

Long Term Plan 2024-34 Activity Plan

Solid Waste and Resource Recovery

- *Waste information and education*
- *Waste collections*
- *Landfill and waste processing management*

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			Signature	Date of sign-off
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1. What this activity delivers

The Resource Recovery activity delivers effective and efficient waste management and minimisation services across the city.

This includes:




- The provision of education and awareness programmes in support of waste minimisation
- Kerbside collections of organics, recycling, and refuse
- The provision of 3 city transfer stations and 1 rural transfer station on the Banks Peninsula
- The provision of an organics processing plant
- The provision of a materials recovery facility
- The provision of a managed fill landfill site
- The management of a portfolio of closed landfills

During this LTP several key projects will be undertaken including:

- Contract variations to provide alignment for retendering all waste contracts in 2029
- Development of the Ecogas organics processing facility on industrial zoned land in Hornby
- Interim management of organics at Kate Valley Landfill by Living Earth
- Waste management and minimisation Plan review by 2026
- Development and implementation of the transfer station master plan across this LTP: year 1-3 planning and procurement, year 4-10 implementation
- Development and implementation of a glass management plan
- Consideration of the future use of the Bromley organics processing plant site post closure in 2027

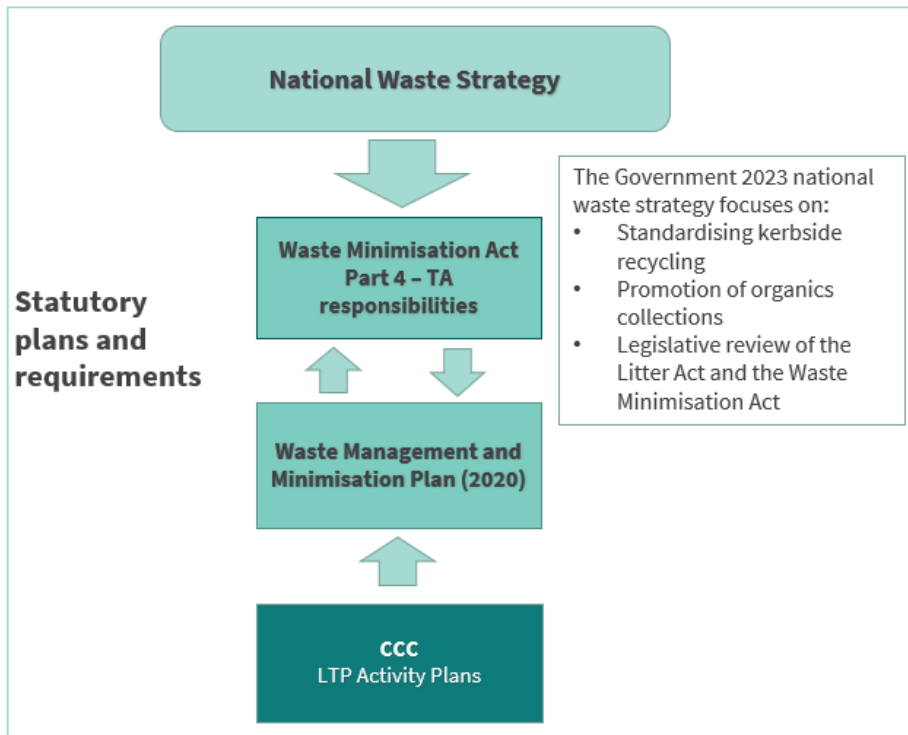
Note: There is no significant variation between the Council's waste management and waste minimisation plan (WMMP) and proposals in this draft long-term plan.

This activity includes the following services:

Services	Contributes to Community Outcomes
 <p>Waste information and education Engaging with community and industry to encourage positive waste management behaviour. Also includes:</p> <ul style="list-style-type: none"> • Policy and planning • Advocacy and new initiatives • Advice on sustainability 	<ul style="list-style-type: none"> • Collaborative confident city, • Green liveable city
 <p>Waste collection Collection and processing of waste, recycling, and organics either at the kerbside or through the provision of public transfer stations (urban and rural) Also includes:</p> <ul style="list-style-type: none"> • Supply of reusable items collected at the transfer stations to the EcoShop for resale 	
 <p>Landfill and waste processing management Effective and compliant management of current and closed landfills, including landfill cap maintenance, landfill gas capture and landfill gas reticulation. Also includes:</p> <ul style="list-style-type: none"> • Operation of the Council transfer stations and resource recovery centres • Operation of the Material Recovery Facility • Operation of Council's Organics Processing Plant (Bromley) • Supply of kerbside organics to the Ecogas Organics Processing Facility scheduled to be operational on industrial zoned land in Hornby by 2027 	<ul style="list-style-type: none"> • Collaborative confident city, • Green liveable city, • Cultural powerhouse city, • Thriving prosperous city

National Context

This diagram summarises the national context for resource recovery.



A snapshot of provision and use for 2022/23:

- ✓ We manage 495,383 kerbside wheelie bins.
- ✓ We emptied 1,898,828 kerbside organic wheelie bins.
- ✓ We emptied 2,003,665 kerbside recycling wheelie bins.
- ✓ We emptied 1,986,226 kerbside refuse wheelie bins.
- ✓ Up to 515,751 vehicles visited the transfer stations.
- ✓ Up to 1,294 tonnes of household goods were collected from the transfer stations and delivered to the Eco Shop owned by Eco Central.

Where we came from

Council waste services have changed over time as new ways of dealing with waste have been developed. From the construction, in 2005, of a single regional landfill (Kate Valley) we have expanded our service delivery to include a variety of resource recovery options. Waste diversion targets have driven the development of waste processing sites including the materials recovery facility (Eco Sort), the organics processing plant and the transfer station recycling centres (Eco Drop). We own the land for each site and the buildings at the organics processing plant and transfer stations, however the sites are operated and managed under contract. Kerbside collection of organics, recycling and refuse is also managed through a service contract. Contracting out services enables Council staff to focus on service delivery, waste minimisation education, and new service development.

During the previous LTP we experienced significant challenges at the organics processing plant resulting in enforcement action being taken in response to offensive and objectionable odours being detected beyond the site boundary. During this LTP we will provide the community with an alternative organics processing solution located away from Bromley.

Key strategies driving the resource recovery activity are set out in the 2020 Waste Management and Minimisation Plan.



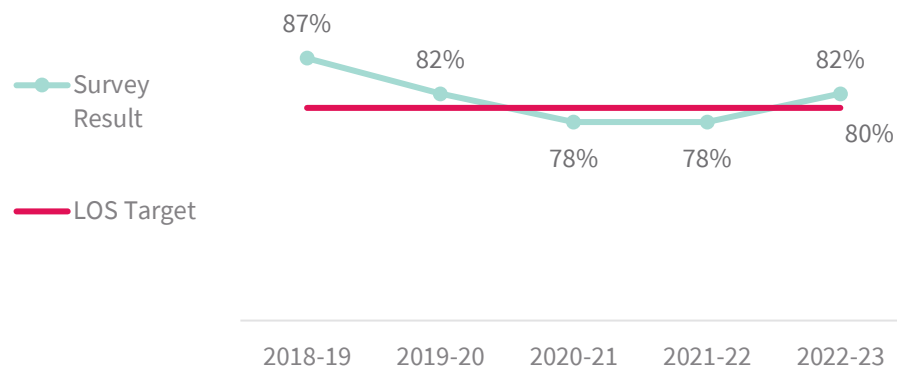
A kerbside collection vehicle in operation. An Eco Drop transfer station. An image referencing the Bin Good – Christchurch bins app for reminders and a handy look up

What our community is saying



82% are satisfied

8.0.3 Customer satisfaction with kerbside collection service (average/total rating)



Individual components	2019-20	2020-21	2021-22	2022-23
Satisfaction with kerbside recycling	80.4%	76.3%	76.0%	81.0%
Satisfaction with kerbside rubbish	85.2%	79.8%	80.8%	84.2%
Satisfaction with organic material	80.7%	77.3%	77.3%	80.6%

Source: Residents survey

Who our key customers are:

- Residents of Ōtautahi Christchurch

Who our key stakeholders are:

- Residents of Ōtautahi Christchurch
- Environment Canterbury
- Contractors

What we do: We ensure the community has access to recycling, resource recovery and waste management services. We ensure that recovered resources are reused, repurposed, or recycled and don't go to landfill.

What you think: Christchurch has had a successful three-bin kerbside collection system since 2009. Kerbside collections comprise of 32% organics, 34% recycling and 34% refuse.

What you say: "Ōtautahi-Christchurch is a sustainable city, working towards zero waste and a circular economy".





"Rubbish and recycling collection is excellent. Something we can all be proud of, so much so that I think most residents are oblivious to how effective the service provision is."

Community outcomes:





- A collaborative confident city – supported by providing a safe and healthy community.
- A green liveable city – supported through minimising waste by recovering resources.





2. Why we deliver this activity

2.1. Community Outcomes: How this activity contributes

Community Outcomes		Contribution*	Key contributions to achieving our community outcomes
	<p>A collaborative confident city Our residents have the opportunity to actively participate in community and city life, have a strong sense of belonging and identity, and feel safe</p>	★★★★	<p>Resource Recovery contributes to a collaborative, confident city by:</p> <ul style="list-style-type: none"> supporting the community to understand how to use our waste management systems, providing services and facilities to collect, process, transport, recycle, compost (until 2027) or dispose of solid and hazardous waste in ways that minimise harm to people and the environment, acknowledging that well managed solid waste services and facilities are a vital part of a healthy and functioning city, recognising that the provision of many waste reducing activities supports stronger communities such as composting at community gardens, the sharing of surplus food, tool or toy libraries and supplying reusable items to the Eco Shop supporting a cross section of households.
	<p>A green, liveable city Our neighbourhoods and communities are accessible and well-connected, supporting our goals to reduce emissions, build climate resilience and protect and regenerate the environment, especially our biodiversity, water bodies and tree canopy</p>	★★★★	<p>Resource recovery contributes to a green, liveable Christchurch by</p> <ul style="list-style-type: none"> providing a kerbside collection service that reduces individual household vehicle movements and emissions associated with transporting organics, recycling, and refuse, ensuring that organics, recycling, and refuse are contained prior to kerbside collection to avoid any littering or other adverse impacts on the community's amenity, reducing the amount of waste sent to landfills, through reuse, repurposing, and recycling initiatives, supplying recovered resources to end markets locally, regionally, nationally, and internationally.
	<p>A cultural powerhouse city Our diverse communities are supported to understand and protect their heritage, pursue their arts, cultural and sporting interests, and contribute to making our city a creative, cultural and events 'powerhouse'</p>	★★★★	<p>Resource recovery contributes to a cultural powerhouse city by</p> <ul style="list-style-type: none"> ensuring our relationship with Papatipu Rūnanga is guided by Te Tiriti o Waitangi-the Treaty of Waitangi, ensuring that through the implementation of the current waste management and minimisation plan, we work closely with Papatipu Rūnanga as the Crown's treaty partners and support their kaitiaki (guardian) role, ensuring that the management of past and present waste landfills maintains the protection of the mauri (life force) of resources and the environment for generations to come, as stated in the Ngāi Tahu whakatauki, 'mō tātou, ā, mō kā uri ā muri ake nei' (for us and our children after us).
	<p>A thriving prosperous city Our city is a great place for people, business, and investment where we can all grow our potential, where enterprises are innovative and smart, and where together we raise productivity and reduce emissions</p>	★★★★	<p>Resource recovery contributes to Christchurch being a thriving prosperous city by</p> <ul style="list-style-type: none"> creating new opportunities for economic growth, innovation, and employment in the waste management and resource recovery sector, supporting circular economy approaches that keep resources in productive use, providing flexible inner-city waste and recycling collection services that acknowledge and support central city living.
<p>*Level of contribution – what this means</p> <p>★★★★ This activity is critical to the Council's contribution to achieving this community outcome – we measure our impact with specific levels of service</p> <p>★★★ This activity strongly supports the Council's contribution to achieving this community outcome – we measure our impact with specific levels of service for some elements</p> <p>★★ This activity supports the Council's contribution to achieving this community outcome – we measure our impact with specific levels of service if practicable</p> <p>★ This activity may provide incidental support to achieving this community outcome – it's not cost-effective to measure our impact</p>			

2.2. Strategic Priorities - How this activity supports progress on our priorities


Strategic Priorities		Contribution*	How our strategic priorities influence the way we work
	Be an inclusive and equitable city which puts people at the centre of developing our city and district, prioritising wellbeing, accessibility, and connection	★★★★	<ul style="list-style-type: none"> • Providing equal access to resource recovery and waste management services across the city is a key outcome of our procurement processes. • Communicating with our residents on a regular basis ensures that they understand how to engage with our services. • The provision of kerbside collection services reduces traffic movements associated with managing waste and improves the city's emission profile and overall wellbeing.
	Champion Christchurch and collaborate to build our role as a leading New Zealand city	★★★	<ul style="list-style-type: none"> • Our resource recovery and waste management services showcase Christchurch's commitment to sustainability and innovation. • We collaborate with other Canterbury Councils and where possible share our assets, for example the Kate Valley landfill. • We work to ensure that public health is not adversely impacted by how we manage our waste as a community.
	Build trust and confidence in the Council through meaningful partnerships and communication, listening to and working with residents	★★★	<ul style="list-style-type: none"> • We meet the needs of our community by adjusting our service provision to the way we are living, for example, adapting kerbside collection services to the increase in multi-unit developments. • We involve residents in the planning and delivery of resource recovery services and programmes, and seek their feedback and input on waste related issues. • We communicate the benefits and impacts of resource recovery to residents to build confidence in our services. • We partner with central government, other Councils, local communities, businesses, organisations and groups that are involved in resource recovery initiatives to support their work and drive innovation.
	Reduce emissions as a Council and as a city, and invest in adaptation and resilience, leading a city-wide response to climate change while protecting our indigenous biodiversity, water bodies and tree canopy.	★★★	<ul style="list-style-type: none"> • The cost of waste disposal includes a carbon charge established through the New Zealand Emissions Trading Scheme. This cost is passed on to customers which pays for off-setting landfill emissions. • We ensure our refuse is delivered to a landfill that has an active gas collection and destruction system that maximises the reduction of methane discharges to atmosphere. • We continue to utilise the landfill gas (methane) from the closed Burwood landfill as an energy resource for Council buildings. • By processing organic material such as food scraps and garden trimmings that would otherwise be landfilled, we significantly reduce methane generated by landfills. • We reduce energy consumption and emissions from the extraction, production and transportation of materials by generating recovered resources that can displace the consumption of virgin resources. • We protect and enhance the natural environment and ecosystems by working to ensure that our services and facilities are operated in a manner that reduces any adverse impact on our community. • We manage and adapt our closed landfills in response to climate change, including coastal inundation, flooding, extreme weather events and any other emergent issue.

	Manage ratepayers' money wisely, delivering quality core services to the whole community and addressing the issues that are important to our residents		<ul style="list-style-type: none"> • We evaluate and report on contractor performance. • We procure services by assessing capability and value for money. • We provide services, facilities and infrastructure that allow the community to reduce the potential for adverse health outcomes by dealing with their waste appropriately.
	Actively balance the needs of today's residents with the needs of future generations, with the aim of leaving no one behind		<ul style="list-style-type: none"> • We undertake long term planning in a manner that considers population growth, changing demographics, emerging community preferences, and market capability. • We provide environmental education that raises awareness of how to use our services and how to adapt your buying habits to reduce the amount of waste you are left to manage. • We work with central government to inform policy decisions that will move our economy away from a consumptive to a more resourceful model.
*Levels of contribution - what this means			
<ul style="list-style-type: none"> ★★★★★ This activity is critical to achievement of this strategic priority – we measure our impact with actions and levels of service in the Strategic Priorities Action Plan ★★★★ This activity strongly supports achievement of this strategic priority – we measure our impact with actions and levels of service in the Strategic Priorities Action Plan for important elements only ★★★ This activity supports achievement of this strategic priority - we measure our impact with actions and levels of service in the Strategic Priorities Action Plan if practicable ★ This activity may provide incidental support for the achievement of this strategic priority – it's not cost-effective to measure our impact 			


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2.3. Climate Resilience Goals: How this activity supports climate resilience goals

Net zero emissions Christchurch

	<p>Key sources of greenhouse gas emissions from this activity include:</p> <ul style="list-style-type: none"> • Potential increase in emissions from organics processing during the period 2024 to 2027 (in response to relocating the second stage processing of organics from Bromley to Kate Valley) <ul style="list-style-type: none"> ○ Emissions unfavourably impacted by increased transport movements from Bromley to Kate Valley ○ Emissions favourably impacted by reduced transport movements of compost from Kate Valley to North Canterbury customers • Landfill emissions - Methane and Co2 produced at Kate Valley Regional Landfill • Landfill emissions - Methane and Co2 emissions associated with the use of landfill gas from Burwood Landfill as an energy source • Vehicle emissions (service provision)- Co2 emissions from kerbside collection and transfer station bulk vehicle movements • Vehicle emissions - from community vehicle journeys associated with waste 		
	<p>Resource Recovery are taking the following actions to reduce greenhouse gas emissions:</p> <table border="0"> <tr> <td data-bbox="212 598 1164 874"> <p>Operational/embedded greenhouse gas emissions</p> <ul style="list-style-type: none"> • Processing organic material such as food scraps and garden trimmings that would otherwise be landfilled significantly reduces methane generated by landfills. • Collection of landfill gas to use as an energy source which significantly lowers the release to atmosphere of methane generated within the landfill. • Ensuring that the kerbside collection fleet and other waste collection fleet is based on fuel efficient, low emission vehicles. </td> <td data-bbox="1164 598 2110 874"> <p>Greenhouse gas emissions by users of Resource Recovery</p> <ul style="list-style-type: none"> • Providing kerbside collections across the city to reduce the need for individual vehicle movements. • Providing a transfer station network that limits the distance the community have to travel to drop off waste. • Reducing the amount of material sent to landfill by providing reuse, repurposing, recovery, and recycling services. </td> </tr> </table>	<p>Operational/embedded greenhouse gas emissions</p> <ul style="list-style-type: none"> • Processing organic material such as food scraps and garden trimmings that would otherwise be landfilled significantly reduces methane generated by landfills. • Collection of landfill gas to use as an energy source which significantly lowers the release to atmosphere of methane generated within the landfill. • Ensuring that the kerbside collection fleet and other waste collection fleet is based on fuel efficient, low emission vehicles. 	<p>Greenhouse gas emissions by users of Resource Recovery</p> <ul style="list-style-type: none"> • Providing kerbside collections across the city to reduce the need for individual vehicle movements. • Providing a transfer station network that limits the distance the community have to travel to drop off waste. • Reducing the amount of material sent to landfill by providing reuse, repurposing, recovery, and recycling services.
<p>Operational/embedded greenhouse gas emissions</p> <ul style="list-style-type: none"> • Processing organic material such as food scraps and garden trimmings that would otherwise be landfilled significantly reduces methane generated by landfills. • Collection of landfill gas to use as an energy source which significantly lowers the release to atmosphere of methane generated within the landfill. • Ensuring that the kerbside collection fleet and other waste collection fleet is based on fuel efficient, low emission vehicles. 	<p>Greenhouse gas emissions by users of Resource Recovery</p> <ul style="list-style-type: none"> • Providing kerbside collections across the city to reduce the need for individual vehicle movements. • Providing a transfer station network that limits the distance the community have to travel to drop off waste. • Reducing the amount of material sent to landfill by providing reuse, repurposing, recovery, and recycling services. 		

We understand and are preparing for the ongoing impact of Climate change

	<p>Key climate risks for the Resource Recovery activity includes:</p> <ul style="list-style-type: none"> • Extreme weather (storm) events – increased intensity of weather events with the potential to cause inundation and storm scour of low lying and coastal landfill sites. • Extreme weather (temperature) events – impacts ability to operate processing sites, for example, materials recovery facility. • Increased rainfall - flooding impacts that affect the kerbside collection service and transfer station access. • Other impacts on assets and infrastructure (see the Asset Management Plan for more details). <p>Actions that have been completed to reduce the risks to the Resource Recovery activity and the community posed by those climate risks include:</p> <ul style="list-style-type: none"> • Protection of the former Bexley landfill (installation of rock barrier). • Removal of the former Le Bons landfill and site remediation. • Closure of the Burwood Resource Recovery Park, including final capping and landscaping. • Additional capping of the Ōnuku closed landfill. <p>Options being considered to reduce the risks to the Resource Recovery activity and the community posed by those climate risks include:</p> <ul style="list-style-type: none"> • Supply of kerbside organics to the Ecogas Organics Processing Facility scheduled to be operational on industrial zoned land in Hornby by 2027. • Remediating the seawall at Barry's Bay closed landfill. • Development of a closed landfill management plan that establishes a risk profile for all closed landfill sites.
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- Redevelopment of the existing transfer stations to improve stormwater management.
- Consideration of additional transfer station locations to provide increased coverage across the city.
- Developing a plan for the future use of the Bromley site post 2027.

