Long Term Plan 2021-31

Activity Plan

Solid Waste and Resource Recovery

Adopted 21 & 23 June 2021

Christchurch City Council

Approvals

Role	Position	Name	For Draft LTP	
			Signature	Date of sign-off
General Manager	GM City Services (Acting)	Carolyn Gallagher		04/02/2021
Activity Manager	Head of Three Waters and Waste	Helen Beaumont		02/02/2021
Finance Business Partner	Finance Business Partner	Peter Langbein		15/02/2021

Authors and Advisors to this Activity Plan

Group	Business Unit	Position	Name
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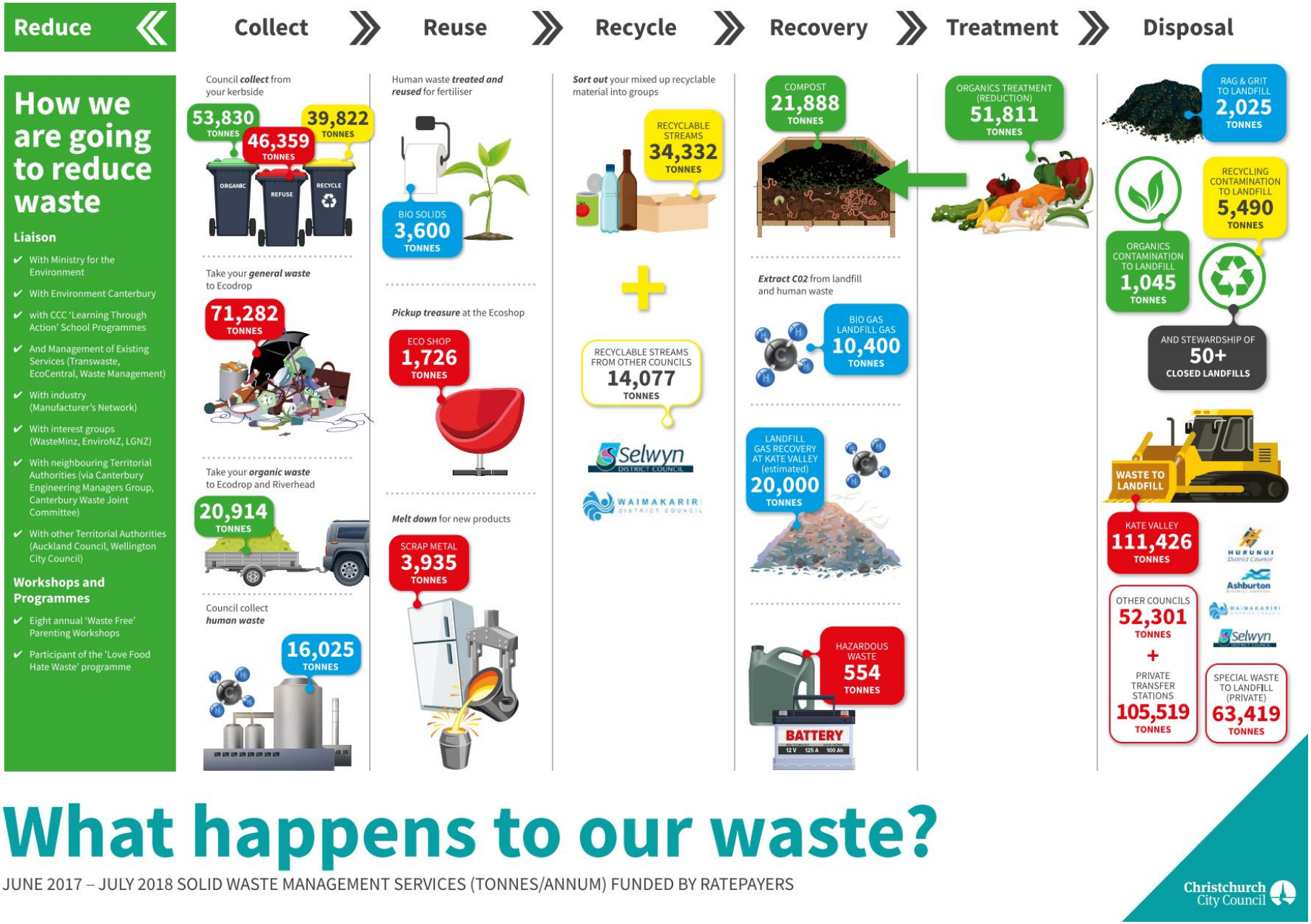
1. What does this activity deliver?



Waste minimisation

- Community education and information – Increasing public understanding and awareness of waste minimisation and resource recovery services.
- Policy and planning – Strategy, Waste Management and Minimisation plan and service delivery review, bylaws, developing sustainable and effective processing options for solid waste.
- Advocacy and new initiatives – Resource recovery projects, product stewardship, circular economy and onshore processing for recycling, research and development programs.
- Advice - Target Sustainability business advisory services.

Domestic kerbside collection

- Kerbside collection of organic material (domestic food scraps and garden waste).
- Kerbside collection or community collection points for recyclable materials for households and businesses (domestic quantities only).
- Kerbside collection or community collection points for residual waste (refuse) for households and businesses (domestic quantities only).

Public waste drop-off services

- Operation of 3x urban/city Transfer Stations for the collection of residual waste, organics, recycling, reusable materials and hazardous waste.
- Operation of 1x rural Transfer Station for the collection of residual waste, recycling, and hazardous waste.

Waste processing

- Materials Recovery Facility processing recyclable materials.
- Eco Store for on selling reusable items.
- Composting Facility processing organic material.

Residual waste disposal

- Regional solid waste landfill.
- Residual waste transportation to landfill.
- Landfill gas capture, treatment, reticulation from the closed Burwood landfill.
- Operation and care of closed landfills.

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.

2. Community Outcomes – why do we deliver this activity?

	Community Outcomes	Describe in 2-3 sentences how the activity effects the Community Outcome
Primary Outcome 1	Sustainable use of resources and minimising waste	Reducing, reusing, recycling and recovering resources from the waste stream maximises the efficient use of our natural and physical resources.
Primary Outcome 2	Safe and healthy communities	Providing services and facilities to collect, process, transport, recycle, compost or dispose of solid and hazardous waste in ways that minimise harm to people and the environment.
Secondary Outcome	Modern and robust city infrastructure and community facilities.	Well managed solid waste services and facilities are a vital part of a healthy and functioning city.

3. Strategic Priorities – how does this activity support progress on our priorities?

Strategic Priorities	Activity Responses
Enabling active and connected communities to own their future	Waste minimisation education and services encourage community awareness and local action. Many waste reducing activities support stronger communities such as composting at community gardens, the sharing of surplus food, and Eco-Shop supporting low income households. Recycling services are provided to schools to encourage learning and personal action.
Meeting the challenge of climate change through every means available	Managing greenhouse gas emissions from landfills and using landfill gas as renewable energy. More efficiently using natural resources locally reduces greenhouse gas emissions. More efficiently using natural resources reduces greenhouse gas emissions. Composting organic material such as food scraps and garden trimmings that would otherwise be landfilled significantly reduces methane generated by landfills. Landfills produce methane a powerful greenhouse gas. This activity collects landfill gas to use as an energy source which significantly lowers greenhouse gas emissions. 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. Kerbside collection services under the current contract are transitioning to using electric vehicles. The 2020 Waste Management and Minimisation plan outlines the direct link between consumerism and greenhouse gas emissions. The action plan outlines 5 key focus areas, including: provision of leadership and innovation in the Christchurch waste sector and education / communications. These look beyond the traditional role of Council in waste disposal and recycling to support our communities in minimising waste and maximising reuse of resources and materials, all of which support our district in reducing our emissions footprint.
Ensuring a high quality drinking water supply that is safe and sustainable	Managing waste handling operations to ensure appropriate controls and environmental management practices are in place. Liquid released beneath closed landfills can be a source of contamination for soil and groundwater. This activity carefully monitors and manages landfill leachate from closed landfills.
Accelerating the momentum the city needs	Circular economy approaches support a more sustainable and thriving local economy. Flexible waste and recycling collection services, including options to support central city living. Providing an effective transfer station network affords residents local drop off facilities for recycling, organics, refuse and hazardous substances. Reducing travel across the city and encouraging appropriate disposal.

Strategic Priorities	Activity Responses
	Kerbside collection services can affect pedestrians, cyclists and other road users. Wherever possible, collection is managed and timed to limit disruption.
Ensuring rates are affordable and sustainable	The delivery of an effective and efficient resource recovery system meets the needs of our residents by minimising total waste to landfill and maximising the beneficial re-use of valuable resources. The environmental benefits of reducing waste to landfill and the associated cost savings represent a positive community outcome for our ratepayers. It also meets our obligations under the Waste Minimisation Act.

4. Increasing Resilience

Key resilience challenges faced by the Solid Waste and Resource Recovery activity include:

a) changes in global markets affecting the viability of recycling services;
b) excessive, wasteful consumption and new composite products overwhelming our ability to recycle or compost;
c) higher disposal costs impacting on illegal dumping; and
d) natural hazards such as floods, sea-level rise or tsunami impacting closed landfills and waste facilities.

These challenges all have cost implications with an overall rising cost of waste disposal in New Zealand including increasing waste disposal levy fees. Council's role in a linear economy places significant financial pressure on council solid waste and resource recovery services.

Our key responses to these resilience challenges include:

a) advocating for product stewardship schemes where the manufacturers take responsibility for their products or simply making products so they can more easily be recycled or composted;
b) finding local uses for the materials recovered from the waste stream;
c) community and business education and behaviour change so we more successfully implement circular economy approaches and reduce wasteful consumption;
d) asset management to ensure waste infrastructure remain resilient to natural hazards.

These responses will be delivered through specific programs of work identified in our 2020 Waste Management and Minimisation Plan, including;
Infrastructure investment to increase the effectiveness of our processing facilities and a review of how our services are delivered, targeted education programs to promote correct use of recycling systems and encourage individual and collective responsibility for waste. We will continue to trial a successful battery collection program and advocate for product stewardship, including in support of the central Government work program on waste. Closed landfills will be managed according to a risk based approach which considers impacts associated with climate change. This includes the management of at-risk sites in relation to sea level rise, and coastal inundation of low lying former landfill sites.

While we continue to rely on landfill for materials we cannot recover, the Kate Valley regional landfill model provides a model for regional collaboration. The location of the regional landfill at Kate Valley was to limit exposure to natural hazards, such as earthquakes and to minimise risks to people and the environment.

5. Specify Levels of Service

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
Waste minimisation										
8.0.7	M	Maintain awareness of putting the right items in the right bin	New level of service		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	Sustainable use of resources and minimising waste
8.0.8	C	Maintain awareness of putting the right items in the right bin	New level of service		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	Sustainable use of resources and minimising waste
8.0.9	M	Maintain awareness of putting the right items in the right bin	New level of service		25,000 Active users of the App	30,000 Active users of the App	35,000 Active users of the App	50,000 Active users of the App	Tracked by Public Information and Participation unit	Sustainable use of resources and minimising waste
8.0.6	M	Engage with Central government,	New KPI 2019/20: 22		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	Sustainable use of resources and

[1] C/M – Community or Management level of service (LOS)
Community LOS - Previously known as LTP LOS. These are LOS that are community facing and will be published in our Statement of Service Provision.
Management LOS - Previously known as Non-LTP LOS. These are LOS that are measured in the organisation to ensure service delivery.

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
		Industry and Sector interest groups on policy and strategy to reduce waste to landfill	2018/19: 15 2017/18: 6 2016/17: 12 2015/16: 6						Solid Waste and Resource Recovery staff with Central Government, Industry and sector interest groups.	minimizing waste
Domestic Kerbside Collection										
8.0.2	C	Kerbside wheelie bins emptied by Council services	2019/20: 99.56% 2018/19: 99.55% 2017/18: 99.78%		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 Measuring and managing collection performance for kerbside collection services (Recyclables, residual waste, and organic)	Sustainable use of resources and minimizing waste
8.0.3	C	Customer satisfaction with kerbside collection service	2019/20: 82% 2018/19: 86.67%	1)Dunedin CC = Between 57 and 79% (2016 & 2017) 2) Wellington CC = Recycling = 84% and 77% Rubbish = 85% and	At least 80% customers satisfied with Council's kerbside collection service for each year	At least 80% customers satisfied with Council's kerbside collection service for each year	At least 85% customers satisfied with Council's kerbside collection service for each year	At least 90% customers satisfied with Council's kerbside collection service for each year	Annual Residents satisfaction survey Measuring and managing customer satisfaction with Council kerbside collection services	Sustainable use of resources and minimizing waste

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
				78% (2016 & 2017) 3)Palmerston North CC = Overall Waste Management = 76% Rubbish and Recycling = 85% (2019) 4)Gisborne DC = Overall Waste Management = 79% Rubbish and Recycling = 85% (2019) 5)Central Hawkes Bay DC Rubbish and Recycling = 85% (2019)						
8.0.1	C	Recyclable materials collected by Council services and received for processing at the Materials Recovery Facility (MRF)	kg/person/year 2019/20: 86.88 2018/19: 106 2017/18: 109.17 2016/17: 108.40 2015/16: 106.34		80kg (+40%/-10%) recyclable materials / person / year collected and received by Council services	75kg (+40%/-10%) recyclable materials / person / year collected and received by Council services	70kg (+40%/-10%) recyclable materials / person / year collected and received by Council services	55kg (+40%/-10%) recyclable materials / person / year collected and received by Council services	Weight of material as reported by contractor received at Material Recovery Facility from Council services divided by population	Sustainable use of resources and minimizing waste

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
			Prior years range of results 109.01 – 121.88 Tonnes in total 2017/18: 2016/17: 46,040 2015/16: 43,982 Prior years range of results 41,241-45,428							
8.0.4	M	Proportion of incoming recyclable materials that are contaminated	2019/20: 20% 2018/19: 7.1% 2017/18: 10.57% 2016/17: 10.6%		≤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.	Sustainable use of resources and minimizing waste

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
8.2.1	C	Total organic material collected at Council facilities and diverted for composting	kg/person/year 2019/20: 203.57 2018/19: 214.95 2017/18: 206.84 2016/17: 197.73 2015/16: 192.14 Prior years range of results 87 – 193.70		> 195kg + 30% / -10% / person / year	> 200kg + 30% / -10% / person / year	> 200kg + 30% / -10% / person / year	> 200kg + 30% / -10% / person / year	Weight of material as reported by contractor received at Council facilities, divided by population	Sustainable use of resources and minimizing waste
8.2.7	M	Organic materials collected by Kerbside Collection and received for processing at the Organics Processing Plant (OPP)		New Measure	130kg +40%/-10% organic materials / person / year collected by Kerbside Collection	135kg +40%/-10% organic materials / person / year collected by Kerbside Collection	140kg +40%/-10% organic materials / person / year collected by Kerbside Collection	145kg +40%/-10% organic materials / person / year collected by Kerbside Collection	Weight of material as reported by contractor received at Organics Processing Plant from Kerbside collection divided by population	Sustainable use of resources and minimizing waste
8.2.4	M	Proportion of incoming organic material that is contaminated	Historical contamination levels were: 2019/20: 0.05% 2018/19: 0.09% 2017/18: 1.36% 2016/17: 0.17% 2015/16: 0.4% Prior years range of results 0.07 - 0.71%		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	Sustainable use of resources and minimizing waste

