through recycling this could be mitigated through improved service provision		
Public sector exits collection service provision and licenses private sector operators to provide services to nominated service levels	 Data quality and management of data Disposal of unknown quantities of waste to Class 2-4 landfills Declining council kerbside refuse market share Suboptimal overall recycling performance Recycling performance static/declining 	Social/Cultural: Private operators do not necessarily always provide the appropriate levels of service, for example, at peak times, or in more remote/less economic areas. Environmental: Potential for increased waste to disposal/less recycling if the licensing regime does not contain appropriate measures. Economic: Rates would reduce for households but private user pays charges would increase for households.	Could impact on the status quo prediction of demand slightly if private provision leads to increased disposal (e.g., through larger waste containers.) or reduced recycling (e.g. through reduced levels of service)	Councils would (individually or collectively) have responsibility for licensing operators, and monitoring and enforcing license provisions. Provisions could include supply of data, restrictions on container size, requirement to provide recyclables collections etc. A number of councils are currently faced with declining market share (particularly for waste collection services). This option acknowledges this reality and sees councils

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
		<i>Health</i> . Vulnerable sectors of the community may chose not to access waste services due to cost.		withdrawing from competition with private services
The councils in the region provide kerbside food scrap or food scrap and greenwaste collection services funded through rates.	 Data quality and management of data Suboptimal overall Recycling performance Recycling performance static/declining Low diversion rate on organics Councils operate a range of different funding and management models Unrealised potential for greater joint working in council service delivery 	Social/Cultural: residents would be provided with an increased range of services. Collection services would not be provided to rural dwellings (these may or may not have access to private providers). Environmental: Food scraps (or food scraps and greenwaste) to landfill would be reduced which would lessen the environmental impact from landfills. Economic: residents would pay for the collections through rates, By providing an organic waste collection service, rubbish collection costs can be reduced (through container size and/or frequency of collection). Health. Households would be able to manage organic wastes safely through a regular collection	This is likely have a significant impact on the amount of waste diverted; reducing the future demand for landfill, and increasing the future demand for organic waste processing. A facility/facilities would be required to process the collected organic waste. In the Wellington region landfill pricing is an important variable/driver to consider in the business case for any new service or the regionalisation of existing services	Councils would provide food waste kerbside collection services through a contract or other type of service agreement. Councils would manage and monitor service provision and collect full data on the collection service. Additional resource may be required to manage this new service. Councils would need to recover costs for this service through rates; either general rate or a targeted rate charged to those residents that are eligible for the service.
The councils are required to provide a standardised recycling service across the region as a result of the MfE	 Data quality and management of data Suboptimal overall recycling performance 	Social/Cultural: residents would be provided with a more standardised range of services	The impacts will vary depending on the configurations of services that are implemented. It	Currently each council's role is varied depending on their service provision configuration. Varying roles would be

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
standardised kerbside collection proposal. This would not necessarily entail procuring a single service provider but adoption of an agreed methodology which will be used as the basis for procurement of the service by councils either on their own or in shared service arrangements	 Recycling performance static/declining Councils operate a range of different funding and management models Unrealised potential for greater joint working in council service delivery 	<i>Environmental:</i> Recycling rates could be expected to improve due to wider participation in recycling and the ability to present more consistent messages to the community. <i>Economic:</i> residents would pay for the collections through rates, by providing improved recycling services, rubbish collection costs can be reduced (through container size and/or frequency of collection). <i>Health.</i> More households would be able to manage recyclables through a consistent collection	could be expected that standardising of services would lead to overall improved levels of diversion due to wider participation in recycling and the ability to present more consistent messages to the community	expected to continue but each council's role could change – for example if one council takes a lead role in contract management for a shared service. Councils that do not currently provide a rates funded recycling service would need to enter into a contract management role (or have this done on their behalf by a shared service partner council) Councils will need to consider recycling service provision including shared service arrangements as part of their \$17A reviews and this should inform future procurement programmes
The councils in the region provide full kerbside collection services funded through rates. This service would enable recycling, organic waste and rubbish to be collected.	 Data quality and management of data Declining council kerbside refuse market share Suboptimal overall recycling performance Recycling performance static/declining Low diversion rate on organics 	Social/Cultural: residents would be provided with a much wider range of services. Communication would be based on a consistent system, resulting in a community that is more aware of options and engaged in the waste management process. Collection services would not be provided to rural dwellings (these may or may not have	This would likely have a significant impact on the amount of waste diverted; reducing the future demand for landfill significantly and reducing reliance on recycling drop—off points; and increasing the future demand for recycling and organic waste services and processing. Improvements to	Councils would provide three kerbside collection services, through a contract or other type of service agreement. Councils would manage and monitor service provision and collect full data on the collection service. Additional resource may be required to manage this new service, which could be

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
	Unrealised potential for greater joint working in council service delivery	access to private providers). Environmental: the new services would provide for positive behaviours that reduce environmental impact. Vehicle movements around the region would be reduced. Economic: residents would pay for all collections through rates; however most residents would no longer need to pay a private collector for services. A small number of households might experience an increase in rates but not receive the service; unless the service is funded through a targeted rate. There would be an impact on the private sector as their customer base would be significantly reduced (there is the potential for some operators to go out of business); however there would conversely be the opportunity to provide services on behalf of the councils. Health. Vulnerable sectors of the community would have access waste and recovery services. Households would be able to manage organic wastes	recycling processing facility/ies may be required, and a facility/facilities would be required to process the collected organic waste.	managed through a CCO, joint business unit or in-house. Councils would need to recover costs for this service through rates; either general rate or a targeted rate charged to those residents that are eligible for the service.

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Wairarapa and Kāpiti councils provide farm waste and recycling collection services targeted at improving management of farm wastes. The exact nature of the services would need to be determined but could encompass on property on demand collections using skips/hiab bins or similar to accommodate large quantities and reduce the frequency of collection	 Data quality and management of data Disposal of unknown quantities of waste to Class 2-4 landfills Suboptimal overall recycling performance Recycling performance static/declining Unrealised potential for greater joint working in council service delivery 	safely through a regular collection Social/Cultural: All sectors of the community would be catered for. Environmental: Rural waste is an issue that is receiving increasing attention, with particular concern around management of hazardous wastes. Provision of appropriate services could substantially improve local soil and groundwater quality. Economic: It is proposed that the service would be user pays or part user pays. Farms are commercial enterprises and from that perspective should have the same expectations on them for managing their wastes. It would mean additional costs for farms some of whom would not be willing to pay, and whom would view traditional on farm means of disposal (burn or bury) as preferable. Health. Hazardous wastes would be better managed and reduce risks of entry of these substances into the environment through	Most rural waste does not enter the formal waste management system, and so uptake of a service would increase demand for recycling and disposal capacity.	Councils would provide a facilitation role for the service and would look to link with and leverage from any work being done nationally and regionally on farm waste services. There is potential for this initiative to be supported by RMA rules and objectives in the Regional Plan

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Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
		land air and water contamination.		

9.2.5 Infrastructure

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Status Quo: Council owned Class 1 landfills and transfer stations. Council and private Class 2-4 disposal facilities Private recyclable processing Private organic waste processing	 Maintaining infrastructure status quo would not have a positive effect on any of the key issues. 	Social/Cultural: No change. Variable access to facilities for communities. Variable reuse opportunities. Environmental: No change. Organics, C&D waste still going to disposal Economic: Economic impacts will vary across the region. Landfills can be valuable assets for the community and reduce the rates burden from waste management. Health. Health impacts are managed through ensuring consent conditions are adhered to.	Would not impact significantly on the status quo prediction of demand for materials	Councils owning landfills and facilities would continue to manage/oversee these
A Resource Recovery Network is developed including for example, a network of 'community recycling centres' (building on and adding to	 Data quality and management of data Suboptimal overall recycling performance 	Social/Cultural: enhanced services enabling separation of materials and access to low- cost used goods.	Would have an impact on demand for landfill and would increase demand for recycling/recovery services and processing facilities.	Councils' key role would be in overseeing and planning the development and implementation of the network. Councils could fund

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
existing transfer stations, establishing new standalone facilities or partnering with organisations)	 Recycling performance static/declining Sewage sludge/biosolids management Low diversion rate on organics Unrealised potential for greater joint working in council service delivery 	<i>Environmental:</i> improvement to waste recovery depending on exactly which expanded/additional services are introduced. <i>Economic:</i> Councils will need to invest funding in improving existing facilities and extending the network. <i>Health.</i> Enhanced services enabling separation of materials such as hazardous waste would facilitate appropriate disposal and reduce health impacts.		any new facility(s) in a variety of ways: capital funding (potentially partly through waste levy funds) could be provided; or it could be developed through a BOOT contract or similar. The application of funding should ideally recognise the wider value of initiatives, including potential social and economic benefits. Councils would provide capital funding (potentially partly through waste levy funds) to significantly upgrade and improve the current RRP and drop-off facilities. This could be done through a direct service arrangement, or by sub-leasing space to the private or community sectors.
Organic waste processing facility developed to manage food scraps.	 Low diversion rate on organics Unrealised potential for greater joint working in council service delivery 	<i>Environmental:</i> improved management of landfills through removal of and food waste. Improved landfill life. Potential for beneficial use of organic wastes to improve soil health <i>Economic:</i> Capital and	Would result in reduced demand for landfill and would increase demand for recovery processing facilities.	Councils would oversee the development of a processing facility, but the technical specifications and management could be contracted out. Councils could fund the new facility(s) in a variety of ways: capital funding

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
		operations implications from development of a facility <i>Health</i> . Health impacts are managed through ensuring consent conditions are adhered to and national and international guidelines on the application of compost and digestate to land are followed.		(potentially partly through waste levy funds) could be provided; or it could be developed through a BOOT contract or similar

9.2.6 Leadership and Management

Option	lss	ues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
Collaborate with private sector and community groups to investigate opportunities to enhance economic development through waste minimisation.	•	Suboptimal overall recycling performance	Social/Cultural: potential for downstream job creation. Environmental: potential enhancement through waste minimisation. Economic: could result in benefits for the local economy. Health. Health impacts dependent on the nature of the collaboration.	Councils use contractors to provide a range of cost- effective waste management services. There are other waste minimisation activities such as reuse shops that are marginally cost effective in strictly commercial sense but provide a great opportunity for a social enterprise/charitable community group. Having all sectors working together can provide mutual benefits for all.	Councils to lead and facilitate. Councils to recognise the importance of diversity in the mix of scales of economy and localised solutions. Councils to support a mix of economic models to target best fit solutions depending on the situation.
Councils enter into shared service or joint procurement	•	Data quality and management of data	Social/Cultural: some improved consistency in approach.	No significant impact on status quo forecast of future demand.	Councils make a joint formal approach to neighbouring

Option	Issues Addressed	Strategic Assessment	Impact on Current/Future Demand	Council's Role
arrangements where there is mutual benefit	 Declining council Kerbside refuse market share Suboptimal overall recycling performance Recycling performance static/declining Councils operate a range of different funding and management models Unrealised potential for greater joint working in council service delivery 	<i>Environmental:</i> impacts depend on the implementation of collaborative strategies and projects. <i>Economic:</i> shared services could reduce costs and enable access to better quality services. <i>Health.</i> Enhanced services enabling separation of materials such as hazardous waste would facilitate appropriate disposal and reduce health impacts.	The Wairarapa councils currently have a shared service contract, there may be opportunity for other areas or if a new service is introduced (e.g., food scrap collection)	authorities to form collaborative partnerships on various strategic or operational projects, particularly those already highlighted as collaborative opportunities in the Waste Assessment. Where services are to be shared there will a need to align service provision and contract dates
Lobby for enhanced product stewardship programmes	 Data quality and management of data Suboptimal overall recycling performance Recycling performance static/declining 	Social/Cultural: product take back will require behaviour change; potentially better management of hazardous materials. Environmental: improved resource efficiency. Economic: potential for producer pays schemes.	Product stewardship is specifically enabled in the WMA. Fully enacting this principle will help ensure true costs of products are reflected.	Continue to promote current schemes and support the implementation of proposed schemes including the container return scheme, as well as tyres and e-waste currently in development.

10 STATEMENT OF COUNCILS INTENDED ROLE

10.1 Statutory Obligations and Powers

As reported in the previous Waste Assessment, councils have several statutory obligations and powers in respect of the planning and provision of waste services. For clarity these have been reproduced below:

- Under the WMA each council "must promote effective and efficient waste management and minimisation within its district" (s 42). The WMA requires Tas to develop and adopt a Waste Management and Minimisation Plan (WMMP)
- The WMA also requires TAs to have regard to the New Zealand Waste Strategy 2010 (noting this strategy is as at 2022 currently being reviewed by the Ministry for the Environment). The Strategy has two high levels goals: 'Reducing the harmful effects of waste' and 'Improving the efficiency of resource use'. These goals must be taken into consideration in the development of the councils' waste strategy.
- Under the Local Government Act 2002 (LGA) the councils must consult the public about their plans for managing waste
- Under the Resource Management Act 1991 (RMA), TA responsibility includes controlling the effects of land---use activities that have the potential to create adverse effects on the natural and physical resources of their district. Facilities involved in the disposal, treatment or use of waste or recoverable materials may carry this potential. Permitted, controlled, discretionary, non-complying and prohibited activities and their controls are specified within district and regional planning documents, thereby defining further land---use---related resource consent requirements for waste- related facilities.
- Under the Litter Act 1979 TAs have powers to make bylaws, issue infringement notices, and require the clean---up of litter from land.
- The Health Act 1956. Health Act provisions for the removal of refuse by local authorities have been repealed by local government legislation. The Public Health Bill is currently progressing through Parliament. It is a major legislative reform reviewing and updating the Health Act 1956, but it contains similar provisions for sanitary services to those currently contained in the Health Act 1956.
- The Hazardous Substances and New Organisms Act 1996 (the HSNO Act). The HSNO Act provides minimum national standards that may apply to the disposal of a hazardous substance. However, under the RMA a regional council or TA may set more stringent controls relating to the use of land for storing, using, disposing of or transporting hazardous substances.
- Under current legislation and the new Health and Safety at Work Act the council has a duty to ensure that its contractors are operating in a safe manner

10.2 Overall Strategic Direction and Role

The overall strategic direction and role is presented in the Wellington region Waste Management and Minimisation Plan.

11 STATEMENT OF PROPOSALS

Based on the options identified in this Waste Assessment and the councils' intended role in meeting forecast demand a range of proposals are put forward. Actions and timeframes for delivery of these proposals will be identified in the next Waste Management and Minimisation Plan, currently in development. It is expected that the implementation of these proposals will meet forecast demand for services as well as support the councils' goals and objectives for waste management and minimisation. These goals and objectives will be confirmed as part of the development and adoption of the Waste Management and Minimisation Plan.

11.1 Statement of Extent

In accordance with section 51 (f), a Waste Assessment must include a statement about the extent to which the proposals will (i) ensure that public health is adequately protected, (ii) promote effective and efficient waste management and minimisation.

11.1.1 Protection of Public Health

The Health Act 1956 requires the councils to ensure the provision of waste services adequately protects public health. The Waste Assessment has identified potential public health issues associated with each of the options, and appropriate initiatives to manage these risks would be a part of any implementation programme.

As reported in the previous Waste Assessment and in respect of council provided waste and recycling services, public health issues will be able to be addressed through setting appropriate performance standards for waste service contracts and ensuring performance is monitored and reported on, and that there are appropriate structures within the contracts for addressing issues that arise. Privately provided services will be regulated through local bylaws. Further, uncontrolled disposal of waste, for example in rural areas and in cleanfills, will be regulated through local and regional bylaws.

Subject to any further issues identified by the Medical Officer of Health, the proposals are expected to adequately protect public health.