We are guardians of our natural environment and taonga



The development of a new organics processing facility to be owned and operated by Ecogas will provide the Canterbury region with a secure outlet for organics processing for the next 20 to 30 years. This new facility will be located on industrial zoned land in Hornby. The new organics processing facility will allow for a fully enclosed process, which uses anaerobic digestion technology and a biofuel processing line to convert mixed kerbside organics and garden waste into fertiliser, biogas, and biofuel. The biogas produced through the anaerobic digestion process will be used as a renewable energy alternative to current fossil fuels and supplied to neighbouring industrial businesses. The liquid portion becomes a biofertiliser, used to regenerate soil and provide nutrition for crops. The new facility is scheduled to be fully operational by 2027.

During the period 2024 to 2026, stage 1 processing of kerbside organics will continue in the processing hall at the Bromley site. Stage 2 processing (maturation) will be relocated to the Kate Valley landfill location. Compost generated from the stage 2 processing will be sold into North Canterbury markets.

Levels of service changes that may be required during this LTP include:

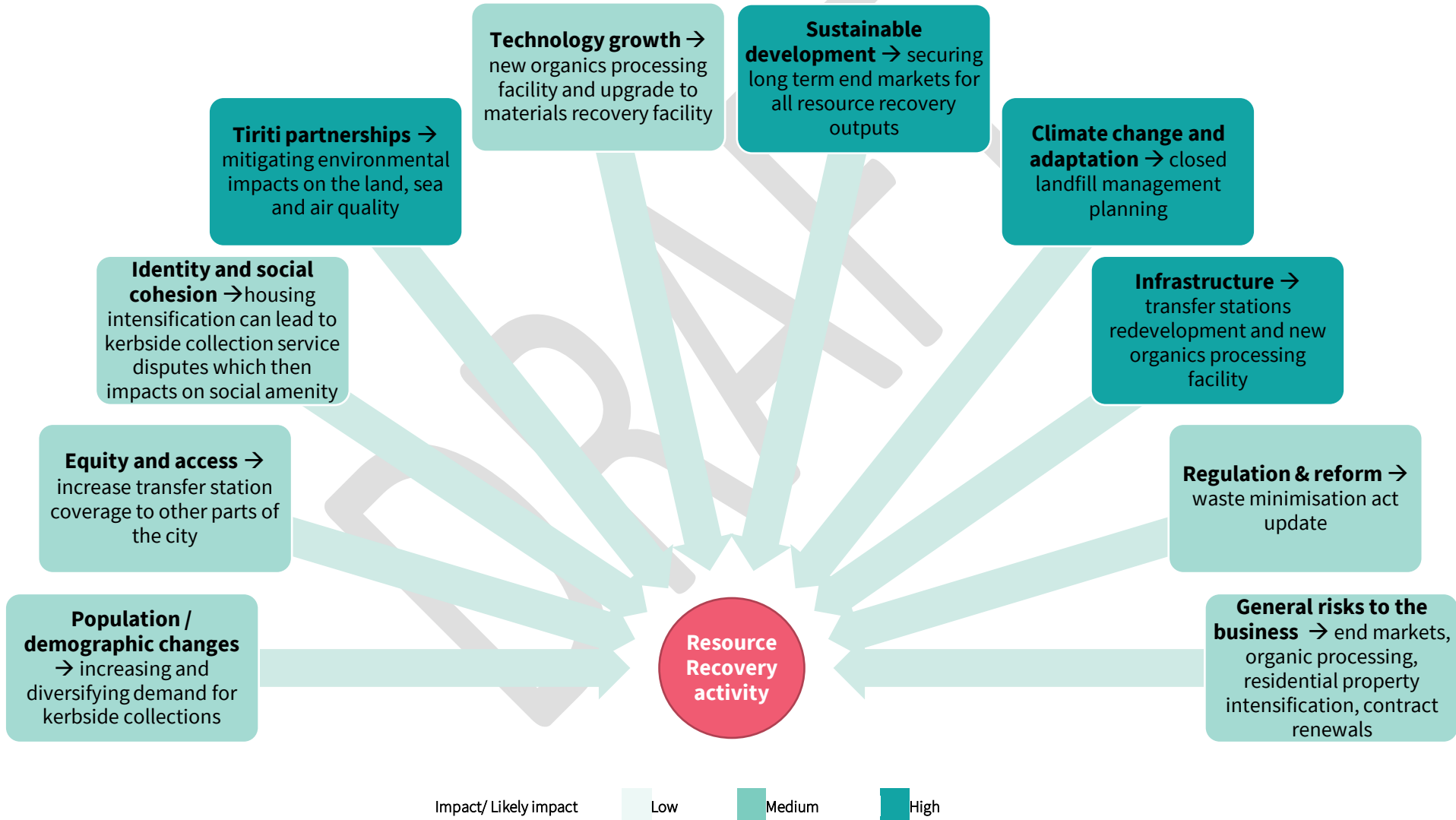
- Updates and amendments to kerbside collections in response to changes in housing development profiles across the city.
- Updates and amendments to kerbside collections in response to the new organics processing facility based at Hornby.
- Updates to the transfer station network in response to population growth and urban housing expansion.
- Updates to the transfer station network in response to the introduction of a container return scheme (CRS) during the life of this LTP.
- Updates to the transfer station network in response to changes in the commodity markets, for example glass.
- Management and maintenance of the closed landfills sites.
- Changes to community engagement in response to legislative reform being undertaken by the Ministry for the Environment, for example, kerbside standardisation and the waste minimisation act review.

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3. How we are planning for future impacts

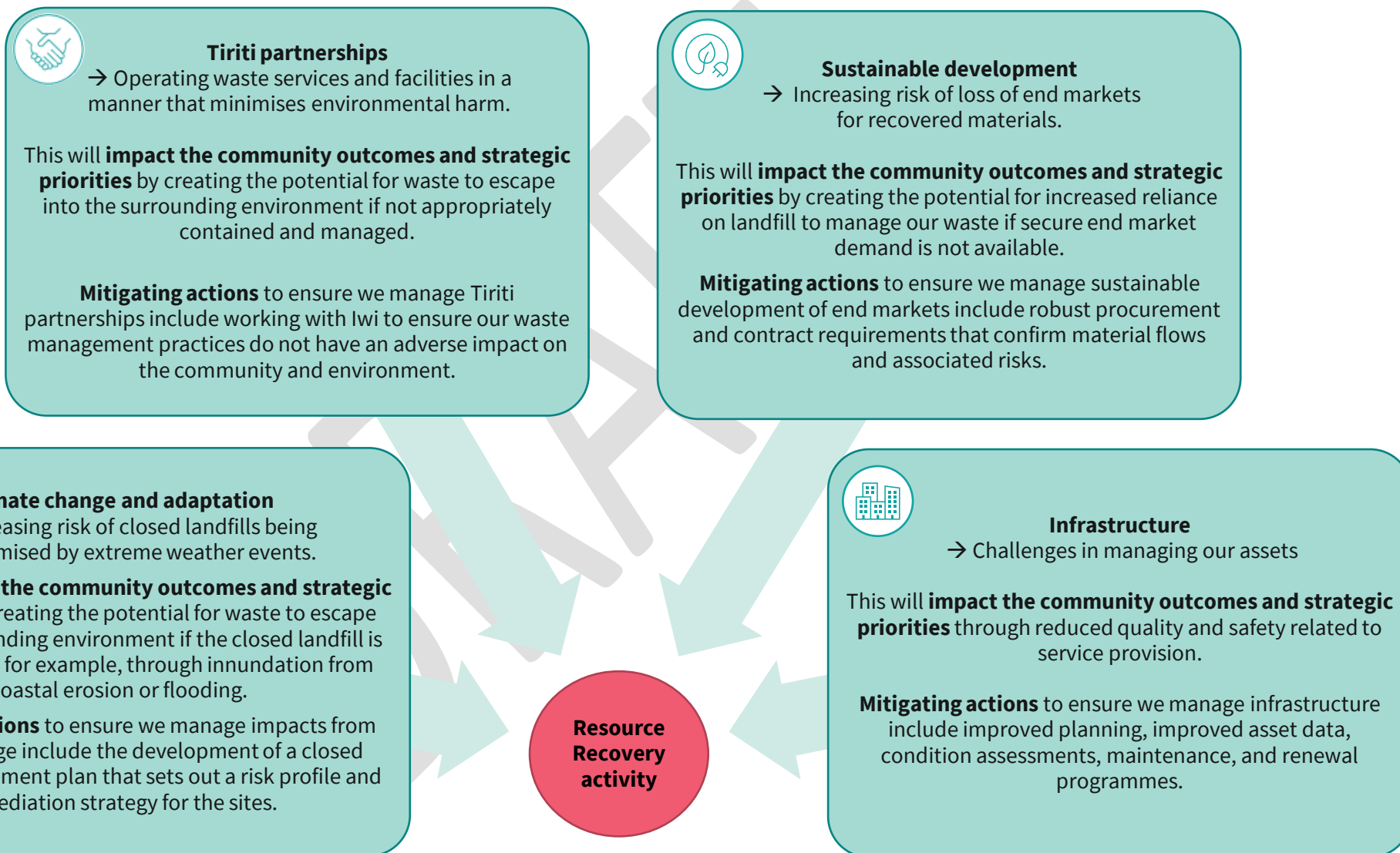
There are various factors influencing current and future demand for Council Resource Recovery facilities and the ability to deliver them. These are listed below.

3.1. Issues impacting current and future activity demand and deliverability



3.2. The high impact issues and mitigations planned

The more prominent ones that in particular effect our Community Outcomes or Strategic Priorities are summarised on this page. For further details on issues, including the current status, future projections, likely impact, and mitigations please see Appendix B.



4. Our levels of service

Council's Levels of Service (LoS) measures enable us to monitor and report against our outcomes and service performance. See Appendix A: Levels of Service Details for more detail.

Services & Level of Service Statements, with Measures of Success and future year Targets

Level of Service statement (What we will provide)	Measures of success (What our community can expect)	Performance Targets/Outputs			
		2024/25	2025/26	2026/27	2027 - 34
Waste information and education					
Engaging with community and industry to encourage positive waste disposal behaviour	Maintain awareness of putting the right items in the right bin (8.0.8)	Minimum of 4 campaigns per year			
Waste collection					
Collection and processing of waste, recycling, and organics either at the kerbside or through the provision of public transfer stations	Kerbside wheelie bins emptied by Council services (8.0.2)	At least 99.5% collection achieved when items correctly presented for collection			
	Resident satisfaction with kerbside collection service (8.0.3)	At least 82%			
	Provide accessible drop off facilities for materials not accepted in the kerbside collection or in excess of the kerbside allocation (8.1.5.3)	4 public transfer stations (3 city and 1 rural); with operating hours of: City sites - 7 days a week (07:00-16:30) Rural Site - min of 3 days a week (12:00-16:00)			
	Deliver a Household Hazardous Waste Collection Day for Banks Peninsula (8.1.5.4)	1 per annum			
	Recyclable materials collected by Council services and received for processing at the Materials Recovery Facility (MRF) (8.0.1)	70kg (+40%/-10%) recyclable materials / person / year	Between 70kg - 55kg (+40%/-10%) recyclable materials / person / year		
	Organic materials collected by Kerbside Collection and received for processing at the Organics Processing Plant (OPP) (8.2.7)	140kg +40%/-10% organic materials / person / year			
	Total organic material collected at Council facilities and diverted for composting (8.2.1)	> 200kg + 30% / - 10% / person / year	New target to be set after 2026/27 as the Ecogas organics facility will not		

					produce compost
	Total residual waste collected by Council services (8.1.2)	≤110kg/ person/ year	≤108kg/ person/ year	≤106kg/ person/ year	Between ≤106kg - ≤105kg/ person/ year
Landfill and waste processing management					
Effective and compliant management of current and closed landfill (including transportation) and landfill gas capture and reticulation.	Consent compliance for: Council transfer stations and recycling centres, Material Recovery Facility, operation of Council's Organics Processing Plant, closed Council landfills, operations at Burwood Resource Recovery Park (BRRP) (NEW)	No major or persistent breaches of consents			
	Maximise beneficial use of landfill gas collected from Burwood landfill: Landfill gas to be available to facilities that utilise the gas (8.1.7)	At least 95% of the time			

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5. How assets will be managed to deliver the services

The Resource Recovery portfolio is made up land, buildings, plant, and equipment with a 2022 book value of approximately \$44.1million (at end of contract). The locations include the Materials Recovery Facility (MRF), the Organics Processing Plant, the City and Banks Peninsula transfer stations (all managed under contract), and our closed landfills including the Burwood Resource Recovery Park and its landfill gas capture plant.

Managing our assets

Asset management involves planning, maintenance, and renewal by a combination of internal staff and external contractors. The capital renewal program is developed using inputs from staff members and their knowledge of assets, feedback from the community and by asset renewal modelling, which employs a condition grading scale of 1-5 (with 1 being very good and 5 being very poor).

Challenges

Finding locations for waste and resource recovery facilities is problematic and must strike a balance between proximity to the community offset against any potential for adverse impact on amenity.

A key focus during this LTP will be the establishment of the Ecogas Organics Processing Facility to be based on industrial zoned land in Hornby.

The future fate of the current Council owned organics processing assets based at Bromley will be determined during the period 2024 to 2027. It may be the case that these assets can be reconfigured into alternate resource recovery facilities which do not have an adverse impact on the community, for example a repurposing centre.

Looking forward

The focus areas over the life of this LTP are:

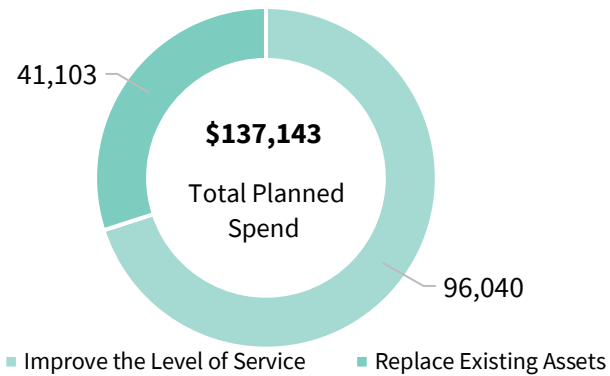
- Continuous improvement in asset data capture.
- Continue to implement appropriate ongoing maintenance practices for assets.
- Prioritise asset replacement based on updated condition reports.
- Development of the Ecogas organics processing facility on industrial zoned land in Hornby.
- Development of the transfer station network (masterplan) to cater with increased demand from the community.
- Consideration of redevelopment opportunities for the organics processing plant and site at Bromley, for example, a combination of a repurposing and/or recovery park and operating depot for other Council departments (Parks).

Please refer to the [Resource Recovery Asset Management Plan](#) for more information on these assets.

6. Capital expenditure and key capital projects

To ensure the continued ability to deliver on our activities and services, and contributing to our community outcomes and strategic priorities, projects have been planned and budgeted for the next 10 years.

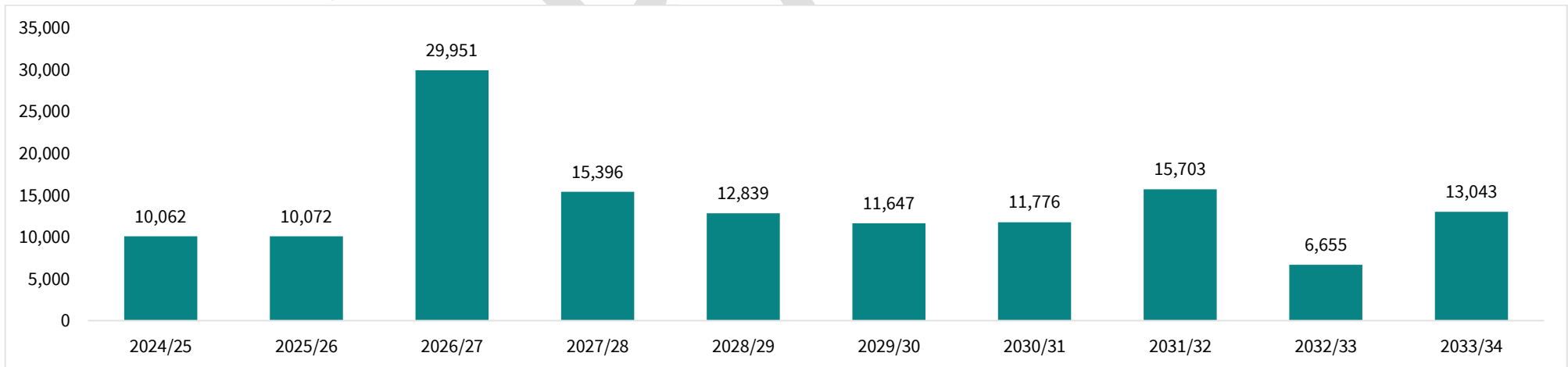
Solid waste and Resource Recovery Capital Programme over 10 years (\$000)



Planned significant projects and programmes include:

1. Recycling and Transfer Station Improvements Programme \$63.7m
2. Organics processing Plant Redevelopment \$18.4m
3. Recycling and Transfer Station Renewals \$10m
4. Solid Waste Plant & Equipment Renewals \$8.6m
5. Kerbside Monitoring Programme \$6.6m

Total Planned Capital Programme summary (\$000)



See [Resource Recovery Asset Management Plan](#) for more detail on the Planned Capital Programme.

7. Financial resources needed

7.1. Resources needed

Financial projections reflect the direction from Council as at the adoption meetings of 14, 21, 27 February 2024.

Solid Waste & Resource Recovery

000's	LTP 2024/25	LTP 2025/26	LTP 2026/27	LTP 2027/28	LTP 2028/29	LTP 2029/30	LTP 2030/31	LTP 2031/32	LTP 2032/33	LTP 2033/34
Activity Costs Before Overheads by Service										
Waste Minimisation	771	796	812	829	856	874	890	910	930	947
Domestic Kerbside Processing	39,610	41,003	42,343	42,441	45,237	46,884	48,542	50,216	51,946	53,681
Transfer Stations Management	1,665	1,720	1,773	1,831	1,891	1,952	2,011	2,073	2,133	2,190
Residual Waste Disposal	21,661	22,365	22,712	23,647	24,619	25,391	26,393	27,398	28,452	29,528
	63,707	65,884	67,640	68,748	72,604	75,101	77,836	80,598	83,461	86,345
Activity Costs by Cost Type										
Direct Operating Costs	62,584	64,774	66,625	67,710	71,542	74,016	76,729	79,469	82,310	85,172
Direct Maintenance Costs	984	1,013	916	937	959	980	1,001	1,021	1,041	1,061
Staff and Contract Personnel Costs	135	93	95	97	98	100	102	104	106	108
Other Activity Costs	4	4	4	4	4	4	4	4	5	5
Overheads, Indirect and Other Costs										
Depreciation	2,028	2,172	2,145	2,902	2,683	2,503	2,596	2,683	2,667	2,753
Debt Servicing and Interest	263	318	341	512	481	447	465	477	468	477
Total Activity Cost	69,820	72,470	74,032	76,117	79,911	82,053	84,903	87,979	90,666	93,654
Funded By:										
Fees and Charges	7,210	7,421	7,587	7,762	7,940	8,115	8,285	8,451	8,620	8,784
Grants and Subsidies	5,469	5,469	5,469	5,469	5,469	5,469	5,469	5,469	5,469	5,469
Cost Recoveries	2,000									
Other Revenues										
Total Operational Revenue	14,679	12,890	13,056	13,231	13,409	13,584	13,754	13,920	14,089	14,253
Net Cost of Service	55,141	59,579	60,976	62,886	66,502	68,470	71,149	74,059	76,577	79,402
Funding Percentages										
Rates	79%	82%	82%	83%	83%	83%	84%	84%	84%	85%
Fees and Charges	10%	10%	10%	10%	10%	10%	10%	10%	10%	9%
Grants and Subsidies	8%	8%	7%	7%	7%	7%	6%	6%	6%	6%
Cost Recoveries	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other Revenues	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Capital Expenditure										
Improved Service Levels	6,741	5,687	26,315	12,469	10,003	7,969	7,565	10,564	4,381	4,347
Renewals & Replacements	3,321	4,385	3,636	2,926	2,836	3,679	4,211	5,139	2,273	8,696
Total Activity Capital	10,062	10,072	29,951	15,396	12,839	11,647	11,776	15,703	6,655	13,043

7.2. Funding consideration and outcome

Section 101 Local Government Act 2002 - Funding Consideration. The following tables are based on the financials from the previous page.