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
8.1.2	C	Total residual waste collected by Council services	kg/person/year 2019/20: 109.15 2018/19: 111.87 2017/18: 114.16 2016/17: 117.75 2015/16: 117.70 Prior years range of results 101.11 – 126.02		≤130kg/person/year	≤120kg/person/year	≤110kg/person/year	≤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	Sustainable use of resources and minimizing waste
Public waste drop-off services										
8.1.5.3	C	Provide accessible drop off facilities for materials not accepted in the kerbside collection or in excess of the kerbside allocation	New level of service		Provide 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)	Provide 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)	Provide 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)	Provide 4 public transfer stations (3 city and 1 rural); with operating hours of: City sites - 7 days a week (07:00-18:00) Rural Site – min of 3 days a week (12:00-16:00)	Maintain publicly accessible facilities. Record all incoming tonnages.	Safe & Healthy Communities

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
8.1.5.4	M	Deliver a Household Hazardous Waste Collection day for Banks Peninsula	New level of service		1 per annum	1 per annum	1 per annum	1 per annum		Safe & Healthy Communities
8.1.5	M	Consent compliance for Council transfer stations and recycling centres.	No major or persistent breaches of consents by Council owned transfer stations and recycling centres recorded.		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 compliance with Resource Consent conditions and equivalent regulations at Council transfer stations, including; Styx, Parkhouse and Metro Place city transfer stations and Barry's Bay on Banks Peninsula. Resource consents are obtained as required and kept current for Council transfer stations and recycling centres. No major or persistent breaches of consents for Council transfer stations per year, as reported by Environment Canterbury or	Safe & Healthy Communities

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
									Christchurch City Council	
Waste Processing										
8.0.5	M	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	No major or persistent breaches of consents set for MRF each year, as reported by Environment Canterbury or Christchurch City Council City Plan	Sustainable use of resources and minimizing waste
8.2.5	M	Consent compliance for operation of Council's Organics Processing Plant	Number of breaches of consent: 2019/20: 1 2018/19: 0 2017/18: 0 2016/17: 0		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	Resource consents are obtained and kept current for Organics Processing Plant. 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	Safe & Healthy Communities
8.2.6	M	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	Compost meets New Zealand Compost Standard 4454:2005	Compost meets New Zealand Compost Standard 4454:2005	Monthly testing of finished compost enacted and reported by contractor to ensure 100% compliance of New	Safe & Healthy Communities Sustainable use of resources and

LOS number	C/M[1]	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Future Performance Targets				Method of Measurement	Community Outcome
					Year 1 2021/22	Year 2 2022/23	Year 3 2023/24	Year 10 2030/31		
									Zealand Compost Standard 4454:2005	minimizing waste
Residual Waste Disposal										
8.1.6	M	Consent compliance for closed Council landfills	No major or persistent breaches of consents for closed Council landfills per year recorded		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	Resource consents are obtained and kept current for closed Council landfills. No major or persistent breaches of consents for closed Council landfills per year, as reported by Environment Canterbury or Christchurch City Council	Safe & Healthy Communities
8.1.7	C	Maximise beneficial use of landfill gas collected from Burwood landfill	2019/20: 96.32% 2018/19: 95.98% 2017/18: 98.33% 2016/17: 98.16% 2015/16: 97.28% Prior years range of results 69% - 98%		Landfill gas to be available to facilities that utilise the gas at least 95% of the time	Landfill gas to be available to facilities that utilise the gas at least 95% of the time	Landfill gas to be available to facilities that utilise the gas at least 95% of the time	Landfill gas to be available to facilities that utilise the gas at least 95% of the time	Landfill gas measured and recorded as distributed on demand to users facilities	Sustainable use of resources and minimizing waste
8.1.8	M	Consent compliance for operations at Burwood Resource Recovery Park (BRRP)	No major or persistent breaches of consents recorded		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.	Sustainable use of resources and minimizing waste

6. Does this Activity Plan need to change as a result of a Service Delivery Review (S17A)?

Section 17a Review is scheduled to commence in June 2021. The service delivery review will be completed by June 2022. Completion of the review will result in a full section 17A review prior to the Long Term Plan 2024-34.

A service delivery review of our solid waste and resource recovery services commenced in 2020, with a project charter approved in November. The review will evaluate the cost-effectiveness of solid waste and resource recovery services and consider the relative merits of alternative options to support the vision and agreed expectations of the 2020 Waste Management and Minimisation plan in alignment with Christchurch City Council's Strategic framework.

The review to include;

- updating our waste management and minimisation bylaw;
- options for kerbside bin size and type and associated fees and charges;
- options for collecting waste, recycling and organics in the inner-city.

The final report will inform a strategic procurement plan for solid waste and resource recovery services beyond the expiry of our major contracts with Living Earth Limited (organics processing plant) and EcoCentral Limited (transfer stations, material recovery and shop for reusable materials) in 2024. The contract with Waste Management Limited (transfer stations in Banks Peninsula and kerbside collection) expires in 2029.

7. What levels of service changed from the LTP 2018-28 and why?

DELETIONS

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Performance Targets	Method of Measurement	Rationale for Change	Options for consultation
8.1.4	M	Customer satisfaction with kerbside collection service for residual waste	2019/20: 85% 2018/19: 88% 2017/18: 89% 2016/17:94% 2015/16:92% 2014/15:not surveyed 2013/14:90% 2012/13:93% 2011/12:95% 2010/11:not surveyed 2009/10:92%		At least 90% customers satisfied with Council's kerbside collection service for residual waste each year	Measuring customer satisfaction with Council kerbside collection services Annual Residents satisfaction survey	A revised measure to include all waste streams together has been provided (8.0.3)	Management Level of service - None required
8.1.3	C	Kerbside residual waste collection – emptied by Council services	2016/17:99.81% 2015/16:99.7% 2014/15:99.85% 2013/14:99.88% 2012/13:99.87% 2011/12:99.80%		At least 99.5% collection achieved when items correctly presented for collection	Measuring and managing the collection performance of the kerbside collection services Recorded and Reported monthly by collections contractor	A revised measure to include all waste streams has been provided (8.0.2)	None required
8.2.2	C	Kerbside wheelie bins for organic material emptied by Council	The following level of service has been achieved 2009/10: 99.89% 2010/11: 99.76% 2011/12: 99.75% 2012/13: 99.80% 2013/14: 99.79% 2014/15: 99.83% 2015/16: 99.79% 2016/17: 99.78%		At least 99.5% kerbside wheelie bins for organic material, emptied when correctly presented for collection	Recorded and Reported monthly by collections contractor	A revised measure to include all waste streams has been provided (8.0.2)	None required
8.2.3	M	Customer satisfaction with kerbside	2019/20: 84% 2018/19: 83%		At least 80% of customers satisfied with Council's	Annual Residents satisfaction survey	A revised measure to include all waste	None required

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Performance Targets	Method of Measurement	Rationale for Change	Options for consultation
		collection service for organic material	2017/18: 85% 2016/17: 85% 2015/16: 82% 2014/15: not surveyed 2013/14: 82% 2012/13: 83% 2011/12: 82% 2010/11: not surveyed 2009/10: 77%		kerbside collection service for organic material each year		streams together has been provided (8.0.3)	

ADDITIONS

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Performance Targets	Method of Measurement	Rationale for Change	Options for consultation
8.2.7	M	Organic materials collected by Council services and received for processing at the Organics Processing Plant(OPP)		New Measure	130 kg +40%/-10% organic materials / person / year collected and received by Council services	Weight of material as reported by contractor received at Organics Processing Plant from Kerbside collection divided by population	More targeted measure on effectiveness of kerbside organics diversion.	Management Level of service - None required
8.0.7	M	Maintain awareness of putting the right items in the right bin			Minimum of 450,000 web page hits per year	Tracked by Public Information and Participation unit	New LoS to measure engagement of Residents with Resource Recovery	Management Level of service - None required
8.0.8	C	Maintain awareness of putting the right items in the right bin			Minimum of 4 campaigns per year	(public events can form part of a campaign)	New LoS to inform and educate Residents with Resource Recovery	New measure for existing service. Consultation not required.
8.0.9	M	Maintain awareness of putting the right items in the right bin			25,000 Active users of the App	Tracked by Public Information and Participation unit	New LoS to measure engagement of Residents with Resource Recovery	Target moved in line with historic performance levels. Consultation not required.

LOS number	C/M	Performance Measures Levels of Service (LOS)	Historic Performance Trends	Benchmarks	Performance Targets	Method of Measurement	Rationale for Change	Options for consultation
8.1.5.3	C	Provide accessible drop off facilities for materials not accepted in the kerbside collection or in excess of the kerbside allocation			Provide 4 public transfer stations (3 city and 1 rural); with operating hours of: City sites - 7 days a week (07:00-16:30) Rural Sites – min of 3 days a week (12:00-16:00)	Maintain publicly accessible facilities. Record all incoming tonnages.	New LoS to ensure Facilities are provided for Resource Recovery activities	New measure for existing service. Consultation not required.
8.1.5.4	M	Deliver Household Hazardous Waste Collection day for Banks Peninsula			1 per annum		New LoS to ensure Facilities are provided for Resource Recovery activities	New measure for existing service. Consultation not required.

AMENDMENTS

Activity/ Level of Service	LOS description	What will be done differently	Reason	Options for consultation
8.0.1	Recyclable materials collected by Council services and received for processing at the Materials Recovery Facility (MRF)	Recycling 5% down on previous year and to date 41% has gone directly to landfill due to contamination. Forecasting 25% reduction for FY2020/21 on previous year. It is unlikely FY2021/22 will be impacted by Covid-19 and forecasting tonnages will increase to 80kg/person. FY22/23 may see the introduction of a National Container Return Scheme resulting in Beverage Containers not being presented at Kerbside. We are anticipating a gradual behaviour change with increasing reduction beyond in FY23/24. Overseas CRS's have resulted in up to 80% reduction in beverages containers presented at kerbside.	MRF tonnages decreased due to Covid-19. In FY 22/23 it is expected that MRF tonnages will decrease through Central Government Container Return Scheme for beverage containers.	Target moved in line with performance levels. Consultation not required.
8.0.5	**Description**: Consent compliance for Council Recycling Centres : **Method of measurement**: Resource consents are obtained and kept current for Council	**New Description:** Measure Consent compliance for Materials Recovery Facility (MRF) **New Method of measurement**: No major or persistent breaches of consents set for MRF each	Measure compliance consistently for Materials Recovery Facility (MRF) - To	Management Level of service - None required

Activity/ Level of Service	LOS description	What will be done differently	Reason	Options for consultation
	Recycling Centres. No major or persistent breaches of consents set for Council Recycling Centres each year, as reported by Environment Canterbury or Christchurch City Council City Plan.	year, as reported by Environment Canterbury or Christchurch City Council City Plan Measuring and managing compliance with Resource Consent conditions and City Plan regulations. Council recycling centres at Styx, Parkhouse and Metro Place transfer stations Resource consents are obtained and kept current for Council Recycling Centres No major or persistent breaches of consents set for Council Recycling Centres each year, as reported by Environment Canterbury or Christchurch City Council City Plan	report on any Consent non-compliance	
8.1.5	Resource consents are obtained and kept current for Council transfer stations. No major or persistent breaches of consents for Council transfer stations per year, as reported by Environment Canterbury or Christchurch City Council	Measuring and managing compliance with Resource Consent conditions and City Plan regulations. Council recycling centres at Styx, Parkhouse and Metro Place transfer stations Resource consents are obtained and kept current for Council Recycling Centres Resource consents are obtained and kept current for Council transfer stations. No major or persistent breaches of consents for Council transfer stations per year, as reported by Environment Canterbury or Christchurch City Council	Managing compliance to include recycling centres	Management Level of service - None required
8.0.6	Engage with Central Government and industry to reduce packaging waste	Engage with Central government, Industry and Sector interest groups on policy and strategy to reduce waste to landfill	Broader engagement with Government and Industry, including across central Government work program, and supporting delivery of WMMP objectives	Management Level of service - None required Management Level of service - None required
	Old Method of Measurement: Monthly recording of actual number of formal	**New Method of Measurement:** Monthly recording of actual number of formal interactions by Solid	Broader measure of engagement to address councils role across	

Activity/ Level of Service	LOS description	What will be done differently	Reason	Options for consultation
	interactions by Solid Waste Council Staff with Central Government and industry	Waste Council Staff with Central Government, Industry and sector interest groups.	policy and strategy to support waste reduction outcomes	
8.1.2	**Description:** Tonnage of residual waste collected by Council services **Method of Measurement:** Weight of material received at Nominated Council Facilities as reported by contractor divided by population	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. **New Description**: Total residual waste collected by Council services **New Method of Measurement**: Weight of Kerbside material received at Nominated Council Facilities as reported by contractor divided by population FY2020/21 will see an increase to kerbside Rubbish to landfill due to diversion of Recyclables to landfill forecast to be 20% FY2021/22 Change in service delivery and enabling flexibility in bin capacity options including ability to upsize the red bin will result in an increase in tonnage forecast to be 10%. This factors in a reduction of organic material in the red bin	Higher tonnages due to Covid-19 in FY20/21, future changes in service delivery including greater flexibility in bin sizes to improve quality of recovered products, pricing incentives will also support waste reduction.	Measure adjusted based on performance and current situation. None required
8.2.1	Weight of material as reported by contractor received at Organics Processing Plant from Council services divided by population	Weight of material as reported by contractor received at Council facilities divided by population	Clearer measure of all diverted organics (including OPP)	
8.0.3	Customer satisfaction with kerbside collection service for recyclable materials	At least 80% customers satisfied with Council's kerbside collection service for recyclable materials each year	Measuring and managing customer satisfaction across all kerbside collection services in 1 survey	Measure for existing service. Consultation not required.
8.0.2	Kerbside wheelie bins for recyclables emptied by Council Services	Kerbside wheelie bins emptied by Council services	Measuring and managing collection performance for all kerbside collection services in 1 survey	Measure for existing service. Consultation not required.

8. How will the assets be managed to deliver the services?

Assets for this activity will be managed in the Resource Recovery Asset Management Plan.

Key Assets include Councils two processing facilities, the Materials Recovery Facility (MRF) and 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.

In addition to the Resource Recovery Asset Management Plan, infrastructure investment to meet our changing markets is defined in Councils Waste Management and Minimisation Plan 2020.

9. What financial resources are needed?

Solid Waste & Resource Recovery 000's	Annual Plan 2020/21	LTP 2021/22	LTP 2022/23	LTP 2023/24	LTP 2024/25	LTP 2025/26	LTP 2026/27	LTP 2027/28	LTP 2028/29	LTP 2029/30	LTP 2030/31
Activity Costs before Overheads by Service											
Waste Minimisation	984	703	705	726	731	755	771	787	814	833	852
Domestic Kerbside Collection	32,285	33,428	34,526	35,510	34,819	35,869	36,969	38,041	38,908	39,933	40,958
Public Waste Drop-Off Services	1,326	1,332	1,359	1,387	1,421	1,455	1,492	1,529	1,570	1,612	1,654
Residual Waste Disposal	16,500	16,728	17,509	18,943	20,468	21,063	21,332	21,981	22,660	23,364	24,072
	51,095	52,191	54,099	56,566	57,438	59,143	60,564	62,339	63,953	65,743	67,537
Activity Costs by Cost type											
Direct Operating Costs	49,022	51,045	53,040	55,484	56,335	58,010	59,555	61,305	62,894	64,656	66,422
Direct Maintenance Costs	1,553	896	806	824	843	863	729	747	767	788	808
Staff and Contract Personnel Costs	517	246	249	254	256	266	280	286	291	299	306
Other Activity Costs	4	4	4	4	4	4	0	0	0	0	0
	51,095	52,191	54,099	56,566	57,438	59,143	60,564	62,339	63,953	65,743	67,537
Activity Costs before Overheads	**51,095**	**52,191**	**54,099**	**56,566**	**57,438**	**59,143**	**60,564**	**62,339**	**63,953**	**65,743**	**67,537**
Overheads, Indirect and Other Costs	2,427	2,473	2,616	2,552	2,516	2,719	2,598	2,687	2,872	2,742	2,806
Depreciation	2,743	2,718	3,031	3,292	3,395	3,527	3,700	3,907	3,787	3,365	3,499
Debt Servicing and Interest	240	226	270	315	374	429	514	578	588	522	546
Total Activity Cost	**56,505**	**57,607**	**60,015**	**62,726**	**63,722**	**65,818**	**67,376**	**69,511**	**71,199**	**72,373**	**74,388**
Funded By:											
Fees and Charges	6,597	6,736	6,877	7,029	7,190	7,363	7,540	7,728	7,937	8,151	8,363
Grants and Subsidies	1,139	2,413	3,663	4,390	5,463	5,463	5,463	5,463	5,463	5,463	5,463
Cost Recoveries	1,106	1,000	1,000	-	-	-	-	-	-	-	-
Other Revenues	734	736	736	429	-	-	-	-	-	-	-
Total Operational Revenue	**9,577**	**10,885**	**12,276**	**11,848**	**12,654**	**12,826**	**13,003**	**13,191**	**13,400**	**13,614**	**13,826**
Net Cost of Service	**46,928**	**46,722**	**47,739**	**50,878**	**51,069**	**52,992**	**54,373**	**56,319**	**57,799**	**58,758**	**60,561**
Funding Percentages:											
Rates	83.1%	81.1%	79.5%	81.1%	80.1%	80.5%	80.7%	81.0%	81.2%	81.2%	81.4%
Fees and Charges	11.7%	11.7%	11.5%	11.2%	11.3%	11.2%	11.2%	11.1%	11.1%	11.3%	11.2%
Grants and Subsidies	2.0%	4.2%	6.1%	7.0%	8.6%	8.3%	8.1%	7.9%	7.7%	7.5%	7.3%
Cost Recoveries	3.3%	3.0%	2.9%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Capital Expenditure											
Replace Existing Assets	1,890	3,648	1,864	2,597	1,993	2,137	2,206	2,309	1,695	2,581	2,904
Improve the Level of Service	1,076	16,379	9,133	1,186	144	1,117	2,412	2,478	1,347	159	164
Total Activity Capital	**2,966**	**20,026**	**10,996**	**3,783**	**2,137**	**3,255**	**4,619**	**4,787**	**3,042**	**2,741**	**3,068**

To meet the challenges of a changing market and to reduce future costs associated with an increased waste disposal levy, investment in resource recovery infrastructure and waste avoidance is necessary.

Remediation of at risk landfills will require significant investment as climate change impacts affect vulnerable low lying and coastal sites.

Funding Consideration

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

Funding Policy

Funding Principles

User-Pays	Exacerbator-Pays	Inter-Generational Equity	Separate Funding?
Low	**High**	**Medium**	**Medium**

The table above shows how Council has considered funding in relation to the Activity, using a simple high / medium / low scale:

- User-pays – the degree to which the Activity can be attributed to individuals or identifiable groups rather than the community as a whole;
- Exacerbator-pays – the degree to which the Activity is required as a result of the action (or inaction) of individuals or identifiable groups;
- Inter-generational equity – the degree to which benefits can be attributed to future periods; and
- Separate funding – the degree to which the costs and benefits justify separate funding for the Activity.

Where an Activity is paid for through a number of funding mechanisms, Council's practice is to meet its operating costs in the first instance from fees & charges and grants & subsidies (subject to the considerations outlined above). If the Activity requires further operational funding, this remainder is funded through rates.

This capital programme will be funded in accordance with the following principles:

Investment type	**Initial funding**	**Serviced and/or repaid by:**
• Renewal / replacement	• Rates and debt	• Rates
• Service Improvement and other assets	• Debt	• Rates
• Growth	• Debt and Development Contributions	• Rates and Development Contributions

Operating Cost Funding Policy

This table below shows Council's broad funding target for the Activity (i.e. how much is paid for by individuals / groups, and how much by the community as a whole), and the associated funding mechanism used (i.e. general rates, targeted rates, user charges, etc.). As the precise balance between individual / group and community funding may vary in practice (particularly for volumetric fees and charges), the funding target for each of the below tables is expressed in broad terms rather than specific percentages:

- Low = this source provides 0%-25% of the funding for this Activity;

- Medium = this source provides 25%-75% of the funding for this Activity; and
- High = this source provides 75%-100% of the funding for this Activity.

Funding Target		**Funding mechanism**	
Individual / Group	Community	Individual / Group	Community
Medium	**Medium**	• **Targeted Rates (Medium)** • **Fees & Charges (Low)**	• **General Rates (Medium)** • **Grants & Other (Low)**

Capital Cost Funding Policy for this Activity

Rates	Borrowing	DC s	Grants and Other
Medium	**Medium**	**-**	**Low**

10. How much capital expenditure will be spent, on what category of asset, and what are the key capital projects for this activity?

Planned Capital Programme Detail by Activity ($000)

Activity	Driver	ID	Project Name	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Solid Waste & Resource Recovery														
	Asset Renewal													
		106	Waste Transfer Stations Renewals and Replacements	700	375	784								1,859
		109	Solid Waste Renewals	494	173	290								957
		161	Closed Landfills Aftercare	450	470	483	495	507	521	535	550	579	610	5,200
		162	Closed Landfill Aftercare Burwood	511	338	535	58	112	58	59	61	64	135	1,931
		2598	Burwood Gas Treatment Plant Renewals	450		96								546
		37828	Programme - Waste Transfer Stations Renewals				863	882	906	931	241	1,008	1,061	5,892
		37830	Programme - Solid Waste Renewals				100	110	121	131	141	155	170	928
		60432	Materials Recovery Facility Building & Fixed Plant Renewals			102	126	151	201	226	252	285	319	1,662
		60433	Organics Processing Plant Building and Fixed Plant Renewals			307	351	375	401	427	452	491	610	3,414
		60434	Community Collection Point Renewals		51									51
	Level of Service Improvement													
		65530	Onuku Bay Landfill Remediation	750	250									1,000
		65531	Barrys Bay Landfill Remediation	250										250
		65532	Banks Peninsula Landfill Remediation	43	207									250
	Meeting Current Levels of Service													
		111	Solid Waste New Equipment	31	32	34								97
		37831	Programme - Solid Waste New Equipment				37	1,007	2,299	2,362	1,228	37	38	7,008
		59935	Bexley Closed Landfill Foreshore Remediation Project	457										457
		60426	Programme - Waste Transfer Station Improvements		102	105	107	110	113	116	119	123	126	1,021
		60427	Transfer Station Site Redevelopments		921									921
		60428	Transfer Station Stormwater Treatment	256										256
		60429	Transfer Station Odour Mitigation	204										204
		60430	Barrys Bay Site Redevelopment		307									307
		60431	Organics Processing Plant Development	15,000	6,550									21,550
	New Service													
		50264	Inner City Waste Collection System	430	1,221	1,048								2,699
Solid Waste & Resource Recovery Total				**20,026**	**10,997**	**3,784**	**2,137**	**3,254**	**4,620**	**4,787**	**3,044**	**2,742**	**3,069**	**58,460**

11. Does this activity have any significant negative effects on social, economic, environmental or cultural wellbeing, 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 1. Pollution and noise generated by collection, and transportation of waste and recovered materials	Alternative methods of collection and transportation are prioritised including electric vehicles. Waste minimisation and education programmes as detailed in the WMMP 2020.
2. Potential noise and odour from waste and recovered materials processing sites	Ongoing improvement of onsite practices as needed, and monitoring of complaints.
3. 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 Proactive engagement to reduce packaging and upcycling.
4. Effects of land filling including the occupation of land, methane and leachate generation	Ongoing waste minimisation programmes and Actions defined in the WMMP 2020. Capture of landfill gas at Kate Valley landfill, and the utilisation of Burwood landfill gas for energy supply to Council facilities.
Cultural Potential impacts with closed landfill remediation	Engagement with Mana Whenua to mitigate potential impacts.

12. What risks are identified and what controls and mitigations are planned?

Risk / Uncertainty:			Assessed Risk Level		Controls and Mitigations
Risk Title There is a risk that/of:	Caused By:	Resulting In:	Inherent	Residual	
Failure of recycling system (unable to sell collected recycling)	Contamination of kerbside collection material, access to international markets	Service disruption, recycling being sent to landfill, additional disposal costs incurred by Council			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.
New infrastructure or relocation of processing infrastructure for organics	Non-compliance with site resource consents (odour impacts associated with Council owned Resource Recovery facilities).	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.			Application of odour reduction activities (operational controls), approved infrastructure investment to update processing technology.
Discharges of contaminants from closed landfill sites	Climate change impacts including increased coastal inundation and storm scour.	Compromised protection of closed landfills, discharge of contaminants into the sensitive receiving environments including rivers and coastal areas.			Development and implementation of a risk screening tool to prioritise mitigation efforts across high risk sites.
Changes in incentives and drivers across waste disposal, resource recovery	Central Government policy decisions around waste (e.g. Landfill levy, mandated product stewardship, Container Return Scheme (CRS), single use plastics)	Increased landfill costs, disruptions to waste streams (e.g. CRS removing high value recycling from kerbside collection), changing infrastructure needs.			Service Delivery Review (S17a), Actions detailed in the Waste Management and Minimisation Plan 2020, regional collaboration and advocacy at central government level.
Failure of kerbside collection system	Failure of bin identification technology (uncontrolled contamination levels and inability to differentiate service)	Inability to identify bin usage including stolen, wrong location and contamination. Increased disposal costs and contaminated recycling.			Ensuring contract conditions are met (to agreed variation specification), working closely with contractor on new technology (e.g. Bin API and Smart Cities).
Failure to secure ongoing suitable	Market uncertainty, lack of capability at necessary scale,	Disruption to service. Increase in costs.			Early engagement and completion of the Service Delivery Review to identify all available options informing a detailed and robust outcome.

Risk / Uncertainty:			Assessed Risk Level		Controls and Mitigations
Risk Title There is a risk that/of:	Caused By:	Resulting In:	Inherent	Residual	
contracts beyond 2024	lack of competition across service providers				
Depletion of landfill gas from Burwood Landfill.	Aging decline in methane production overtime	Reduced supply of piped natural gas for CCC facilities (energy supply), increased costs.			Investigation into landfill gas across all former landfill sites. Investigation into alternative energy sources, including alternative waste processing (e.g. anaerobic digestion for organics).