

Solid Waste Activity Plan

Enhancing our city through effective use of resources

Preface

Introduction/Summary

The Solid Waste Activity is a core Infrastructural Service activity addressed in the Invercargill City Council Long Term Plan (LTP). This document is therefore strongly linked to the overall strategic direction for the District. The LTP is the document and process that alerts the Community to the key issues and strategies contained in this document.

The purpose of this document is to outline and summarise in one-place, the Councils strategic approach for the delivery of the Solid Waste Activity.

The Activity Management Plan (AMP) demonstrates responsible management of the functions on behalf of ratepayers and stakeholders, and assists with the achievement of community outcomes and statutory compliance. The AMP combines the management, financial, and technical practices to ensure that the level of service required by the law and expected by the Community is provided in the most operationally effective, efficient and sustainable manner.

This document is based on existing levels of service, available information, and the existing knowledge and/or judgement of the Council staff.

1. What we deliver

What the activity is

The Solid Waste Activity is responsible for the management of solid waste services in the Invercargill District, including:

- Collection of kerbside recycling and rubbish
- Solid Waste Transfer Stations (resource recovery)
- Landfill operations
- Public place and event waste management and minimisation
- Education, behaviour change and advocacy.

We collaborate with Southland District Council and Gore District Council as a shared service called WasteNet Southland.

There are no significant negative effects identified for the Solid Waste Activity.

Activity Overview

The Councils role in waste management and minimisation is to oversee, facilitate and manage a range of programmes and actions to:

- Meet legislative requirements
- Protect human health
- Protect the environment.

The Solid Waste Activity is responsible for the management of solid waste services in the Invercargill District. The responsibilities include:

- Kerbside recyclables collection service delivery
- Kerbside landfill-rubbish collection service delivery
- Solid Waste Transfer Station (resource recovery) service delivery
- Landfill operations (open and closed)
- Enforcement activities
- Public Place and Event waste management and minimisation service delivery (e.g. street litter bins, street recycling bins)
- Education, behaviour change and advocacy.

WasteNet Southland

The Invercargill City Council works in collaboration with Southland District Council and Gore District Council to achieve its solid waste management and minimisation actions, and does so under the shared services banner of WasteNet Southland.

The shared service – WasteNet Southland – is formally established under the Joint Waste Management Agreement. The purpose of the shared service is to provide the coordinated delivery of solid waste services on behalf of and in collaboration with the WasteNet Councils.

Why we are involved in this activity

The rationale for Councils involvement in the Solid Waste Activity, and ownership of the associated assets is contained in:

- The Health Act 1956, which requires Council to provide sanitary works, the definition of which includes the collection and disposal of refuse; and

- The Waste Minimisation Act 2008 (WMA), which requires Council to promote effective and efficient waste management and minimisation. It also requires the Council to prepare and review (at no more than 6-year intervals) a Waste Management and Minimisation Plan (WMMP).

Invercargill City Council maintains a ‘hands-on’ approach to this Activity, as it believes that solid waste can be most effectively and efficiently managed by local authorities, where the long term social, cultural, economic and environmental factors can be balanced for the benefits to the wider community.

Given these legislative requirements, under the shared services banner of WasteNet Southland the Invercargill City Council, Gore District Council and Southland District Council have developed a strategic Waste Management and Minimisation Plan (WMMP) to ensure:

- A holistic approach to waste management and minimisation – a common vision and direction
- Consistent policy across the Councils
- Simplified consultation with stakeholders and the Community
- Strengthened collaboration between Councils.

The Southland Waste Management and Minimisation Plan 2020-2026 has the target - “as a result of our actions by 1 July 2026, Southland will maintain a materials discarded per capita figure of 650 kilograms comprising 40 percent diverted materials.” The next review for this Plan is scheduled for 2025.

Community outcomes

Table 1

Community Outcomes

Community Outcomes	Council’s Role in Achieving	How the Activity Contributes
Preserve its Character	The building blocks, including water, sanitation and roading, for a safe friendly city is provided for all members of the community	The Solid Waste Activity provides solid waste facilities and services for the sorting, collection, recovery and disposal of waste.
	Strong, collaborative leadership of the City is demonstrated.	The Solid Waste Activity collaborates with other Local Territorial Authorities for the co-ordinated delivery of waste management and minimisation in Southland.

Our vision

Enhancing our city through effective use of resources

Our activity objectives

The principal objectives of Solid Waste Activity are to:

- Work together to improve the efficient use of resources
- Use the waste hierarchy to guide decision making
- Reduce the harmful effects of waste to our health and environment.

2. How we determine what we do

Our Strategic Framework

Activity Management Plans underpin the activities in the Long Term Plan, they record the current and desired Levels of Service and Maintenance, Capital Works Programmes and budgets (if applicable) required to ensure the activity meets the desired Levels of Service.

Adoption of the budgets for these programmes is carried out through the Long Term Plan process. Changes to budgets for programmes may occur during the consultation process and adoption of Long Term Plan budgets.



Activity Management Plan Strategic Framework



Our Customers

The Solid Waste Activity engages with all sectors of the community, as almost every activity using materials and energy generates waste – from mining to manufacturing to cooking dinner. The Solid Waste Activity aims to provide a Level of Service that meets the needs of many user groups including:

- Residential
- Rural Residential
- Rural
- Central Business District (CBD)
- Commercial / Industrial
- Public Areas.

The main external and internal stakeholders are listed below:

Table 2

Solid Waste Activity External Stakeholders

External Stakeholders	Area of Interest	Engagement
WasteNet Southland	Governance, Operation	Shared Service
Community (individual, businesses, customers)	How to use services	Liaise, education, enforcement
Education facilities and schools	Waste management and minimisation education	Education
Contractors	Contractual obligations	Liaise, reporting, financial
Ratepayers	Rates impact	Liaise, education, enforcement
Territorial Authorities	Best practice	Networking, collaboration
Waste Management Institute of New Zealand (WasteMINZ)	Waste industry, best practice, national initiatives	Networking, collaboration
Ministry for the Environment	Governance, Policy, Legislation	Liaise, reporting, lobbying
Iwi	Governance, Operation	Liaise
Environment Southland	Regional development, operation (consents and compliance)	Liaise, applications
Venture Southland	Best Practice	Collaborative

Table 3

Solid Waste Activity Internal Stakeholders

Internal Stakeholders	Area of Interest	Engagement
Departmental managers and staff	Leadership, operation	Report, liaise
Waste Management Group	Leadership, operation	Report
Councillors	Governance	Committee meetings
Waste Advisory Group	Governance	Committee meetings
Internal Auditors	Governance, operation	Audit, report

Our Levels of Service

The Solid Waste Activity **preserves the character** of our city through collection of solid waste, and through providing facilities for the sorting, collection and disposal of waste. It **enhances our city** through the operation of WasteNet Southland as a shared service for the benefit of Southland.

The Solid Waste Activity ensures that collection and disposal services are effectively and efficiently managed to reduce the harmful effects of waste to public health and the environment. The Southland Waste Management and Minimisation Plan monitors the discarded materials rate per person per annum (kgs).

Table 4

Solid Waste Activity Measures for Levels of Service

KPI 2021-2031	MEASURE
Discarded materials rate per person per annum (kgs)	Maintain a regional materials discarded rate of 650kg per person per annum.
Monitoring the trends in key material types to landfill (i.e. cleanfill, green waste, recyclables)	

Below are the measures specifically required for the Solid Waste Activity and are mandatory to report:

Table 5

Solid Waste Activity Baseline Measures and Targets

Baseline	Measure	2021/22 Target	2022/23 Target	2023/2024 Target	2024-31 Target
Not achieved. 678 kg	Maintain a regional materials discarded rate of 650kg per person per annum	Maintain a regional materials discarded rate of 650kg per person per annum.	Maintain this level	Maintain this level	Maintain this level
Not achieved. 3,312 tonnes (5% decrease)	Monitoring the trends in key material types to landfill (i.e. cleanfill green waste, recyclables)	Trend in kerbside recycling	Increasing trend	Increasing trend	Increasing trend
Not achieved. 10,649 tonnes (maintained)		Trend in landfill-rubbish	Decreasing trend	Decreasing trend	Decreasing trend
Achieved. 20,073 tonnes (6% decrease)		Trend in solid waste to landfill	Decreasing trend	Decreasing trend	Decreasing trend
Not achieved. 8,950 tonnes (maintained)		Trend in diverted material	Increasing trend	Increasing trend	Increasing trend

Assessing demand - current and future

Demand Forecast

Legislation requires Council to undertake a Waste Assessment every 6 years as part of the review of the WMMP. The Waste Assessment must contain a forecast of future demands and how the Council will meet that forecast demand. In 2020, the WasteNet Councils completed the Southland Waste Assessment. The next Waste Assessment is scheduled for 2025.

Factors Influencing Demand

The Southland Waste Assessment identified the following key drivers for future demand of solid waste services:

- demographic change e.g. population, household changes
- commercial and industrial activity / economic conditions
- land use changes
- impact of waste flows from other regions
- consumer behaviour
- the occurrence of natural and man-made disaster events
- national policy and legislation e.g. product stewardship schemes, emission trading scheme, waste levy
- Global commodity markets e.g. China National Sword (ban on importing waste/recycling)
- impact of waste minimisation behaviour change programmes, future initiatives
- community expectations
- continued pressure on existing waste management and minimisation infrastructure and services (Health and Safety, cost-effectiveness).

Projected Growth or Decline in Demand for the Service

The Southland Waste Assessment considered three population scenarios to forecast future growth and demand for waste services ranging from high growth-low diversion to low growth-high diversion.

Regardless of which scenario eventuates, there are no major landfill capacity issues in the region as the Southland Regional Landfill has significant future capacity. Refer to Southland Waste Assessment for further details.

Changes in Service Expectations (Future Levels Of Service)

To a certain extent the service expectations will remain consistent whether there is population growth or decline. It is assumed that the customer will continue to desire regular kerbside collection services, appropriate facility hours and cost effective services.

It is anticipated that there will be greater community environmental awareness that will increase demand for alternative disposal methods (i.e. Resource Recovery Park, recovery of organics, electrical and hazardous waste).

Technological innovation may allow Council to improve its ability to service the community, for example:

- Ability to weigh mobile bins and therefore charge participants on actual use of service.

- Ability to provide a regional facility for the cost-effective processing of organic waste for beneficial use.
- Ability to economically process recovered glass for beneficial use.

Compared with the 2016 Research First Results, the August 2020 Research First Survey found an increase of 8% of respondents wanted to see more money spent on solid waste management.

EXPECTED IMPLICATIONS FOR THE ACTIVITY

There will be continued pressure on existing waste management and minimisation infrastructure and services.

While there is adequate landfill disposal capacity in the medium to long term future, it is WasteNet Councils' desire to see the best use made of the District's natural and physical resources.

Consideration will need to be given to ensure that infrastructure is in place to meet the communities demand for diverted materials e.g. Resource Recovery Park; recovery of organics, electrical and hazardous waste.

Projected population growth and demand for consistent levels of service from the semi-rural/rural and CBD areas may impact on kerbside collection services. These implications can generally be met through expansion of fleet and collection routes. It is noted that extending the service to a further 500 households would trigger the capital investment of another collection vehicle and mobile bins.

Consideration will need to be given to providing an appropriate level of service (both economically and socially) for the projected ageing population e.g. bin size, frequency, door-to-door services.

Future Demand Issue and Challenges

Table 6

Solid Waste Activity Future Demand Issues and Challenges, and Responses

Area	Future Demand Issue and Challenges	Possible Demand related Responses
Transfer Station	<p>Council will need to consider changes to the operation of the Transfer Station services to be ensure they are cost-effective for the customers (households) and are able to provide alternative disposal options.</p> <p>In 2020 the Government declared 6 priority product for regulated product stewardship under the Waste Minimisation Act, they are:</p> <ul style="list-style-type: none"> • Plastic packaging • Tyres • Electrical and electronic products (e-waste) • Refrigerants • Farm Plastics • Agrichemicals and their containers. <p>Council will need to consider its role in supporting these product stewardship schemes.</p>	<p>It is anticipated that the increased environmental awareness of the Community will increase demand for alternative solid waste disposal options i.e. kerbside organic waste services, construction and demolition waste recovery, electrical waste recovery services. A possible response to this would be the development of a centralised “Resource Recovery Park” (RRP).</p> <p>A RRP could be established to collect, separate and transfer recyclable materials and residual waste (landfill-rubbish). They can also include the following activities:</p> <ul style="list-style-type: none"> • Collection, separation and selling of dry-recyclables / electrical waste • Reprocessing of plastics, glass, timber • Collection, separation, processing of organic waste for beneficial use • Commercial-scale materials recovery (accept commercial volumes of recoverable materials) • Concrete crushing for aggregate and recovery of reinforcing steel • Tyre recovery and shredding or reprocessing for beneficial user • Consolidation of hazardous waste for appropriate disposal • Business support activities • Education • Consolidation of residual waste for transfer to landfill <p>By centralising the above activities, it enables the participating services to share: space (including warehousing); operating equipment (e.g. forklifts, loaders, trucks, balers, shredders); preventative maintenance</p>

Area	Future Demand Issue and Challenges	Possible Demand related Responses
		and repair services, pollution control equipment and services; administrative services (e.g. office space and equipment, breakrooms, shower and toilet facilities, management and technical expertise, promotions and advertising costs, communications and education services); while also allowing customers a convenient, safe, easily accessible and cost effective facility.
Kerbside collections	<p>It is assumed that the main future demand issues for the solid waste activity will be the cost effective provision of the desired service and increased level of service for semi-rural/rural areas.</p> <p>Expansion of collection routes will mean:</p> <ul style="list-style-type: none"> • increased fleet (in individual vehicle size as well as number) • potential changes to collection days • additional mobile bins (more assets) • more education. <p>Council need to consider changes to the collection of recycles due to the global commodity markets requiring high quality product.</p> <p>48% of the community would like to see Council collect household greenwaste.</p>	<p>Response to projected population growth can generally be met through expansion of fleet and collection routes. This will result in a contract variation, to cover the costs associated with providing the service to additional properties.</p> <p>Additional mobile bins will need to be purchased, and a review of the current bin inspection programme will be required to gauge if there is capacity for additional inspections.</p> <p>This includes limiting the types of materials collected, removing glass from commingled collection services and focusing on reducing contamination. For example further separating recycling into a:</p> <ul style="list-style-type: none"> • Glass bottles and jar collection • Fibre, Metals and Plastic 1, 2 and 5 collection. <p>Implementing a kerbside greenwaste collection service would come at a cost to ratepayers. Additional mobile bin would need to be purchased, as well as collection trucks and establishment of infrastructure to process this the product. In 2022, WasteNet Southland will be researching regional organics services opportunities.</p>
Enforcement	Legislation requires the Solid Waste Activity to give consideration (in order of priority) to the reduction, reuse, recycle, recovery, treatment and disposal of waste. Demand for solid waste services is highly dependent on the public's perception and level of	Behaviour change, communication and education are significant components in that success of this approach. For all parties to participate fully, they need to know clearly what their services are, what their service rules are, why they should participate and what happens afterwards.

Area	Future Demand Issue and Challenges	Possible Demand related Responses
	<p>awareness of the impact that solid waste has on our environment, our economy and our health.</p> <p>There will continue to be challenges for encouraging waste minimisation behaviours, however it is hoped that over time these will decrease as it become more of a social-norm or business-as-usual, and services are developed to make it more convenient and cost-effective.</p> <p>It will be the norm to provide bin inspection services. Public can see this as a waste of ratepayer funding; however it is valuable service.</p>	<p>Possible non-asset solutions include:</p> <ul style="list-style-type: none"> • Increasing the behaviour change and community engagement initiatives e.g. numbers of workshops and campaigns • Survey the community to understand the levels of awareness, barriers and test possible solutions.

Managing Expectations

The Waste Minimisation Act 2008 requires territorial authorities to undertake a Waste Assessment (every 6 years) and have regard to it in reviewing and preparing for their Waste Management and Minimisation Plan. The Waste Assessment compiles and analyses information on waste and diverter materials produced in the Southland region and is used to determine a logical set of priorities to inform their future solid waste needs, including:

- Review the current situation with respect to the generation of waste
- Consider the future demand for waste services
- How the WasteNet Councils' can best achieve their waste objectives.

WasteNet Southland completed a Waste Assessment in July 2020. This document is scheduled to be reviewed in 2025.

Council will continue to manage demand for solid waste management facilities and services by ensuring that:

- Services are charged on a user-pays bases (where appropriate and practicable)
- Rates charged will be full cost-recovery for the treatment of waste, its disposal and after-care.

Council continues to work with the shared service, WasteNet Southland, and its partners on a coordinated approach to waste management and minimisation for the Southland region.

3. What we’re planning

Key issues and challenges

The key strategic issues and challenges facing the Invercargill City Council are:

- