Te Mahere o te Tau 2024 hei Whakaheke, hei Whakahaere hoki i te Para ki Tāmaki Makaurau: Ki te Para Kore

# Auckland's Waste Minimisation and Management Plan 2024: Towards Zero Waste

aucklandcouncil.govt.nz

Photo: Beautification Trust from their Eye on Nature Wearable Arts Fashion Show 2024


Photo of Ae Ka Taea Koe, Waste Free Parenting education.

# Mihi

I te timātatanga ko Te Kore
i takea mai ai ko te ao tūroa
e nohoa nei e tātou.
I hua mai i reira
ko Ranginui e tū iho nei,
ko Papatūānuku e takoto ake nei.
Ko te korowai ahurei o te rangi
me te takapau horanui o te whenua
e tāwharau nei i a tāua
i te tangata i te wā o te ora.
Engari, ko tō rāua oranga tonu anō hoki
kei roto i ngā ringaringa
o tēnā me tēnā o tātou.
Kāhore he mea i hua ake
i a Papatūānuku
e kore e kōpakina
ki tōna uma i te otinga.
He ao para kore tēnei
i tōna orokohanga mai.
Nā tāua, nā te tangata ia i huri
hei tukunga parahanga.
Me hoki anō ia i a tātou
hei ao para kore i te mutunga.
E te iwi toko ake rā tātou.
Whītikihia ko te maro Ope Taua
o Papatūānuku,
ko Kaupapa-Rua te tikanga,
kimihia he mahi hōu te whai,
ko hangarua te whakamataara,
ko para kore te taumata whakaaro nui.
Tūturu whakamaua kia tina!
Mā wai rā a Papatūānuku e tiaki
mei kore māku,
mei kore māu?

In the beginning there was The Void
and from it, came the world
that we now inhabit.
From there came
Ranginui, Father Sky who dwells above
and Papatūānuku, Mother Earth here below.
The fine cloak of Heaven
and the outstretched rug of Earth
who have sheltered you and I –
humankind through this life.
Their own survival however,
rests in the hands
of each and every one of us.
There is nothing borne
of the natural world
that doesn't, in the end
return to the bosom of Papatūānuku.
This was a world of zero waste
in the beginning.
We, humankind alone turned it
into a dumping ground.
We must make her
waste-free once more.
So, take a stand as a people.
Let us gird ourselves as Warriors
of the Earth, and assent to
Re-purpose being the plan,
Re-use being the driver,
Recycle being the catch-cry
and zero waste – the bold goal.
Let us set ourselves to the task, till it is done!
Who else will care for Mother Earth
if it isn't me,
and it isn't you?

# He kupu whakataki / Foreword

## From the Chair

The future is Zero Waste. That is our bold goal for Tāmaki Makaurau and a vision Auckland Council has committed to since 2012. Te Mahere o te Tau 2024 hei Whakahaere, hei Whakaheke hoki i te Para ki Tāmaki Makaurau / Auckland's Waste Minimisation and Management Plan 2024 is anchored around that vision and charts our path in addressing all kinds of waste for the next six years. The plan guides us towards a future where we stop digging up our whenua to bury things we no longer want, and instead respect and conserve resources. It recognises the importance of protecting our environment while creating jobs and economic opportunities in better using and reusing what we have extracted.

We know we can make a difference because we've already come a long way. In the last 12 years we have established 13 community recycling centres and are well on the way to expand to 21 centres and two resource recovery parks by 2031. We've also successfully standardised our kerbside services across the region, reduced household kerbside rubbish by 12 per cent per person from 2010 to 2022 and rolled out the food scraps service to turn rukenga kai into clean energy and fertiliser. Since the food scraps collections began in April 2023, more than 30,000 tonnes of food scraps have been diverted from landfill reducing our environmental impact and contributing to a sustainable future.

Now we're looking for more focus on actions that reduce waste in the first place. We've identified 12 key priorities to reduce household and commercial waste including construction and demolition waste, and increased support for repair initiatives, community solutions for organic waste, and product takeback schemes. In recognition of our leadership role, we will continue to focus on better ways of working to reduce our impact. To drive waste and emissions reductions at the household level, we will explore joining the 18 New Zealand councils that have already moved to fortnightly kerbside rubbish collections. We have heard from Aucklanders and recognise that a trial will be a valuable approach to testing the proposal in our region. We also continue to recognise the importance of addressing litter and illegal dumping, cleaning up our waterways and environment.

We want to continue the collaborative approach of the first two waste plans, partnering with mana whenua and mataawaka, communities and businesses. We especially seek to strengthen ways of working with mana whenua and deliver on Māori outcomes through waste initiatives, from policy to

programmes and projects. Together let's work to achieve a Zero Waste Auckland built on a circular economy that takes care of people and the environment. We owe it to the generations ahead because the choices we make today will shape the future they inherit.

Ngā manaakitanga

**Councillor Richard Hills**
Chair
Policy and Planning Committee

# Te ihirangi / Contents

**Ngā āpitihanga / The appendices**

# He kupu whakataki / Preamble

This plan has been created with the help of many voices. It reflects a continuation of the journey to Zero Waste that Auckland Council embarked upon with the Waste Management and Minimisation Plan in 2012. Through the public consultation process we hope to strengthen the plan so that it is one that all Aucklanders recognise as a robust blueprint for the next six years in managing and preventing waste through better use of resources.

The process to create the plan is set out in the Waste Minimisation Act 2008 and the Local Government Act 2002. This includes our 2023 Waste Assessment (Appendix 2) which helped us draft the direction and actions outlined in this plan. The Waste Assessment covers learnings from our own experience and those of community and industry experts, as well as knowledge provided by iwi, together with lessons from other cities in Aotearoa / New Zealand, and overseas.

Public consultation on this plan in early 2024 was followed by a hearing process before the plan was approved. This helped broaden opportunities to work with iwi, community and the commercial sector to achieve a common vision.

# Te āhua o te takotoranga o tēnei mahere / How this plan is laid out

This 2024 Waste Minimisation and Management Plan (WMMP) is based on our learnings from engaging with mana whenua, the community, industry and across Auckland Council (Appendix 1). It is also informed by research that is summarised in the Waste Assessment (Appendix 2).

**Part one** outlines the plan's purpose and scope and focuses on the strategic direction for tackling waste, including the Zero Waste vision, principles, goals, objectives, key priorities and targets for the next six years. It provides important context around the framing of waste from a te ao Māori perspective and the lessons we can draw in taking a more holistic approach to preserving resources.

**Part two** outlines important statutory and planning context for the WMMP, together with a description of the council's waste infrastructure and services.

**Part three** focuses on the opportunities and challenges that have been identified from our engagement with others, and from research outlined in more detail in the Waste Assessment. It provides a summary of key evidence behind the priorities and actions of this plan.

**Part four** contains the action plan for the next six years that will help us meet our targets and progress towards Zero Waste by 2040. It also outlines the funding framework for how we will pay for these actions, prioritise their delivery, and our monitoring and reporting regime.

**A separate plan** for Aotea / Great Barrier Island, Waiheke, Kawau and Rakino Islands of the Hauraki Gulf / Tīkapa Moana / Te Moananui-ā-Toi is contained in Appendix 3 of this plan. This separate plan acknowledges the unique challenges and opportunities of dealing with waste in island communities, together with the strong community passion to lead the way in forging a Zero Waste future.

# Te wāhanga tuatahi: te mahere / Part one: the plan

## 1. Te take me whai tātou i tēnei mahere hukihuki / Why we need this plan

Tāmaki Makaurau means Tāmaki desired by many. This name refers to the abundance of natural resources, strategic vantage points, portage routes and mahinga kai which first attracted Māori, and then other settlers.

Today, Tāmaki Makaurau is still desired by many, as a culturally diverse city with an abundance of beaches, waterways, maunga and ngahere. As our city grows, so too does the waste we produce. Every week, Auckland sends over 28,000 tonnes of waste to landfill. That is enough waste to fill an entire rugby field. Sending waste to landfill or burning waste, represents a loss of valuable resources and a waste of embodied carbon. Litter and illegal dumping of waste damages the land, air, water and ecosystems that Aucklanders rely on to survive and flourish.

### The true cost of waste

Waste is everyone's business. We all have an impact on the amount of waste we generate, and on where that waste ends up.

Every tonne of waste landfilled comes at a cost. We currently spend approximately $180 million per year on domestic waste services, including rubbish, recycling, food scraps and inorganic collections, education, enforcement and supporting the resource recovery network. This is the visible cost to households paid through disposer-pays, targeted and general waste rates, and waste levy funding.

However, our waste is like an iceberg – many more costs are hidden below the surface, affecting the economy, the environment and our communities (See figure 1 below).


*Figure 1: The waste iceberg*

The spiritual and cultural connection mana whenua have to Tāmaki Makaurau is unique, because it is tied to their relationship with the whenua, maunga, harbours and waters. In te ao Māori, the costs of waste include spiritual and cultural dimensions and span generations (refer Auckland Plan 2050).

Not only do emissions from waste contribute to climate change, but the effects of climate change, such as severe weather events. These events generate widespread damage, resulting in waste and exposing historic landfill and hazardous sites.

# 2.Te aronga o tēnei mahere hukihuki / Purpose of this plan

This plan sets the direction for the council's work in minimising and managing waste in Tāmaki Makaurau / Auckland. It seeks to empower relationships and synergies in working with iwi and community partners, and maximise opportunities with the private sector to support a circular economy. This plan fulfils our statutory requirement under sections 43 and 50 of the Waste Minimisation Act 2008 to adopt a waste management and minimisation plan and review that plan at intervals of not more than six years.

The vision of Zero Waste by 2040 remains the centrepiece for this plan, continuing the journey that started with the 2012 Waste Management and Minimisation Plan. The plan provides principles to guide how the council works with others to navigate complex issues and co-ordinate actions. It contains goals

and objectives for focusing our efforts. Importantly, it puts in place targets, key priorities and an action plan for the next six years.

This plan covers the council's activity in directly managing household waste, as well as our role in working with others to achieve Zero Waste and champion a circular economy. It seeks to elevate the focus from waste itself to the conservation of resources as a more holistic outcome that can support multiple benefits beyond waste minimisation.

# 3.Te korahi o te mahere / What this plan covers

This plan covers the council's role in minimising and managing all types of waste generated in Tāmaki Makaurau / Auckland in accordance with Waste Minimisation Act 2008 requirements. This includes waste that is managed by the council, and the much larger portion of waste that is managed privately.

The plan covers management of our own infrastructure, assets and services supporting household waste collections and resource recovery. It includes actions to reduce council's own waste. Within this, departments and council-controlled organisations may make waste plans specific to their business.

For the first time, this plan covers management of closed landfills and contaminated land owned and managed by the Auckland Council Group.

For the purposes of this plan, 'waste':

a. Means any thing disposed of or discarded; and
b. Includes a type of waste that is defined by its composition or source e.g. 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 of or discarded.

Biosolids from the treatment of wastewater have been identified as a significant potential waste stream and are included within this plan. However, waste discharged to the public wastewater system is not included as this is managed by Watercare Services Ltd through the Trade Waste Bylaw 2013.

## 3.1. The Hauraki Gulf Islands and the Waste Plan

The council provides waste services to Aotea / Great Barrier Island, Waiheke, Rakino, and Kawau Islands. Their isolation and the expense of shipping materials and waste to and from these islands means there are additional drivers to reduce waste and provide for on-island solutions. The higher costs of those services are subsidised from region-wide rates funding via a targeted rate levied on all eligible households.

While the vision, goals, targets and actions of the region-wide WMMP apply also to these islands, we have prepared a separate plan with goals and actions that reflect the unique waste challenges of the Hauraki Gulf Islands (attached as Appendix 3). The islands' waste plan outlines the unique issues and opportunities of waste in the island setting together with community goals and actions and how we can support them.


Photo of Anamata Community Recycling Centre on Aotea / Great Barrier Island

# 4. Te ao Māori me te kaitiakitanga / Te ao Māori and kaitiakitanga

I te tīmatatanga ko Te Kore i takea mai ai ko te ao tūroa e nohoa nei e tātou.
I hua mai i reira ko Ranginui e tū iho nei, ko Papatūānuku e takoto ake nei.

*In the beginning there was The Void, and from it came the world that we now inhabit.*
*From there came Father Sky who dwells above and Mother Earth here below*

We can better work towards Zero Waste by understanding te ao Māori and recognising kaitiakitanga – the active obligation of tangata whenua to sustain and restore te taiao.

Māori creation narratives vary but have consistent key themes. For the mana whenua of Tāmaki Makaurau, creation of the tangible world stems from Te Kore (The Void). It precedes Papatūānuku (Mother Earth) and Ranginui (Father Sky), the primeval parents whose children separated them, bringing forth the world of light. Their children, or atua, had influence over specific domains such as the winds, the forest, plants, and the sea, and the creation of elements within each domain including humankind.

These stories of the origin of the universe reinforce the whakapapa (connection/genealogy) among ngā tāngata (people), te taiao (the environment) and all things. Understanding the relationships between people and te taiao helps us understand the impact of how we generate and deal with waste in the present and for future generations. Paper has a connection to trees, taken from forests. A glass bottle has a connection to sand, taken from beaches. A plastic container has a connection to oil, extracted from Papatūānuku. When we extract resources from te taiao, use them for a short period of time, and send them to landfill, we undermine and diminish the mauri (life force) of those resources and te taiao.

A closed loop regenerative waste system that returns toenga (remains/leftovers) back to Papatūānuku without detriment to the whenua (land), awa (waterways), or moana (ocean) aligns with te ao Māori. For example, when buried in the māra (garden), rukenga kai (food scraps) restore valuable nutrients to Papatūānuku, helping to grow more kai. Tikanga practices help determine appropriate mechanisms to manage this system. For example, human organic matter is not mixed with rukenga kai and other compostable materials. The contemporary concept of para kore (zero waste) brings mātauranga Māori (Māori knowledge and expertise) and tikanga into the sustainable waste minimisation and management sector. It recognises the extrinsic costs of waste on the aquatic and terrestrial environments and who will inherit these costs while acknowledging the benefits of re-using and returning resources to the environment in a way that avoids harm.

Understanding the relationships and connections of all things enables us to understand the roles and responsibilities we have when it comes to turning waste into resources. In Tāmaki Makaurau, mana whenua have a specific role as kaitiaki (guardians) – an obligation to ngā tāngata, te taiao and the next generation, ensuring cultural knowledge and practices continue. While mana whenua have a unique and special role to play as kaitiaki and in exercising rangatiratanga (authority) over their land and resources, all Aucklanders

have a role to play in tiakitanga – caring for te taiao, and as generators of waste. This involves taking responsibility for reducing our waste, reducing harm from waste and supporting initiatives to turn waste into resources.

A deeper understanding of te ao Māori can inspire greater action and promote long-term behavioural change to protect te taiao. By treating the environment as a taonga (treasure) people are more likely to adopt practices that prevent pollution, environmental degradation and transform waste into resources. Incorporating mātauranga Māori into solutions and decision-making by partnering with mana whenua will create change and facilitate the transfer of knowledge and actions to and for future generations.

Photo of the Kai Ika project at Papatūānuku Marae

## 4.1. Māori priorities

The following priorities for Māori were initially identified by mana whenua and mataawaka for the 2018 Waste Management and Minimisation Plan and reviewed following engagement for this plan. They have informed the principles, objectives and actions of this plan. We believe that continuing to work closely with Māori will further strengthen waste outcomes, drawing from mātauranga Māori, tikanga and te ao Māori.

### Rangatiratanga

**The leadership and authority of mana whenua to make decisions that align with cultural values, protect te taiao, and engage with communities reflecting self-determination, autonomy, and responsibility as kaitiaki.**

- Partners in decisions over management, use and protection of taonga.
- Mana whenua pūrākau (narratives) and practices are supported and resourced at a local level.
- Support mana whenua capacity and development of social enterprise aspirations in resource recovery and waste minimisation and management programmes.
- Develop mataawaka social enterprise aspirations in resource recovery and waste minimisation and management programmes.
- Ensure iwi have an active role in waste minimisation and management as informed through direct engagement.

### Kaitiakitanga

**Our active obligation to sustain and restore our collective resources and taonga tuku iho (treasures handed down).**

- Ensure that resource use and waste minimisation and management occurs in a manner consistent with mana whenua aspirations and priorities.
- Protection of Papatūānuku; no new landfills without close consideration within a framework informed by the tikanga and mātauranga of tangata whenua, and reduce the harm of hazardous waste and old and existing landfills.
- Advocate to central government to increase the waste levy.
- Advocate for product stewardship and producer responsibility to central government.
- Protect waterways and ecology which receive waste and wastewater.
- Ensure mana whenua have the resources needed and are informed of opportunities to lead waste minimisation initiatives in their rohe.

### Whakapapa

**Action towards para kore driven by an understanding of the whakapapa (connection/genealogy) among people, the environment and all things, including the waste we generate.**

- Develop and support initiatives which reflect the interconnectedness of people, the environment and waste so that people understand where waste comes from and where waste goes.
- Adopt a holistic systems approach when it comes to reducing waste, taking into account for example, the emissions created in the extraction, production and distribution of resources.
- Incorporate mātauranga and tikanga Māori into community awareness programmes on sustainable waste minimisation and management practices.

### Kotahitanga

**Unity through partnership to protect taonga.**

- Develop respectful and innovative cross sector partnerships to deliver projects, develop policy, advocate for para kore and assess waste outcomes that enhance te taiao and protect Papatūānuku.

### Manaakitanga

**Nurturing relationships, looking after both people and taonga and taiao and fostering mutual respect.**

- Nurture, care and respect for cultural and natural heritage values in waste minimisation and management practices with regard to wāhi tapu, sacred areas, sites of significance and customs.
- Ensure the recognition of freshwater, geothermal resources, land, air, coastal resources in waste minimisation and resource management.
- Support and develop more effective Māori and community-led emergency response systems which uphold the wellbeing of people and planet as we respond to the effects of climate change.

### Whanaungatanga

**The power that comes from relationships that galvanise people to action through shared activities and values.**

- Develop vibrant para kore generations and communities by passing on tūpuna korero, knowledge and actions.


Photo of  staff supporting community engagement for the food scraps collection rollout

# 5.Ngā mātāpono / Principles

In writing this plan, we have reflected on various principles that have been drawn out from our conversations with mana whenua, the community, industry and elected members. These principles reflect what is most important in making decisions about waste. They signal how the council will operate in carrying out the plan's actions, and the important considerations that underlie our decision-making. They are a lens through which we bring the objectives of the plan to life. They ensure we consider matters beyond waste minimisation and resource recovery while we work towards the Zero Waste vision.

### Advancing up the waste hierarchy

- Applying the internationally recognised waste hierarchy, including a focus as far up the hierarchy as possible such as rethinking, reusing, redesigning products and reducing, in supporting a circular economy and the revitalisation of te taiao.

### Working together and changing hearts and minds

- Recognising that respectful, collaborative partnerships among communities, mana whenua, mataawaka, industry and other stakeholders must be fostered in addressing waste.
- Recognising that getting to Zero Waste needs wide support and for everyone to play a part. This includes education and advocacy for community and business buy-in together with central government action to level the playing field.
- Ensuring our waste and resource recovery services make it easier for people to do the right thing in maximising circulation of resources and minimising waste.

### Strengthening Māori outcomes

- Recognising the importance of developing relationships with Māori to support Māori outcomes while acknowledging the unique roles that mana whenua and mataawaka play.
- Ensuring that waste management policy, projects and programmes and their evaluation are underpinned by Māori priorities, values and principles of te ao Māori, which are informed by tikanga and mātauranga Māori.
- Recognising the benefits of te ao Māori in waste management and minimisation including in telling the story of resource circularity.

### Taking an inter-generational and holistic approach

- Considering the short- and long-term social, cultural, environmental and economic impacts of waste decisions for future generations and taking advantage of opportunities for generating community benefits.
- Supporting waste decisions and projects that restore and regenerate te taiao as a whole; land, air, waterways and oceans. Considering the end-of-life uses and circularity of products while factoring in other environmental impacts such as lifecycle analysis of emissions where possible.
- Building resilience to changing local and global conditions including climate change.
- Recognising the interdependence between the WMMP and other council policies, bylaws, plans and programmes such as reducing greenhouse gases (GHGs).

- Ensuring that health and safety is well-considered in our actions including provision of services and assets to manage and reduce waste.

### Acting fairly and being responsive to need

- Shifting the responsibility and cost of waste to industries, producers and consumers, and away from the environment, low-income communities and future generations.
- Being adaptable and responsive to diverse groups in the community, especially to those in greatest need.
- Exploring and supporting local and regional solutions to waste issues and resource recovery opportunities.
- Making it possible for households to reduce the cost of their waste disposal.

### Making the best use of every dollar spent, and being affordable

- Aiming to deliver the most cost-effective and efficient solutions to meet the requirements of relevant legislation while maximising waste diversion and minimising costs to ratepayers.
- Promoting innovation and considering new partnership and funding models to solve intractable waste problems.

### Checking progress and being transparent and adaptable

- Collecting accurate data to enable sound decision-making.
- Sharing the stories of progress towards Zero Waste to build and amplify what's working at both the regional and local level.
- Monitoring and evaluating waste initiatives to measure progress and allow for continuous improvement.
- Ensuring the council focuses on its own Zero Waste journey, and that we actively provide information to the public about performance against targets and waste outcomes.

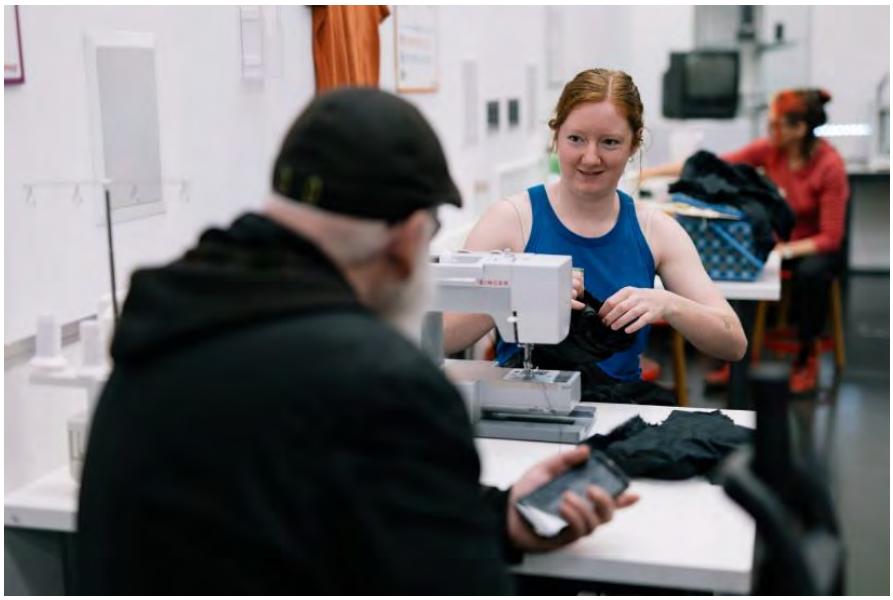


Photo of a repair café in action supported by Repair Café Aotearoa

# 6. Te matawhānui / Vision

Te matawhānui / Vision

**Tāmaki Makaurau / Auckland aspires to be Zero Waste by 2040 by:**

- working towards a circular economy
- using resources for their best and highest value for as long as possible
- taking care of people and the environment

Zero Waste by 2040 is an aspirational goal for Tāmaki Makaurau, powerful in its simplicity and ambition. It is about valuing and restoring the health and wellbeing of te taiao; land, air, and water. In practice, the vision means:

- reducing the resources we take from the environment
- re-designing things to preserve the value of resources and reduce environmental impacts
- caring for, re-using, repairing, restoring and valuing our resources
- ensuring the final disposal does not diminish the wellbeing of people, the land, air or water.

The journey to a circular economy is not about burying or incinerating waste, but unlocking the wealth of resources we already have in Tāmaki Makaurau to boost local economies and create resilient, thriving communities. In this way, a Zero Waste world restores the health of tāngata (people) as well as the environment.

Using the internationally recognised waste reduction hierarchy and staying as high on the hierarchy as possible is best practice in moving towards Zero Waste.

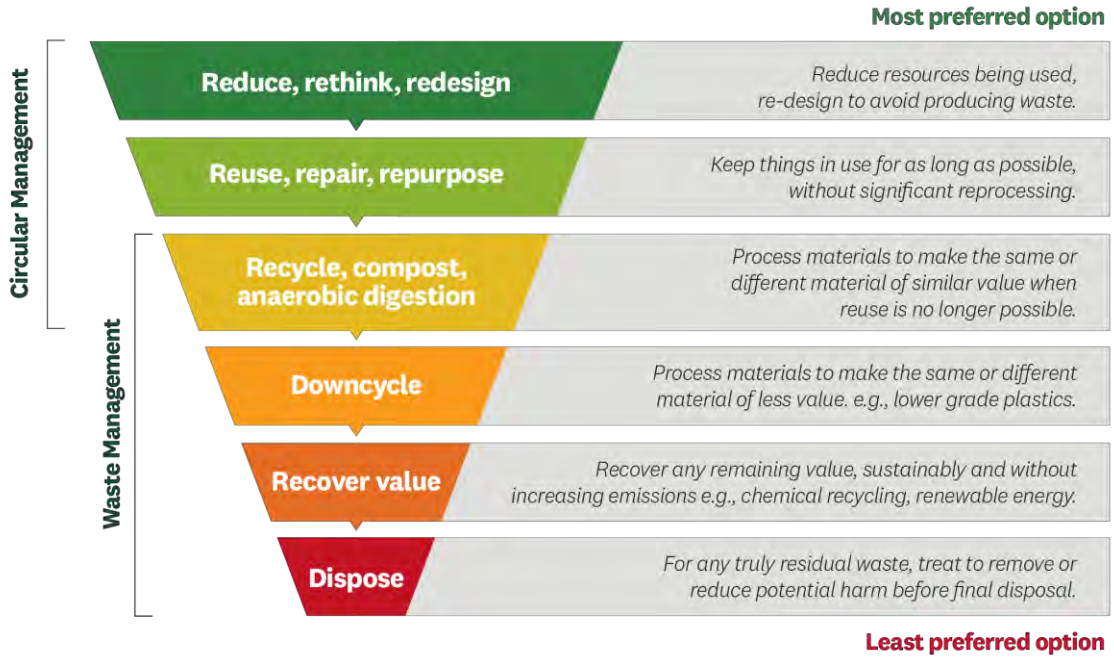



*Figure 2: The waste hierarchy*

## 6.1. Centring the environment on our journey to Zero Waste

Placing the environment at the centre of our view flips the product-based waste reduction hierarchy to an environment centred pyramid. This highlights the importance of restoring balance to ecosystems on our journey to Zero Waste. It captures the work that needs to be done from the foundation so we can restore health and wellbeing to people and planet toward the regeneration of the environment at the top of the pyramid (refer to section 4).

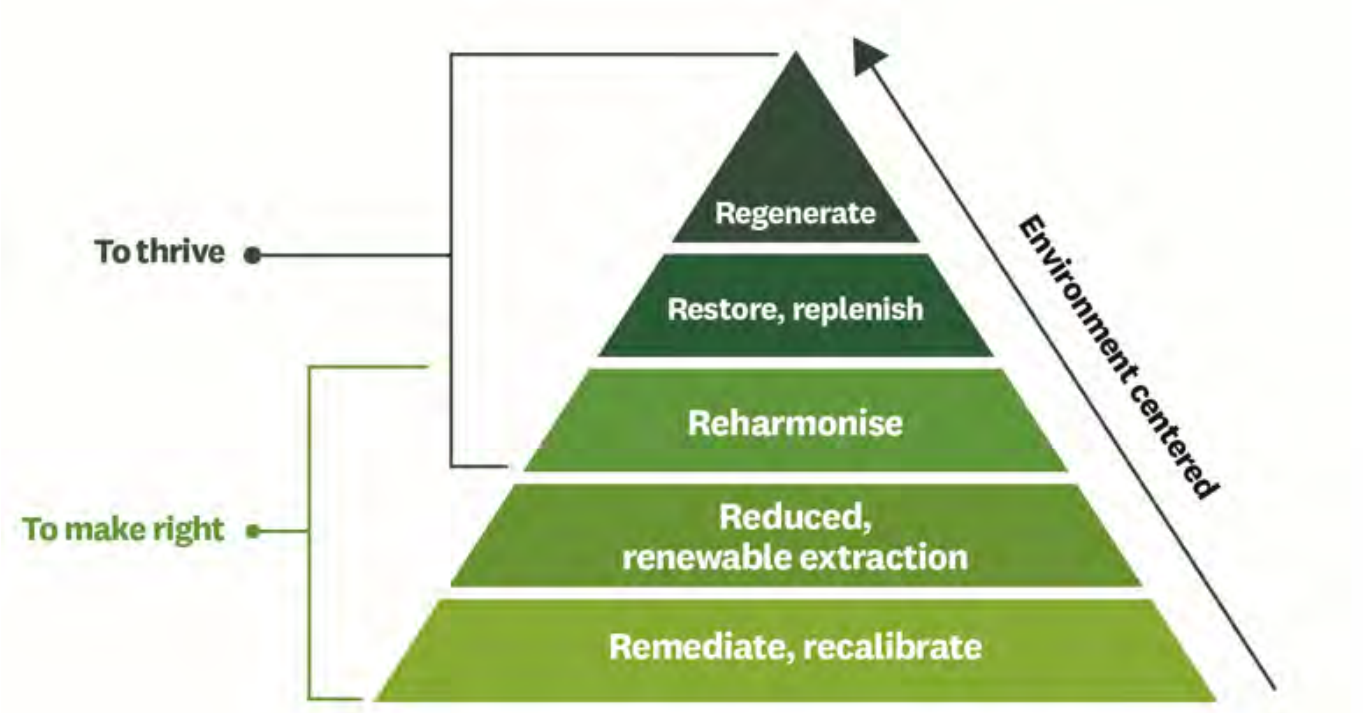



*Figure 3: A view of minimisation that centres on the environment linked to a product-focused view of the waste hierarchy.*

**Regenerate** ecosystems by eliminating the damaging effects of waste, nurturing their natural processes, genealogy and connections, allowing them to flourish alongside human health and wellbeing.

**Restore, replenish** nutrients to the environment and humans through Zero Waste practices like re-distributing food waste and composting to safeguard the ongoing health and wellbeing of the soil, air and waterways.

**Reharmonise** human activities with ecological balance. Work in a holistic way that supports the interdependence between humans and the environment that sustains them.

**Reduced, renewable extraction** of resources to minimise the damage created when we extract too much too quickly, without returning and restoring this back to the environment in a balanced way.

**Remediate, recalibrate** to address the ecological repercussions of waste. Remediate contaminated areas and recalibrate waste management strategies for long term sustainability.

## 6.2. Zero Waste and a circular economy

**Is Zero Waste possible?**

We only need to look to the past to know that Zero Waste is possible. Only a few decades ago, practices like bottling and preserving food, using cloth nappies and repairing clothes and household items were the norm, with some still holding the skills and knowledge we need to revive this way of life today. Today, many people have a strong desire to re-learn these skills. For example, many groups and organisations provide information and education on practical skills such as fixing items and repurposing material that would otherwise go to waste.

Looking back to move forward

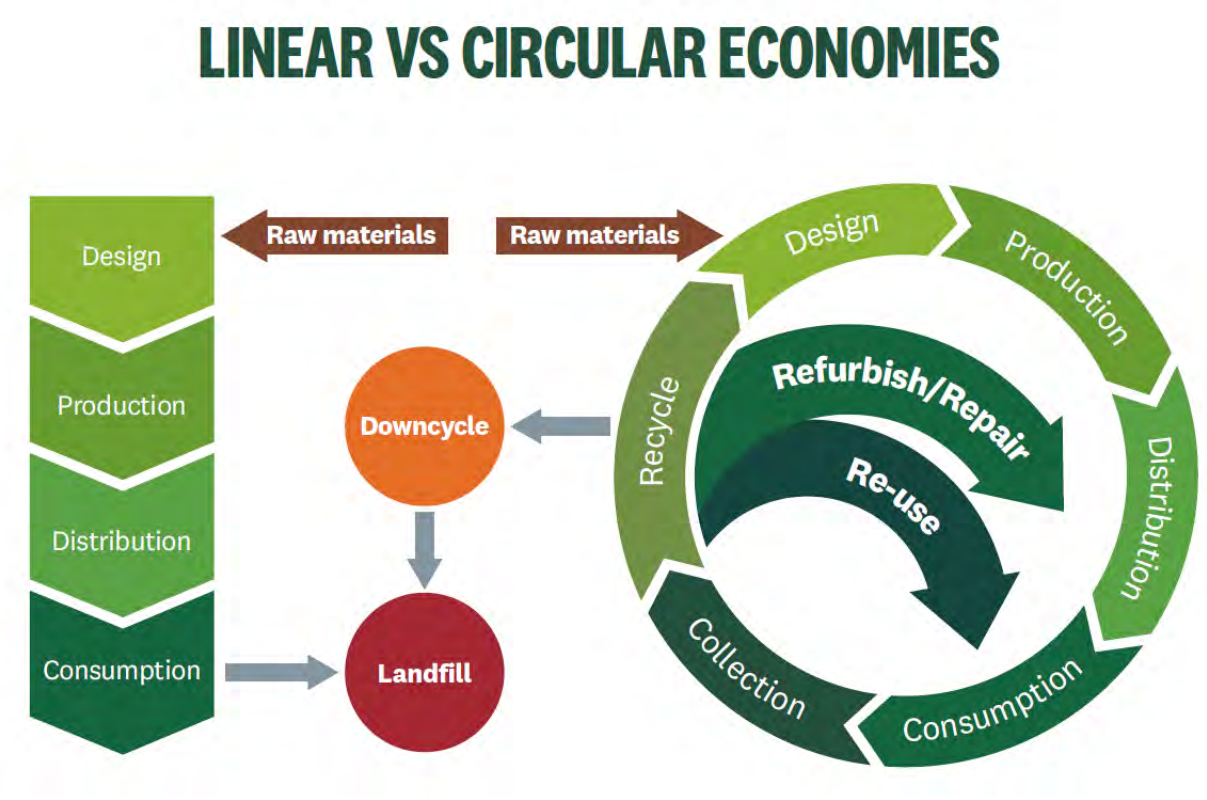
Re-using bottles is not a foreign concept to anyone living in New Zealand before the mid-1990s. Up until the mid-1980s families would place empty milk bottles at the kerbside with tokens for purchasing milk. The bottles were washed, sanitised and refilled and returned to people with fresh milk to drink. During the 1970s, many will remember returning their drink bottles to the dairy so they could be reused again and again, to earn some extra pocket money. These systems and incentives were phased out once single-use became normalised. It's not too late to re-establish container return schemes once again, which would encourage consumers and businesses to return beverage containers (e.g. bottles, cans etc) for recycling and/or re-use.

Today, given the sheer scale of waste and variety of materials, it is not yet economically or technically feasible to divert all materials from landfill. However, we can still do a lot to move towards Zzero Wwaste right now. Much of what ends up in landfill today could be usefully diverted, repurposed or avoided in the first place.

**Linear vs circular economies**

One way to think about Zero Waste is to think about how resources are used in the economy. Most goods go through a linear process: design, make, distribute, use, dispose. A lot of time, energy, money and resources goes into making products, but the 'use' stage can be surprisingly short. This includes things like coffee cups, bottled water, fast fashion, sanitary pads, takeaway containers or plastic film for temporarily weatherproofing buildings. These goods are often disposed of relatively soon after they are used, usually in landfill.

A circular economy on the other hand, aims to make the best use of resources, with products made to last and to be re-used and repaired.




This greatly reduces the demand for virgin resources. In a circular economy, because the environmental impacts have been thought about during the design process, once resources are no longer needed, they are returned back to the environment in ways that nourish te taiao, or at least, do not diminish the wellbeing of te taiao.

We acknowledge that system-level change is needed to reach Zero Waste and a circular economy, but we know that working together one step at a time, we can move towards a circular economy, and recover resources to regenerate the environment now and for future generations.

**The benefits of a Zero Waste circular economy**

Moving towards a Zero Waste circular economy means we reduce environmental damage, while retaining valuable resources which can nourish people and planet.

With the continual rise in the cost of resources and services the need for us to value, repair and restore the resources we make and keep them in use for as long as possible, has never been greater. As we move towards a Zero Waste, circular economy, we turn waste into wealth and provide resources for local communities to thrive. Reducing our need for new resources also reduces the emissions created through extraction, production and transport of valuable raw materials. Although the journey to Zero Waste will be challenging, we know it's possible; in the past six years, despite our growing population, we have seen the amount of waste we are producing across the region stabilise for the first time.

We are headed in the right direction, but we believe we can do even better. This plan sets the course for this; for the benefit of communities now and for generations to come.

# 7.Ngā whāinga roa, ngā whāinga poto me ngā tikanga / Goals, objectives and methods

The goals and objectives of this plan set out what we want to achieve in the context of waste and the methods we will use to achieve these outcomes. In working towards these outcomes, the principles (above) should be considered.

**Goal 1:** Maximise circularity of resources and products in accordance with the waste hierarchy.

**Objectives**

1. Organisations and individuals take responsibility for designing out and avoiding waste in the first place and keeping products and materials in use as long as possible. This encompasses:
    - a focus on designing out waste, including through planning and regulatory tools, or supporting development of new business and service models or product design, such as site waste management plans, central government product bans, or mandatory product stewardship schemes.
    - providing consumers with options for re-use, repair and re-purposing existing products within the region.
    - building awareness and support for Zero Waste and the circular economy.
2. Organic waste is prevented or diverted from landfill and recovered for reuse.
    - Food and green waste is reduced or beneficially used, e.g. through feeding others, composting, worm farms, anaerobic digestion, and restoring land.
    - Organic textiles, packaging and other organic materials are prevented in the first instance, recovered or diverted from landfill for beneficial reuse and recovery.
    - greenhouse gases (GHG) are reduced.

3. We have a well-supported, capable and accessible resource recovery network of infrastructure across the region to support resource recovery, waste reduction and deliver community and Māori outcomes.

4. We have robust data and information to target our efforts to minimise waste while protecting the environment, and safeguarding health and wellbeing.

    - We have a better understanding of material flows, embodied carbon and supply chain emissions of products to support better decision-making.

    - We have a clearer picture of greenhouse gas emissions associated with different disposal options.

**Goal 2:** Minimise harm by addressing the impacts of waste on the environment and communities including reducing harmful waste, litter and illegal dumping.

**Objectives**

5. Our total waste volumes are reduced sufficiently so that the need for final disposal is minimised.

6. Litter and illegal dumping is minimised, reflecting increased awareness of its impact on the land, waterways and the sea; including the impacts of plastic pollution.

7. In times of disaster, all sectors work together to keep communities safe from contaminated waste while supporting needs for replacement goods and diverting waste where possible.

8. Harmful waste is avoided, and residual waste is managed and treated to prevent harm to health and wellbeing and to the environment.


Photo of a repair café in action supported by Repair Café Aotearoa

**Methods to deliver on the objectives**

We will use a variety of methods to deliver on the goals and objectives. These range from working with others, research, and advocacy through to showcasing best practice, providing advice and guidance, planning and regulation. They include:

- providing services and infrastructure (including supporting development of the Resource Recovery Network) as outlined in this plan
- strategic planning including preparation of a Resource Recovery and Infrastructure Plan and ensuring that planning and consenting processes take account of the need for waste management infrastructure
- advocating for regulation to support an even playing field and drive circularity
- working with businesses to maximise resource recovery and product stewardship and achieve waste minimisation e.g. through adapting service models and product/packaging design
- using council's purchasing power to lead in waste minimisation through our own procurement and practice
- working closely with Māori, including mana whenua, on policies, projects and programmes and monitoring outcomes
- working with central government and other councils including on national behaviour change programmes, and investigating options for new, or expanded, facilities and services

- telling local stories to catalyse behaviour change and delivering public awareness campaigns, including in partnership with others
- supporting local community groups and non-governmental organisations to deliver on their own waste initiatives and to support education and public awareness campaigns, and seeking their insights in decision-making
- encouraging collaboration between iwi, community, organisations and businesses
- research and data collation, combined with monitoring and evaluation of programmes and projects
- providing grants through the Waste Minimisation and Innovation Fund
- providing guidance, tools and information including through online platforms
- regulating waste activities through a bylaw as enabled through legislation.


Photo courtesy of Ecomatters

# 8. Ngā tino kaupapa mātāmua / Key priorities

Part 4 of this plan sets out the actions we will take over 2024-2030 to achieve our goals and objectives.

The priority areas below represent where we will concentrate our focus.

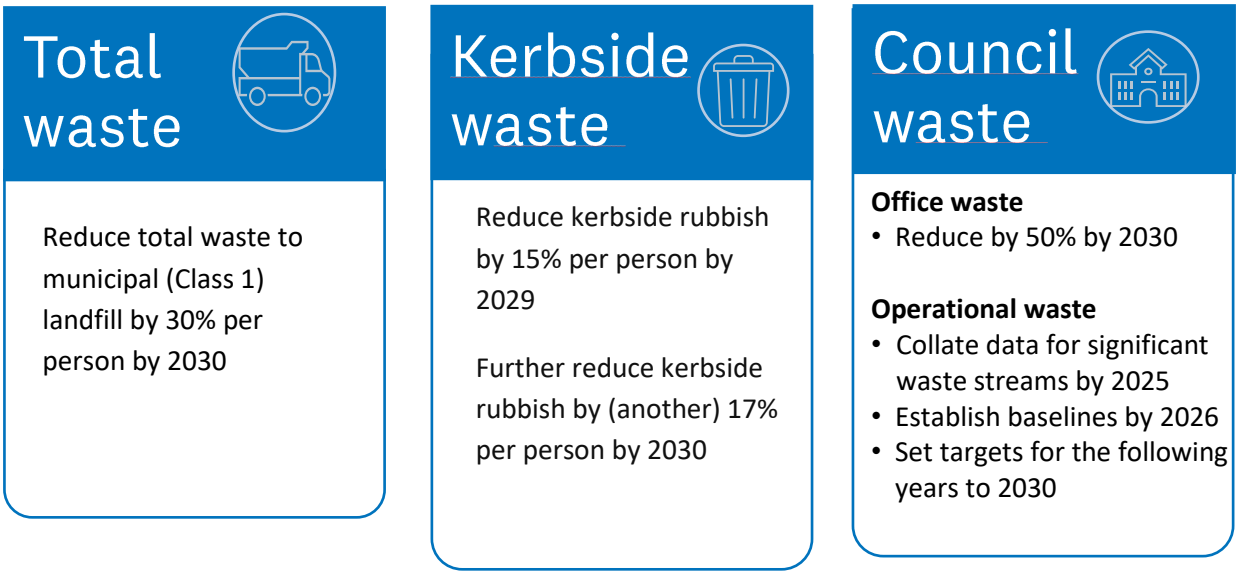
*Table 1: Waste plan priority areas for 2024-2030*

| | |
|---|---|
| **Empowering iwi and community partnerships** | |
| 1. Strengthen ways of working with mana whenua and deliver on Māori outcomes through waste initiatives | Identify opportunities to work more closely with Māori, including the development of waste policy, programmes and projects.<br><br>Deliver Māori outcomes through our work to manage and minimise waste. |
| 2. Continue expanding and strengthening the Resource Recovery Network and its services | Establish eight more Community Recycling Centres and two Resource Recovery Parks by 2031, while continuing to support growth and service expansion of the existing 14 Community Recycling Centres. |
| **Targeting specific activities and materials** | |
| 3. Target Construction and Demolition (C&D) waste | Work with businesses and within the council to design out and reduce C&D waste including options for mandatory site waste management plans. |
| 4. Focus on five priority waste streams:<br>• organics (including food scraps, green waste, timber and cardboard/paper)<br>• plastics<br>• packaging<br>• textiles<br>• biosolids | Identify source reduction and diversion opportunities for these waste streams.<br><br>Work to change consumer behaviours linked to these waste streams.<br><br>Engage in early collaborative planning with mana whenua, communities and stakeholders for the future of biosolids after Puketutu Island rehabilitation is complete. |
| 5. Strengthen our focus on disaster preparedness and climate change mitigation, adaptation and resilience | Identify actions to support our readiness for disasters in strengthening community access to and support from waste and resource recovery infrastructure and services. |
| **Advocacy for future action** | |
| 6. Advocate for actions to move up the waste hierarchy including source reduction, re-use and right to repair | Advocate to all sectors for actions, economic instruments, policy and regulation that will move Tāmaki Makaurau up the waste hierarchy. |

| | |
|---|---|
| 7. Advocate for implementation of a container return scheme and other mandatory product stewardship schemes | Advocate for implementation of the proposed beverage container return scheme, and other mandatory product stewardship or extended producer responsibility schemes. |
| **Delivering direct action** | |
| 8. Support Aucklanders to use their kerbside recycling and food scraps bins effectively, and to shift to rates-funded collection services | Work to reduce contamination in household food scraps and recycling bins; and provide clear information to enable a smooth transition to rates-funded kerbside services for residents who currently have a pay-as-you-throw rubbish service. |
| 9. Transition to a fortnightly kerbside rubbish collection subject to a trial and further consultation | Support residents moving to a fortnightly rubbish collection as a trial in 2026, and regionally from 2028 noting that removal of food scraps will reduce up to 41 per cent of bin contents by weight. |
| 10. Accelerate efforts to minimise operational wastes from the Auckland Council Group | Work across the council to set and meet targets for significant operational waste streams including construction and demolition waste and soils. |
| 11. Address litter and illegal dumping to protect public health and the environment | Collaborate with communities to develop local solutions for hot-spot areas and to prevent litter and reduce waste going into waterways and marine areas.<br><br>Work with central government to support and implement more effective enforcement and compliance legislation. |
| **Across all priorities** | |
| 12. Partner with others to achieve a Zero Waste Auckland built on a circular economy | Work with everyone to achieve the Zero Waste goal including the community sector, the waste and recycling sector, businesses, retailers, academic institutions, schools, central government and other councils and individuals. |

# 9. Ngā pae whāinga / Targets

The targets for the next six years have been chosen as measurable 'stretch' targets for our journey to Zero Waste. They are a continuation of the targets set in the 2018 WMMP, focusing on total waste to municipal (class 1) landfill, domestic waste collected by council-contracted services and the waste we generate within the council.




### Total waste

Reduce total council- and private-sector-influenced reported waste to municipal (Class 1) landfill by 30 per cent from a 2022 baseline of 873kg per capita per year to 611kg per capita per year, by 2030.[1]

The target aligns with the New Zealand Waste Strategy target to reduce the amount of material that needs final disposal by 30 per cent per person by 2030. It is similar to the 2018 WMMP, but the baseline has been updated and the timeframe extended slightly from 2027. The total waste to Class 1 landfill target will be achievable only with measures beyond the council's direct control requiring collaborative planning and effort.

### Domestic kerbside waste

Reduce domestic kerbside rubbish from a 2022 baseline of 141kg to 120kg per capita per by 2029 (a reduction of 15 per cent). Further reduce domestic kerbside rubbish from 120kg to 100kg per capita (a 17 per cent reduction) by 2030.

[1] Target is limited to Class 1 landfills noting current lack of data on other landfill types. New mandatory reporting for other classes will allow baselines and targets to be set in the future.

The domestic kerbside targets are stretch targets focused on rubbish from household collections. This means that 40 per cent of total household waste would be diverted by 2029 and 50 per cent by 2030. These targets are similar to those proposed by the New Zealand government in 2022,[2] but adjusted to allow time for a fortnightly rubbish trial prior to consultation on a regional service. The targets are also similar to those proposed in the 2018 WMMP, but timeframes have been extended noting the delay in changes to services.

We think that we can achieve these targets based on rollout of the weekly food scraps collection combined with reducing the frequency of household rubbish collections to fortnightly. This reduced frequency will be much easier for householders once food scraps are removed from rubbish bins, given they make up 41 per cent by weight of domestic rubbish. Before moving to a fortnightly rubbish collection, we will look at options to support those householders who may struggle with fewer collections. Early work to support large households has been promising (refer to section 12.6.2), and we can explore further measures such as larger bin sizes. Moving to fortnightly collections will also mean an overall cost saving in services which would be passed onto ratepayers.

### Council waste

Office waste: Reduce office waste by 50 per cent from 0.14kg per visit to 0.07kg by 2030 (from 2022 baseline data).

While a lot of waste in council offices is diverted through recycling and food scrap collections, there are more opportunities to reduce in-house office waste through procurement, behaviour change, new systems and ongoing staff training. The new target is different to the 2018 WMMP which was based on number of employees; because the way staff use offices has changed significantly post-COVID-19.

Operational waste: Work across the council to collate data for significant operational waste streams by 2025, establish baselines by 2026 and set targets for the following years to 2030.

Operational waste streams, being waste generated by the Auckland Council Group beyond in-house office waste, is a much more significant opportunity. These targets are different to those in the 2018 WMMP which suggested baselines and targets be introduced for all operational wastes. Instead, this target focuses on the largest waste streams generated by the council – linked to C&D, soils and biosolids. We're strengthening requirements for waste data reporting and are working across the council group to establish a system to collate our significant operational waste data across projects. Once that system is in place and is being used successfully, we can gather baseline data before setting targets.

[2] Ministry for the Environment website: Improving household recycling and food scrap collections

# Te wāhanga tuatahi: te horopaki / Part two: context

# 10. Te horopaki ā-ture, ā-rautaki hoki / Statutory and strategic context

Development of this plan is guided by a range of legislation, plans, and commitments which are summarised in section 2 of the Waste Assessment 2023. Some of the most relevant documents and commitments are outlined below. In particular, this plan must have regard to the New Zealand Waste Strategy and the council's own Waste Assessment (Appendix 2).

## 10.1. International commitments

This plan reflects the council's commitment in signing the C40 Cities' Advancing Towards Zero Waste Declaration. The council will also work with the government to comply and/or advance other international commitments relating to waste management such as:

- the Basel Convention relating to export of hazardous wastes
- the Montreal Protocol relating to ozone depleting or refrigerant gases
- the UN Sustainable Development Goals
- the current work to develop a legally binding agreement to end plastic pollution.[3]

## 10.2. Advancing Towards Zero Waste Declaration

By signing C40's Advancing Towards Zero Waste Declaration in 2018, Auckland pledged to move Auckland towards cutting the amount of waste generated by each citizen by 15 per cent by 2030, reducing the amount of waste sent to landfills and incineration by 50 per cent, and increasing the diversion rate to 70 per cent by 2030.

Cities that sign up for the pathway commit to a 2030 target of:

- providing timely city-wide waste collection services
- treating at least 30 per cent of organic waste
- and reducing waste disposal emissions by at least 30 per cent.

## 10.3. The New Zealand Waste Strategy

There have been significant changes in the government's waste work programme since Auckland's last waste plan in 2018. Te Rautaki Para / Waste Strategy 2023 – the new national waste strategy – has reset the vision for waste to transition to a low-waste, low-emissions society built upon a circular economy by

[3] UN Environment programme: What you need to know about the plastic pollution resolution.

2050. It also resets the direction and priorities for waste minimisation, along with setting targets for waste reduction.

## 10.4. Central government waste and climate change work programme

### Waste work programme

In recent years, the government has also consulted on:

- a proposal for legislation to replace the Waste Minimisation Act 2008 and the Litter Act 1979
- implementation of a container return scheme that will encourage people to return their empty beverage containers for recycling
- separation of food scraps from general waste for all businesses.

In addition, the waste disposal levy[4] is being progressively expanded, and regulated product stewardship has been mandated for six priority products. Tyres are the first of these and will be in effect by March 2024. Bans of single-use and hard-to-recycle plastic products including shopping bags were introduced in 2021 and for various food and drink packaging in 2022. Further products are proposed to be phased out by 2025.

Central government direction to support a circular economy is also reflected in the emissions reduction plan[5] seeking a circular economy and bioeconomy by 2050, and in the Infrastructure Commission's 'Rautaki Hanganga o Aotearoa / New Zealand Infrastructure Strategy 2022-2052'[6] which reflects the effect this will have on the future need for landfills.

New regulatory changes, introduced under the Waste Minimisation Act 2008, will affect our kerbside collections directly and indirectly. There is a proposed requirement for all councils to provide household recycling and food scraps collections. Requirements to standardise the types of recycling and food scraps items that can be placed out for household collections are now in place.

### Climate change work programme

Aotearoa New Zealand's Emissions Reduction Plan includes an action for the Ministry for Business, Innovation and Employment to develop a Circular Economy and Bioeconomy Strategy. This will place circular business models, product stewardship and extended producer responsibility front and centre. A circular economy is likely to require international trade to begin with, as systems and products develop at

[4] The waste disposal levy is a fee designed to support waste minimisation through charging per tonne for waste disposal, which in turn funds waste minimisation and diversion initiatives.
[5] Te hau mārohi ki anamata / Towards a productive, sustainable and inclusive economy. Aotearoa New Zealand's First Emissions Reduction Plan, May 2022, Ministry for the Environment.
[6] Rautaki Hanganga o Aotearoa New Zealand Infrastructure Strategy, 2022-2052. New Zealand Infrastructure Commission Te Waihanga.

economies of scale that make those feasible. Where well-managed, a circular economy can support economic, environmental and social benefits. This work is at the research and data collection stage and the strategy is expected by 2025.

## 10.5. Waste Minimisation Act 2008

The Waste Minimisation Act 2008 outlines the role of councils to promote efficient and effective waste management and minimisation for their region regardless of whether they are the direct service provider. It also provides for regulatory powers of councils linked to bylaws, and requirements linked to the collection and disposal of waste (e.g. through kerbside services), the provision and review of waste plans, and the distribution of waste levy funding.

The act includes a framework for accrediting product stewardship schemes, regulating certain products (e.g. banning products for sale), and setting a levy on waste disposal (e.g. through landfills).

## 10.6. Waste Management and Minimisation Bylaw 2019

Auckland Council's Waste Management and Minimisation Bylaw (WMMB) is a regulatory mechanism to manage and minimise waste and to protect the public from waste-related health and safety risks and nuisance.

It applies to the collection and disposal of waste from public places, requiring people to dispose of material appropriately, and requiring collectors and operators of various waste-related facilities to obtain council approval. This may include requirements for information to be provided to the council to help us understand waste flows. The bylaw does not distinguish between public or private provided waste services with the regulation applicable to all. It allows for further regulatory controls to be established such as how waste is stored or separated.

The bylaw also requires waste minimisation plans for trading, events and filming in council-controlled public places, and for existing or new multi-unit developments.

Other provisions of the bylaw relate to potential waste from shopping trolleys, unaddressed mail and burial of dead animals on premises.

Photo of ReCreators staff member standing beside rescued textiles

## 10.7. Auckland Plan 2050

The Auckland Plan sets the scene for our work to improve the future for Tāmaki Makaurau. It includes over-arching outcomes and focus areas that direct our work including those directly relevant to minimising waste through protecting our natural environment, while supporting Māori culture and wellbeing, addressing inequity and exclusion, and supporting opportunities for a prosperous region.

## 10.8. Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan

Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan is our roadmap to a zero emissions, resilient and healthier region that is better connected to our environment and able to thrive in the face of ongoing change and disruption. It provides direction in reducing our greenhouse gas emissions, with a focus on organic waste noting that methane from decomposition in landfills is a powerful greenhouse gas. It also recognises that minimising and diverting waste generally represents reduced carbon footprint in the production and extraction of resources.

Te Tāruke-ā-Tāwhiri includes targets for reducing and diverting food waste, paper/cardboard waste, plastic waste and wood waste by 2050.

## 10.9. Auckland Unitary Plan

The Auckland Unitary Plan sets out objectives, policies and rules for sustainable management of natural and physical resources under the Resource Management Act 1991 (RMA). This includes the development of waste management facilities, and the discharge of contaminants into the environment. Provisions influence all activities including resource recovery facilities. They may also relate to aspects of waste management such as provision of accessible space for the storage and separation of waste in residential or commercial developments. Any changes to the Auckland Unitary Plan go through a plan change process laid out in the RMA.

## 10.10. Kia Ora Tāmaki Makaurau 2020

Kia Ora Tāmaki Makaurau is the council's framework for responding more effectively to the needs and aspirations of mana whenua and Māori communities. It was developed with mana whenua entities and Māori communities, and aims to reflect te ao Māori, be informed by mātauranga Māori (Māori knowledge) and be Māori centric. The framework focuses on delivering Māori outcomes through measuring progress against indicators for 10 priority outcomes. Outcomes for waste are reflected in eight out of the ten priorities.

## 10.11. Issues of significance to Māori in Tāmaki Makaurau

Houkura (formerly the Independent Māori Statutory Board) has a statutory responsibility to monitor Auckland Council against its Treaty of Waitangi obligations, and to promote and advocate to Auckland Council for and on behalf of Māori in Tāmaki Makaurau / Auckland.

Their statutory document, 'Schedule of Issues of Significance to Māori in Tāmaki Makaurau 2021–2025'[7] reflects the views of mana whenua and mataawaka groups across Tāmaki Makaurau and highlights the issues and opportunities to be considered in planning and resourcing by the council, council-controlled organisations and other organisations. The schedule also defines where Auckland Council has a major responsibility for action. Issues relevant to waste management and minimisation include equitable access to waste services, meaningful participation in decisions around waste infrastructure, and the environmental impact of waste.

[7] Schedule of Issues of Significance to Māori in Tāmaki Makaurau 2021-2025 – Independent Māori Statutory Board

# 11. Ngā Ratonga me te Tūāhanga ki Tāmaki Makaurau / Services and infrastructure in Auckland

While the council has significant investment in waste services, assets and infrastructure, most of the waste and resource recovery infrastructure is in private ownership. This ranges from businesses and community enterprises specialising in resource recovery including re-using and recycling resources; companies supporting efforts to reduce waste; and commercial operators that provide waste collection, treatment and disposal services.

There are many organisations supporting a wider circular economy across our region. To keep up to date with this expanding sector, the council supports initiatives such as the Sustainable Business Network's Circular Economy Directory,[8] a catalogue of organisations across 16 sectors offering circular solutions for businesses that can help design out waste and pollution, keep products and materials in use and regenerate nature.

Waste facilities and larger collectors of waste (collecting more than 20 tonnes per year) require a licence to operate under the waste bylaw. Some of the key facilities that divert and process waste (including those where the council has an interest/involvement) are shown on the map in figure 4 below.

Where the council has direct ownership and management of services and asset, we have a greater ability to capture information, and directly influence waste streams, and support reuse and recovery of resources. This in turn helps us meet our legislative requirements under the Waste Minimisation Act 2008 (refer section 10.1).

This section provides an overview of the sector, with a focus on the council's key activities.

- Working with others on education campaigns, behaviour change programmes, research and new initiatives across the community and commercial sectors.
- Providing seed funding through the Waste Minimisation and Innovation Fund.
- Establishing the Resource Recovery Network.
- Providing collection services to households and a small number of businesses.
- Operating a materials recovery facility to sort kerbside recyclable materials.
- Managing closed landfill sites on public (council) land.
- Part ownership of one open landfill.

The council also has a regulatory role through the Waste Management and Minimisation Bylaw (refer section 10.5) to manage and minimise waste and to protect the public from waste-related health and safety risks and nuisance and through the Resource Management Act 1991 (refer section 10.8).

[8] Circular Economy Directory – Sustainable Business Network (sustainable.org.nz)


*Figure 4: Map of key facilities for diverting and processing public waste (not a complete list)*

## 11.1. Working with others

Working with a range of groups to change hearts and minds and support solutions to waste has long been a focus for minimising waste. This includes actions to support iwi and community groups to deliver waste minimisation education and resource recovery initiatives, and to work with the willing in the business sector.

Photo of Auckland Council community partners at a networking event

**Iwi and community groups**

Iwi and community groups catalysing grassroots change in attitudes and turning waste into resources are a well-recognised feature of the Tāmaki Makaurau / Auckland waste landscape. We recognise that local groups know best how to connect with their communities and support their needs to make programmes effective. Working with iwi and community groups is a key pillar of the council's approach to strengthen public support and behaviour change. Alongside working with other groups to catalyse change, council wastewise advisors also directly engage with the public to provide education and support rollout of new waste services. Other programmes and initiatives supported by the council include:

- Para Kore Ki Tāmaki and Māori outcomes – Waste minimisation education and support for marae, rangatahi (young people), and Māori organisations through te ao Māori.
- Regional / local community empowerment and education programmes – Local people catalysing community-led waste minimisation and resource recovery initiatives; and preparing their communities for waste service changes in culturally and locally appropriate ways.
- The Compost Collective – A network of geographically based local and regional composting experts hosting workshops and providing hands-on assistance in how to compost.
- Love Food Hate Waste – Delivering the Love Food Hate Waste campaign, funding food waste prevention action and education across Auckland.
- Litter and illegal dumping prevention – Coordinating prevention efforts across council, communities, and other stakeholders to prevent litter. Investigating options to improve education and enforcement activities.

- Zero Waste events – Providing Zero Waste event best-practice advice and resources to achieve Zero Waste for events in Auckland.
- Waste Free Parenting – Engaging families and early childhood centres in waste free parenting, encouraging use of reusables rather than disposable products.
- Schools – working with schools to educate children around sustainable actions and the importance of protecting the environment, including through waste minimisation.

Between 1 July 2022 and 30 June 2023 our community partners achieved the following:

- engaged, informed and inspired 168,029 Aucklanders
- ran 514 waste minimisation workshops and presentations
- supported 1439 Zero Waste Events
- worked with 7330 community groups, households and businesses
- grew a network of 378 waste champions who have contributed more than 12,802 volunteer hours
- have blogged/posted/tweeted over 1878 times through social media accounts, reaching over 1,379,579 people.

It is essential our programmes have a broad reach that recognises the increasing diversity of our population.[9] The council and community partners are also looking at opportunities to engage with businesses to extend our reach.

**Commercial and tertiary education sectors**

Auckland Council's work with businesses has focused on C&D to date, given the large proportion of waste estimated to come from that sector. This includes direct engagement with large and small developers and building companies, businesses that produce building products, companies dealing with building waste including recovery and collection, and networks of industry such as the Sustainable Business Network. We have worked with a range of other businesses and social enterprises to support initiatives, where resources allow. We also work with the tertiary education sector to support research and education opportunities. The work programme includes:

- Promotion of, and resources to, support project and site waste management plans and data collection to design out and minimise waste through the C&D process.
- Promotion of deconstruction and soft strip (which preserves materials, fixtures and fittings for reuse) rather than demolition techniques by engaging contractors skilled in these methods.
- Promotion of design techniques and the use of less problematic materials or products that have greater opportunities for re-use or recycling at the end of life.
- Promotion of, and compliance and enforcement of, site practices to reduce waste escaping into the environment and improve sanitary conditions.
- Support for development of educational and training initiatives linked to reducing waste in C&D.

[9] In 2018, Tāmaki Makaurau was home to people of around 180 ethnicities; with approximately 42% of the population born overseas, compared with 20% for the rest of the country. Statistics NZ

- Funding and partnering innovative research and development to support waste minimisation.
- Making connections between businesses and with iwi and community partners, including opportunities linked to accessing materials from the council's inorganic collection services.
- Support for research and trials of new business or service models for sharing, reusing and repairing products such as product rentals, reusable packaging and product maintenance and service.
- Advocating to the government and industry for product stewardship and greater regulatory control such as mandatory site waste management plans.

The council also works with the commercial and tertiary sectors, funding grants through the Waste Minimisation and Innovation Fund (WMIF), our regulatory role in managing the Waste Management and Minimisation Bylaw; and in providing kerbside services for some businesses.

Photo courtesy of Green Bottle NZ

## 11.2. Waste Minimisation and Innovation Fund

The WMIF is primarily intended to provide seed funding to encourage and enable creative reuse and recovery and generate economic opportunities. It distributes a portion of the national waste levy funds allocated to Auckland Council. This money must be spent on promoting or achieving waste minimisation as set out in local authorities' Waste Management and Minimisation Plans.

The purpose of the fund is to:

- promote or achieve waste minimisation through new or expanded initiatives and actions
- reduce waste to landfill in accordance with the objectives of this plan
- foster new ideas and encourage community participation in reducing waste to landfill.

Since its inception in 2012, $500,000 has been distributed annually, supporting over 450 initiatives that are creating ways for Aucklanders to reduce waste.

## 11.3. The resource recovery sector

The resource recovery sector includes businesses, charities and organisations providing pathways for the diversion of products and materials. These range from the council/community partnership of the Resource Recovery Network to organisations focused on supporting repair and re-sale of products, re-processing and recycling particular waste streams such as plastics, paper, glass, textiles, e-waste and scrap metal; or waste from particular types of activities such as C&D and composting or processing organic material. There are also organisations working right at the top of the hierarchy, supporting changes in consumer behaviours, and designing out of waste.


Photo of sorting station at Onehunga Community Recycling Centre

## 11.4. Resource Recovery Network

The Resource Recovery Network is a network of independently operated community recycling centres (and future resource recovery parks)[10] focused on diverting reusable and recyclable items from landfill into the circular economy and generating positive community outcomes in the process. Figure 4 above provides a map of the existing 13 Community Recycling Centres (CRCs).

CRCs enable residents to drop off unwanted goods and recyclable materials where they can be reused, repaired, repurposed and upcycled, or sold for remanufacturing. In providing these services, CRCs create local jobs and training opportunities, reduce residents' waste disposal costs, redistribute low-cost goods into the community and provide education to help change minds and behaviours. They are also future drop-off points for product stewardship schemes and are vibrant hubs where local innovation and creativity flourish.

Auckland Council started developing the network in 2014 after the adoption of a Resource Recovery Network Strategy which supported establishing 13 Community Recycling Centres by 2024. A revised strategy was adopted in 2021, which increased the number to 21 plus two larger, commercially focused Resource Recovery Parks, by 2031 (refer Appendix 4). Since the previous Waste Plan was adopted in 2018, the network has grown from five to 13 Community Recycling Centres, all of which are operated by local social enterprises. In 2022 the network provided 97 full and part-time local jobs.


Photo of staff at the Onehunga Community Recycling Centre

[10] A resource recovery park is a larger-scale recycling centre focused predominantly on diverting commercial waste from landfill back into the circular economy, but also accepting and diverting domestic waste.

## 11.5. Our collection services and infrastructure

Auckland Council offers kerbside collection services for household rubbish across most areas of the city, and recycling across all areas. In the coming years, we will finalise the standardisation of our services from the seven legacy councils by extending them to cover all areas and roll out food scraps collections to urban areas of Auckland. Providing waste services is recognised internationally as a key action for cities to influence the behaviour of householders, as is a focus on reducing and treating food waste.[11]

Standardisation doesn't mean all services will be the same in every location, as many areas have unique needs. For example, most of our services are designed to collect wheelie bins from the kerbside. Bins are safer than bags for our collectors and for road users, and they make it easier to encourage householders to reduce their waste (e.g. with smaller bin sizes or less frequent collections). However, collections from areas of the city such as the city centre present unique challenges, meaning that bags are sometimes used. People living in apartments or multi-unit dwellings – where there is limited kerbside space – may not have access to council services. For insights about how we think we can improve our kerbside rubbish, recycling and food waste services; refer to section 12.6.

We also provide a booked, on-property inorganic collection service which has proved effective in reducing the hazards and amenity issues associated with roadside collections. Through this service, we aim to divert reusable and recyclable items, including making items available to charities.


[11] C40 Cities Six city actions to improve waste management and reduce emissions (c40knowledgehub.org); 2019, reviewed 2023.

The materials recovery facility (MRF) in Onehunga is another important part of council's recycling infrastructure. This automated MRF, which transferred to council ownership in 2024, sorts dry recycling materials including materials from council kerbside collections.[12]

## 11.6. Waste collection from public places

The council also funds a range of services related to waste management in public places. These include:

- litter management and town centre cleaning, managed by the council or by Auckland Transport for the road corridor for safety reasons
- public litter and recycling bins
- stream and beach cleaning, often with support of volunteers or in connection with other community, charitable organisations or businesses

- enforcement of litter and illegal dumping using a combined approach of education, litter infringement notices and fines, and prosecutions
- abandoned vehicle recovery and disposal
- bins for pest plant disposal, usually funded through local boards in particular locations or times of the year.

Litter and illegal dumping are an ongoing challenge for the council. Section 12.9 has some insights into how we think those could be addressed.

## 11.7. Energy recovery and final disposal

### Transfer stations, landfills and closed landfills

Options for final disposal of waste in Tāmaki Makaurau / Auckland are highly fragmented across a number of large-scale and small-scale operators and Auckland Council. They include landfilling and options to recover energy from waste.

Waste facilities that provide services (see figure 4) include:

- Four Class 1 (mixed municipal waste) landfills – two in Auckland at Redvale and Whitford; one at Purewa in Northland, and one at Hampton Downs in the Waikato. The Claris Landfill on Aotea / Great Barrier is only open for emergency waste.
- Twelve consented Class 3 and 4 managed or controlled fills.

[12] The Onehunga MRF also sorts a small quantity (less than 5 per cent) from commercial collections and from other councils.

- Twenty-eight consented Class 5 cleanfills and two monofills.
- Fifteen transfer stations handling bulk rubbish from private and council collections: 11 privately owned and operated, one council-owned and operated at Waitākere, and one part-owned by the council at East Tāmaki.

Three of the four landfills are privately-owned and managed and resource consent is being sought for an additional private landfill in north Auckland.[13] Whitford Landfill is 50 per cent owned by the council and privately operated.

There are no Class 2 C&D landfills in Auckland. A substantial proportion of the material disposed of at Class 2 facilities outside the region is generated by C&D activity and could be completely diverted from landfill.

## Waste to energy facilities

Waste to energy (WtE) is a broad term used to describe processes that treat waste materials to generate heat, fuel, gas, chemicals, and/or electricity. This can include equipment at landfills that capture and use gas to generate energy, anaerobic digesters that recover energy from food scraps or other biodegradable material, and plants that recover energy from specific waste streams.

We have WtE facilities within Auckland and beyond the city's boundaries. They include:

- Ecogas Ltd's anaerobic digestor in Reporoa which processes bulk food wastes, including Auckland's kerbside-collected food scraps
  - This enables recovery of a range of resources from bulk food wastes including heat, bioenergy, carbon dioxide and nutrients
- The Golden Bay Cement kiln in Whangārei which uses treated timber and end-of-life tyres as substitute fuels for coal and other consented industrial operations that use recovered waste engine oil
  - This enables energy recovery from materials that are otherwise difficult to recycle, particularly at scale
- Anaerobic digestors at Watercare's wastewater treatment plants
  - These enable energy recovery through the process that produces biosolids, turning methane into electrical energy, reducing greenhouse gas emissions
- Landfill gas-to-energy plants at all operational Class 1 landfills where Auckland's waste is disposed of, as well as at the closed Greenmount Landfill in East Tāmaki
  - This enables energy recovery from landfill gas that would otherwise be lost as heat when captured gas is flared.

[13] At the time of writing, the future of Waste Management NZ Ltd's proposed landfill at Wayby Valley in Auckland's north sits with the Environment Court.

## Contaminated land and closed landfills

There are approximately 180 Auckland Council-managed closed landfills across the region. Most sites are now used for other activities such as parkland, although some are used for industrial, commercial and residential purposes. Other council-owned land may be contaminated from past activities such as industrial, mining or agricultural uses that discharged hazardous substances into the land. This land is the responsibility of Auckland Council, whereas other contaminated land in the region (including closed landfills on private land) remains the responsibility of landowners. Management and activities on all contaminated land (council or private) is required to comply with the Resource Management Act 1991 and Natural and Built Environment Act 2023, among others.

# Te wāhanga tuatoru: te huarahi whai taunaki / Part three: the evidence base

# 12. Ngā ara wātea me ngā wero matua / Key opportunities and challenges

Everyone needs to take responsibility for us to achieve Zero Waste.

## 12.1. Partnering with others for greater impact

Partnering with other groups working in the waste sector is a key opportunity to reduce waste and preserve resources. It enables us to draw on the expertise of those who know the needs and values of their communities and customers, and to reach more diverse communities. Working more closely with others offers opportunities to draw on wider experiences, skillsets and resources, as well as in times of disaster when we need to support the community with their waste and recovery.

Partnering with others includes iwi, community and charitable organisations, CRC operators, the private waste sector and businesses, and other local and central government agencies. In many cases, partnering with groups operating as non-profit organisations requires long-term funding from the council to ensure they're well set up to train and retain skilled staff.

Partnership is key to addressing the 80 per cent of regional waste that council does not directly control. A significant action in this plan is for council to collaborate with business, industry and other key stakeholders to agree future resource recovery and waste infrastructure for this waste.

Examples of the way the council works with others to directly reduce waste include our work with groups providing community education and behaviour change initiatives (refer section 11.1), and our partnership with Community Recycling Centre operators.

We also seek to partner with industry and the tertiary education sector to stimulate waste minimisation innovation and initiatives, particularly for priority wastes such as organics, C&D, textiles and packaging, and plastics. Similarly, we actively seek partnership approaches in the way we work with our suppliers and contractors, as well as building relationships with waste operators in Auckland who are licensed through council's waste bylaw. As we continue to embed the council's Sustainable Procurement Framework across our organisation, there will be further opportunities to develop Zero Waste practices through procurement for significant projects, goods and services.


Photo of volunteers and staff at a repair café supported by Repair Café Aotearoa

## Changing hearts, minds and actions

Actions at the top of the waste hierarchy are best because they are more likely to protect the environment, including reducing the number of resources needing to be extracted from Papatūānuku. We've heard from iwi and the community that it is important to foster support for reducing the amount of single-use, disposable or unnecessary products that are consumed, and building a culture of sustainable design, re-use and repair. Changing regulations to support product stewardship, and durability and repairability of products, is part of a suite of solutions for getting to Zero Waste, along with consumer support for such change.

Actions to advocate for and support a repair economy where customers are enabled to have items repaired rather than replaced will be important. Similarly, there are opportunities for the waste sector to work more collaboratively for the best outcomes in waste minimisation and management. We will continue to advocate to businesses to support the direction of this plan.

## 12.2. Acknowledging te ao Māori and strengthening Māori partnership

The Zero Waste vision is aligned with the broader holistic framework and values of te ao Māori, described in section 5. Working with mana whenua to embed te ao Māori into our way of working through operationalising waste minimisation and management not only responds to the council's legislative requirements including recognition of te Tiriti o Waitangi, but it also strengthens environmental, social and cultural outcomes that benefit the whole community.

The mana whenua connection with their rohe spans hundreds of years, encompassing mātauranga developed over time, as well as an ever-lasting commitment to the wellbeing of that place and people. In working with Māori, the council recognises that mana whenua have a unique role and responsibility as kaitiaki for their respective rohe including preserving the environment for their mokopuna and future generations. In addition to engagement, outcomes specific to mana whenua may be expressed in relationship agreements developed together with the council, or other strategic documents provided by iwi.

We also work to support Māori outcomes as outlined in the Auckland Plan 2050, Kia Ora Tāmaki Makaurau 2021, and the Schedule of Significance to Māori 2021-2025. Inherent in working towards Māori outcomes is meaningful engagement with mana whenua and Māori to understand how the outcomes expressed can be brought to life.

Papatūānuku Kōkiri Marae

Papatūānuku Kōkiri Marae is a marae in the heart of Māngere and a model marae for Oranga Whenua, Oranga Tangata (healthy land, healthy people). Using the principles and practices of Hua Para Kore, the marae diverts waste from landfill while providing nourishment to Papatūānuku and helping their community to thrive. Through the Kai Ika project they divert fish heads (a delicacy for many Māori and Pacific communities) destined for landfill and turn them into delicious kai for those that need it most. Their thriving māra produces kai, reducing packaging waste, and turning any leftover scraps into compost to feed the earth.

### Para Kore ki Tāmaki

Para Kore ki Tāmaki is a Māori programme that integrates mātauranga Māori and Zero Waste principles and practice. Based on the concept of kaitiakitanga its success stems from a direct connection to the aspirations of whānau, hapū, iwi, and hapori Māori.

Ngāti Whātua Ōrākei has a long-standing commitment to Zero Waste. In 2013, Auckland Council partnered with them to work alongside marae across Tāmaki Makaurau to identify the most effective way of diverting para (waste) from Papatūānuku. For example, resources from the kāuta (kitchen) were used to close the loop enabling a return to traditional ways of gardening and keeping chickens and pigs.

The long-standing leadership of Ngāti Whātua Ōrākei in promoting a Zero Waste kaupapa in Auckland, and the nationally established Para Kore Marae Incorporated programme, were starting points for us to engage with mana whenua and mataawaka. This engagement led to a highly successful Māori-developed and implemented approach for Zero Waste in our region – Para Kore ki Tāmaki.

### Ae Ka Taea e Koe (Yes You Can)

Ae Ka Taea e Koe is a mobile community hub caring for Papatūānuku while educating, empowering and supporting whānau who have slipped through the gaps. This includes providing practical support for whānau to reduce waste through reusable nappies and sanitary products, as well as reducing food waste and eating well for less. During an 8-week pilot programme, they supported whānau to divert over 3647 nappies from landfill. This mahi continues today, as they protect Papatūānuku while showing whānau how to save money and providing much needed support and connection to mothers at a time they need it most.


### Onehunga Zero Waste

Synergy Projects is supported by Localised Limited and together they form the first Māori and Pacific peoples-led social enterprise to operate a Community Recycling Centre in Tāmaki Makaurau. The Onehunga Community Recycling Centre (OCRC) is part of the Resource Recovery Network (RRN) that supports Auckland Council's Zero Waste goal. In the first year of operation alone it diverted over 170 tonnes of waste from landfill. The OCRC continues to turn waste into resources while providing employment, boosting the green economy, and providing para kore education to the Onehunga community and beyond.

## 12.3. A growing challenge

Getting to Zero Waste is a sizeable challenge. It's highly aspirational, but requires global system-wide change, ingenuity and collaboration. If we continue on our current trajectory, we will be sending an estimated 1.7 million tonnes of waste to municipal landfill annually by 2040 which represents a huge waste of valuable resources and a substantial cost to the environment. The forecast for waste by 2040 has improved significantly from our forecast in the 2018 waste plan. Volumes of waste have shown signs of stabilisation in recent years despite growth in population and economic activity as seen in the Gross Domestic Product. While this appears to be good news, we do not have complete data for the whole waste system and are cautious in interpreting these results. For example, it could be that the COVID-19 pandemic created the stabilisation effect on waste quantities, and/or that some commercial wastes are being diverted to other classes of landfill. Regardless of how the trend is interpreted, the waste mountain is still growing, although more slowly than predicted in 2018.

There is also a new challenge on the horizon of dealing with significant volumes of biosolids from wastewater treatment that may go to municipal landfill in the 2030s once the rehabilitation of Puketutu Island quarry is complete. This would increase the projected waste to landfill to 1.9 million tonnes in 2040, if other opportunities to divert this material are not found.

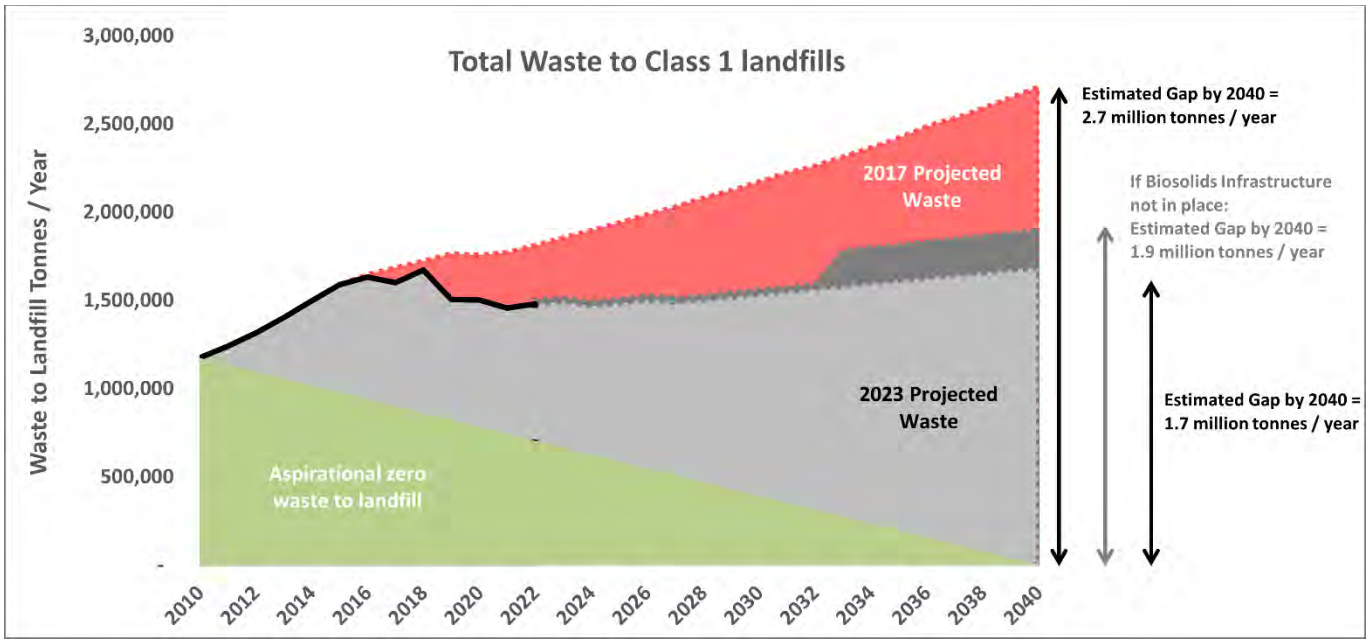



*Figure 5: Estimated and projected waste from the Auckland region going to municipal landfill annually*

### Key waste streams

Roughly 80 per cent of the waste to municipal landfill in 2022 came from the commercial sector including construction and demolition activities (refer figure 6 below). A small portion of those other activities will be from household waste that is dropped off directly to transfer stations and landfills or collected from households as inorganic waste or by businesses such as green waste collectors or skip bin operators, or second-hand goods that are donated to shops but not sold.

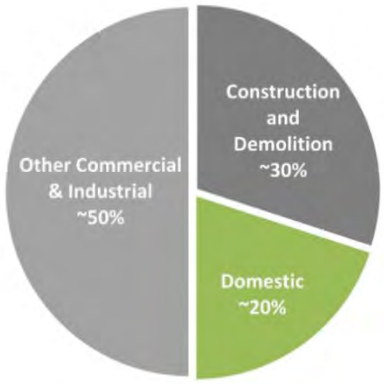



*Figure 6: Estimated sources of waste to municipal landfill 2022*

This means that the council has a direct influence over approximately 20 per cent of the waste that goes to municipal landfill including kerbside collected waste and waste that goes through the Resource Recovery Network (see section 11.4). However, the council has little influence over the remaining 80 per cent of waste. While our own operations and procurement practices can influence this sector – particularly within C&D – we have fewer tools to address this waste compared with domestic household waste where we provide collections. We intend to work collaboratively with relevant stakeholders to plan for and achieve change.

Information on the types of waste going to landfill helps us know where to target our efforts. Figure 7 below shows the types of waste going to landfill by weight and in terms of their greenhouse gas (GHG) emissions in landfill. Emissions apply to organic wastes only, with some materials releasing more GHG during decomposition than others.

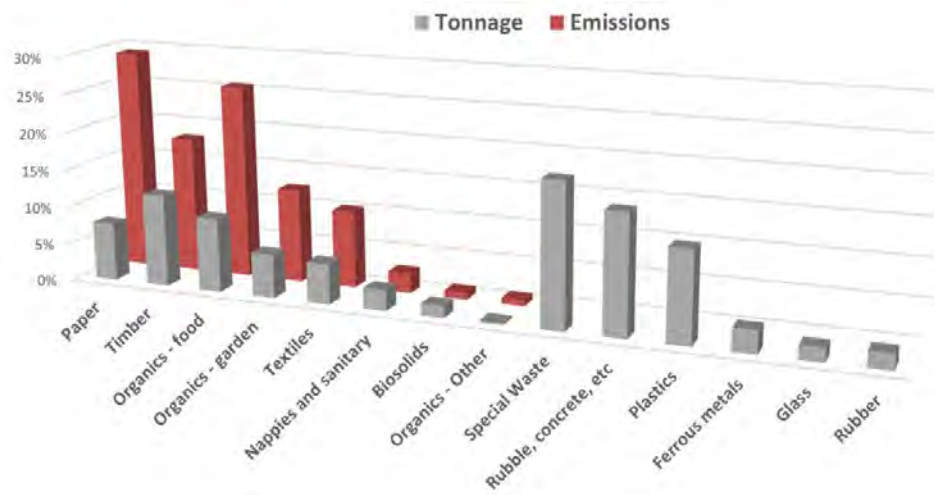



Figure 7: Estimated municipal landfill composition by tonnage and emissions ($CO_2$-e)[14]

[14] The Class 1 landfills in Auckland and nearby regions have systems to capture, flare or recover greenhouse gases from biogenic emissions. The emissions reported here are calculated based on fugitive emissions in alignment with Ministry for the Environment guidance. Special waste is a category of waste that includes potentially hazardous soils and sludges and other materials that need special treatment at a landfill facility.

The largest contributors to landfill are special wastes, which are largely soils that may be contaminated, sludges, or other materials requiring special handling at landfill sites. They are followed by rubble/concrete, and timber and plastics.

Understanding the sources of wastes and the activities that generate them is not straightforward, though changes to reporting regulations will support better information in the future. We estimate that more than half of the commercial waste going to landfill comes from C&D, including rubble/concrete and timber. Targeting waste produced from the C&D sector remains a priority for the council (refer section 12.4).

**Organics – a lost opportunity**

From a greenhouse gas emissions perspective, figure 8 below shows the highest emissions from waste materials in landfill.

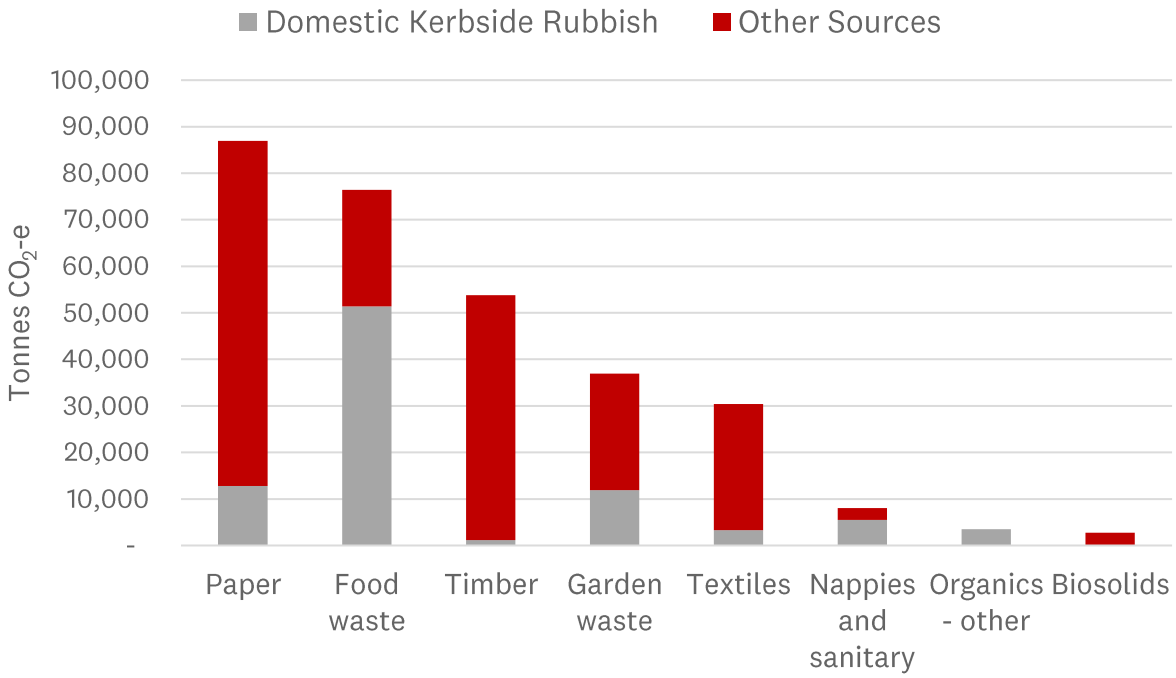



*Figure 8: Sources of landfill greenhouse gas emissions*

Food waste and nappies/sanitary waste are the main contributors to GHGs from domestic kerbside rubbish. However, most of the other emissions come from other sources. They are of special concern not just because they represent a loss of resources, but also because they contribute to our regional climate change emissions, and because food and green waste in particular could be used beneficially to replace imported synthetic fertilisers to grow more kai.

The kerbside food scraps collection we have rolled out across Auckland is working to reduce the approximately 67 per cent of landfilled food waste originating from households. In future, other community or local scale enterprises may also support additional households to divert food waste. However, large streams of food waste also come from businesses and retailers, and from wastage before food gets to retailers, e.g. loss and spoilage in the production and transportation of food.

Our research has helped improve our understanding of the activities that generate these waste streams including food and textile waste and some estimates of the proportions going to landfill. However, further

research is needed to better understand opportunities to reduce organic wastes in Auckland, including paper and garden waste going to landfill. Better understanding what waste is going to landfill will help us focus our efforts.

**Textiles and fast fashion**

Textile waste also represents a significant opportunity to make an impact given its high environmental footprint including embodied emissions during manufacture and transport, and the trend for fast fashion where items are quickly discarded and replaced. Donating them to charity shops provides a false sense that they are reused; an estimated 80 per cent of the amount acquired each year from these stores in Tāmaki Makaurau / Auckland goes to landfill.[15] Figure 9 below provides an overview of clothing flows (excluding workwear) in the region.

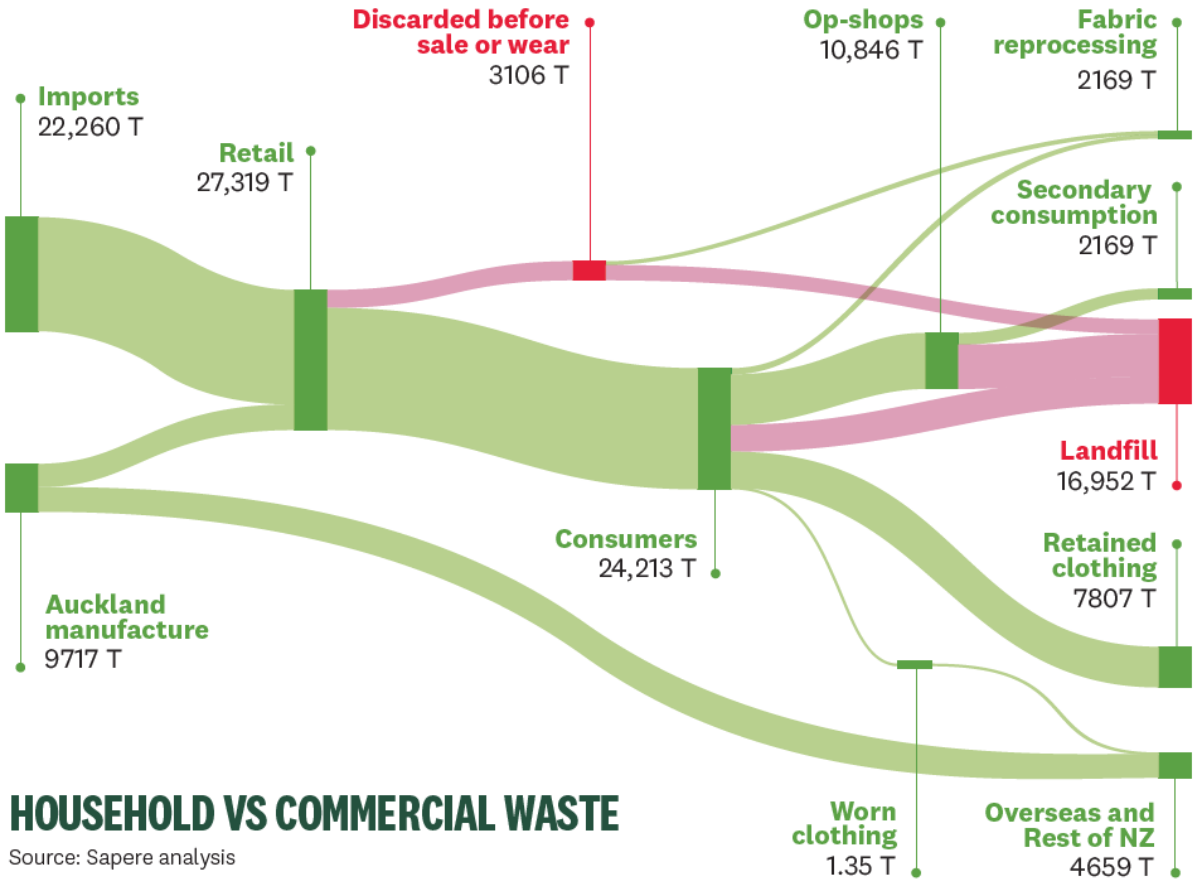



*Figure 9: Flows of fashion clothing through the Auckland clothing system*

Beyond clothing, textiles include fabrics such as bedding and towels, carpets and upholstery. There are limited opportunities to divert textiles in Aotearoa / New Zealand. Many recycling initiatives to date involve

[15] Refer Appendix I of the Waste Assessment: Fashion Clothing Consumption and Waste Flows in the Auckland Region; Sapere report for Auckland Council, Sept 2023.

downcycling of textiles. Better opportunities exist further up the waste hierarchy, such as changing attitudes about fast fashion and supporting regulation for better design and durability of products.

**Packaging and plastic products**

Much of the waste/resource recovery sector's services and resources, including the council's, focuses on managing packaging waste. Packaging often protects goods and products; however, it also creates a demand for materials including paper, plastics, metals and glass, representing a significant loss of embodied energy and resources, especially given the over-reliance on single-use packaging, fluctuating recovery rates and volatile recycling markets.

Packaging can include a variety of materials in a single item, e.g. containers with labels, sleeves and adhesives, which makes it hard to separate them for reuse/recycling. Packaging can also contain chemicals that are harmful to the environment and ultimately to people, e.g. chemicals used to make packaging repel grease and water. This also means that composting some 'compostable' containers is undesirable.

The recycling industry for key packaging materials has been under pressure in recent years, and further government regulation and investment is looking to drive changes towards more sustainable packaging choices and product stewardship. Most recently, new regulations have been introduced for standardising household recyclable materials collected at kerbside. These present an opportunity to encourage manufacturers to switch to a type of packaging that can be collected at kerbside for which there are recycling markets, to consider refillable/reusable container systems or the promotion of bulk buying to reduce single-use packaging.

Some businesses in Tāmaki Makaurau already provide customers with refillable or reusable packaging for goods and products ranging from groceries and takeaway food/drinks to personal care and cleaning products; however, they are not widespread. There are more developed markets for business-to-business reusable packaging solutions such as pallets, crates, kegs, Intermediate Bulk Containers, drums and jerry cans. Getting these containers or packaging returned for cleaning, refilling or reuse by others is a challenge. While some organisations have overcome this challenge by working collaboratively to develop infrastructure and systems, there is little evidence that systems are being developed at scale.[16]

Plastic waste, including packaging, presents specific challenges to the recycling sector as well as negative effects on the environment, human health and human rights. An estimated 190,000 tonnes of plastic is used annually in Auckland with most manufactured for consumer and commercial packaging. Only 13 per cent is estimated to be recovered for recycling.[17] Just over half of the plastics by weight in household rubbish bins are soft plastic bags and film packaging and can't be included in council recycling collections anywhere in New Zealand.

[16] Refer Appendix G of the Waste Assessment: B2B reusable packaging infrastructure and reverse logistics in Auckland, August 2023.
[17] Plastic going to landfill from the Auckland region is estimated to be 145,000 tonnes. Of plastics recovered for recycling, an estimated 30 per cent are exported, and 70 per cent are recycled domestically. Refer Appendix H.1 of the Waste Assessment.

Beyond packaging, other plastic waste is of concern given the embodied carbon it represents as many are produced from oil, and/or imported into New Zealand and they have negative effects when they enter the environment. Single-use plastic items, packaging, and other plastic materials are a significant source of litter in our environment. One initiative to reduce litter is the implementation of a national container return scheme for beverage containers of all material types to incentivise recovery rates. Central government recently deferred implementing such a scheme despite many countries overseas operating them successfully over long periods of time. At this time, it is uncertain whether Aotearoa / New Zealand will catch up on this opportunity.

**Biosolids**

Watercare is prioritising its planning for the future of biosolids, the nutrient-rich organic materials resulting from the treatment of wastewater. Currently, most biosolids from their operation are used to rehabilitate the Puketutu Island quarry. However, that will be complete in the early 2030s, and a new home and/or treatment options for over 200,000 tonnes of biosolids per year will be needed. Investigation of opportunities and constraints for applying biosolids to land, including regulatory barriers, is a key workstream in ensuring this resource continues to be used beneficially. Watercare will start working with mana whenua, communities and stakeholders to identify options to reduce and reuse biosolids and agree a plan for their future.

## 12.4. Construction and deconstruction – an opportunity and a challenge

Waste from the construction and demolition (C&D) sector represents more than 30 per cent of the total waste we send to Class 1 landfills. This is a reduction from our estimate of 40 per cent in 2017 which may be linked to the increases to the waste levy driving more diversion of C&D materials to cheaper classes of landfill. The estimate of 30 per cent is conservative as it doesn't include substantial quantities of virgin materials such as soils, clay, aggregate or rock that are disposed of at cleanfill (class 5) sites. It also doesn't include other C&D waste disposed of at managed fill sites (class 2-4), or waste created in the manufacture of building materials.

Photo of a house deconstruction project

C&D waste covers a variety of materials including concrete, rubble, plasterboard, cardboard, plastic pipe and film, window glass, ferrous and non-ferrous metals. Some of these materials such as concrete and cement add significantly to the carbon footprint of projects given the associated GHGs released in their manufacture and transport. C&D waste is created the moment a project is initiated, including the decision whether to refurbish an existing building or structure, or to start anew. Waste can be designed out of new projects by specifying products that can be reused or recycled at the end of their life, buying the right quantity of materials, using less wasteful building processes and techniques, and designing for deconstruction. Deconstruction refers to removing materials from buildings in a way that doesn't destroy their value for reuse or recycling.

We have actively partnered with tertiary institutions, social enterprises and the C&D industry to research C&D waste and techniques to reduce it. This has resulted in groundbreaking projects that have given us a better understanding of C&D waste and introduced and communicated new methods of minimising waste. This work has also supported new training and work opportunities for those working in the sector. The council is continuing to develop and showcase best practice in Zero Waste deconstruction and building within its own building projects (refer section 12.10). Project waste management plans are a key tool we promote to ensure waste is considered up-front in a project right from the design stage.

We've seen a willingness in the construction sector to reduce waste as new methods and alternative destinations for C&D waste emerge. However, there is still much to do to reduce C&D waste. As a large participant in this industry, the Auckland Council Group has opportunities to problem solve, role-model, facilitate, advocate and regulate for greater behaviour change from across the industry to reduce C&D waste.

## Dealing with soils

Every year, approximately two million tonnes of soils from the Auckland region are excavated and disposed of to landfill. Most landfilled soils are from land development, with slips and other natural events being a much smaller source.

There are a number of reasons why we have included soils within scope of this Waste Plan for the first time. These relate to the scale of this waste stream along with adverse impacts linked to relocating soils outlined below.

There are several reasons why soils are removed from sites under development, including the drive for flat building sites, regulatory requirements relating to classification and treatment of potentially contaminated soils, and the convenience and low cost of landfill. A key barrier to moving away from digging, transporting and dumping brownfield soils are attitudes to treating and keeping potentially contaminated soils on-site.

Reducing the amount of soil that is transported around the region would also mean less congestion and emissions from transport, and reduce materials filling up landfills. This is especially important as finding new sites for cleanfills which don't affect productive soils or important freshwater reserves[18] is increasingly challenging. Retaining soils on sites can also reduce the risks of erosion and reduce the risk of spreading local pathogens or pest plants.

Work is underway to identify different pathways for soil disposal and opportunities and barriers to divert soils from landfill, including potential changes to regulation and guidance.

[18] Including natural inland wetlands: refer to the National Policy Statement for Freshwater Management 2020.

**Collaboration to cut construction waste.**


When developer Nigel Benton set about creating a new eight townhouse development in New Lynn, he was determined that this project would treat construction waste differently.

Working with his builder, Windsor Construction, Nigel took on a challenge to prevent at least 90 percent of build waste going to landfill, with a policy of no skips on site. Working with Junk Run and the Unitec Te Pūkenga Unitec's Environmental Solutions Research Centre (ESRC), Marley and other circular programmes, the site team separated out major waste materials including timber and plastics. A total of 22,434 kg of waste was collected during construction and audited by Junk Run and ESRC, of which 18,442 kg was recycled or repurposed. Plastic waste made up 830kg of this collected waste.

The project also revealed materials that are harder to divert, highlighting the need for more work to be done on developing solutions for construction waste. This project strongly demonstrates that builders, contractors and manufacturers can stop a huge amount of construction waste going to landfill.

## 12.5. A growing mandate to reduce waste and support circularity

There is growing public support to reduce waste through a circular economy.[19] This is an opportunity to break the link between waste generation and economic and population growth. Many of the market forces and regulations that fuel this link are beyond the council's control; however, we can advocate for change at the national level and through international forums such as C40 cities (refer section 10.2). We can also directly support new initiatives to reduce waste as outlined in sections below.

### International context

New Zealand's reliance on overseas markets means we are vulnerable to international regulation and market forces. In some cases, it means we benefit from overseas regulation that impacts on the circularity of products we import. However, we can also be targeted as a market for goods that no longer meet overseas standards, such as repairability or recyclability, if our own regulation isn't robust.

More directly, New Zealand depends on overseas markets for some of our diverted waste, especially recyclable paper, some plastics and metals. The Chinese National Sword regulation of 2018 placed stricter standards on acceptable recycling, directly impacting on the cost-effectiveness of our recycling sector, including the council's own recycling operations.

### Aotearoa / New Zealand context

The scale and number of organisations involved in activities that retain materials in use, such as reuse and repair, is unknown, but there has been relatively high investment in the resource recovery sector in recent years which overall supports the diversion of wastes from landfill. However, the amount of material being diverted from landfill in Tāmaki Makaurau is roughly the same as it was in 2010 – approximately 1.5 million tonnes annually, despite growth in population and activity. Systemic change is needed to support opportunities for more waste diversion.

The new national Waste Strategy and government work programme outlined in sections 10.3 and 10.4 includes recommendations to increase action at the top of the waste hierarchy to tackle waste generation. We consider central government action is key to achieving Zero Waste by providing strong incentives and regulating changes required to our existing waste system. This includes tools such as laws supporting a right to repair,[20] import bans of problematic products, extended producer responsibility / product stewardship schemes, and increases to the waste levy. If we can support a new focus on actions at the top of the hierarchy, then future demand on the waste services and infrastructure provided by the council

[19] For example, public consultation in 2021 for the government's new waste strategy and legislation drew nearly 2500 submissions with a high level of support for transforming the way we manage waste and moving towards a circular economy.
[20] For example, ensuring that products put on the market in New Zealand meet basic standards of durability and repairability, and that product stewardship schemes cover the costs of repair, recycling or recovery.

could reduce, saving ratepayers money and making the resource recovery sector more resilient and creating better outcomes for the environment and communities.

**What about product stewardship?**

The container return scheme (CRS) is an opportunity to reduce litter and increase the number of containers that are reused and recycled. It could also provide an opportunity for community recycling centres and materials recovery facilities to generate income from handling fees. In section 10.4 we noted that central government proposed a nationwide CRS. Submissions widely supported the proposal, but at the time of writing the decision to implement the CRS has been deferred.

Similarly, mandatory product stewardship schemes[21] for relevant businesses are likely to have greater success than voluntary schemes where non-participating businesses can undercut the costs of those who have joined the scheme. Auckland Council strongly supports extending these schemes to further products over time. We also strongly support the involvement of mana whenua, community organisations and the Resource Recovery Network together with local government in designing these schemes so they reflect a balanced set of outcomes across environmental, cultural, social and financial interests.

**The local opportunity and the wider landscape**

Auckland's status as the country's largest commercial centre creates opportunity for new businesses to develop in the resource recovery sector and drive change. Central government is also looking to support development of the circular economy through a national Circular Economy and BioEconomy Strategy, together with Action and Investment Plans (AIPs). AIPs will guide and coordinate delivery towards achieving the national waste strategy. At the time of writing, central government's first AIP is being drafted with input from local government, among others. It will cover actions for the next five years with a strong focus on investment and infrastructure. While we will always advocate for outcomes that will work best for Auckland communities, we recognise working together with other regions will be needed to support better outcomes for a circular economy in the country.

## 12.6. Maximising household diversion

Varying our kerbside collection services is where the council can directly influence the amount of household waste going to landfill, and importantly, reduce GHG emissions.

Key initiatives to reduce waste from household collections are:

- encouraging Aucklanders to use their rubbish, recycling and food scrap bins correctly, including those in multi-unit developments using communal bins
- extending the food scraps collections to other areas of the region

[21] Six priority products are regulated by government as requiring a mandatory product stewardship scheme – plastic packaging, e-waste, refrigerants and other synthetic GHGs, agri-chemicals and their containers, and farm plastics.

- encouraging householders to use the council's inorganic collection service and the network of Community Recycling Centres, as well as promoting accredited product stewardship schemes
- moving to fortnightly rubbish collections subject to a trial and further consultation, while looking to support households with high waste needs, and to incentivise those who manage with even fewer collections.

From the end of 2024 we will be finalising provision of a rates-funded refuse service across the region with a choice of three bin sizes as a cost-effective, equitable and climate friendly option to minimise waste.[22]

We also think that investigating opportunities to reduce nappy/sanitary product waste and household garden wastes going to landfill is important. Options to reduce these waste streams include possible opt-in council-supported household collections.

Photo of family using the food scraps bin

[22] This involves moving households in the former Auckland areas of Waitākere City, North Shore and Papakura from the council-provided pay-as-you-throw rubbish collection service (pre-paid bags/bin tags) to a targeted rate service. This decision was made by the council following public consultation in 2022. Refer Annual Budget 2022/2023 Volume 1 (aucklandcouncil.govt.nz) for further information.

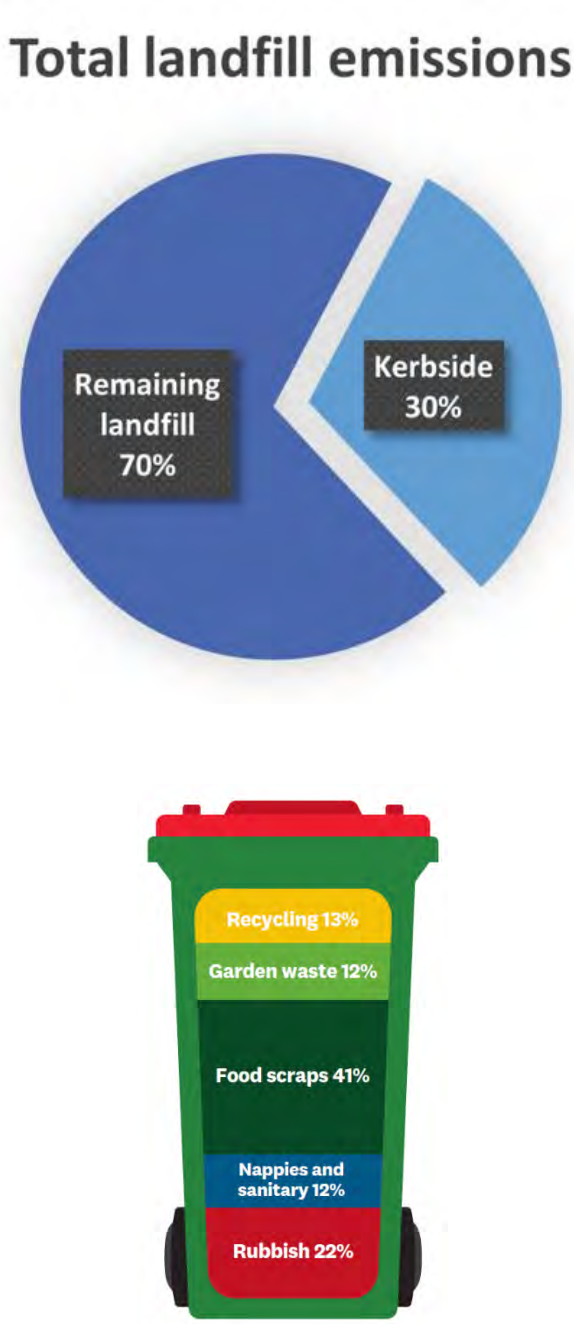



*Figure 10: Audits of rubbish bins in 2023 before food scraps bins were rolled out and contribution of kerbside waste to municipal landfill emissions (2022)*

Key points from these figures include:

- There is a lot of food waste that could be diverted into composting or into food scraps collection bins.
- Much of the garden waste is home waste or commercially compostable.
- Organic materials like these are of particular concern because they release GHG in landfill.
- Kerbside rubbish contributes 30 per cent of the total emissions from landfill due to its high organic content.

In addition to organic materials, 13 per cent of the bin contents were items that could have gone in recycling bins. Similarly, the volume of inappropriate items in household recycling bins, such as bagged materials and textiles, nappies, soft plastics and food or liquids, was high. In 2023, the percentage of contamination in recycling bins, such as non-recyclable or soiled/bagged recyclable materials that could not be sorted, has increased to over 20 per cent compared with a target of 12 per cent maximum contamination. Our rates of contamination are much higher than those in other parts of the country and overseas.

After organic materials, the next largest waste stream in household rubbish by weight is nappies and sanitary products, at 12 per cent; and this will increase as more food scraps go into the new food scraps collection service.

## Extending our food scraps collections

We will look at opportunities to extend our food scraps collections to other areas of the city such as the inner city and other urban areas not currently within our rollout area. This includes exploring options for local scale food scraps solutions with multiple benefits including strengthening community partnerships and regenerating the soil.

As the city intensifies with more multi-unit developments (MUDs) including apartments, it will be important to ensure these developments have enough space in convenient locations for storage of food scraps bins in addition to rubbish and recycling and access for collection. Many MUDs rely on communal bins where there is not enough space on the road berm for kerbside collection. However, communal bins make it less clear which households are reducing their waste or which households are not using bins correctly. It is important that residents use communal bins correctly.

It is also vital to ensure integrated planning of our city and town centres including with waste considerations in mind so that we achieve a high quality, safe, accessible urban streetscape that serves the waste needs of businesses, residents and waste collectors.

## Fortnightly rubbish collections – an important step

Moving from weekly to fortnightly rubbish collections is a key opportunity to keep recyclables and food scraps out of rubbish bins, leading to greenhouse gas emissions savings of as much as 50,000 tonnes of $CO_2$-e per year (equivalent of 30,000 average-size cars). This is because people are more likely to put their food scraps and recycling in those separate bins and to look for other ways to reduce their waste, such as taking items to a community recycling centre or a relevant collection point.

Collecting rubbish less frequently is very common overseas with a growing number of areas in England and Wales now moving to three-weekly or monthly rubbish collections. In this country, Hamilton and Central Otago have already moved to fortnightly 120L rubbish bin collections.

Once the food scraps service is bedded in, a standard fortnightly rubbish service is expected to meet the needs of most residential households. For households needing extra support, we can offer alternatives to ensure they aren't left struggling with a bin capacity that doesn't meet their needs. For example, a large

household could have a larger 240L rubbish bin which would be a similar rates cost (or possibly less) to their current service of a weekly 120L bin. This is because the largest contributor to the costs of providing the kerbside service is linked to the collection of the bins, rather than the cost of the disposal of bin contents. A fortnightly service means less time is spent collecting (once every two weeks instead of weekly), reducing those collection costs.

A fortnightly rubbish collection would apply region-wide to all properties that currently have a weekly rubbish bin or bag service.[23] Exceptions are rural areas and settlements and the Hauraki Gulf Islands, where further investigation is needed on how to support the transition.

Our initial research has shown that education and engagement can lead to large households managing with a fortnightly rubbish collection. The importance of education and engagement will likely increase as more services to divert both kerbside and community household materials grow, and with increasing population diversity.

It will also be important to consider how to reward and incentivise householders who are very low waste producers, e.g. an option for lower rates charges for households using a smaller rubbish bin or for those who only use the service monthly.

Evidence on waste reduction and impacts of moving to a fortnightly rubbish collection is outlined in Appendix 1.

## 12.7. Developing the Resource Recovery Network (RRN)

The Resource Recovery Network (RRN) is a key council initiative in developing infrastructure to deliver a circular economy for Tāmaki Makaurau / Auckland. The current network is planned to expand to 21 community recycling centres and two resource recovery parks by 2031 in accordance with the Resource Recovery Network Strategy 2021 (refer Appendix 4). This will mean that most Aucklanders will be within easy reach of a centre.

Alongside expanding the RRN, we will continue supporting the existing network to grow its capacity and reach. An important element of this is the partnership approach taken with the operators in recognition that the operators themselves know best the needs and ways of working with their local communities. This includes reaching out to iwi on opportunities for partnerships as new sites are developed.

The RRN is a critical element of the council's response to managing waste in a disaster (refer section 12.8). It also provides options for working with businesses and central government to support product stewardship initiatives such as a beverage container return scheme.

[23] Areas such as the city centre needing a more frequent collection service, or multi-unit developments (MUDs) where storage space constraints preclude a standard three bin collection service, would not be affected.


Photo of school group at the Onehunga Community Recycling Centre

## 12.8. Climate change and emergency responses

Responding to the challenge of climate change is a key priority for Auckland Council. This involves actions to reduce our greenhouse gas emissions through reduced consumption-emissions and emissions generated by disposal, dealing with climate-related risks and looking at the opportunities that may arise.

In addition to climate-related disasters, other natural and human-made emergencies require urgent responses. These can result in significant amounts of waste from damaged properties, assets and possessions, along with waste streams such as ash, sediment, vegetation or hazardous wastes.

### Reducing emissions

Emissions from landfilled wastes account for approximately 2.4 per cent of Auckland's total emissions profile.[24] These come from organic materials disposed of in landfills with some materials, such as paper and cardboard, having high emissions factors that make their footprint far larger than would be expected (refer figure 11). Section 12.3 - about key priority (organic) waste - provides further information on key organic waste streams. Focusing efforts to reduce organic materials will support meeting our climate change obligations.

[24] Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan, December 2020

Emissions can also be avoided by applying the waste hierarchy to reduce our need to extract new materials in the first place, in turn reducing emissions related to production, transportation and consumption. A well-used RRN and circular economy should also ultimately result in fewer greenhouse gas emissions.

From a council perspective, information on embodied carbon of materials (where available) and emissions from transport and energy associated with collecting and processing waste are other common greenhouse gas factors to consider when making decisions on important waste issues.

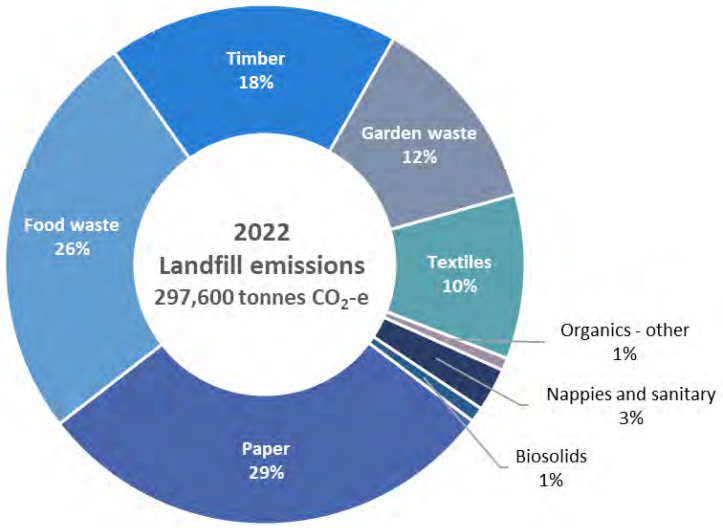



*Figure 11: Sources of landfill emissions from municipal class 1 landfill (2022)*

## Dealing with emergencies

Auckland's planning for emergency management recognises the value of local knowledge and connections. It is important that planning covers resources and tools to deal with emergencies, describes roles and responsibilities, and considers opportunities for diverting disaster waste to beneficial re-use.

The resilience of Auckland's resource recovery and waste service networks was tested in early 2023 when two weather events impacted Auckland within sixteen days of each other. Unprecedented rainfall caused flooding across the city on 27 January and Cyclone Gabrielle hit on 12 February, causing further widespread damage. Auckland Council was inundated with requests from flood-affected residents needing help in removing their flood-damaged belongings.

Private sector waste operators provided the council with invaluable support in collecting flood-damaged belongings, distributing and collecting skips bins and flexi-bags, and opening private transfer stations to contribute to the network of 15 drop-off points for residents across the region. For the first time, demolition/deconstruction companies with heavy lifting machinery also assisted with the emergency response effort.

These efforts were supplemented by countless volunteers alongside Auckland's network of Community Recycling Centre operators who were both receiving and collecting flood damaged waste, while at the same time, receiving, collecting, sorting and distributing reusable items and donations free of charge to those in need.

This experience showed that the complementary services of private sector waste collection and demolition contractors and the community resources of the RRN are essential components of a resilient waste network and in preparing for future disaster events.

### Planning future assets and services

An important element of futureproofing the waste system is ensuring the council plans for existing and future assets with climate change impacts in mind. This includes future-proofing council CRCs against future flooding events.

Responses to our changing climate may also mean Aucklanders may need to change where they live, including potential for managed retreat from coastlines or out of floodplains. Ensuring that structures are relocated or deconstructed with their materials re-used or recycled rather than demolished is part of prudent planning.

Other impacts of climate change may range from responding to the invasion of new pest plants or diseases into the region requiring careful disposal of plant waste through to impacts on collection services related to changing climate patterns.

## 12.9. Addressing sustained litter and Illegal dumping

Auckland Council cleans up an average of 136 tonnes of illegally dumped items every month, costing ratepayers around $2.6 million per year.

Ongoing litter and illegal dumping is very distressing to iwi, the community and the council, not only because it is unsightly, but because it harms freshwater, marine life and soils. This is especially true where litter or dumping contains hazardous substances or plastic items[25] that deteriorate into microplastics over time.

We tackle litter and illegal dumping with education and clean-up campaigns, our staff investigate and take action to address behaviours and to remove the mess, and litter bins are provided in public spaces.

[25] Of the approximately 190,000 tonnes of plastics used annually in Auckland, around 20,000 tonnes/year are unaccounted for – meaning these materials are either stockpiled, in flux, or lost to the system, including an estimated 44 tonnes of plastic litter: Auckland Plastic Flows: Plastics Diversion in Tāmaki Makaurau. Report for Auckland Council. Eunomia. 8 September 2023.

Photo courtesy of Earth Action Trust

The review of the 1979 Litter Act proposed by central government at the time of writing is a key opportunity to strengthen regulatory tools to address this issue. Enforcement, through instant fines and prosecutions in more serious cases, acts as an effective deterrent especially when publicised. The beverage container return scheme proposed by the government (refer section 12.3) would also reduce litter volumes, however there is no timeline for its introduction at the time of writing this plan. The council will continue to advocate for this scheme to be implemented and other product stewardship schemes for items that are frequently littered or dumped.

Working with organisations who target litter such as Keep NZ Beautiful, Be a Tidy Kiwi, and Sustainable Coastlines is important to both collate data on litter and to research and target key community interventions and education campaigns. These organisations, and local initiatives such as community clean-up events, receive various forms of support from the council (refer section 11.1).

## 12.10. Leading the way within the council

Auckland Council is a large buyer of goods, services and works – with an annual spend of over $1 billion. Where possible, we use our spending power to deliver positive social, economic, environmental and cultural outcomes for Aucklanders. Each year, we carry out a wide range of activities and projects that generate a variety of waste streams. Demonstrating best practice in waste minimisation within the council is a clear

opportunity to change the way our staff and suppliers approach waste minimisation. It can create downstream opportunities such as using waste from one project as a resource for another; developing new innovative practices and enabling our suppliers to offer better ways of working to other customers.

Initial data collection indicates that C&D together with soils and biosolids are among the largest waste streams from our activities.

Currently, most biosolids from Watercare's operation are used to rehabilitate the Puketutu Island quarry. However, that will be complete in the early 2030s, and a new home and/or treatment options for biosolids will be needed. Further information on this is outlined in section 12.3 above.

Much work has already been done to pilot ways of constructing new infrastructure and buildings to minimise C&D waste. Now, we want to embed these ways of working as the new norm.

Setting baselines and targets for our operational waste is a key initiative for ensuring the council monitors progress to achieve gains in getting to Zero Waste. We are also working across the Auckland Council Group to ensure our procurement of contracts include waste considerations, that C&D activities include site waste management plans initiated right from the design stage, and that we work with waste management companies who provide best practice in our projects.

There is much more we can do to achieve Zero Waste across the council, focusing on designing out waste from the very start of projects through developing site waste management plans. Work to reduce waste sits alongside initiatives to improve our carbon sustainability and strengthen other environmental, social and cultural outcomes through our work.

### City Rail Link

The City Rail Link project (funded by central government and Auckland Council) is a benchmark-setting project for sustainable infrastructure in New Zealand. The project has used the Infrastructure Sustainability Council standard, obtaining certification with an 'Excellent' and a 'Leading' as built rating in 2021 and 2022 respectively.

One of the five key focus areas of the project's Sustainability Strategy is Zero Waste to Landfill. In 2021, Link Alliance and the TROW Group were joint winners in the innovation category of the 2021 Zero Waste Awards for their work on the Mt Eden demolition works for the project, in which they achieved 98% diversion of demolition waste to landfill through deconstruction of multiple buildings and relocation of two historic buildings.

In 2022, the project: diverted 57,802 tonnes of waste from landfill (which excludes the 1,087,678 tonnes of spoil also diverted from municipal landfill); reused 6,508 tonnes of waste; and removed 8,170 truckloads of concrete from the project's carbon footprint by replacing cement with fly-ash.

## 12.11. Data limitations

We still have limited access to data and information to quantify the tonnages and types of wastes and materials that flow through the entire system, as well as associated GHG emissions generated at each stage of the value chain.

Since the introduction of the Waste Minimisation (Information Requirements) Regulations 2021, operators of all landfills and transfer stations have been required to measure and report waste materials at their site to the Ministry for the Environment, including cleanfill and industrial monofill sites since January 2023. This is expected to give a detailed and accurate appraisal of waste disposal nationally which should also improve our understanding of waste disposal at a regional level.

## 12.12. Innovation and technology

Innovation and technological changes are increasingly creating opportunities and challenges for waste management. These include:

- gathering data relating to waste
- systems and processes to design products
- systems and processes in managing waste and recovering value
- information available to consumers and customers
- advances in materials available for making products or structures.

Many innovations hold great promise in supporting waste reduction and increasing product circularity. Continual research and development are happening globally and locally to explore ways to recover more value from waste material, whether food, e-waste, plastics and others. Emerging technologies using robotics, artificial intelligence (AI) and digital platforms offer opportunities to improve collection and sorting methods and access waste data, as well as supporting reverse-logistics or sharing services for products or materials. Technologies that can loosely be defined as molecular recycling[26] are helping to address the global issue of plastic waste including textile waste and reducing the reliance on down-cycling materials.

However, some innovations can also raise challenges for waste management. For example, lithium batteries – used in an increasing number of consumer products – are prone to catching fire especially when compacted in kerbside collection trucks or waste management facilities. As at September 2023, we have had 56 fires in trucks or at our waste facilities in just under four years.[27] These fires mean that truckloads of recyclable or rubbish material are destroyed and pollutants emitted to the environment, as well as presenting a significant health and safety risk. While batteries are included in the scope of the e-waste

[26] Molecular recycling breaks down materials at a molecular level before reconstituting them; increasing the number of times that products like plastics and textiles can be recycled.
[27] Since January 2019.

mandatory stewardship scheme (refer section 12.5), the design and implementation of such a scheme remains years away.

Another challenge lies in composite materials[28] which have become increasingly common across a number of industries, providing superior properties such as strength, durability or weight. Some composites may have the bonus of a lower carbon lifecycle. However, these products are not easily separated into their component parts, making them difficult to reuse or recycle.

In recent years, the development of a product stewardship scheme for large batteries has been co-designed by industry with support from the Ministry for the Environment in recognition of our vehicle fleet decarbonising and the need to consider how the growing number of EV batteries can be recovered for reuse and recycling. Consideration of end-of-life options for new products should be a consideration when they are being designed.

## 12.13. Energy from waste

Energy from waste systems in Tāmaki Makaurau / Auckland are outlined in section 11.7. These include systems to capture gases from landfills and from anaerobic digestion; and to generate energy from single problematic waste streams. These versions of energy from waste are generally considered appropriate because they:

- recover landfill gases which would otherwise be released to air, e.g. as GHG.
- recover energy from single waste streams such as tyres and treated timber that don't have an alternative reuse or recycling solution at scale.
- use anaerobic digestion (AD) technology, which recovers value from specific organic wastes and is generally a more cost-effective solution with fewer environmental/social risks than other energy from waste technologies like incineration or other thermal processing technologies.

The use of AD for processing organic wastes is consistent with national policy direction, including the New Zealand Waste Strategy.[29] Importantly, the council also supports other organic waste processing solutions such as composting, animal feed and worm farms that do not generate energy for re-use but still return nutritional value to animals and the land.

Any new proposal for energy from waste should be assessed against the key guiding principles outlined below by the Ministry for the Environment,[30] including alignment with this plan's vision, principles, goals and objectives:

[28] Composite materials are materials produced from two or more other materials – usually with very dissimilar characteristics. Common examples include liquid paperboard (e.g. used in Tetrapaks) and laminated flooring.
[29] Refer to the waste hierarchy in the NZ Waste Strategy which shows anaerobic digestion and composting alongside recycling, above recovering value.
[30] Ministry for the Environment, 2020. A waste to energy guide for New Zealand - Factsheet. Published by the Ministry for the Environment, August 2020. INFO 964.

Principle 1: The proposal should support the goal of moving New Zealand steadily up the waste hierarchy towards a circular approach to managing resources.

Principle 2: The environmental impacts must be well managed, especially the greenhouse gas emissions.

Principle 3: The proposal must be commercially viable over the long term.

Principle 4: There should be a strong level of support from the community and Treaty partners.

A review of different energy from waste technologies is provided in Appendix C of the Waste Assessment, including discussion of implications within the Auckland context. There is a risk that investment in large scale waste disposal infrastructure will promote ongoing disposal rather than a circular economy and waste minimisation. A key action in this plan is to seek collaborative planning with industry, iwi and other key stakeholders to assess future infrastructural needs to manage waste in the region while supporting the Zero Waste vision.

# 13. Ngā kōwhiringa kua whakaarotia / Options considered

Based on the findings of the Waste Assessment 2023, we have evaluated two options for the future direction of the waste plan in Auckland:

- Option 1: full implementation of the Waste Management and Minimisation Plan: Working Together for Zero Waste, 2018 (status quo)
- Option 2: considering the drive for a low waste and low emissions economy, continue to deliver the waste plan 2018, plus extend activities into new priority waste areas and areas of advocacy to influence the demand side of waste services, facilitating and supporting solutions that reduce waste by taking action higher up the waste hierarchy, and a focus on empowering iwi and community partnerships.

The first option would meet the council's responsibilities under the Waste Minimisation Act 2008 to minimise waste in the Auckland region, but not at the pace required to achieve a circular economy and the Zero Waste vision, as required by the Aotearoa New Zealand Waste Strategy, and significantly address waste-related climate emissions, as required by both Te-Tāruke-Ā-Tāwhiri and the national Emissions Reduction Plan. Option 2 is therefore the preferred option.

Option 2 provides scope to achieve significant reductions in waste to landfill. It does not require capital or operational investment beyond existing business-as-usual budgets, and the capital investment proposed is within the long-term plan budget for the expansion of the Resource Recovery Network. The actions rely on council capability and resourcing, alongside collaborative efforts with external partners and stakeholders. Should specific council-led research or advocacy actions identify the need to implement new initiatives, separate business cases will be required, and where appropriate, finance sought through central government funding for infrastructure and enabling private sector investment.

# Te wāhanga tuawhā: ngā mahi me te whakatinanatanga / Part four: actions and implementation

## 14. Te mahere mahi / Action plan

The actions in this plan reflect the council's policies in outlining the work we will do towards the goals, objectives and targets of this plan. Our actions are underpinned by the principles (refer section 6) which also function as assessment criteria for making decisions on waste issues and opportunities.

The actions are grouped to reflect the twelve key priorities (refer section 8). Additional actions have been aligned to the two goals (refer section 7).

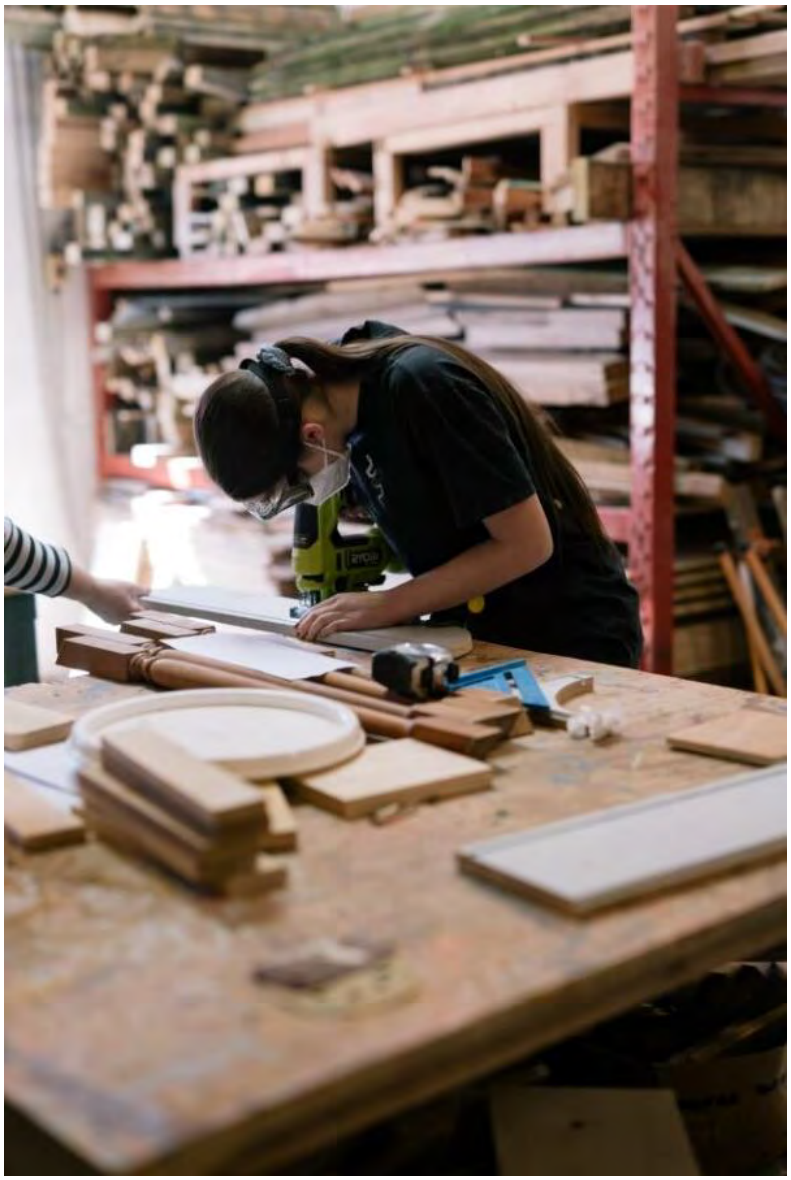


Photo of woodworking at the ReCreators

# EMPOWER PARTNERSHIPS WITH IWI AND COMMUNITY

## 1. Strengthen ways of working with mana whenua and deliver on Māori outcomes through waste initiatives.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 1.1 | **Working effectively with mana whenua** | Continue strengthening relationships with mana whenua and seek opportunities to work closely for example in procurement, developing submissions and policy, projects and programmes. | Mana whenua can demonstrate rangatiratanga and kaitiakitanga of the whenua and wai in their rohe. The people of Tāmaki Makaurau see the expression of te ao Māori, Māori culture and te reo Māori through projects and initiatives. |
| 1.2 | **Delivering waste minimisation with Māori** | Support Māori organisations to deliver waste minimisation programmes in a way that supports Māori outcomes. | Māori outcomes such as employment and environmental opportunities are strengthened; and whānau, hapū, iwi and marae are better connected to para kore. |
| 1.3 | **Te ao Māori approach** | Work with mana whenua to further develop the approach to waste based on te ao Māori, mātauranga Māori and tikanga. | The approach to waste management and minimisation decision-making benefits from the wider wisdom, learnings and perspectives from te ao Māori. |
| 1.4 | **Achieving wider Māori outcomes through waste minimisation** | Work with Māori to explore opportunities for participation in waste minimisation and resource recovery initiatives and other contracts. | Involvement at the start of development of new projects through hui or existing forums to enable te ao Māori to influence activity. |
| 1.5 | **Para Kore ki Tāmaki – expansion** | Continue the development and delivery of the Para Kore ki Tāmaki programme to support marae, kura and Māori organisations on their para kore journey through te ao Māori. | Marae, iwi, hapū, whānau, kura kaupapa Māori, kōhanga reo, and Māori organisations are supported to reduce their waste. |

## 2. Continue expanding and strengthening the Resource Recovery Network and its services.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 2.1 | Resource Recovery Network – delivery | Continue delivering the RRN as outlined in the Revised Resource Recovery Network Strategy 2021 and guided by the Auckland Council and Community Resource Recovery Network (ACCRRN) leadership group. | By 2031, Auckland has 21 Community Recycling Centres and two Resource Recovery Parks where residents can take unwanted goods and materials to be reused and recycled. |
| 2.2 | Resource Recovery Network – special services | Support continued development of the RRN to support waste reduction of priority waste streams such as C&D waste, and as takeback facilities for key product stewardship schemes funded through those schemes. | The RRN continues to evolve as a network of facilities dealing with significant waste streams. |
| 2.3 | Waitākere Resource Recovery Park | Complete the upgrade of the Waitākere Refuse and Recycling Station as a full Resource Recovery Park in accordance with the RRN strategy. | Redeveloping the council's Waitākere facility provides an ideal opportunity to divert a much greater amount of waste from landfill. |
| 2.4 | Resource Recovery Network – inorganic services | Continue integration of CRCs and inorganic collection through the operation of the two inorganic collection warehouses. Review the inorganic collection contract before it ends to investigate future potential delivery through CRCs. | Increased efficiencies of operation and greater diversion of resources from landfill back into the community. |
| 2.5 | Understanding Resource Recovery Network impact | Continue developing measures for monitoring and evaluating the Resource Recovery Network to support further improvements | The Resource Recovery Network continues to improve its practices and services to remain effective and relevant to the needs of Aucklanders and options to divert waste. |

# TARGETING SPECIFIC ACTIVITIES AND MATERIALS

## 3. Target construction and demolition (C&D) waste (see also Auckland Council Group operations).

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 3.1 | C&D industry – best practice | Promote best practice and celebrate success in reducing C&D waste.<br><br>Methods include the Building Out Waste (www.buildingoutwaste.co.nz) platform, on-site support, events, case studies, communications and promoting training and accreditation programmes. | C&D related businesses adopt best practice in avoiding waste, influencing others across the industry. Groups such as the Sustainable Business Network, WasteMINZ, the Construction Sector Accord and Green Building Council are recognised as having a key role in driving change. |
| 3.2 | C&D – waste brokering | Continue to promote waste brokering both as a profession and through online platforms so that usage is widespread, enabling construction and demolition materials to be effectively re-used or recovered | A system that enables the exchange of construction and demolition materials between producers and end markets would have a major impact on the amount of waste sent to landfill, and would support the growth of a circular economy for construction. The system could be linked to the Resource Recovery Network. |
| 3.3 | C&D materials – recovered materials markets | Accelerate work with the construction and demolition sector to identify issues and opportunities around developing markets to support use of recovered materials and products that are more easily recoverable, including finding solutions to blockages that limit their use. | Materials currently sent to landfill or cleanfill can be diverted to markets, helping to create a circular economy in Auckland. |
| 3.4 | C&D industry – research and tools | Continue to support and promote research and development of topics, tools or resources to reduce waste. Provide industry with data and information that supports taking action on C&D waste. | Industry better understands the benefits of preserving resources and how best to do so. They are equipped with tools/resources to support waste minimisation. Opportunities for a circular economy are better supported. |
| 3.5 | C&D industry – behaviour change | Work with the C&D industry including suppliers, developers, designers, retailers and tradespeople to determine research, support or actions required to achieve waste minimisation. Includes focus on specific issues | Businesses in the construction and demolition sector have a better understanding of barriers and opportunities for waste minimisation. Poor building site behaviours are addressed and rectified. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| | | associated with illegal dumping and poor site management. | |
| 3.6 | C&D industry – focus on specific materials | Work to reduce reliance on building materials that are harder to reuse or recycle at end of life, or that create an environmental or health hazard, including expanded polystyrene and fibre-cement.<br><br>Support actions to better manage problematic building materials that present an environmental or health hazard during removal. | Industry groups use recovered materials and choose products that are less likely to contribute to landfill at end-of-life or contribute to environmental harm.<br><br>Risks to health and environment are reduced. |
| 3.7 | Support mandatory site waste management plans | Support legislative changes to require site waste management measures and consider options to reduce C&D waste through the waste bylaw depending on central government action. | Measures to reduce C&D waste and to re-use recovered materials become widespread, implemented from design through to deconstruction and build phases of projects. |
| 3.8 | Soils and spoil | Advocacy, research and action to support the reuse and on-site treatment of soil and spoil, including a review of the regulatory framework and advocacy for updating national guidance and policy for contaminated land. | More options are available to re-use soils on site, reducing volumes that are transported to landfill, including adverse impacts associated with transport costs and GHG emissions and possible cultural impacts of moving waste to another rohe. |

## 4. Focus on five priority waste streams (organics, plastics, packaging, textiles, biosolids).

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 4.1 | Support onshore processing | For priority waste streams, continue seeking opportunities to divert materials from council services/operations to support local or domestic markets where possible. | A greater number of organics, C&D, plastics and packaging, textiles collected via council services and/or at council facilities (RRN/Material Recovery Facility) are recovered and recycled onshore. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 4.2 | Commercial and industrial food waste | a) Continue to support research to identify solutions for commercial and industrial food waste with an emphasis on large industrial food waste producers.<br>b) Investigate ways to facilitate connections between small organic waste producers (e.g. cafés) and local collectors and/or processors (e.g. food rescue initiatives, community gardens, Compost Collective, Community Recycling Centres, and food scraps collection/processing services). | Industry has the information it needs to invest in and implement waste diversion strategies.<br><br>Cafés, restaurants, food retailers and other small food waste producers are helped to find alternate solutions for their food scraps. Small food waste collectors and processors are linked to those producers. |
| 4.3 | Community organic waste facilities | Work with iwi, community and a range of stakeholders to:<br><br>a) understand opportunities and challenges in establishing community organic waste processing facilities and developing alternative, local solutions for organic waste diversion. This includes looking at barriers linked to the regulatory framework and identifying expertise and scalability of community initiatives.<br>b) develop a strategy for diversion of food scraps in areas without collections in a way that supports local complementary community initiatives while realising the benefits of large-scale processing at Reporoa. | Households will have access to alternate organic waste services, including areas without council food scraps collections.<br><br>Community composters feel supported in being part of an integrated organic solution. |
| 4.4 | Green waste | Instigate research to identify the barriers and opportunities to keep green waste out of landfill, such as addressing spread of pests and diseases. | Reduced greenhouse gas emissions from green waste going to landfill, noting infrastructure to support processing of fibrous plants is being established in the region. |
| 4.5 | Plastic waste reduction | Investigate, facilitate and promote initiatives that reduce plastic usage, pollution and circulate plastic materials via recycling/recovery systems. | Fewer plastic products are used and more plastic products are recovered for reuse or diversion from landfill; ultimately supporting less microplastics impacting on the environment. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 4.6 | **Reusable packaging** | Support actions to reduce packaging, and move towards reusable packaging systems and away from single-use packaging. | Greater development of business-to-business and business-to-customer packaging systems that reduce material use (source reduction) and result in less waste to landfill. |
| 4.7 | **Quantify packaging** | Work towards defining and quantifying packaging as a waste stream. | We better understand the contribution of the broad range of packaging types to waste and carbon emissions, and can assess progress towards reducing, reusing and recovering this priority material. |
| 4.8 | **Reviewing nappies/adult sanitary product waste** | Investigate options for diverting nappies and adult sanitary products from landfill, including ongoing support for waste avoidance, collection and processing. **Refer also action 12.11.** | More opportunities are available to reduce this significant waste stream from household refuse and therefore landfill. |
| 4.9 | **Textile waste behaviours** | Develop and deliver a textile waste prevention, reuse, recycle programme targeting householders and consumers. See also action 6.4. | Aucklanders understand the impact of their choices and adopt more sustainable practices to reduce textile waste. |
| 4.10 | **Biosolids from wastewater** | Support Watercare to lead work with mana whenua, communities and stakeholders to investigate pathways that optimise resource recovery options for biosolids. | Biosolids from Auckland's wastewater beyond 2030 will continue to be used beneficially, in culturally appropriate ways. |

## 5. Strengthen our focus on disaster preparedness and climate change mitigation, adaptation and resilience.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 5.1 | **Communicating climate benefits** | Clearly communicate the climate benefits, and other environmental and cultural benefits, of waste management and minimisation initiatives. This includes wider benefits linked to changes in kerbside services, and through education and behaviour change initiatives working with iwi and community partners. | Aucklanders understand how waste projects, programmes and service changes mitigate carbon emissions and respond to our changing climate. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 5.2 | Reducing emissions from waste operations (mitigation) | Continue to prevent, reduce and minimise GHG emissions from our waste and resource recovery operations, including kerbside collections, the RRN and council waste assets and services. | Tāmaki Makaurau benefits from reduced GHG emissions. Changes to our operations supports better practice in the waste sector, creating opportunities for others to reduce their emissions. |
| 5.3 | Preparing for and adapting to the impacts of climate change | Work across the council and with relevant stakeholders in dealing with risks and issues arising from climate change or other evolving situations that create a waste issue, e.g. disposal of new pest plants or relocation and deconstruction of buildings. | Aucklanders benefit from a joined-up response to changing conditions that responds to environmental, economic, cultural and social wellbeing while diverting waste. |
| 5.4 | Disaster waste preparedness | Continue to plan, coordinate, review and strengthen the resilience of waste services and infrastructure (including the RRN) during a crisis and our region's ability to adapt, respond and recover. This involves working with a range of sector groups including mana whenua, the private sector, community and governmental agencies. | The council coordinates with the RRN, marae, community groups, and waste sector to keep communities and the environment safe from contaminated or dangerous waste. Relevant facilities are identified as critical infrastructure for asset and disaster planning purposes. Waste materials are diverted from landfill where possible, and communities supported through the RRN in their response to and recovery from a disaster. |
| 5.5 | Carbon emissions reporting | Continue to support and improve cross-council carbon emissions reporting including reflecting progress against waste reduction targets in Te Tāruke-ā-Tāwhiri and other carbon reporting requirements. | The link between waste reduction and climate change will be clear to residents, helping to explain the need for service changes that reduce waste to landfill and create a circular economy. |
| 5.6 | Embodied carbon | Work to assess embodied carbon in various materials, including those that contribute to waste. | Accounting for the embodied carbon in materials will help us understand better the carbon footprint of waste and support a circular economy. |

# ADVOCACY FOR FUTURE ACTION

## 6. Advocating for actions to move up the waste hierarchy, including source reduction, re-use and right to repair.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 6.1 | Legislative settings | Advocate for delivery of the New Zealand Waste Strategy 2023, and for other legislative and regulatory change and actions to create a circular economy in Auckland and reduce waste globally. See also action 12.2. | Regulatory settings drive systemic change including legislating for right to repair, greater durability of products, creating economic incentives/disincentives to recover materials, and developing the conditions required to support consumers and businesses to achieve Zero Waste. |
| 6.2 | Regulatory change | Advocate for and support central government action to introduce a nation-wide licensing system and strengthen the regulatory framework around everyone's responsibilities linked to waste. This includes appropriate resourcing for local compliance, monitoring and enforcement. | Aucklanders benefit from nation-wide changes to improve the waste management framework. |
| 6.3 | Regulatory guidance framework – organic matter | Review the council's regulatory framework and advocate for updated national regulatory guidance on diverting organic matter including biosolids towards beneficial use on land. | Opportunities to use organic materials, including biosolids, beneficially on land are updated, subject to relevant consultation processes.<br><br>There is better guidance available on appropriate treatments, options and considerations for diverting organic matter, including biosolids, from municipal landfill. |
| 6.4 | Priority waste advocacy | Advocate for central government legislation, policy and action that addresses the priority waste streams, wastes with high emissions such as organics, or that represent a significant economic, environmental and social or cultural cost such as microplastic pollution or ongoing resource extraction such as textiles. | Focus is placed on waste streams and activities that have the most impact on preserving and safeguarding Papatūānuku. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 6.5 | **Increase to the Waste Disposal Levy** | Continue advocating to central government for further increases to the Waste Disposal Levy in collaboration with the waste and recycling industry, mana whenua, and other local authorities. | An increased waste levy incentivises Aucklanders to reduce the amount of waste they send to landfill and supports the development of the resource recovery sector to divert recoverable waste into productive uses. |
| 6.6 | **Retain levy funding** | Continue advocating for local councils to retain their current level of funding from the Waste Disposal Levy to support local delivery of the New Zealand Waste Strategy. | Waste levy funding will continue to be available for local waste minimisation initiatives, covering a range of activities from council, iwi, community to commercial sectors. |

## 7. Advocating for implementation of a container return scheme and other mandatory product stewardship schemes.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 7.1 | **Container Return Scheme (CRS)** | Continue to advocate to central government to implement a national container return scheme (CRS). | CRS delivers multiple benefits for Auckland including an increase in the amount of beverage containers recycled, a decrease in the cost to council to provide kerbside recycling services, reduced litter and litter collection costs, job creation through return depots (including the RRN), and income generating opportunities for charities. |
| 7.2 | **Regulated product stewardship** | Continue to advocate to central government for the implementation of product stewardship schemes for priority products, and for further products to be regulated as 'priority products'. | More items are diverted from landfill, with the cost of recovery shifted to producers/consumers. Products not yet identified as priorities such as mattresses or textiles, may be identified for mandatory product stewardship leading to better recovery pathways and incentivising producers/manufacturers to design-out waste. |
| 7.3 | **Voluntary product stewardship schemes** | Support the introduction of voluntary, industry-led product stewardship schemes that meet best practice where a regulated scheme isn't being progressed (such as for batteries). This includes producers and consumers contributing to the cost of recovery and recycling. | Industries that develop responsible product stewardship schemes are supported. Industries with a small number of manufacturers/retailers are most likely to be able to achieve this. |

# DELIVERING DIRECT ACTION

## 8. Support Aucklanders to use their kerbside recycling and food scraps bins effectively and to shift to rates-funded collection services.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 8.1 | Kerbside recycling collections | Continue to provide a standardised fortnightly recycling collection in 240-litre bins (other sizes available on request).<br><br>Continue to provide kerbside recycling collection for schools, including an option for larger on-site bins using number of students as a metric for volume provision. | Aucklanders are supported to 'recycle right' through regular kerbside collections.<br><br>Schools can use the kerbside recycling collection at no charge. |
| 8.2 | Tackling recycling and food scraps contamination | Continue supporting actions, including monitoring and enforcement, to ensure users of waste collection services put the right items in the right bins. | Users of council and private waste collections services know how to 'recycle right' and know their responsibilities around harmful or hazardous waste. |
| 8.3 | Food scraps collections | Urban areas: Continue to provide weekly rukenga kai (food scraps) collections in urban areas within the rural-urban boundary; including extension of the service to other urban areas as may be required by central government.<br><br>City centre and other urban areas: Investigate options to provide household food scraps diversion to Auckland's city centre area and other areas of the city, including opportunities for community-led composting or processing. | Food scraps are diverted from landfill and used beneficially, reducing methane from landfill. By-products from the process include clean energy and liquid fertiliser to grow more kai (food) depending on the solution chosen.<br><br>Additional areas of Auckland benefit from food scraps services. Community-led proposals for food scraps services are considered. |
| 8.4 | Implement standardisation of kerbside services | Implement region-wide rates-funded kerbside services with a choice of three bin sizes to accommodate different household needs. (Refer also to action 9.1) | Aucklanders will be able to choose a refuse bin size that suits them and pay a different charge accordingly. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 8.5 | Kerbside services – commercial non-residential properties | Continue changes to council's non-residential kerbside offering so that it is consistent across the region, providing refuse and recycling services for domestic-type refuse and recyclables (not trade waste).<br><br>Investigate the potential for non-residential properties to opt-in to the kerbside collection of food scraps. | Commercial properties and other non-residential properties will be provided with the same services as residents for their domestic-type wastes and recyclables.<br><br>The council will be able to assess the types of activities where there is a benefit for commercial properties to opt-in to the kerbside collection of food scraps, providing another option for businesses, schools or other groups with small waste volumes. |
| 8.6 | Services for Multi-Unit Developments (MUDs – 10 or more properties) | Continue working with property owners, body corporates and the waste industry to roll out collection services for refuse, recycling, inorganic and food scraps collections that meet residents' needs and the requirements of the Waste Management and Minimisation Bylaw.<br><br>Work with property developers, and owners and occupiers of MUDs together with Auckland Council's planning and regulatory departments to ensure adequate waste storage systems and access is provided in new MUDs in accordance with the requirements of the Waste Management and Minimisation Bylaw and the Auckland Unitary Plan. | Occupants of MUDs will be provided with the same level of access to waste and waste diversion services as other residents, unless lack of safe physical access or other relevant restriction prevents the service. Specific services may vary.<br><br>Easy-to-use waste and waste diversion services will be available to all MUD occupants. |
| 8.7 | Improve sorting of kerbside materials | Continue looking for opportunities to improve the sorting of kerbside collected materials, e.g. through operational or asset improvements at the council's regional MRF and at other RRN facilities. | Improved quality of materials diverted from landfill will support more end-market opportunities (including in the local economy) and improve cost recovery. |
| 8.8 | Annual inorganic collection | Continue to provide an on-property inorganic service, with all households and eligible commercial properties receiving an annual, booked collection. Reusable and recyclable items will be diverted from landfill with reusable items offered to community organisations. | Residents and eligible commercial properties can access a service that allows them to dispose of unwanted items once a year in a way that benefits the community by giving reusable items a second life. At other times of the year, residents can take items to Community Recycling Centres and charities, or to refuse transfer stations where items are not repairable or at end-of-life. |
| 8.9 | Campaigns – council-provided waste and recycling services | Leverage nation-wide campaigns for kerbside recycling and food scraps collections and behaviour change initiatives to ensure Aucklanders effectively use all council kerbside collection services. | Residents are enabled to use the services available to them to maximum advantage. This reduces contamination in recycling and food scraps bins, and reduces the risk of collecting |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| | | | inappropriate materials for staff, equipment and the environment. |
| 8.10 | **Website information and requests** | Continue to update and improve council's customer website on kerbside services and illegal dumping to meet customer needs for information and requests for service. | Residents can easily make requests and access information on council waste services, including where to recycle and dispose of unwanted items and materials through council-provided and privately-provided services, and to report illegal dumping. |
| 8.11 | **Campaigns – new council services** | Support changes to services, such as fortnightly refuse collections or standardised materials for collection with targeted communications campaigns. | Residents will be fully aware of new services when they are introduced and will know how to use them. |
| 8.12 | **Community engagement – new council services** | Continue to partner with community organisations and individuals on targeted community initiatives in areas with specific challenges to prepare for changes in waste services, such as the introduction of fortnightly refuse collections. See also actions 9.1 and 9.2. | The transition to new waste and recycling services will be smooth due to the community-led, council-supported approach prior to service changes. Residents, particularly those with specific needs and challenges (such as large households, new migrants and those on low incomes), will know how to use the services and how they can minimise their waste and reduce costs. |

## 9. Transition to a fortnightly kerbside rubbish collection subject to a trial and further consultation.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 9.1 | **Optimising collections for people and waste minimisation** | Subject to a trial and Long-Term Plan consultation and decision-making processes on a fortnightly rubbish collection, support residents who are concerned about moving to fortnightly rubbish collections while also reviewing options for incentives to those who manage to become ultra-low waste producers. See also actions 8.10 and 8.11. | The transition to fortnightly collections is supported by a clear programme of work including options to support households including tenants that struggle to cope; communications, education and advice; and impacts on litter and illegal dumping.<br><br>Waste collection services work for those in large households while also incentivising waste reduction for those who can. Aucklanders understand the reasons and benefits and bin options of moving to a fortnightly rubbish service. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 9.2 | **Fortnightly rubbish collections: other areas** | Investigate how to transition rural settlements and Waiheke and Aotea/Great Barrier to a fortnightly rubbish collection. | Waste collection services are optimised for all council customers, incentivising waste reduction. |

## 10. Accelerate efforts to minimise operational wastes from the Auckland Council Group.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 10.1 | **Auckland Council Group policies and practice** | Auckland Council Group divisions that generate significant operational waste work towards reduction of waste or develop waste minimisation plans in alignment with the strategic direction and targets of this WMMP. Refer also action 5.2.<br><br>Continue to lead waste minimisation by example across the Auckland Council Group through improving processes, practice and performance. | There is consistency across the wider council family, with all parts of the Auckland Council Group working towards the same objective.<br><br>In leading by example, the council demonstrates what is possible in waste minimisation for other industries such as C&D. |
| 10.2 | **Target operational waste through sustainable procurement** | a) Implement the requirement for site-specific waste management plans for sizeable C&D contracts, including a focus on designing out waste early in the initial phases of planning projects, and reporting on performance.<br>b) Support and utilise the Deconstruction Supplier Panel to enable flexible and efficient procurement process for low-medium construction projects.<br>c) Seek opportunities for innovative re-use of materials, including in the purchase of goods and in physical works projects, and reduce reliance on single-use, hard-to-recycle, and/or environmentally problematic materials such as expanded polystyrene and fibre-cement. | We will work with contractors and suppliers to embed better waste management practices into their standard offering and build a culture of resource efficiency.<br><br>We will efficiently enable operational waste minimisation objectives to be achieved while fostering capable deconstruction suppliers.<br><br>The council group has significant buying power and can play an important role in creating demand for recovered resources and new ways of working through its procurement processes. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 10.3 | **Data collection system for operational wastes (including C&D waste)** | Work across the Auckland Council Group on a system to collate data on operational waste from across projects by 2025; gather data to establish baselines by 2026, then set targets for the most significant waste streams and activities for the following years. | As one of the largest organisations and property owners in Auckland, the council creates a significant amount of waste, including C&D and soils. We can reduce this waste, working towards our vision and targets. |
| 10.4 | **Commercial and community leases of council property** | Continue to work with lessees of council property to promote a Zero Waste policy alongside other sustainability outcomes. | More community and commercial organisations will work towards Zero Waste. |
| 10.5 | **Office waste** | Continue work to reduce office and lunchroom waste as per target. This involves auditing individual office buildings to establish actions to reduce waste. | The council walks the talk in its own workplaces. Staff are proactive in preserving resources and reducing waste. |
| 10.6 | **Council-run events** | Events associated with the council or council land are run as Zero Waste events, including reducing waste at source, choosing products that can be reused/recovered, using effective systems to recover food waste and products, and providing signage and education. See also action A9 | Events associated with the council or council land are run consistently as Zero Waste events. Event-goers will see that waste is being diverted and minimised. |

## 11. Address litter and illegal dumping to protect public health and the environment.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 11.1 | **Illegal dumping prevention** | Develop a regional illegal dumping strategy and take a partnering approach with communities and iwi to reduce illegal dumping. | Illegal dumping will be addressed at the root cause. Iwi and communities will be supported to develop solutions to dumping in their neighbourhoods. |

| # | Title | Council action | What this will mean for Aucklanders |
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| 11.2 | Illegal dumping response | Continue to respond to illegal dumping complaints and enforce infringements in a timely and consistent manner across the region. | Neighbourhoods will be kept clean and tidy. Litter and illegal dumping collection costs will be reduced. |
| 11.3 | Litter and illegal dumping regulation | Advocate for better regulatory tools and resourcing to reduce the amount of litter, including harmful substances that impact waterways and marine areas. | People who litter and dump waste will be held accountable. Clearer consequences for dumping and littering will contribute to a cleaner environment. There are more tools available to address litter and illegal dumping, and protect our whenua (land) and wai (water). |
| 11.4 | Litter – community engagement | Work across the council and with other partners to design and deliver a strategy for litter education and behaviour change campaigns.<br>Work with a range of groups and organisations to develop tools, interventions and campaigns to remove and discourage litter and prevent illegal dumping. | There will be more awareness of the harms of litter and reduction in the amount of littering.<br><br>Auckland consumers, visitors and businesses will be encouraged to take greater responsibility for their own waste in public places. The environment is cleaner and tidier. |
| 11.5 | Litter – service levels | Work collaboratively across the council group and local boards, and with external agencies that provide litter bins and loose litter cleaning programmes, to provide consistent services and communication. This includes Parks and Community Facilities, Healthy Waters, Waka Kotahi, Auckland Transport and Kiwi Rail. | Public areas under the council's control will be clean and litter-free. Consistent communications across the council will support the objectives of the WMMP. |
| 11.6 | Marine environment and waterways | Work collaboratively across the council group and with others to prevent litter escaping into waterways and the marine environment, including marine rubbish clean ups; especially harmful substances, including plastics which degrade to microplastics. | The amount of litter and microplastics harming our whenua (land) and wai (water) is reduced. |
| 11.7 | Sources and impacts of plastic pollution | Support research into the sources of plastic pollution. | We have a better understanding of pathways of plastics escaping into the environment and how to address this. |
| 11.8 | Public place recycling | Continue to support measures to reduce contamination in public place recycling in the most cost-effective way. Review options to phase out or alter public place recycling when a nation-wide Container Return Scheme is put in place. | Residents and visitors can recycle when they are away from home. If a nation-wide container return scheme is put in place, it will impact the number of containers in recycling bins at which point a review of options may be appropriate. |

| # | Title | Council action | What this will mean for Aucklanders |
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| 11.9 | Household hazardous waste drop-off locations | Investigate options to support services or a network of locations where residents can drop off their household hazardous waste for safe disposal or diversion. See also action B1. | Aucklanders can access local business or council-supported locations for dropping off household hazardous materials to ensure they are treated appropriately. |
| 11.10 | Communications – waste minimisation, litter and illegal dumping | Raise public awareness and provide information to address litter and illegal dumping, and the benefits of waste minimisation, focusing on behaviours supporting reduction higher up the waste hierarchy. | Householders will understand the relevance of avoiding waste, reusing and repairing items, and have information on appropriate options to deal with problematic waste such as household hazardous waste or large items. |

# ACROSS ALL PRIORITIES

## 12. Partner with others to achieve a Zero Waste Auckland built on a circular economy.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 12.1 | Resource Recovery and Infrastructure Plan | Work with industry, iwi and key stakeholders to develop a Resource Recovery and Waste Infrastructure Plan that identifies relevant resource recovery and waste systems and infrastructure priorities. | There is a considered response to provide future resource recovery and waste treatment and disposal while working towards the Zero Waste vision.<br><br>We have an agreed plan for future private-sector, social enterprise and council owned facilities, to coordinate investment and planning while working towards the Zero Waste vision. |
| 12.2 | Focused community programmes | Continue to support programmes such as the Compost Collective, Waste Free Parenting and Love Food Hate Waste, including the opportunity to expand and diversify programmes to include packaging or adult sanitary products. | Residents and consumers are empowered to reduce their waste and save money through more sustainable practices; more waste is diverted from landfill. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| 12.3 | Diverse communities | Foster waste reduction across the diverse communities in Auckland by providing tailored support and resources to particular communities, including implementing the Ethnic Communities Engagement Framework. | Diverse communities have accessible information around waste services and minimisation activities in languages and formats that are relevant to them; and feel supported and empowered to take waste minimisation action. |
| 12.4 | **Local Board initiatives** | Continue to work with local boards on waste-related initiatives such as promoting on-site waste and litter reduction with builders/developers, providing targeted community education or targeted collections of problematic materials such as e-waste or inorganics. | Local boards are supported in providing services that meet local community needs. |
| 12.5 | **Fostering holistic education and a culture of reuse, repair and durability** | Work with others including the RRN, repair cafés and the community and commercial sectors to foster a culture valuing durability of products, reuse and repair; and to develop messaging that helps people understand the links between waste and climate change, and wider impacts of extracting resources. | Aucklanders better understand the wider impacts of resource extraction and waste. People choose products that are more durable, reusable, and/or repairable, and seek to rehome or repair items instead of sending them to landfill. |
| 12.6 | **Sustainable Schools** | Work with the council Sustainable Schools team to provide sustainable funding and support for schools to deliver waste reduction initiatives and address litter. This includes advice on composting initiatives or opportunities to use the Waste Minimisation and Innovation Fund (refer action 12.18) | Schools are supported to encourage waste wise behaviour by children and staff. |
| 12.7 | **Action and Investment Planning** | Work with the government, iwi and across private and community sectors to support development and implementation of government's proposed action and investment plans that consider the needs and aspirations of the region. | Auckland will benefit from coordinated nationwide action to deliver infrastructure and services for a circular economy. |

| # | Title | Council action | What this will mean for Aucklanders |
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| 12.8 | **Partnering with neighbouring councils** | Look for opportunities to work with other councils to share learnings from the RRN and contribute to a future, potential national network for circular resource recovery. | Potential for the RRN to link with other regional networks in future. |
| 12.9 | **Implementing the Hauraki Gulf Islands Waste Plan** | Work with mana whenua, local boards, communities and key stakeholders to implement the Hauraki Gulf Islands Waste Plan (see Appendix 2). | Island residents and businesses will receive waste services tailored to island constraints and opportunities. Waste reduction and on-island solutions will continue to be developed. Hauraki Gulf Islanders are empowered to deliver waste initiatives with council support. |
| 12.10 | **Private sector services and onshore processing** | Enhance and enable the role of the private sector in providing services and, where feasible, onshore processing facilities. | Auckland's waste is managed and diverted material is processed with sustainable end markets. |
| 12.11 | **Working with healthcare and childcare sectors** | a) Continue working with Auckland-based health boards (former Auckland District Health Boards) and industry to inform residents, and medical and dental professions about disposal options available for medical and dental wastes.<br>b) Work with Auckland-based health boards, childcare facilities, rest homes and industry to develop options to increase diversion of nappies and sanitary products from landfill. Refer also action 4.8.<br>c) Advocate for the health industry to seek solutions for significant medical waste streams including at-home healthcare waste. | Medical and dental wastes are disposed of correctly and opportunities for diversion are maximised.<br>Auckland-based health boards, childcare facilities, rest homes and residents are supported to find alternative solutions and disposal options for nappies and sanitary products. |
| 12.12 | **Business waste** | Advocate for all businesses to take responsibility to design out waste and increase resource recovery; including commercial waste streams and waste related to staff lunchrooms. Includes | More workplaces have waste minimisation and resource recovery systems in place which increase the amounts of business waste diverted from landfill and reduce the total amount of waste generated from their operations. |

| # | Title | Council action | What this will mean for Aucklanders |
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| | | working collaboratively with Business Improvement Districts and to facilitate connections to reduce waste. | |
| 12.13 | Waste sector collaboration & data | Promote the benefits of a circular economy and a collaborative way of working to waste collectors and facilities, including the importance of providing accurate data in monitoring waste and diversion. | Auckland's waste sector focuses on opportunities to build a circular economy, and we have a better picture of waste and its diversion. |
| 12.14 | Learning from others | Continue to share our knowledge and learn from waste initiatives and experiences from around the country and overseas to trial improvements and strengthen the council's response to waste and resource recovery. | Auckland benefits from knowledge gathered from far and wide to lead in waste minimisation. |
| 12.15 | Resource recovery directories, infrastructure and services | Continue to support development of directories listing facilities that provide circular infrastructure and services for businesses and for residents. | Aucklanders can find information on processors and facilities that can reuse, repair, repurpose and recycle products. |
| 12.16 | Taking advantage of technology | Investigate the potential role of emerging technologies such as AI-sorting technologies, to facilitate waste avoidance and minimisation. | More of Auckland's household waste is diverted from landfill. |
| 12.17 | Research and evaluation | Research and evaluation to support targeted interventions, programmes and campaigns that resonate with specific groups in the community. | Diverse communities will engage with and support waste minimisation. |
| 12.18 | Kitchen waste disposal units | Work with Watercare to provide advice to Aucklanders on the impacts of kitchen waste disposal units. | Residents can make informed decisions based on clear advice on the costs and benefits of waste disposal units. |
| 12.19 | Waste Minimisation and Innovation Fund (WMIF) | Continue running the WMIF grant scheme, distributing seed-funding for waste minimisation and innovation projects that support the outcomes of this plan. | Businesses, community organisations, schools, Māori/iwi organisations and other entities can apply for grants to help them establish and/or significantly expand waste minimisation and innovation initiatives. |

| # | Title | Council action | What this will mean for Aucklanders |
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| 12.20 | WMIF criteria, funding and process | Work with mana whenua, community and industry to keep WMIF criteria, level of funding and process under continuous review and support organisations and groups in making an application. | The WMIF remains relevant and accessible to groups looking at innovative ways to reduce waste. |
| 12.21 | Zero Waste awards and events | Host events and awards that grow excitement about the journey to Zero Waste, recognising individuals, businesses and community organisations working towards Zero Waste. | Achievements in Zero Waste are celebrated and highlighted, lifting the profile of Zero Waste. |
| 12.22 | Professional development | Work with tertiary institutions and training providers to support the promotion of Zero Waste principles in training programmes for architects, product designers and relevant industry professionals etc. | Product designers, engineers, architects and other professions play a crucial role in determining what happens to products, infrastructure and materials at the end of their useful life. Design professionals trained in Auckland will understand and be able to apply Zero Waste principles in their practice, contributing to Auckland's Zero Waste vision. |
| 12.23 | Repair programme | Work with organisations to develop a programme of repair initiatives for the region. | Auckland becomes established as a leader in repair.<br><br>Aucklanders have more choices and awareness of options to repair items. |

# OTHER ACTIONS LINKED TO PLAN GOALS

## Goal 1: Maximising circularity of resources and products in accordance with the waste hierarchy.

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| A1 | **Auckland Council 'Waste Nothing' website** | Utilise the 'Waste Nothing' website (https://wastenothing.co.nz/) to host information and provide regular data and stories to the community. | Aucklanders are kept updated on how their collective actions contribute to Zero Waste and a litter-free environment, and are well-informed about the costs and impacts. |
| A2 | **Evaluation – kerbside initiatives** | Review and share the impacts of changes to kerbside collection services, including impacts on households and on waste diversion, and consider options to improve services. | Aucklanders benefit from services that meet the strategic direction outlined in this plan while providing great value for money and equitable access for residents. |
| A3 | **Evaluation – community programmes** | Evaluate and share the benefits of community programmes. Indicators include reduction in waste to landfill, reach, Māori outcomes, job creation, community connectedness and resilience. | Aucklanders can see the benefits of community-led waste minimisation programmes. The programmes can use the evaluation results to adapt and improve. |
| A4 | **Postgraduate projects and rangatahi action** | Support will be offered to postgraduate students for projects that address waste issues. This could include small sponsorships and mentoring.<br>Support initiatives for rangatahi to contribute to waste minimisation. | Rangatahi and postgraduate students are encouraged to work on waste issues and are linked into the network of passionate waste minimisation experts around Auckland. |
| A5 | **Research** | Do research linked to priority waste and activities identified in this plan, and emerging waste topics such as digital passports, to inform evidence-based decision-making. | Opportunities for the council to influence or action waste minimisation are based on solid evidence. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| A6 | Regional Planning Framework | Develop and implement planning frameworks and consenting processes that consider the need for essential resource recovery and waste management infrastructure and services, subject to relevant consultation processes. | More certainty that essential infrastructure and services will be provided appropriately within the region to support a circular economy. |
| A7 | City Centre and urban collections | Work across the council towards high-quality, accessible and safe urban environments that provide appropriate areas or access for waste separation and collection. | Appropriate provision is made for collecting refuse, recycling and food scraps from residents and businesses in the city centre and metropolitan areas. |
| A8 | Waste and resource recovery industry: waste minimisation | Continue to work through the bylaw approvals process (waste licensing) with collectors and facilities to strengthen data collation and improve waste minimisation in alignment with this plan. | The waste and resource recovery industry work together towards minimisation. We have a better picture of waste activities and trends to inform actions and impact. |
| A9 | Events requiring an Event Permit | Continue to require waste plans for events on public land in accordance with the waste bylaw. Seek to engage organisers early to work together towards reducing waste generated and diverting the remainder. See also action 10.6. | Events associated with the council or council land are run consistently as Zero Waste events, with information and support available via the Zero Waste Events website. Event-goers will get first-hand experience of minimising and better managing their waste. |

## Goal 2: Minimise harm

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| B1 | Enforceable waste tracking | Advocate for implementation of a transparent, enforceable tracking system for waste and in particular hazardous waste (including asbestos) and potentially contaminated soils, spoil and sludges. | Aucklanders have confidence that businesses are responsibly managing hazardous waste through appropriate treatment and disposal facilities. |

| # | Title | Council action | What this will mean for Aucklanders |
|---|---|---|---|
| B2 | **Update the Waste Management and Minimisation Bylaw** | Review the Waste Management and Minimisation Bylaw to ensure it is consistent with the WMMP and legislation, and addresses opportunities or issues to strengthen waste outcomes, such as options to influence commercial waste, approving cleanfill operations, or to remove redundant requirements, subject to the appropriate processes. | The Waste Management and Minimisation Bylaw will be kept updated including opportunities to strengthen waste minimisation in alignment with this plan. |
| B3 | **Monitoring council closed landfills** | Continue to monitor and manage closed landfills on council land to ensure risks and emissions are appropriately managed, including climate related risks such as coastal inundation, slips and overland waterflows. | The environment, people's health and cultural wellbeing are safeguarded from risks associated with council closed landfills. |
| B4 | **Managing contaminated council land** | Work with iwi and other stakeholders to strengthen the approach for managing contaminated land in council ownership. | Risks of contaminated land are managed well through appropriate maintenance and development of public land. |
| B5 | **Data from more landfill types** | Work with the Ministry for the Environment and the waste sector to establish baseline data for other classes of landfill in Auckland. | We have a better understanding of regional waste flows and ability to set targets and monitor reduction. |

# 15. Te tuku pūtea me te whakatinanatanga / Funding and implementation

The Long-term Plan sets out 10-year budgets for the council's services and activities, and these are reviewed every three years. Expenditure is reviewed each year as part of council's annual planning process. Any significant variations are addressed through the council's regular financial decision-making processes.

Waste Solutions is the council department that provides and/or manages most of our key waste services and is responsible for leading many of the actions set out in this Waste Plan. However, the entire council group contributes to the overall outcomes of the plan.

Figure 12 shows the proportions of the three main funding sources that contribute to the waste minimisation and management projects and activities managed by Waste Solutions. Further actions in the Waste Plan that are led by others across the council group are funded via similar funding sources, including general rates. For example:

- our Healthy Waters department manages the removal of litter and sediment in streams/catchpits
- Parks and Community Facilities manages the removal of waste from public litter bins
- the Closed Landfill team manages closed landfills
- Corporate Support Services look after the council's office waste management and minimisation efforts.

In addition, council-controlled-organisations across the Auckland Council Group (including Auckland Transport, Eke Pānuku, Tātaki Auckland Unlimited and Watercare) contribute to the Waste Plan by minimising and managing the wastes generated from their specific projects, events and operations. These may be funded by rates or via other sources of funding and revenue.

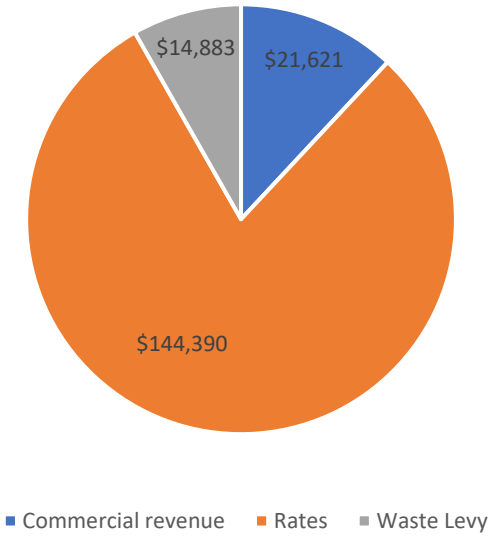

*Figure 12: Funding sources for council's waste minimisation and management services managed by the Waste Solutions department (FY2023/24) ($000).*

Table 2 presents the range of sources of funding used to pay for current waste minimisation and management projects and activities across Tāmaki Makaurau as delivered by the council, and those that may be required to contribute to further actions as set out in this Waste Plan.

*Table 2: Funding sources for the council's waste plan actions*

| Funding source | Obtained from... | Applied to waste activities, such as... |
|---|---|---|
| Targeted rates | Eligible properties (households/businesses) pay rates to be provided specific services that benefit the people in these eligible properties, but which also contribute to wider public benefits. | • Kerbside three-bin collections.*<br>• Inorganic collections.<br>• Processing of food scraps and recycling.<br>• Contribution to Resource Recovery Network operating costs. |
| Waste levy | Auckland Council receives an allocation of national waste levy funds which must be spent on waste minimisation activities as specified in its Waste Plan. The funds are administered by the Ministry for the Environment. | Activities that contribute to waste minimisation and public-good benefits, such as:<br>• Waste Minimisation and Innovation Fund.<br>• Engaging with iwi/Māori, community partners, wider community engagement (e.g. Wastewise programme).<br>• Working with the construction & demolition sector.<br>• Strategic waste planning (including developing a Resource Recovery and Infrastructure Plan), research, advocacy<br>• Other grant funding – e.g. Love Food Hate Waste Fund.<br>• Expansion/improvements to the Resource Recovery Network. |
| External revenue streams | Revenue generated from waste management and minimisation activities:<br>• Gate fees at the council's Waitākere Waste and Resource Recovery facility.<br>• Income from investment.<br>• User-pays charges for bin tags and bags for kerbside refuse collections (until shift to regionwide rates funded service). | • Operating the Waitākere Refuse and Recycling Transfer Station.<br>• User-pays council kerbside waste collections. |
| General rates | All properties pay a charge which contributes to the council's wider waste management activities and provides public good benefits. Where it is difficult to identify who may benefit from an activity or who/what may cause a problem for which a council activity is required, the costs are funded from the general rate. | • Removal of illegal dumping/litter collection on public land or waterways.<br>• Enforcement of the Waste Bylaw and Litter Act.<br>• Managing closed landfills. |
| Other funding | External sources of funding:<br>• Central government funding (e.g. Climate Emergency Response Fund).<br>• Contestable funds (e.g. Waste Minimisation Fund from national waste levy, administered by the Ministry for the Environment). | • Capital intensive projects, such as upgrades to the Materials Recovery Facility and waste infrastructure and assets. |

*Rubbish, Recycling, Food Scraps. At the time of writing, we provide pay-as-you-throw rubbish collection service (pre-paid bags/bin tags) in the former Auckland areas of Waitākere City, North Shore and Papakura. This service will progressively change to a targeted rate service for households across the region from the end of 2024. This decision was made by the council following public consultation in 2022. Refer Annual Budget 2022/2023 Volume 1 (aucklandcouncil.govt.nz) for further information. The food scraps collection service has been available to all eligible properties since the end of 2023.

As is the case with the council's previous Waste Plan, the focus of this plan is to continue to achieve the best possible outcomes with available funding, acknowledging fiscal constraints. Where resource constraints affect delivery, work will be prioritised. Criteria to assist in prioritising actions include:

- urgency: to reduce public safety hazards
- impact: how directly the action affects significant waste streams
- equity: how the action supports equity especially for those communities in most need
- risk: the likelihood that factors outside our control could derail progress
- opportunity: synergies with other activities, internal or external to the council, which might arise
- alignment: with key priorities and principles of this plan, and with other ongoing and high priority council activities.


Photo of food scraps truck emptying load

# 15.1. Te aroturuki me te pūrongo / Monitoring and Reporting

The council will monitor and report on progress towards meeting the targets and objectives of the Waste Minimisation and Management Plan (WMMP). The following table sets out a range of indicators that council regularly collates data for and reports on and others that council is beginning to gather information on. Each indicator is represented by a quantitative measure(s), and some have associated targets. Together, these indicators evaluate how the council's waste services are performing, monitor progress of this WMMP against the targets, and/or develop necessary data to assist with future planning. Further work is planned to improve the public reporting and visibility of the data.

*Table 3: Waste plan indicators*

| Indicator | Method of assessment | Frequency and reporting channel | Target |
|---|---|---|---|
| **Household wastes** | | | |
| Quantity of waste to landfill | • Quantity of domestic kerbside rubbish collected, per capita per annum (kg).<br>• Based on council contractor data and landfill weighbridge data. | Monthly:<br>• Internal performance monitoring.<br>Quarterly & annually:<br>• Long-term Plan monitoring. | Reduce kerbside rubbish by 15% per person by 2028.<br>Further reduce kerbside rubbish by (another) 17% per person by 2030. |
| Composition of household rubbish | • Composition of kerbside rubbish based on composition audits of bins/bag contents. | As required, to assess performance of changes in service. | No target. |
| Diversion of household waste | • Per cent (by weight) of material diverted from landfill from kerbside recycling/ kerbside food scraps collections, out of total household waste collected.<br>• Based on the council's contractor records and estimated market-share for non-council kerbside rubbish collections. Excludes private kerbside green waste collection diversion and council inorganic collection. | Monthly:<br>• Internal performance monitoring.<br>Annually:<br>• C40 Cities Zero Waste Accelerator Leadership Group. | Taking into account the 2022 proposed government minimum performance standards for councils:<br>• 30% by 2026<br>• 40% by 2029<br>• 50% by 2030. |
| Recovery of materials from inorganic waste collections | • Per cent (by weight) of material recovered for reuse or recycling from the total waste collected via the council's inorganic collections.<br>• Based on data provided by our contractors. | Quarterly & annually:<br>• Internal performance monitoring. | Council contractors aiming for 20% recovery rate. |
| Contamination in kerbside recycling and end-markets | • Per cent (by weight) of contamination disposed to landfill from Onehunga MRF, of total material processed.<br>• Per cent of sorted materials sold/distributed to end-markets in NZ and off-shore (for glass, plastics, fibre, metals).<br>• Based on our contractor weighbridge data and KPI reports. | Quarterly & annually:<br>• Internal performance monitoring. | Baseline 23% contamination (2022/2023).<br>Reduce to below 15%. |

| Indicator | Method of assessment | Frequency and reporting channel | Target |
|---|---|---|---|
| **Council operational waste** | | | |
| Office waste disposed to landfill | • Kg of waste per visit.<br>• Based on data from council office waste contracts, and swipe card access counts. | Annually: once developed. | Reduce by 50% by 2030, from 2022 baseline (0.14kg per visit). |
| Operational waste volumes | • Contractual waste reporting requirements to be developed through procurement process.<br>• Collate data for significant waste streams by 2025, to establish baselines by 2026 and set targets for the following years to 2030. | Annually: once developed. | To be developed. |
| Community Recycling Centres (CRCs) | • Total number of Resource Recovery Network Facilities established and operating. | Quarterly & annually:<br>• Long-term Plan monitoring. | 12 CRCs increasing to 21 by 2031 - plus two Resource Recovery Parks. |
| Customer Interactions | • Number of customer transactions.<br>• Based on data reported quarterly to council by Resource Recovery Facilities. | Quarterly & annually:<br>• Long-term Plan monitoring. | No target required.<br>(Baseline 135,000 - 2022/2023). |
| **Total waste to landfill** | | | |
| Waste to Class 1 landfill (quantity, GHG emissions, composition) | • Quantity of total waste per person per annum (kg).<br>• Based on data obtained from Class 1 landfill weighbridge records, including council bylaw data and estimated source data to quantify waste disposed generated from within Auckland.<br>• Total GHG emissions for waste disposed, as based on most recent composition data for total waste to landfill.<br>• Composition of total waste to landfill audit reports, based on activity source data or Solid Waste Analysis Protocol (SWAP)[31] information. | Quarterly & annually (tonnage):<br>• Long-term Plan monitoring.<br>• Regional GHG Inventory.<br><br>Composition of waste to landfill assessed as required. | Reduce total waste to Class 1 landfill by 30% per person by 2030 (from baseline 873 kg in FY22, excludes special wastes). |
| Illegal dumping | • Quantity, by weight, of illegal dumping collected/disposed by our contractors.<br>• Number of illegal dumping requests for service.<br>• Number of litter infringement notices.<br>• Based on data from council contractors and council customer relationship management records. | Monthly:<br>• Internal performance monitoring. | No target required. |
| Effectiveness of our community engagement and communications | • Based on data collected from behaviour and attitudinal surveys and research. | Periodically:<br>• Internal performance monitoring. | No target required. |

[31] Solid Waste Analysis Protocol, a methodology provided by the Ministry for the Environment for assessing the composition of mixed waste.

# Te āpitihanga 1: Ngā kohinga rapihi i ia rua wiki: he taunakitanga, he pānga, he kōwhiringa hoki hei tautoko i ngā kāinga noho /

# Appendix 1: Fortnightly rubbish collections: evidence, impacts and options to support households

Will be made available on the Auckland Council website.

# Te āpitihanga 2: Tā Te Kaunihera o Tāmaki Makaurau Aromatawai mō te Para / Appendix 2: Auckland Council Waste Assessment

Will be made available on the Auckland Council website.

# Te āpitihanga 3: Te Mahere o te Tau 2024 mō te Para ki ngā Moutere o Te Moana o Tīkapa / Te Moananui ā Toi / Appendix 3: Hauraki Gulf Islands Waste Plan

Will be made available on the Auckland Council website.

# Te āpitihanga 4: Te Rautaki ā-Kōtuinga mō te Haumanu Rawa /
# Appendix 4: Resource Recovery Network Strategy

Will be made available on the Auckland Council website.

# Te āpitihanga 5: Te kuputaka / Appendix 5: Glossary

| Term | Definition |
|---|---|
| Anaerobic digestion | The process of breaking down organic material in the absence of oxygen; used to manage waste. The process produces fuel and a fertiliser. |
| Biosolids | Biosolids are the nutrient-rich organic materials resulting from the treatment of wastewater in a treatment facility (i.e. treated sewage sludge). |
| Circular economy | An economic system based on designing out waste and pollution, reusing products and materials, and regenerating natural systems. |
| Class 1 (municipal) landfill | Class 1 landfills are New Zealand's most engineered and monitored landfills because they take waste that could discharge contaminants or emissions. All household waste and most commercial, institutional and/or industrial waste is sent to Class 1 landfills. |
| Construction and demolition (C&D) waste | Waste generated from the building and/or removal of any structure, including concrete, plasterboard, wood, steel, brick, cardboard, metals, plastic, glass, rubble, soil and spoil. |
| Container Return Scheme (CRS) | A resource recovery scheme that incentivises people to return empty beverage containers for recycling or refilling in exchange for a refundable deposit. A CRS is synonymous with a DRS (deposit return scheme) (Europe) and a CDS (container deposit scheme) (USA and Australia). |
| Contamination | Inappropriate material (including excessively dirty material), placed in recycling and food scraps collections. Contamination may also occur if the method of collection means one recyclable material cannot be efficiently sorted from another (e.g. broken glass contaminating paper and cardboard). |
| Deconstruction | The extraction of fixtures, fittings, and materials from a building or structure in a way that preserves the value of those items so that they can be reused. This typically involves planning for the removal of specific materials and rehoming those with appropriate organisations for reuse. |
| Downcycling | Refers to using recovered materials to make other products that are less recyclable at end-of-life. Downcycling often leads to a less circular, linear, material flow through the system. |
| Extended Producer Responsibility | A term often used interchangeably with Product Stewardship, however Extended Producer Responsibility signals that the onus to reduce waste applies throughout the supply chain for a product or an activity, including the design phase. |
| Product Stewardship | When consumers and businesses take responsibility for the life cycle impacts of products and support the recovery of raw materials that are normally lost when these products become waste. |
| Resource Recovery Network | A region-wide network of community recycling centres and other facilities that enable diversion of waste from landfill. |
| Soil amendment products | Products for improving soil structure or fertility, such as compost and digestate produced by composting and anaerobic digestion of organic materials. |

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