Council funds the Resource Recovery Activity predominately through the general rate. This means that most funding comes from every property in the district, mostly on the basis of capital value of each property. Targeted rates are also used to fund kerbside collections of recycling and organics.

- **Operating expenditure** is largely funded through general rates as the Activity benefits the community as a whole, and the benefits are received mostly in the same year the expenditure is incurred. Targeted rates are also used to fund kerbside collections of recycling and organics.
- **Capital expenditure** is largely funded from rates and debt as the capital expenditure is on asset renewals and improved service levels.

This funding approach is based on applying the following main funding principles to determine the funding policy.

Funding principles considered for operating costs

Consideration for funding method	Result	Implication
User-Pays <i>the degree to which the Activity can be attributed to individuals or identifiable groups rather than the community as a whole</i>	Low	Mostly funded from rates
Exacerbator-Pays <i>the degree to which the Activity is required as a result of the action (or inaction) of individuals or identifiable groups</i>	High	Funded from rates
Inter-Generational Equity <i>the degree to which benefits can be attributed to future periods</i>	Medium	Funded in the year costs are incurred
Separate Funding? <i>the degree to which the costs and benefits justify separate funding for the Activity</i>	Medium	Funded from rates

Outcome: Funding for operating costs

Source	Proportion funded*	Funding Mechanisms
Individual / Group	Medium	Targeted Rates (Medium) Fees & Charges (Low)
Community	Medium	General Rate (Medium) Grants & Others (Low)

Funding of net capital expenditure

Net means after specific capital grants/subsidies/funding

Category of capex	How it is funded initially - Refer also to Financial Strategy	Proportion*
Renewal/replacement	<i>Mix of rates and debt, but mostly rates – because the renewal / replacement programme is continuous. In future years, debt repayment is funded by rates.</i>	Medium
Service improvement	<i>Debt – because the benefits of capital expenditure on service improvement are received in future periods. In future years, debt repayment is funded by rates.</i>	Medium
Growth	<i>Development contributions and debt – because the benefits of capital expenditure relating to growth are received in future periods. In future years, debt repayment is funded by a mix of development contributions and rates.</i>	Low

Outcome: Initial funding for capital

Initial funding source	Proportion of capex funded*
Rates	Medium
Borrowing	Medium
Development Contributions	n/a
Grants and Other	Low - dependent on outcome of any funding application, for example, the waste minimisation fund.

* Low = this source provides 0%-25% of the funding for this Activity, Medium = this source provides 25%-75% of the funding for this Activity, High = this source provides 75%-100% of the funding for this Activity

More information on the Council's Finance and Funding Policies can be found in the [Financial Strategy](#) and the [Revenue and Financing Policy](#)

8. Possible significant negative impacts on wellbeing



This activity may have significant negative effects on social, economic, environmental, or cultural wellbeing of the local community, now or in the future.

Negative Effect	Mitigation
Social	
Potential noise and odour from waste and recovered materials processing sites.	Ongoing improvement of onsite practices as needed, implement redevelopment options, and monitoring of complaints.
Economic	
The cost of recycling material through the Material Recovery Facility becomes uneconomic.	Finding local buyers for recycling material and supporting the circular economy, improving our processing quality, and working with Central Government to ensure products entering the economy are suitable for recycling.
Environmental	
Potential GHG emission increases during 2024 to 2026 in response to the interim processing of organics at the Kate Valley site.	During the period 2024 to 2026, stage 1 processing of kerbside organics will continue in the processing hall at the Bromley site. Stage 2 processing (maturation) will be relocated to the Kate Valley landfill location. Compost generated from the stage 2 processing will be sold into North Canterbury markets.
Potential GHG reductions post commissioning (2026) of the Ecogas organics processing facility in Hornby.	The development of a new organics processing facility to be owned and operated by Ecogas will provide the Canterbury region with a secure outlet for organics processing for the next 20 to 30 years. This new facility will be located on industrial zoned land in Hornby. The new organics processing facility will allow for a fully enclosed process, which uses anaerobic digestion technology and a biofuel processing line to convert mixed kerbside organics and garden waste into fertiliser, biogas, and biofuel. The biogas produced through the anaerobic digestion process will be used as a renewable energy alternative to current fossil fuels and supplied to neighbouring industrial businesses. The liquid portion becomes a biofertiliser, used to regenerate soil and provide nutrition for crops. The new facility is scheduled to be fully operational by 2027. Once operational and with end markets established the organic processing facility is anticipated to be overall carbon positive due the cumulative impact of the displacement of fossil fuels.
Pollution and noise generated by collection, and transportation of waste and recovered materials.	Alternative methods of collection and transportation are prioritised including low emission vehicles. Waste minimisation and education programmes as detailed in the WMMP 2020.
Potential noise and odour from waste and recovered materials processing sites.	Ongoing improvement of onsite practices as needed and monitoring of complaints.
Too much waste is sent to landfill.	Ongoing waste diversion processes (recycling and composting), education for all communities, and support for businesses to reduce waste through Target Sustainability. See the detailed Action Plan in the WMMP 2020
Effects of land filling including the occupation of land, methane production and leachate generation.	Waste minimisation and education programmes as detailed in the WMMP 2020. Landfill gas capture and destruction systems.
Residual impact of closed landfills.	Closed landfill portfolio is managed through a combination of internal and external monitoring staff. Identified remediation works are managed by a combination of internal and external technical staff.
Cultural	
Potential impacts with closed landfill remediation.	Engagement with Mana Whenua to mitigate potential impacts.

Appendices



A. Appendix A: Levels of Service detail

A.1. Continuous Improvement Review (S17A) – Recommendations for change

Change item

An initial section 17a has been undertaken for the organics processing contract.

An additional section 17a review will be undertaken for the remainder of the Resource Recovery activity during this LTP.

The intent is to align all Resource Recovery activity Contract end dates to 31 March 2029.

Retendering of the Resource Recovery activity Contracts will present separable and consolidated options for an open market response.

Recommendation:

- The organics processing s17a review recommended an open market procurement process to establish the future organics processing plant solution. This procurement process concluded in December 2023 with a Contract award to Ecogas. The Contract is for a 20-year initial term with 2 x 5-year extensions available. Ecogas will build, own, and operate a purpose-built organics processing facility based on industrial zoned land in Hornby. Council have contracted to supply kerbside organics and transfer station greenwaste to this facility for an agreed gate fee. The facility is anticipated to be fully operational by 2027.

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A.2. Levels of Service: Performance measures in detail

Level of Service statement (What we will provide)	LOS	Measures of success (What our community can expect)	Performance Targets/Outputs				Method of Measurement	Community Outcome	Historic Performance Trends	Benchmarks	C/M
			2024/25	2025/26	2026/27	2027 - 34					
Waste information and education											
Engaging with community and industry to encourage positive waste disposal behaviour	8.0.6	Engage with Central government, Industry and Sector interest groups on policy and strategy to reduce waste to landfill	12 interactions per annum	12 interactions per annum	12 interactions per annum	12 interactions per annum	Monthly recording of actual number of formal interactions by Resource Recovery staff with Central Government, Industry, and sector interest groups.	Collaborative confident city, Green liveable city	2023: Achieved 2022: Achieved 2021: 16 2020: 22 2019: 15		M
	8.0.7	Use of waste web page	Minimum of 450,000 web page hits per year	Minimum of 450,000 web page hits per year	Minimum of 450,000 web page hits per year	Minimum of 450,000 web page hits per year	Tracked by Public Information and Participation unit	Collaborative confident city, Green liveable city	2023: 673,543 2022: Achieved		M
	8.0.8	Maintain awareness of putting the right items in the right bin	Minimum of 4 campaigns per year	Minimum of 4 campaigns per year	Minimum of 4 campaigns per year	Minimum of 4 campaigns per year	Public events can form part of a campaign	Collaborative confident city, Green liveable city	2023: 9 campaigns 2022: 11 campaigns		C
	8.0.9	Use of App	35,000 Active users of the App	35,000 Active users of the App	35,000 Active users of the App	35,000 Active users of the App	Tracked by Public Information and Participation unit	Collaborative confident city, Green liveable city	2023: 29,300 2022: Achieved		M
	8.0.4	Proportion of incoming recyclable materials that are contaminated	<=10% (by weight) contamination of incoming recyclable materials	<=10% (by weight) contamination of incoming recyclable materials	<=10% (by weight) contamination of incoming recyclable materials	<=10% (by weight) contamination of incoming recyclable materials	Monthly Collection Truck Sample Audits enacted by contractor recording and reporting percentage of contamination of incoming recyclable materials Measuring the level of contamination of incoming recyclable materials to be processed by the MRF. Also measures the effectiveness of public education initiatives to achieve the right kerbside behaviour.	Collaborative confident city, Green liveable city	2023: 9.62% 2022: 15% 2021: 14% 2020: 20% 2019: 7.1%		M
	8.2.4	Proportion of incoming organic material that is contaminated	Less than 2.0% (by weight) contamination of incoming organic material	Less than 2.0% (by weight) contamination of incoming organic material	Less than 2.0% (by weight) contamination of incoming organic material	Less than 2.0% (by weight) contamination of incoming organic material	Monthly recording and reporting of weight of contamination waste to landfill as a percentage of organic material received	Collaborative confident city, Green liveable city	Historical contamination levels were: 2023: 0.04% 2022: Achieved 2021: 0.07% 2020: 0.05% 2019: 0.09%		M
Waste collection											
Collection and processing of waste, recycling, and organics either at the kerbside or through the provision of public transfer stations	8.0.2	Kerbside wheelie bins emptied by Council services (8.0.2)	At least 99.5% collection achieved when items correctly presented for collection	At least 99.5% collection achieved when items correctly presented for collection	At least 99.5% collection achieved when items correctly presented for collection	At least 99.5% collection achieved when items correctly presented for collection	Recorded and reported monthly by collections contractor	Collaborative confident city, Green liveable city	2023: 99.82% 2022: 99.89% 2021: 99.91% 2020: 99.56% 2019: 99.55%		C
	8.0.3	Resident satisfaction with kerbside collection service	At least 82%	At least 82%	At least 82%	At least 82%	Annual Residents satisfaction survey Measuring and managing customer satisfaction with Council kerbside collection services	Collaborative confident city, Green liveable city	2023: 81.93% 2022: 78% 2021: 76% 2020: 82% 2019: 86.67%	Four year rolling average = 79.4%	C

Level of Service statement (What we will provide)	LOS	Measures of success (What our community can expect)	Performance Targets/Outputs				Method of Measurement	Community Outcome	Historic Performance Trends	Benchmarks	C/M
			2024/25	2025/26	2026/27	2027 - 34					
	8.1.5.3	Provide accessible drop off facilities for materials not accepted in the kerbside collection or in excess of the kerbside allocation	4 public transfer stations (3 city and 1 rural); with operating hours of: City sites - 7 days a week (07:00-16:30) Rural Site - min of 3 days a week (12:00-16:00)	4 public transfer stations (3 city and 1 rural); with operating hours of: City sites - 7 days a week (07:00-16:30) Rural Site - min of 3 days a week (12:00-16:00)	4 public transfer stations (3 city and 1 rural); with operating hours of: City sites - 7 days a week (07:00-16:30) Rural Site - min of 3 days a week (12:00-16:00)	4 public transfer stations (3 city and 1 rural); with operating hours of: City sites - 7 days a week (07:00-16:30) Rural Site - min of 3 days a week (12:00-16:00)	Maintain publicly accessible facilities. Record all incoming tonnages.	Collaborative confident city, Green liveable city	2023: Achieved as per 2022 2022: 3 city transfer stations available 7 days a week (07:00-16:30) and 1 rural transfer station available 5 days a week (12.00 - 16.00) during summer and 3 days a week (12:00-16:00) during winter		C
	8.1.5.4	Deliver a Household Hazardous Waste Collection Day for Banks Peninsula	1 per annum	1 per annum	1 per annum	1 per annum	Contract reporting	Collaborative confident city, Green liveable city	2023: Achieved 2022: Achieved		C
	8.0.1	Recyclable materials collected by Council services and received for processing at the Materials Recovery Facility (MRF)	70kg (+40%/-10%) recyclable materials / person / year	70kg (+40%/-10%) recyclable materials / person / year	70kg (+40%/-10%) recyclable materials / person / year	Between 70kg - 55kg (+40%/-10%) recyclable materials / person / year	Weight of material as reported by contractor received at Material Recovery Facility from Council services divided by population	Collaborative confident city, Green liveable city	kg/person/year 2023: 76.32 2022: 76.80 2021: 64.04 2020: 91.07 2019: 106		C
	8.2.7	Organic materials collected by Kerbside Collection and received for processing at the Organics Processing Plant (OPP)	140kg +40%/-10% organic materials / person / year	140kg +40%/-10% organic materials / person / year	140kg +40%/-10% organic materials / person / year	140kg +40%/-10% organic materials / person / year	Weight of material as reported by contractor received at Organics Processing Plant from Kerbside collection divided by population	Collaborative confident city, Green liveable city	2023: 134.28 2022: Achieved <i>New measure with LTP 2021</i>		C
	8.2.1	Total organic material collected at Council facilities and diverted for composting	> 200kg + 30% / - 10% / person / year	> 200kg + 30% / - 10% / person / year	> 200kg + 30% / - 10% / person / year	New target to be set after 2026/27 as the Ecogas organics facility will not produce compost	Weight of material as reported by contractor received at Council facilities, divided by population	Collaborative confident city, Green liveable city	kg/person/year 2023: 202.52 2022: 220.27 2021: 201.74 2020: 202.2 2019: 214.95		C
	8.1.2	Total residual waste collected by Council services	≤110kg/ person/ year	≤108kg/ person/ year	≤106kg/ person/ year	Between ≤106kg - ≤105kg/ person/ year	Key business driver Measuring and managing kerbside waste sent to landfill by Council services. Is also an indicator of community behaviour towards reducing waste to landfill. Weight of Kerbside material received at Nominated Council Facilities as reported by contractor divided by population	Collaborative confident city, Green liveable city	kg/person/year 2023: 107.80 2022: 110.92 2021: 108.19 2020: 108.1 2019: 111.87		C

Level of Service statement (What we will provide)	LOS	Measures of success (What our community can expect)	Performance Targets/Outputs				Method of Measurement	Community Outcome	Historic Performance Trends	Benchmarks	C/M
			2024/25	2025/26	2026/27	2027 - 34					
Landfill and waste processing management											
Effective and compliant management of current and closed landfill (including transportation) and landfill gas capture and reticulation.	NEW	Consent compliance for: Council transfer stations and recycling centres, Material Recovery Facility, operation of Council's Organics Processing Plan, closed Council landfills, operations at Burwood Resource Recovery Park (BRRP)	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents set for MRF each year, as reported by Environment Canterbury or Christchurch City Council City Plan	Collaborative confident city, Green liveable city Cultural powerhouse city	New measure with LTP 2024		C
	8.1.5	Consent compliance for Council transfer stations and recycling centres	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents for Council transfer stations per year, as reported by Environment Canterbury or Christchurch City Council	Collaborative confident city, Green liveable city Cultural powerhouse city	2023: No breaches 2022: No breaches 2021: No breaches 2020: No breaches 2019: No breaches		M
	8.0.5	Consent compliance for Materials Recovery Facility (MRF)	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents set for MRF each year, as reported by Environment Canterbury or Christchurch City Council City Plan	Collaborative confident city, Green liveable city Cultural powerhouse city	2023: No breaches 2022: No breaches 2021: No breaches 2020: No breaches 2019: No breaches		M
	8.2.5	Consent compliance for operation of Council's Organics Processing Plant	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents set for the Council's Organics Processing Plant each year, as reported by Environment Canterbury or Christchurch City Council	Collaborative confident city, Green liveable city Cultural powerhouse city	Number of breaches of consent: 2023: 8 2022: 6 2021: 3 2020: 1 2019: 0		M
	8.1.6	Consent compliance for closed Council landfills	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents for closed Council landfills per year, as reported by Environment Canterbury or Christchurch City Council	Collaborative confident city, Green liveable city Cultural powerhouse city	2023: No breaches 2022: No breaches 2021: No breaches 2020: No breaches 2019: No breaches		M
	8.1.8	Consent compliance for operations at Burwood Resource Recovery Park (BRRP)	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	No major or persistent breaches of consents	Measuring and Managing BRRP management of operations at Burwood Resource Recovery Park.	Collaborative confident city, Green liveable city Cultural powerhouse city	2023: No breaches 2022: No breaches 2021: No breaches 2020: No breaches 2019: No breaches		M
	8.1.7	Maximise beneficial use of landfill gas collected from Burwood landfill: Landfill gas to be available to facilities that utilise the gas	At least 95% of the time	At least 95% of the time	At least 95% of the time	At least 95% of the time	Landfill gas measured and recorded as distributed on demand to users' facilities	Collaborative confident city, Green liveable city Cultural powerhouse city	2023: 95% 2022: 97.59% 2021: 97.34% 2020: 96.32% 2019: 95.98%		C
	8.2.6	Quality of compost produced by Council's Organics Processing Plant	Compost meets New Zealand Compost Standard 4454:2005	Compost meets New Zealand Compost Standard 4454:2005	Compost meets New Zealand Compost Standard 4454:2005	New target to be set after 2026/27 as the Ecogas organics facility will not produce compost	Monthly testing of finished compost enacted and reported by contractor to ensure 100% compliance of New Zealand Compost Standard 4454:2005	Cultural powerhouse city, Thriving prosperous city	2023: Achieved 2022: Achieved 2021: 100% compliance 2020: 100% compliance 2019: 100% compliance		M

A.3. Levels of Service changes from Long-term Plan 2021-31, and why

Related Levels of Service (now known as Measures of Success and Targets) have been grouped together under *Level of Service Statements*. This provides a *reduced suite of levels of service that are most critical and meaningful*, rationalising the overall number to be presented in the LTP and included in future performance reporting to ELT, Council, and the community, while ensuring continued *transparency of non-financial performance across services*. Applying this process has resulted in no material changes to Measures of Success or Targets beyond those changes specifically set out below.

Deletions

This Activity has no deleted levels of service.

New

Activity / Level of Service	Change from 2021-31 LTP	Reason/Rationale	Options for Consultation
<p>NEW LOS (C) Consent compliance for: Council transfer stations and recycling centres, Material Recovery Facility, operation of Council's Organics Processing Plant, closed Council landfills, operations at Burwood Resource Recovery Park (BRRP)</p> <p>Target: No major or persistent breaches of consents</p>	New level of service	<p>This level of service was created by combining 5 individual LOS targeting no major or persistent breaches of consents for the 5 different areas. This becomes one public facing level targeting no major or persistent breaches of consents for the entire activity.</p> <p>Each individual LOS remains as is, as management measures / performance indicators.</p>	No specific consultation required. Change also noted in the Statement of Service Provision.

Amendments

Activity / Level of Service	Change from 2021-31 LTP	Reason/Rationale	Options for Consultation
<i>Note: there has been a rearrangement of services and which levels of service belong to which service; however only the below levels of service have changed</i>			
<p>LOS 8.0.3 (C) Customer satisfaction with kerbside collection service</p>	Previous LTP target was rising to 90% satisfaction from a four-year average of 80%.	There are limited interventions that Council can make to lift the satisfaction rating for kerbside.	No specific consultation required. Change also noted in the Statement of Service Provision.

Target: At least X% customers satisfied with Council's kerbside collection service for each year	This target has been reduced to 82% which reflects a return to pre-COVID levels of satisfaction.		
LOS 8.1.5.4 (M→C) Deliver a Household Hazardous Waste Collection Day for Banks Peninsula	This was changed from a Management measure/operational performance indicator to a Community level of service/measure of success	This is a level of service specifically measuring what is delivered to the community	Consultation not required. LOS now reported to Council/Community. Change also noted in the Statement of Service Provision.
LOS 8.2.7 (M→C) Organic materials collected by Kerbside Collection and received for processing at the Organics Processing Plant (OPP)	This was changed from a Management measure/operational performance indicator to a Community level of service/measure of success	Kerbside collection is a level of service specifically delivered to the community.	Consultation not required. LOS now reported to Council/Community. Change also noted in the Statement of Service Provision.

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B. Appendix B: Possible issues impacting the Activity & the mitigations planned

B.1. Changing customer needs

Population / demographic changes (medium impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans/actions
Population growth	389,000 in 2023	<ul style="list-style-type: none"> Projected population in 2048 is 447,800 	<ul style="list-style-type: none"> Increased demand pressures on waste collection services and facilities 	<ul style="list-style-type: none"> Kerbside collections will be adjusted to match population growth Asset management planning will determine how our facility network is updated in response to population growth
Population growth (general and in specific areas)	Central City estimated population in 2022 was 7760	<ul style="list-style-type: none"> Central city population ambition of 20,000 by 2028. 	<ul style="list-style-type: none"> Intensification of residential dwellings within the Central City area will place additional pressure on the kerbside collection service which was not designed for multiple unit developments (MUDs) 	<ul style="list-style-type: none"> Provide alternative wheelie bin configurations to Central City MUDs Allow MUDs to opt out from the kerbside service providing they can demonstrate that they can provide an equivalent commercial service
Ageing population	Greater Christchurch has approximately 50,000 people aged over 65	<ul style="list-style-type: none"> This is forecast to double to approximately 100,000 over the next 30 years 	<ul style="list-style-type: none"> Waste profiles change across demographics. Older demographics tend to produce less waste than the collection capacity they are provided with via the kerbside service 	<ul style="list-style-type: none"> Kerbside collections need to be responsive to noticeable changes in our demographics by, for example, reviewing the wheelie bin size options available to the community
Family/household structure	Average of 2.4 people per household	<ul style="list-style-type: none"> This has been trending down for some time and may be closer to 1.8 in the future. 	<ul style="list-style-type: none"> Shifting demands for different housing typologies and waste requirements 	<ul style="list-style-type: none"> The 2029 Contracts will take this into account and reflect in the procurement process, for example requesting solutions for MUDs

Diversity	Changes in the way that our communities are living	<ul style="list-style-type: none"> The exponential growth in MUDs is projected to continue as the Central City residential population grows 	<ul style="list-style-type: none"> Shifting demands for different housing typologies and waste requirements 	<ul style="list-style-type: none"> The 2029 Contracts will take this into account and reflect in the procurement process, for example requesting solutions for MUDs
Shifts within city (e.g., growing communities, possible future managed retreat)	Current and legacy waste facilities located in low-lying and coastal areas exposed to flooding and rising groundwater	<ul style="list-style-type: none"> Some of these facilities may be required to relocate in the future. This will be determined by national direction and our local coastal adaptation planning. 	<ul style="list-style-type: none"> This may impact on waste infrastructure availability and may require future investment in relocating some facilities 	<ul style="list-style-type: none"> Adaptation planning is being considered as part of the closed landfill management and transfer station master planning process

Equity and access (medium impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Incomes/discretionary income	In 2019, the city's median equivalised household income was \$62,300	<ul style="list-style-type: none"> No projected data 	<ul style="list-style-type: none"> Low and reducing household incomes can impact on how residents manage their waste, particularly in response to any user pays based gate fees at our facilities 	<ul style="list-style-type: none"> Retender all waste contracts by 2029 with a view to obtaining the most efficient and cost-effective service from the market
Growing gap rich and poor	Material hardship, for example the provision of household goods, can be exacerbated where the gap between rich and poor widens	<ul style="list-style-type: none"> With a growing percentage of household income being spent on accommodation, heat, power, and food people have less discretionary spend which may impact on how they manage their waste 	<ul style="list-style-type: none"> Increased demand will be placed on our repurposing and reuse networks as people look for cheaper sources of household goods and cheaper methods to dispose of unwanted household items 	<ul style="list-style-type: none"> Continue to work with our Contractors and other community groups on repurposing projects that are targeted at those with the greatest need
Physical access	The majority of transfer station users access the sites via a vehicle.	<ul style="list-style-type: none"> Increased traffic flows are likely across the transfer station network if we retain the same coverage level of service 	<ul style="list-style-type: none"> Waste facilities and services need to be accessible to all our community 	<ul style="list-style-type: none"> Transfer station network coverage may increase during this LTP

Equity access across city	Equity of access to the transfer station network varies across the city	<ul style="list-style-type: none"> Increased demand will be placed on the existing transfer station sites as the population grows and housing development expands 	<ul style="list-style-type: none"> Waste facilities and services need to be accessible to all our community 	<ul style="list-style-type: none"> Transfer station network coverage may increase during this LTP
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Identity and social cohesion (medium impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Cultural identity	78% European, 15% Asian, 10% Māori, 4% Pacifica, 3% other - less ethnically diverse than North Island cities	<ul style="list-style-type: none"> Becoming more ethnically diverse. 	<p>Cultural identity can have an impact on how we provide the Resource Recovery activity including:</p> <ul style="list-style-type: none"> Land use Communication methods including collaterals (leaflets, etc) 	We can take account of cultural identity by engaging and working with the community
Sense of place and community	Intensification of residential development present logistical challenges to the Resource Recovery activity	<ul style="list-style-type: none"> Intensification is likely to continue as properties come to the market and are then purchased and redeveloped 	<ul style="list-style-type: none"> Intensification of residential development presents access and egress issues for the kerbside collection service Presenting multiple sets of wheelie bins on a pavement that was originally designed for only one or two properties can prove difficult for the kerbside collection vehicles to access 	<ul style="list-style-type: none"> Further development of multi-unit developments (MUDs) bin size and configuration options Continuation of the requirement for a waste plan as set out in the Resource Recovery bylaw for MUDs that want to provide their own collection system Continuing to work with developers to ensure that they take waste services into account at the design stage, for example, by providing adequate and accessible storage space for the wheelie bins
Rising crime, rallies, protests (safety)		<ul style="list-style-type: none"> Increase TBC 	<ul style="list-style-type: none"> Waste service collaterals such as wheelie bins could be inappropriately used during public gatherings/protests 	Working with event organisers and other Council departments will help to minimise the potential for inappropriate use of waste collaterals and could include:

				<ul style="list-style-type: none"> Alteration to kerbside collection dates and times Removal of waste collection containers, for example, skips from known event routes Sealing of litter bins to prevent malicious access, for example, fires
Safety staff and public	<p>Site users (incoming vehicles) at the transfer stations are in the region of 516k per year</p> <p>Kerbside collection customers (bins in service) were 495,383 as at 30 June 2023</p>	<ul style="list-style-type: none"> Traffic will increase at the sites as the city population grows The number of kerbside customers will also increase with population growth 	<ul style="list-style-type: none"> Changes to traffic management arrangements may be required at the transfer station sites Changes to the kerbside collection routes may be required to ensure the routes can be serviced within the anticipated service day i.e., before 6pm 	<ul style="list-style-type: none"> Transfer station master plan will be developed and implemented during this LTP Contractor will continue to balance to ensure kerbside collection routes are optimised and work with Council on notification to residents of any collection day changes

B.2. Tiriti Partnerships (high impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Ensuring we have a strong working relationship with mana whenua	Continuing to build relationships with our treaty partners	<ul style="list-style-type: none"> Mana whenua will have a strong interest in the establishment of the Ecogas organics processing facility and subsequent end market placement of the facility outputs 	Waste and resource recovery sites are contentious by their nature and require careful placement and ongoing management	<ul style="list-style-type: none"> Working with mana whenua to understand the significance of current and future waste and resource recovery sites will form a key part of our project management

B.3. Technological growth (Medium impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Changing technology	<p>The operation of the Bromley organic processing plant is not mitigating odours to an acceptable level</p> <p>Kerbside collection IT platforms are used by the Contractor to optimise route collection efficiency</p> <p>The kerbside collections Bin App would benefit from increased functionality</p>	<ul style="list-style-type: none"> An organics processing facility owned and operated by Ecogas will be established on industrial zoned land in Hornby during the life of this LTP The Contractor continues to invest in traffic management/routing software in order to optimise the collection route efficiency during this LTP The Bin App will be further developed during this LTP to provide a broader based communications package for use with the community 	<ul style="list-style-type: none"> An interim organics processing solution is now in place. Stage 1 processing of the organics will continue in the processing hall at the Bromley site. Stage 2 processing (maturation) will occur at the Kate Valley landfill. Compost outputs will be sold into North canterbury markets. Changes to kerbside routes will require engagement with the affected parts of the community The Bin App is a useful platform for sending out information from a single authentic source, but it requires the community to be able to access it 	<ul style="list-style-type: none"> Contract service schedules and specifications will be used by Council to manage the operational impact of the Hornby organics processing facility Daily communication with Contractor and monthly Contract meetings Project management working with Council IT and marketing teams.
Digital divide	Variable access to devices across our community	<ul style="list-style-type: none"> An increasing reliance on digital platforms to convey Resource Recovery activities 	<ul style="list-style-type: none"> Accessibility to digital messaging may not be equitable 	<ul style="list-style-type: none"> Ensure the applications we use are free to access Continue to utilise other non-digital media to connect with the community
Digital security	40,000 plus users registered for the Bin App	<ul style="list-style-type: none"> Registering for the Bin App will continue to be promoted during this LTP 	<ul style="list-style-type: none"> Possible privacy breaches if the Bin App does not contain an appropriate security protocol 	<ul style="list-style-type: none"> Work with software developers on functionality upgrades alongside continuing security efficacy measures during this LTP

B.4. Resilience and environmental considerations

Climate change & adaptation (high impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Closed landfill management	Council monitors closed landfills within the city and across the Banks Peninsula	<ul style="list-style-type: none"> The erosion of landfill caps due to extreme weather events is likely to continue during this LTP 	<ul style="list-style-type: none"> Exposed closed landfills can have an adverse impact on the environment and surrounding community 	<ul style="list-style-type: none"> Asset management plans Closed landfill monitoring plans Project plans related to site remediation
Vehicle emissions	Large traffic volumes accessing the transfer station network to manage their waste	<ul style="list-style-type: none"> Traffic volumes at the transfer station are set to increase with population growth 	<ul style="list-style-type: none"> Increased emission profile as the community has to drive further out of their way to deal with waste 	<ul style="list-style-type: none"> Transfer station master plan will be implemented during this LTP The consideration of additional transfer stations will be progressed during this LTP
Landfill gas emissions	<p>Gas capture at Burwood Closed Landfill</p> <p>Gas capture and flaring at Kate Valley Landfill</p>	<ul style="list-style-type: none"> The Burwood energy recovery project, where landfill gas is used as an energy source for municipal buildings in the city, will continue during this LTP The team at Kate Valley will continue to explore landfill gas utilisation options during this LTP, for example, electricity generation 	<ul style="list-style-type: none"> Without landfill gas extraction systems, we would be emitting Methane direct into the atmosphere 	<ul style="list-style-type: none"> Landfill gas management plans Emission trading scheme submissions and surrender obligations
Increased community expectations of information and engagement	Central Government is introducing changes to the waste sector, for example, kerbside standardisation	<ul style="list-style-type: none"> Further changes to the waste sector will occur during this LTP. For example, in response to the review of the Waste Minimisation Act 	<ul style="list-style-type: none"> Ongoing communication that outlines the change impacts to our community, for example, no cardboard or paper in the kerbside organics collection bin 	<ul style="list-style-type: none"> Communications strategy Bin App Other media platforms

Sustainable development (high impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Managing GHG emissions (per table above)	Landfill emissions are managed appropriately	<ul style="list-style-type: none"> • Opportunities to generate electricity from the Kate Valley landfill gas may eventuate during this LTP 	<ul style="list-style-type: none"> • The landfill gate fee is impacted by the efficiency of the landfill gas capture and utilisation 	<ul style="list-style-type: none"> • Landfill management plan as operated at Kate Valley
	Vehicle emissions are created during each individual journey to the transfer stations	<ul style="list-style-type: none"> • Individual vehicle journeys to the transfer stations will increase with population growth 	<ul style="list-style-type: none"> • Traffic management at the transfer stations will be impacted by increased usage in response to population growth 	<ul style="list-style-type: none"> • Transfer station master planning to determine the optimum coverage for the city
	Potential increased emissions associated with the interim organics processing solution (2024 to 2026)	<ul style="list-style-type: none"> • The interim organics processing solution involves additional transport movement of material to Kate Valley for second stage processing 	<ul style="list-style-type: none"> • The emissions profile of the interim organics processing solution is a combination of unfavourable transport movements of material into Kate Valley offset against favourable reduced travel time movements of compost into North Canterbury markets 	<ul style="list-style-type: none"> • The interim solution needs to be supported by the development of new end markets for mature compost that is within close proximity to Kate Valley
Ethical markets & procurement – placement of recovered materials	Contractor is responsible for securing end markets for recovered resources	<ul style="list-style-type: none"> • Commodity markets will remain volatile during this LTP creating fiscal uncertainty for product placement and any monetary value 	<ul style="list-style-type: none"> • Contract cost escalations were dealt with during the previous LTP 	<ul style="list-style-type: none"> • Develop relationships with onshore processors • Continue to minimise contamination levels in recovered materials through education, awareness, and auditing programmes
Resilience & risk – contract renewals	Contracts have varying end dates	<ul style="list-style-type: none"> • Contract alignment will occur during this LTP • New Contracts will be reset to commence in 2029 wherever possible 	<ul style="list-style-type: none"> • Offering a consolidated Contract procurement process will present an opportunity for regional, national, and international participants • Consolidated Contracts can lead to an opportunity for operational efficiencies 	<ul style="list-style-type: none"> • Procurement plan • Contract documentation • Contract KPIs

			<ul style="list-style-type: none"> Consolidated Contracts can also remove any double handling issues – physical and financial 	
Natural hazards - floods	Closed landfill exposure to flooding	<ul style="list-style-type: none"> The severity and frequency of storm events and flooding is set to increase in response to climate change 	<ul style="list-style-type: none"> Closed landfills adjacent to rivers or coastlines could be compromised and waste exposed 	<ul style="list-style-type: none"> Closed landfill management planning and remediation Project management of remediation projects Accurate forecasting of remediation costs
Triple bottom line	Service delivery is measured through Contract KPIs that include some financial, social, and environmental performance indicators	<ul style="list-style-type: none"> The review of the waste minimisation act presents the Government an opportunity to change the incentives in the economy away from consumption to conservation (of resources) 	<ul style="list-style-type: none"> By continuing to implement mandatory product stewardship schemes responsibility for waste (fiscal and physical) is transferred from the ratepayer back to the supply chain (producer, distributor, and consumer) 	<ul style="list-style-type: none"> Central Government legislative change

B.5. Infrastructure (medium impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Delivering on what we say and looking after what we have got	Asset management plans for the Resource Recovery activity are being updated	<ul style="list-style-type: none"> Asset management planning and infrastructure development will continue during this LTP 	<ul style="list-style-type: none"> Inadequate asset management planning can lead to a reduced level of infrastructure availability to the community 	<ul style="list-style-type: none"> Asset management plans Capital expenditure planning Contract management – facility maintenance
Resilience to impacts of climate change	Main focus is on protecting the closed landfills from the impacts of extreme weather events	<ul style="list-style-type: none"> The severity and frequency of storm events and flooding is set to increase in response to climate change 	<ul style="list-style-type: none"> Closed landfills adjacent to rivers or coastlines could be compromised and waste exposed 	<ul style="list-style-type: none"> Closed landfill management planning and remediation Project management of remediation projects Accurate forecasting of remediation costs
Planning and investing for growth	The 2020 waste management and	<ul style="list-style-type: none"> Additional capacity will be required on the kerbside 	<ul style="list-style-type: none"> Finding suitable new transfer station location(s) will require 	<ul style="list-style-type: none"> Transfer station master plan Asset management plan

	<p>minimisation plan set out our responses to anticipated population growth</p>	<p>collection routes in response to population growth</p> <ul style="list-style-type: none"> Additional capacity will be required in the transfer station network in response to population growth, for example, additional site(s), improved traffic management, separation of commercial and residential site users, separation of site users from operational activities 	<p>community engagement/consultation</p>	<ul style="list-style-type: none"> Review of 2020 waste management and minimisation plan / development of 2026 waste management and minimisation plan
<p>Understanding and maintaining the condition of our infrastructure</p>	<p>See the Resource Recovery Asset Management Plan for more detail</p>			

B.6. Regulations & reform (high impact)

Issue/driver	Present Position	→ Projection	Impact on services	Mitigating plans
Resource Management reforms	Waste facilities are currently subject to local planning, for example, permitted or designated activity rules and resource consents	<ul style="list-style-type: none"> Securing new waste facility locations will be impacted by the RMA reforms if enacted 	<ul style="list-style-type: none"> Reduction in sites available for development as waste and resource recovery facilities 	<ul style="list-style-type: none"> Maintain close alignment with Government departments, for example, the Ministry for the Environment to understand how waste and resource recovery facilities will be impacted by any reform
Waste minimisation act review	The waste minimisation act has not had any substantive review since its inception in 2008	<ul style="list-style-type: none"> The waste minimisation act review will strengthen the ability to regulate and enforce changes to the waste sector and manufacturing sector 	<ul style="list-style-type: none"> If the review promotes more producer responsibility through product stewardship, then Councils could see a change to how resource recovery is funded 	<ul style="list-style-type: none"> Maintain a presence on WasteMINZ and Ministry working groups Support the Ministry for the Environment in developing appropriate policy and legislative settings that support resource recovery

B.7. Identified Business Unit Risks

Business risks that could impact this activity have been considered. A summary of risks currently assessed as most relevant to the activity are listed below. Risks are recorded and periodically reported to the Executive Leadership Team and the Audit and Risk Management Committee.

Strategic priorities risk is associated with	Risk Description	Impact	Likelihood	Inherent Risk Rating	Controls / Mitigations	Residual Risk Rating
<ul style="list-style-type: none"> Manage ratepayers' money wisely Build trust and confidence 	<p>Failure of recycling system There is a risk of:</p> <ul style="list-style-type: none"> Being unable to sell collected recycling due to lack of end market demand and/or contamination levels 	Major	Highly Likely	High	<ul style="list-style-type: none"> Education and communications to reduce contamination. Maintaining high quality recycling commodities to maximise saleability on international markets. Investing in increased sorting technology at the MRF to enable higher quality recycling yields. 	Medium
<ul style="list-style-type: none"> Manage ratepayers' money wisely Build trust and confidence Reduce emissions 	<p>Interim organics processing solution disrupted There is a risk of:</p> <ul style="list-style-type: none"> service disruption forced closure of existing operations inability to divert over 90,000 tonnes of food and garden organics from landfill (53,000 tonnes of kerbside material), increased costs of disposal. 	Major	Likely	High	<ul style="list-style-type: none"> Stage 1 organics processing at Bromley Stage 2 organics processing at Kate Valley Both stage 1 & 2 processes subject to resource consent Contract management Logistics contingencies for both transport and screening equipment Established end markets for compost outputs 	Medium
<ul style="list-style-type: none"> Manage ratepayers' money wisely Build trust and confidence 	<p>Ecogas organics processing facility not delivered There is a risk of:</p> <ul style="list-style-type: none"> service disruption forced closure of existing operations 	Major	Unlikely	Medium	<ul style="list-style-type: none"> Contract award has been made to Ecogas for future organics processing Organics processing facility owned and operated by Ecogas will be located on industrial zoned land in Hornby 	Low/Medium

Strategic priorities risk is associated with	Risk Description	Impact	Likelihood	Inherent Risk Rating	Controls / Mitigations	Residual Risk Rating
<ul style="list-style-type: none"> Reduce emissions 	<ul style="list-style-type: none"> inability to divert over 90,000 tonnes of food and garden organics from landfill (53,000 tonnes of kerbside material), increased costs of disposal. 				<ul style="list-style-type: none"> Facility will be subject to a resource consent Facility will be fully enclosed, and all operational activities will take place indoors No external stockpiling of material 	
<ul style="list-style-type: none"> Manage ratepayers' money wisely Build trust and confidence 	<p>Discharges of contaminants from closed landfill sites</p> <p>There is a risk of:</p> <ul style="list-style-type: none"> Compromised protection of closed landfills discharge of contaminants into the sensitive receiving environments including rivers and coastal areas 	Major	Likely	High	<ul style="list-style-type: none"> Development and implementation of a risk screening tool to prioritise mitigation efforts across high-risk sites Project management of remediation works where required 	Medium
<ul style="list-style-type: none"> Manage ratepayers' money wisely Build trust and confidence Reduce emissions 	<p>Asset failure</p> <p>There is a risk of:</p> <ul style="list-style-type: none"> Disruption to service Increase in costs Increase in emissions from disrupted waste vehicle movements (Commercial and residential) 	Major	Likely	High	<ul style="list-style-type: none"> Asset management plan <ul style="list-style-type: none"> Condition assessments Planned renewals Planned contingencies Contract meetings Third party waste facilities 	Medium