11.1.2 Effective and Efficient Waste Management and Minimisation

The Waste Assessment has investigated current and future quantities of waste and diverted material and outlines the councils' role in meeting the forecast demand for services.

It is considered that the process of forecasting has been robust, and that each council's intended role in meeting these demands is appropriate in the context of the overall statutory planning framework for each council.

Therefore, it is considered that the proposals would promote effective and efficient waste management and minimisation.

APPENDICES

APPENDIX A

Aotearoa New Zealand Waste Management and Minimisation Legislative Instruments

Local Government Act 2002 (LGA 2002)

The Local Government Act (2002) provides the legislative framework for democratically elected local authorities to promote the social, economic, environmental and cultural well-being of communities in the present and for the future. This includes taking "appropriate account of the principles of the Treaty of Waitangi" and facilitating "participation by Māori in local authority decision making processes". The Act also gives effect to any schemes (including kaitiakitanga whakanaonga – product stewardship schemes) accredited through the WMA, including any bylaws defined within the Local Government Act 2002.

Resource Management Act 1991 (RMA 1991)

The Resource Management Act (1991) (RMA) is Aotearoa New Zealand's key environmental legislative document providing the framework for the sustainable management of environmental resources (including development activities). The RMA also manages and controls the environmental impacts of waste facilities such as disposal facilities, recycling and recovery facilities and cleanfills.

Section 31 of the RMA sets out the functions of territorial authorities to give effect to the RMA, including to control the actual or potential effects of land-use activities on the taiao – environment within the district. All exercising functions under the RMA need to take into account the principles of Te Tiriti o Waitangi – the Treaty of Waitangi and recognize and provide for matters of national significance, including Māori and their cultural relationship to their taonga (including land, water, sacred sites and so forth).

New Zealand Emissions Trading Scheme (NZTS) and the Climate Change Response Act 2002

The importance of the NZ ETS is the application of the Climate Change Response Act (2002)⁵⁹ (Act) and emission targets which applies to disposal facilities including landfills:

Disposal facility means any facility, including a landfill -

- (a) At which waste is disposed; and
- (b) At which the waste disposed includes waste from a household that is not entirely from construction, renovation, or demolition of a house; and
- (c) That operates, at least in part, as a business to dispose of waste; but
- (d) Does not include a facility, or any part of a facility, at which waste is combusted for the purpose of generating electricity or industrial heat

Dispose, in relation to waste -

(a) Means-

⁵⁹ Climate Change Response Act 2002. Public Act 2002 No 40, Date of assent 18 November 2002. Administered by the Ministry for the Environment

(i) The final or more than short-term deposit of waste into or onto land set apart for that purpose; or

(ii) The incineration of waste by deliberately burning the waste to destroy it; but

(b) Does not include any deposit of biosolids for rehabilitation or other beneficial purposes.

The 2050 target as set by the Act is described as:

Part 1B Emission reduction, Subpart 1 – 2050 target

- (1) The target for emissions reduction (the 2050 target) requires that -
- (a) Net accounting emissions of greenhouse gases in a calendar year, other than biogenic methane, are zero by the calendar year beginning on 1 January 2050 and for each subsequent year; and
- (b) Emissions of biogenic methane in a calendar year -
 - (i) Are 10% less than 2017 emissions by the calendar year beginning on 1 January 2030; and
 - (ii) Are 24% to 47% less than 2017 emissions by the calendar year beginning on 1 January 2050 and for each subsequent calendar year.
- (2) The 2050 target will be met if emissions reductions meet or exceed those required by the target.
- (3) 2017 emissions means the emissions of biogenic methane for the calendar year beginning on 1 January 2017.

As reported by the New Zealand Environmental Protection Authority – Te Mana Rauhī Taiao, if a landfill site is currently subject to the waste disposal levy, then its operator is also a mandatory participant of the NZ ETS. However, other types of waste related facilities including cleanfills and/or sewage treatment facilities are not currently included in the NZ ETS scheme. For example, remote disposal facilities are exempt from the NZ ETS as per the Climate Change (General Exemptions) Order 2009⁶⁰ (Clause 12A). It is important to note that the NZ ETS notes waste disposal facilities are only responsible for methane emissions from their facilities and not responsible for other greenhouse gas emissions (e.g., carbon dioxide from waste decomposition) associated with landfills or other methods of waste disposal.

In terms of waste operator obligations under the NZ ETS, operators are required to record information about the gross tonnage of waste entering their landfill facility in a year and submit this as part of their annual emissions return. As noted by the New Zealand Environmental Protection Authority – Te Mana Rauhī Taiao, this figure is then multiplied by an emissions factor that estimates the methane emissions per tonne of waste to give a total emissions figure. Once the return is completed, the operator is required to surrender emissions units corresponding to the amount of emissions reported to the NZ ETS.

⁶⁰ Climate Change (General Exemptions) Order 2009 (SR 2009/370)

Other Relevant Legislative Instruments				
Legislation	Description			
Litter Act 1979	 The Litter Act 1979 was established to facilitate abatement and control of litter with Keep New Zealand Beautiful Incorporated appointed as the body primarily responsible for the promotion of litter control in Aotearoa New Zealand. The Act enables local authorities to enforce the provisions of the Act through measures such as litter control officers with powers to issue infringement fines to "any individual or body corporate who deposits any litter or, having deposited any litter, leaves it: a) In or on a public place; or b) In or on private land without the consent of its occupier." Litter as defined by the Act includes "any refuse, rubbish, animal remains, glass, metal, garbage, debris, dirt, filth, rubble, ballast, stones, earth, or waste matter, or any other 			
	thing of a like nature."			
Health and Safety at Work Act (HSWA) 2015	The Health and Safety at Work Act 2015 (HSWA) is Aotearoa New Zealand's key work health and safety legislation including regulations under the Act. The aim of the HSWA is to provide a framework to protect the safety of all workers and workplaces together with regulations under the HSWA.			
	The HSWA includes mechanisms to protect workers and other persons from harm, provide for resolution of workplace health and safety issues, and promote health and safety education.			
	The HSWA includes provisions for a range of roles, including the Person Conducting a Business or Undertaking (PCBU) that may have a primary duty of care, including, for example, workers and contractors operating in the waste sector and associated businesses.			
Ozone Layer Protection Act 1996	The Ozone Layer Protection Act 1996 was established to fulfil Aotearoa New Zealand's commitments under the Montreal Protocol on substances that deplete the ozone layer.			
	The Act relates to the waste management sector by setting the broad controls and requirements for any ozone depleting substances.			

Te Tiriti o Waitangi - The Treaty of Waitangi signed in 1840 is Aotearoa New Zealand's founding document with New Zealand's system of government strongly influenced by Te Tiriti o Waitangi. While Te Tiriti o Waitangi is between the Crown and Māori, Local Government New Zealand (LGNZ) imposes certain obligations on local government to reflect Treaty obligations as well as via several other legislative documents (e.g., LGA 2002 and RMA 1991). A key obligation is to provide an opportunity for Maori to contribute to the decision-making processes of a local authority, including decisions and consultation supporting waste minimisation and management initiatives.

APPENDIX B

Medical Officer of Health Statement

29 November 2022

Te Whatu Ora Health New Zealand

Lisa Hack Waste Strategy Project Manager Wellington City Council PO Box 2199 Wellington 6140

Kia ora Lisa

Re: Wellington Region Draft Waste Assessment 2022 V0.3 Medical Officer of Health Comments under Section 51 – Waste Minimisation Act 2008

Thank you for the opportunity for Te Whatu Ora, National Public Health Service – Capital, Coast, Hutt Valley and Wairarapa, to comment on the draft Wellington Region Waste Assessment 2022 V0.3, as per the requirements of the of the Waste Minimisation Act 2008. This letter is a summary of my review in conjunction with other staff from our service.

The purpose of the Waste Minimisation Act is to encourage waste minimisation and a decrease in waste disposal to:

- a. Protect the environment from harm, and
- b. Provide environmental, social, economic and cultural benefits.

Fundamentally this purpose aligns with the central idea of sustainability – not using too much and doing more with less – to help protect the environmental determinants of health. A healthy environment is a key foundation for the health and wellbeing of people. So waste minimisation has the opportunity to not only protect the health of the community via reducing direct contact with contaminated environments (such as those listed on Page 11 of the draft Waste Assessment), but also to promote wellbeing via living in a healthy and sustainable environment. It is important to acknowledge that poor quality environments have greater adverse impacts on the health and human rights of disadvantaged groups including children, indigenous peoples, older people and developing nations. Protection of human health from waste minimisation and management involves ensuring that actions taken do not further disadvantage such groups, but rather provide health and wellbeing benefits.

We consider that the waste assessment is comprehensive within the limitations of the available data. It identifies gaps in information used to inform waste minimisation planning and provides guidance for Territorial Authorities to develop their key actions under the regional Waste Minimisation and Management Plan (WMMP). These key actions need to be informed by best practice and community input.

We acknowledge the impact of the COVID-19 pandemic around the ability to achieve the targets of the 2017—2023 Regional Waste Management and Minimisation Plan. However, we also note

Te Whatu Ora Health New Zealand

Capital, Coast, Hutt Valley and Wairarapa

that COVID-19 provided us with opportunities to see how waste could be reduced, for example, through sourcing of local products and use of innovation.

We support reduction of waste being sent to landfill through the aligned waste minimisation hierarchy, prioritising reuse, recycling and recovery of materials. This will decrease reliance on use of landfills and will minimise the impacts of waste on our environment and public health long term. Our understanding is that the current capacity of existing landfills within the region is constrained and so decreasing waste disposal to these sites is a high priority.

We support partnership with mana whenua and involving key stakeholders, such as community groups, to contribute to setting waste minimisation goals and objectives. This is important as some of these groups may not typically engage in formal submission processes. The likelihood of implementing successful solutions to challenges in waste management, will be greater with active and early community engagement. Furthermore, strong community engagement in decision making around waste minimisation actions, will limit any unintended consequences to the health of our communities from the actions taken (or any lack of action).

Waste minimisation and creating an environment that supports behavioural change requires further focus on vulnerable groups within the community, such as rural residents, low socioeconomic areas and the elderly. These groups may be limited by accessibility and price, for example, making choices around not using single use items carries a higher "up-front" cost. Education strategies outlined in the waste assessment are a good starting point. However, consideration should be given to more targeted and innovative approaches, for example, working in partnership with mana whenua; use of te ao Māori initiatives; and engaging community leaders to understand barriers and increase participation.

We support the further targeting of priority waste streams identified in the Waste Assessment that reduce waste sent to landfill, for example, organic and food waste kerbside collections. It is clear that to progress waste minimisation for the greater Wellington region (including targeting priority waste streams), requires a coordinated, consistent and collaborative approach amongst all councils. Actions to support this coordinated and collaborative regional approach should have the highest priority for the next Waste Minimisation and Management Plan.

Ngā mihi

Dr Jill McKenzie Medical Officer of Health Te Whatu Ora, National Public Health Service – Capital, Coast, Hutt Valley and Wairarapa

Item 2.1, Attachment 2: Wellington Region Waste Assessment 2023 - Final

APPENDIX C

Supporting Data

Waste to Class 1 Landfills – by Facility

Wellington City Council – Southern Landfill	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
General	68,093	68,255	64,422	60,117	64,008	63,683
Special	10,414	18,486	14,961	22,524	8,108	5,757
Sludge	14,467	14,849	15,154	14,463	15,846	14,578
Levied Waste	93,642	102,470	95,414	97,745	89,288	85,223
Cleanfill	3,364	1,012	1,024	1,164	1,261	1,117

Masterton District Council	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
General	12,720.85	12,967.68	13,984.72	11,339.34	14,172.34	17,019.50
Special	328.74	1,172.29	276.22	196.39	245.90	140.71
Sludge	N/D	N/D	N/D	N/D	N/D	N/D
Levied Waste	13,049.59	14,139.97	14,260.94	11,535.73	14,418.24	17,160.21
Cleanfill	8,512	11,331	9,661	8,715	13,201	16,833

South Wairarapa District Council	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
General	2,218.08	2,219.59	2,669.49	1,825.30	1,982.23	2,044.97
Special	NDR	NDR	NDR	NDR	NDR	NDR
Sludge	NDR	NDR	NDR	NDR	NDR	NDR
Levied Waste	2,218.08	2,219.59	2,669.49	1,825.30	1,982.23	2,044.97
Cleanfill	NDR	NDR	NDR	NDR	NDR	NDR

Kāpiti Coast District Council	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
General	27,964	24,388	25,720	26,455	28,034	27,839
Special	NDR	NDR	NDR	NDR	NDR	NDR
Sludge	1,705	1,997	1,951	2,011	2193.32	2089.32
Levied Waste	27,964	24,388	25,720	26,455	28,034	27,839
Cleanfill	29,148	21,151	3,710	1,862	2,624	2,707

Hutt City Council	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
General	71,729	71,173	64,517	68,621	76,515	NDR
Special	13,020	8,725	18,470	19,097	29,668	NDR
Sludge	4,959	4,859	4,412	4,995	5,373	NDR
Levied Waste	123,824	121,519	125,226	129,839	151,344	NDR
Cleanfill	1,412	2,771	4,283	5,921	8,627	NDR
TOTAL	123,824	121,519	125,226	129,839	151,344	NDR

Hutt City Council Note: No specific cleanfill data is collected from Silverstream Landfill. However, a 2014 and 2022 SWAP Report (undertaken by Waste Not Consulting Ltd) determined that cleanfill was 1.5% and 7.2% of total waste to the Silverstream Landfill respectively. The cleanfill figures have been by (a) calculating the difference in cleanfill percentages between the two SWAPs, (b) dividing the difference between the number of annual periods to find an approximate annual increase, (c) adding the approximate annual increase to each annual period. Please also note that because Lower Hutt does not have a separate cleanfill facility, clean fill is considered 'general waste' and therefore levied as it entered the Landfill. In this table, cleanfill figures have not been included in the levied waste figures. To get the actual total amount of levied waste, the cleanfill tonnages need to be added to the levied waste figures in the table.

Carterton District Council	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
General	1,655	1,778	1,897	1,543	1,517	1,586
Special	NDR	NDR	NDR	NDR	NDR	NDR
Sludge	NDR	NDR	NDR	NDR	NDR	NDR
Levied Waste	1,655	1,778	1,897	1,543	1,517	1,586
Cleanfill	NDR	NDR	NDR	NDR	NDR	NDR
TOTAL	1,655	1,778	1,897	1,543	1,517	1,586

Porirua City Council	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
General	47,539	54,945	1,321	66,866	65,398	73,868
Special	388	504	504	1,101	609	868
Sludge	7,342	7,683	7,683	6,065	7,776	8,774
Levied Waste	55,269	63,132	69,508	74,032	73,783	83,510
Cleanfill	64,819	93,904	72,599	83,870	104,029	64,335
TOTAL	120,088	157,036	142,107	157,902	177,812	147,846

Porirua City Council Note: The figures reflect the tonnage that has been deposited into Spicer Landfill, irrespective of the source. Porirua City Council is unable to determine where the waste originated from.

Composition of Levied Waste to Class 1 Landfills – 2021/22

Wellington City Council			General Waste and Special Waste – Excludes Cleanfill	
	% of Total	Tonnes 2021/22	% of Total	Tonnes 2021/22
Paper	0.0%	0	0.0%	0
Plastic	0.0%	0	0.0%	0
Organic	93.2%	5,716	93.2%	5,716
Ferrous metal	6.6%	406	6.6%	406
Glass	0.0%	0	0.0%	0
Textiles	0.0%	0	0.0%	0
Sanitary	0.0%	0	0.0%	0
Rubble	0.0%	0	0.0%	0
Timber	0.0%	0	0.0%	0
Rubber	0.0%	0	0.0%	0
Potentially	0.2%	12	0.2%	12
hazardous				
TOTAL	100%	6,134	100%	6,134

Wairarapa Councils			General Waste and Special Waste – Excludes Cleanfill		
	% of Total	Tonnes 2021/22	% of Total	Tonnes 2021/22	
Paper	10	1,962	9	1,962	
Plastic	5	1,652	8	1,652	
Organic	35	6,195	30	6,195	
Ferrous metal	5	206	1	206	
Glass	10	413	2	413	
Textiles	10	1,239	6	1,239	
Sanitary	5	1,239	6	1,239	
Rubble	5	3,304	16	3,304	
Timber	10	4,130	20	4,130	
Rubber	4	206	1	206	
Potentially	1	102		245	
hazardous	T	103	1	243	
TOTAL	100%	20,650	100%	20,791.00	

Kāpiti Coast District Council			General Waste and Special Waste – Excludes Cleanfill		
	% of Total	Tonnes 2021/22	% of Total	Tonnes 2021/22	
Paper	8.3%	2,311	NDR	NDR	
Plastic	11.0%	3,062	NDR	NDR	
Organic	34.3%	9,549	NDR	NDR	
Ferrous metal	2.3%	640	NDR	NDR	
Non-Ferrous Metal	0.9%	251	NDR	NDR	

Glass	2.8%	779	NDR	NDR
Textiles	6.1%	1,698	NDR	NDR
Sanitary	6.0%	1,670	NDR	NDR
Rubble	12.3%	3,424	NDR	NDR
Timber	14.0%	3,897	NDR	NDR
Rubber	0.9%	251	NDR	NDR
Potentially	1.1%	306	NDR	NDR
hazardous	1.170	500	ווטת	ווטת
TOTAL	100%	27,840	-	-

Hutt City Council	General Waste – Exc and Cleanfill	cludes Special Waste	General Waste and Special Waste – Excludes Cleanfill		
	% of Total	Tonnes 2021/22	% of Total	Tonnes 2021/22	
Paper	7.5	9,776.00	7.5	9,776.00	
Plastic	10.2	13,208.00	10.2	13,208.00	
Organic	23.8	30,888.00	23.8	30,888.00	
Ferrous metal	2.4	3,120.00	2.4	3,120.00	
Non-Ferrous Metal	NDR	NDR	NDR	NDR	
Glass	2	2,600.00	2	2,600.00	
Textiles	5.1	6,604.00	5.1	6,604.00	
Sanitary	4	5,200.00	4	5,200.00	
Rubble	5.5	7,020.00	5.5	7,020.00	
Timber	15.2	19,760.00	15.2	19,760.00	
Rubber	1.2	1,560.00	1.2	1,560.00	
Potentially hazardous	NDR	NDR	15.5	20,124.00	
TOTAL	76.9%	99,736	92.4%	119,860	

Porirua City Council			General Waste and Special Waste – Excludes Cleanfill		
	% of Total	Tonnes 2021/22	% of Total	Tonnes 2021/22	
Paper	5.8	4,284.33	5.8	4,334.70	
Plastic	4.6	3,397.92	4.6	3,437.87	
Organic	27.2	20,092.05	27.2	20,328.25	
Ferrous metal	1.1	812.55	1.1	822.10	
Non-Ferrous	0.3	221.60	0.3	224.21	
Metal	0.5	221.60	0.3	224.21	
Glass	1.4	1,034.15	1.4	1,046.31	
Textiles	2.9	2,142.17	2.9	2,167.35	
Sanitary	3.4	2,511.51	3.4	2,541.03	
Rubble	43.5	32,132.51	43.5	32,510.26	
Timber	6.3	4,653.67	6.3	4,708.38	
Rubber	0.2	147.74	0.2	149.47	

Potentially hazardous		3.3	2,437.64	3.3	2,466.30
ТО	DTAL	100%	73,867.83	100%	74,736.23

No data received from Upper Hutt City Council.

Activity Source of Waste to Class 1 Landfills – 2021/22

Wellington City Council	General Waste Special Waste		General Waste and Special Waste – Excludes Cleanfill		
	% of Total	Tonnes 2021/22	% of Total	Tonnes 2021/22	
Construction & demolition	0%	NDR	0%	NDR	
Domestic kerbside	0%	NDR	0%	NDR	
Industrial/ commercial/ institutional	64.8%	54,788	60.6%	54,788	
Landscaping	1.6%	1,324	1.5%	1,324	
Residential	14.9%	12,610	14.0%	12,610	
Specials	17.2%	14,578	22.5%	20,335	
TOTAL	100%	84,606	100%	90,363	

Kāpiti Coast District Council	General Waste Special Waste		General Waste and Special Waste – Excludes Cleanfill		
	% of Total	% of Total Tonnes % of 2021/22		Tonnes 2021/22	
Construction & demolition	18%	5,011	NDR	NDR	
Domestic kerbside	52%	14,476	NDR	NDR	
Industrial/ commercial/ institutional	21%	5,846	NDR	NDR	
Landscaping	3%	835	NDR	NDR	
Residential	6%	1,670	NDR	NDR	
Specials	N/D	N/D	NDR	NDR	
TOTAL	100%	27,839	NDR	NDR	

Hutt City Council	General Waste Special Waste		General Waste and Special Waste – Excludes Cleanfill		
	% of Total	Tonnes 2021/22	% of Total	Tonnes 2021/22	
Construction & demolition	16.58%	18,574.92	16.58%	18,574.92	
Domestic kerbside	24%	31,250.00	24%	31,250.00	
Industrial/ commercial/ institutional	30.96%	38,067.78	30.96%	38,067.78	
Landscaping	7.08%	5,353.25	7.08%	5,353.25	
Residential	4.38%	2,297	4.38%	2,297	
Specials	NDR	NDR	18.00%	23,088.00	
TOTAL	83%	95,542.96	101%	118,630.96	

Porirua City Council	General Waste Special Waste		General Waste and Special Waste – Excludes Cleanfill		
	% of Total	Tonnes 2021/22	% of Total	Tonnes 2021/22	
Construction & demolition	NDR	NDR	NDR	NDR	
Domestic kerbside	2.67%	1,942.48	2.64%	1,942.48	
Industrial/ commercial/ institutional	44.43%	32,279.47	43.90%	32,279.47	
Landscaping	0.37%	268.40	0.37%	268.40	
Residential	52.53%	38,169.64	51.91%	38,625.64	
Specials	NDR	NDR	1.18%	9,811.62	
TOTAL	100%	72,659.99	100%	86,709.99	

No data received from Masterton District Council, Upper Hutt City Council, Carterton District Council, South Wairarapa District Council

Kerbside Recycling and Drop-Off Facilities

Wellington City Council Tonnes/annum	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
Kerbside Recycling	10,371	10,616	10,857	9,992	10,176	9,454
Drop-Off Facilities	813	506	524	687	592	559

Wellington City Council Tonnes/annum	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
TOTAL	11,184	11,122	11,381	10,679	10,768	10,013

Masterton District Council Tonnes/annum	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
Kerbside Recycling	1,552	1,507	1,488	1,470	1,307	1,392
Drop-Off Facilities	2,845	3,122	3,394	3,599	3,620	4,417
TOTAL	4,397	4,629	4,883	5,069	4,928	5,809

South Wairarapa District Council Tonnes/annum	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
Kerbside Recycling	650.7	705.5	694.5	643.3	618.9	586.6
Drop-Off Facilities	436.3	474.9	559.2	638.5	611.7	814.7
TOTAL	1,087	1,180	1,254	1,282	1,231	1,401

Kāpiti Coast District Council	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
Tonnes/annum Kerbside Recycling	503	366	605	2,940	3,392	3,251
Drop-Off Facilities	1,058	1,086	1,039	884	1,143	776
TOTAL	1,561	1,452	1,039	3,824	4,535	4,027

Upper Hutt City Council Tonnes/annum	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
Kerbside Recycling	713.94	884.20	974.02	663.04	642.48	719.35
Drop-Off Facilities	113.46	361.13	584.63	638.76	777.51	882.16
TOTAL	827	1,245	1,559	1,302	1,420	1,602

Hutt City Council Tonnes/annum	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
Kerbside Recycling	5,293.53	5,537.83	5,377.86	4,947.17	4,550.10	3,608.1
Drop-Off Facilities	2,440.83	2,567.28	2,678.46	2,592.14	1,173.48	NDR
TOTAL	7,734	8,105	8,056	7,539	5,724	3,608

Hutt City Council Note: (1) Periods 2019/2020 and 2020/2021 impacted by Covid 19 - all recycling diverted to landfill. (2) Average Contamination for Drop-Off Facilities for this period was 25.08%. (3) Note: contamination has been included in all figures. (4) Drop-Off facilities ceased in 2021 due to the high levels of contamination. (5) Uncertainty regarding sudden decrease in kerbside recycling 2021/22 year.

Carterton District Council Tonnes/annum	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
Kerbside Recycling	454.88	489.93	473.09	438.27	419.39	389.21
Drop-Off Facilities	323.11	245.65	172.90	285.18	202.95	426.22
TOTAL	778	736	646	723	622	815

Porirua City Council Tonnes/annum	Year 2016/17	Year 2017/18	Year 2018/19	Year 2019/20	Year 2020/21	Year 2021/22
Kerbside Recycling	2,133.00	1,820.00	2,000.00	2,633.00	2,921.00	2,000.00
Drop-Off Facilities	813.00	1,022.00	900.00	579.00	421.00	453.00
TOTAL	2,946	2,842	2,900	3,213	3,342	2,453

Porirua City Council Note: This only includes weights from kerbside collection and the bulk recycling station at Spicer Landfill. It does not include diverted materials from Trash Palace.

Diverted Materials to Kerbside Recycling and Drop-Off Facilities - by area

Kerbside recycling includes council and private collections – tonnes per annum	2016/17	2017/18	2018/19	20219/20	2020/21	2021/22
Carterton	777.99	735.58	645.99	723.45	622.34	815.43
Hutt	7,734.35	8,105.11	8,056.32	7,539.31	5,723.58	3,608.10
Kapiti Coast	5,118.00	5,560.00	5,173.00	3,824.00	4,535.00	4,027.00

Kerbside recycling includes council and private collections – tonnes per annum	2016/17	2017/18	2018/19	20219/20	2020/21	2021/22
Masterton	8,462.71	8,634.90	9,464.82	9,080.37	9,042.01	9,990.33
Porirua	2,133.00	1,820.00	2,000.00	2,633.00	2,921.00	2,000.00
South Wairarapa	1,086.92	1,180.32	1,253.77	1,281.79	1,230.66	1,401.31
Upper Hutt	827.40	1,245.33	1,558.65	1,301.80	1,419.99	1,601.50
Wellington	11,184.00	11,122.00	11,381.00	10,679.00	10,768.00	10,013.00

Note: Kapiti Coast District Council data includes collected and dropped off recycling plus other materials dropped off for recovery (e.g., whiteware, e-waste, scrap metal, clothing, child carseats, etc). Excludes items that are count only (e.g., gas bottles,

fridge/freezer, TVs, oil litres). Masterton District Council data includes compost and total recyclables only.

Diverted Materials to Drop-Off Facilities - by area

Recycling drop-off- excludes private drop-off facilities – tonnes per annum	2016/17	2017/18	2018/19	20219/20	2020/21	2021/22
Carterton	323.11	245.65	172.90	285.18	202.95	426.22
Hutt	2,440.83	2,567.28	2,678.46	2,592.14	1,173.48	348.19
Kapiti Coast	592.00	572.00	564.00	884.00	1,143.00	776.00
Masterton	6,910.55	7,128.23	7,976.46	7,610.25	7,734.52	8,598.66
Porirua	813.00	1,022.00	900.00	597.00	421.00	453.00
South Wairarapa	436.26	474.86	559.23	638.53	611.71	814.68
Upper Hutt	113.46	361.13	584.63	638.76	777.51	882.16
Wellington	813.00	506.00	524.00	687.00	592.00	559.00

Note: Hutt City Council data includes (1) Periods 2019/2020 and 2020/2021 impacted by Covid 19 – all recycling diverted to landfill. (2) Average Contamination for Drop-Off Facilities for this period was 25.08%. (3) Note: contamination has been included in all figures. (4) Drop-Off facilities ceased in 2021 due to the high levels of contamination – the figure is the collected tonnage prior to drop-off facilities being removed. Masterton District Council data is less kerbside recycling (see above table).

Composition of Waste to Class 1 Landfills from across the Wellington Region

Composition of 1 Landfill 2021	f Levied Waste to Class /22	General Waste Special Waste a		General Waste and Special Waste – Excludes Cleandfill		
		Tonnes 2021/22	% of Total	Tonnes 2021/22	% of Total	
Paper	Recyclable	12,680	6.2%	12,456	7.0%	
	Non-recyclable	3,739	1.8%	3,074	1.7%	
	Subtotal	16,420		15,531		
Plastics	Recyclable	4,921	2.4%	2,545	1.4%	
	Non-recyclable	16,637	8.2%	19,398	10.9%	
	Subtotal	21,558		21,942		
Putrescibles	Kitchen/food	23,966	11.8%	21,949	12.4%	
	Comp. G'waste	25,578	12.6%	18,784	10.6%	
	Non-comp G'waste	5,880	2.9%	2,457	1.4%	
	Multi/other	7,333	3.6%	6,906	3.9%	

Composition of 1 Landfill 2021/2	Levied Waste to Class 22	General Waste Special Waste a			General Waste and Special Waste – Excludes Cleandfill		
		Tonnes	% of Total	Tonnes	% of Total		
		2021/22		2021/22			
	Subtotal	62,758		50,095			
Ferrous Metals	Primarily ferrous	11,921	5.9%	2,002	1.1%		
	Multi/other	2,964	1.5%	2,762	1.6%		
	Subtotal	14,885		4,764			
Non-ferrous metal	Subtotal	1,326	0.7%	1,303	0.7%		
Textiles	Clothing/textiles	557			0.0%		
	Multimaterial/other	1,141					
	Subtotal	6,052	3.0%	4,110	2.3%		
Glass	Recyclable	3,426	1.7%	3,659	2.1%		
	Glass multi/other	1,526	0.8%	1,355	0.8%		
	Subtotal	4,951		5,014			
Sanitary	Subtotal	10,486	5.2%	9,236	5.2%		
Rubble	Cleanfill	13,655	6.7%	10,533	5.9%		
	Plasterboard	1,730	0.9%	1,193	0.7%		
	Multi/other	23,888	11.8%	18,234	10.3%		
	Subtotal	39,274		29,959			
Timber	Reuseable	139		0			
	Unpainted/untreated	334		0			
	Non-recoverable	3,424		0			
	Subtotal	17,549	8.6%	10,538	5.9%		
Rubber	Subtotal	472	0.2%	374	0.2%		
Pot hazard	Subtotal	7,169	3.5%	24,384	13.8%		
TOTAL		202,900	100%	177,251	100%		

*excluding Carterton District Council, South Wairarapa District Council, Upper Hutt City Council, Masterton District Council.

Private Service Providers

General Classification	Masterton	South Wairarapa	Kapiti	Upper Hutt	Hutt City	Carterton	Porirua	Wellington
Diverted	EarthCare	EarthCare	Envirowaste	Waste Management	Envirowaste JJ's Waste and Recycling	EarthCare	Waste Management	Envirowaste
Materials Collection		Low Cost Bins Low Cost Bins Waste Management Lucy's Bins Waste Management Waste Management Waste Management NZ		Commercial Waste Management Envirowaste Low cost Daily Waste Daily karts Woods waste JJ waste Reclaim	 Waste Management NZ Ltd Woods Waste (2012) Ltd The Salvation Army Trust New Zealand (?) The Society of ST Vincent De Paul (?) 			
Organics Collection	Bin operators	NDR	Organic Wealth – Food to Farm (food scraps) Pae Cycle (food scraps) Low Cost Bins (garden waste) Waste Management (garden waste)	Mahinga Kai – Food Waste Low Cost Bins – Green Waste Waste Management – Green Waste	Waste Management NZ	NDR	Waste Management Envirowaste	Organic Waste Management Ltd (food scraps) KaiCycle (food scraps) Enviro Waste 'Kai to Compost' (food scraps) Waste Management NZ Ltd (garden waste)
Waste Collection	EnviroWaste Low Cost Bins Yellow Bins Wairarapa Wheely Bins (Earthcare) Earthcare (council bags)	EnviroWaste Low Cost Bins Wairarapa Wheely Bins (Earthcare) Earthcare (Council Bags)	Envirowaste Low Cost Bins Lucy's Bins Waste Management Kapiti Skips Wood Waste Interwaste	Waste Management Low Cost Bins EnviroWaste	Waste Management Lo Cost Bins JJ's Waste and Recycling Envirowaste	Envirowaste Low Cost Bins Wairarapa Wheely Bins (Earthcare) EarthCare (council bags)	All of the above	Abbott Bin Hire Bin Hire Wellington Daily Waste Enviro Waste service JJ Richards & Sons Waste Management Woods Waste Interwaste Ltd Low Cost Bins Bin Waste Daily Waste

	Refuse per tonne	Green	Metal	Polystyrene	Wood	Inert	Tyres	TVs	Hazardous / Special	Recyclables	Reuse
Seaview Recycle & Transfer Station (Hutt City)	\$228.85	\$151.80	Not collected	2222.76	228.85	228.85	\$55.69 each or \$8567.69 per tonne	\$30.19 each or \$2,415.2 per tonne	Not collected	Not collected	Not collected
Otaihanga Resource Recovery Facility (Kāpiti Coast)	\$228	Charged by m3	At same rate as general waste	\$5,500	At same rate as general waste	-	\$8 per tyre	\$25 per item	\$50 per unit (household chemicals)	Free	Free
Waikanae Greenwaste and Recycling Centre (Kāpiti Coast)	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
Ōtaki Refuse Transfer Station (Kāpiti Coast)	\$239	\$100 per tonne	Free	\$5,500	Free if during Zero waste otaki opening hours, otherwise at general rate	-	\$8 per tyre	\$25 per item	Not accepted	Free	-
Martinborough Transfer Station (South Wairarapa District)	\$5.00 per black bag or \$200 per tonne	From \$5.50 per boot \$15.50 per trailer \$30.00 per tandem trailer \$60.00 per truck load	No Charge	NDR	NDR	NDR	\$5.00 per tyre (up to 4); \$555.00 per tonne	E-waste no charge	Oil, paint and agrichemicals - no charge	No Charge	NDR

Transfer Station Detail (NDR = No data received, N/D = No Data)

	Refuse per tonne	Green	Metal	Polystyrene	Wood	Inert	Tyres	TVs	Hazardous / Special	Recyclables	Reuse
Greytown Recycling Station (South Wairarapa District)	NDR	From \$5.50 per boot \$15.50 per trailer \$30.00 per tandem trailer \$60.00 per truck load	No Charge	NDR	NDR	NDR	NDR	NDR	NDR	No Charge	NDR
Featherston Recycling Station (South Wairarapa District)	NDR	From \$5.50 per boot \$15.50 per trailer \$30.00 per tandem trailer \$60.00 per truck load	No Charge	NDR	NDR	NDR	NDR	NDR	NDR	No Charge	NDR
Pirinoa Recycling Station (South Wairarapa District)	NDR	From \$5.50 per boot \$15.50 per trailer	N/A	NDR	NDR	NDR	NDR	NDR	NDR	No Charge	NDR
Castlepoint (Masterton District)	\$255 per tonne	\$78 per tonne or from \$6.50 per load	N/D	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
Riversdale (Masterton District)	\$255 per tonne	\$78 per tonne or from \$6.50 per load	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
Nursery Road Transfer Station (Masterton)	\$220 per tonne +GST*	\$64 per tonne or from \$5.90 per load	NDR	NDR	NDR	NDR	\$610 per tonne (more than 4 tyres) or from \$4.40 per tyre	E-waste no charge	Oil, paint no charge, Special waste \$220 per tonne	No charge	NDR
Dalefield Road Transfer Station (Carterton District)	\$5 per black bag \$200 per tonne	\$42 per tonne of from \$5 per boot load	N/D	N/D	N/D	N/D	\$5.00 per tyre(up to 4) \$510.00 per tonne (inclusive)	E-waste no charge	Oil, paint no charge	N/D	N/D

	Refuse per tonne	Green	Metal	Polystyrene	Wood	Inert	Tyres	TVs	Hazardous / Special	Recyclables	Reuse
Southern Landfill	By vehicle type: domestic vehicles (cars, domestic trailers, vans and utilities) \$245.50 per tonne Commercial \$196.07 per tonne Min charge \$20 private, \$98.04 commercial	\$80.50 per tonne Min charge: \$5 private, \$40.25 commercial	N/D	Polystyrene \$2,500.00 per tonne Min charge \$1,250.00	N/D	Domestic cleanfill \$15 min charge	Car tyres \$4 each Truck tyres \$10 each (landfill staff must be able to confirm the number of tyres) Tyres unconfirmed numbers: Car \$382.56 per tonne Min charge \$38.30 Truck/tractor/earth moving/mixed tyres \$471.66 per tonne Min charge \$47.20	\$30 per item Fridge/freezer (degassing) \$25 per appliance	\$231.15 per tonne Min charge: \$115.58 Asbestos \$273.70 per tonne Min charge: \$136.85 Contaminated soil \$197.07 per tonne	Drop off at bulk recycling station at the landfill	N/D
Spicers landfill	Car \$27.50, Van, utility \$58, Flat deck \$73, small trailer \$58, medium trailer \$73 Commercial \$189.97	Car \$15, Van/utility/station wagon/small trailer \$30.50, small flat deck/medium trailer \$40.50 Commercial \$145.60	\$189.97	\$3,741.25 Min charge \$94.99 per tonne	\$189.97	\$189.97	Tyres mixed with general waste \$189.97 Tyres only (unconfirmed number) Min charge \$703.16 per tonne Tyres only (car/motorbike) \$8 per tyre Tyres (truck/tractor) \$16.50 per tyre	\$189.97	Special (eg, Asbestos, animal carcasses) \$291.20 per tonne, sewage sludge and screenings \$256.45 per tonne, \$291.20 Lithium batteries can be dropped off for free	\$189.97	\$189.97

	Refuse per tonne	Green	Metal	Polystyrene	Wood	Inert	Tyres	TVs	Hazardous / Special	Recyclables	Reuse
Silverstream landfill	\$189.75	\$126.50	\$189.75	\$530.00	\$189.75	\$189.75	\$530.00	\$189.75	\$270.25	\$189.75	\$189.75

*Masterton transfer Station gate fee price increased 1 Feb 2023 to \$246/tonne +GST

South Wairarapa Featherston, Greytown and Pirinoa are recycling stations and do not take any other waste.

WELLINGTON REGION WASTE MANAGEMENT AND MINIMISATION PLAN JOINT COMMITTEE 24 JULY 2023



Wellington Region Waste Management and Minimisation Plan 2023-2029

Tell us what you think - Statement of Proposal

Introduction

The eight councils in the Wellington region welcome your feedback on the draft Wellington Region Waste Management and Minimisation Plan 2023-2029 (WMMP).

Feedback from our community will be crucial in shaping its final form before it's agreed by the Wellington region's councils later this year.

The eight councils in the Wellington region are required to review the WMMP every six years. Our last plan was implemented in 2017, and it is now time to review our region's current waste situation and the strategic direction for each of our eight councils and the region to ensure that we are heading in the right direction.

What is a Waste Management and Minimisation Plan (WMMP)?

The Waste Minimisation Act 2008 requires city and district councils across Aotearoa New Zealand to develop a plan to ensure that we make every attempt to minimise the amount of waste we generate and then appropriately manage the residual waste so that our communities, local economies and the environment are enhanced.

The draft Wellington Region WMMP 2023-2029 has been collaboratively developed by all eight councils in the region, this includes:

- Carterton District Council
- Hutt City Council
- Kāpiti Coast District Council
- Masterton District Council
- Porirua City Council
- South Wairarapa District Council
- Upper Hutt City Council
- Wellington City Council

In developing this plan, we have engaged with the waste industry, business community, mana whenua, and community-based NGOs to ensure we capture diverse perspectives and develop a plan which reflects the aspirations of the whole region. By taking this region-wide approach, our waste management services and infrastructure can be more efficient and consistent for our communities. It also means we can take a more holistic approach to issues which cross council boundaries – like litter, shared landfills, and facilities which support and encourage reuse, repurposing, and recycling.

The Wellington Region Waste Assessment 2023

In order to draft a comprehensive WMMP, we first needed to understand the current situation. The Wellington Region Waste Assessment 2023 (Waste Assessment) sets out the existing waste situation, including a summary of key issues impacting how waste is managed across the









region. A suite of initial options for addressing those issues are included in the Waste Assessment, with further details and actions set out in the draft WMMP. Some of the issues include:

- low recycling rates across the region compared to other regions in Aotearoa New Zealand, and recycling rates which are either static or declining in most areas within the region
- limited facilities to support the recovery and re-use of construction and demolition waste
- a vast majority of food scraps end up in the landfill, with decomposing organic material being a significant contributor to landfill greenhouse emissions
- a lack of waste and recycling data across the region makes planning for and responding to future demand more difficult.

The full Waste Assessment can be found at https://wellingtonregionwasteplan.govt.nz.

How is this draft WMMP different from the previous one?

The 2017-2023 WMMP had a heavy focus on reducing waste, a range of local waste minimisation actions, and a region-wide review of waste bylaws to ensure regional consistency.

The draft WMMP 2023-2029 still has waste reduction as a key focus, but its main intent is to start a move towards a circular economy, where we keep resources in use for as long as possible, then where possible, recover and regenerate products and materials at the end of their lifecycle. You can learn more about circular economies and how they work by clicking this link: https://environment.govt.nz/what-government-is-doing/areas-of-work/waste/ohanga-amiomio-circular-economy/

What does this draft WMMP cover? Our vision is:

'Working together to minimise waste - for people, environment, and economy.'

This vision seeks to foster a collaborative approach to the way resources are managed and minimised in the Wellington region. It will guide the system change for the entire region, with a focus on transforming how we generate, manage, and minimise waste. Key to this will be understanding our individual and collective roles and working together (including within and between councils).

To support the vision, this WMMP includes nine objectives that reflect the priorities, issues, and opportunities identified by the councils and the stakeholders engaged as part of developing this WMMP. These objectives aim to strike the right balance between ambition and action.

The nine objectives are as follows:

Objective 1: Waste and resource recovery systems support a reduction in greenhouse gas emissions from landfills and waste collections.

Objective 2: There is collective responsibility within the Wellington region for our resources and environment.

Objective 3: Residents, businesses, and other organisations are motivated to minimise waste.



Objective 4: Material circularity is increased through waste and resource recovery infrastructure and services.

Objective 5: It is accessible and convenient for residents, businesses, and other organisations to divert their waste.

Objective 6: Waste and resource recovery systems are traceable and transparent.

Objective 7: Resource recovery facilities and landfills provide regional resilience in case of emergency events.

Objective 8: Landfills are treated as finite.

Objective 9: Residual waste is managed safely and effectively in accordance with best practice.

In alignment with, and with regard to the *Te rautaki para | Waste strategy*, the Wellington region has identified the following six targets:

- 1. Reduce the total amount of material that needs final disposal to landfill by:
 - 10% by 2027
 - 30% by 2030

We will work towards this by achieving the following sub-targets:

- a. Ensure a regional construction and demolition processing facility is available by 2026
- b. Establish three new resource recovery facilities in the Wellington region by 2030
- c. Ensure a regional organics processing facility is available by 2029
- 2. Reduce emissions from biogenic methane by reducing the total amount of organic waste disposed to landfill by 50% by 2030
- 3. Reduce emissions from the transport of waste by 30% by 2030
- 4. Ensure all urban households have access to kerbside recycling collections by 2027
- 5. Ensure food scraps collection services are available to urban households by 2030
- 6. For each council to engage with and commit 20% of the business community to minimising waste

Regional and Local Action Plans

We'll work towards meeting these targets through implementing the Regional Action Plan and Local Action Plans. These Plans are roadmaps: they lay out the steps which must be taken to achieve the targets above. The Regional Action Plan details the actions that the eight councils in the region will collectively undertake or support, with mana whenua partners and other stakeholders, to deliver on the vision, objectives, and targets of this WMMP.

Local Action Plans build off the Regional Action Plan and are developed by each of the eight councils in the region, with the three Wairarapa Councils developing a joint plan. They detail the actions each council will individually undertake to deliver on the vision, objectives, and targets of this WMMP, while ensuring that they meet the needs and concerns of their own communities.











We'd love your input

Whether you're an individual or an organisation, this is your chance to tell us what you think about the future of waste in the Wellington region. The councils in the Wellington region will consider community feedback before making any final decisions.

The public consultation period will run from 31 July until 1 September 2023. Please share your feedback on the draft WMMP 2023-2029 during this time.

There are a number of ways you can share your feedback:



Submit feedback online at https://wellingtonregionwasteplan.govt.nz.



Fill in the feedback form on the back of this document, and drop it off at a Council office



Send us an email at XXXXX

Questions to consider

- Do you agree that the WMMP sets a clear direction on how the Wellington region will reduce waste?
- Do you agree that the WMMP vision provides an aspirational goal to help guide the regions transformation towards a collaborative low waste future?
- Do you agree with our proposed guiding principles, objectives, targets and actions?
- If you do not agree, what have we missed?
- Do you see your waste minimisation aspirations represented in this plan?

What happens next?

Public consultation is open for one month, from 31 July until 1 September 2023.

After this, oral submitters will be heard by our Wellington Region Waste Management and Minimisation Plan Joint Committee.

Details of where and how you can make your oral submission will be available on our website <u>https://wellingtonregionwasteplan.govt.nz.</u> Please visit this site regularly for updates.

Hearings - week commencing 18 September

You can come and speak to the Wellington Region Waste Management and Minimisation Plan Joint Committee in-person or online. Please indicate on your feedback form that you wish to speak at a hearing, and we will be in touch with you to confirm a time slot.

Analysis of submissions and adoption

After all the feedback (written and in-person) has been received, everyone's feedback will be collated and analysed. The councils will then discuss the draft WMMP in light of what the public has told us and will decide what changes will progress.



Once the WMMP is finalised, it will be formally adopted by each of the region's eight councils. It is anticipated this will take place in late 2023 – early 2024 acknowledging the different council meeting timeframes.

Please note: Hearings and deliberations and adoption meetings are open to the public. You are welcome to attend. The details of these meetings are advertised on the council websites.

Important dates

- Consultation starts: 31 July.
- Consultation ends: 1 September.
- Oral submissions to the Wellington Region Waste Management and Minimisation Plan Joint Committee: week commencing 18 September.
- Review of submissions and deliberations: September November.
- WMMP adoption for each council: late 2023 early 2024.

Please visit <u>https://wellingtonregionwasteplan.govt.nz</u> to read the draft WMMP, FAQs, the Wellington Region Waste Assessment and find out when engagement activities will be held in your area.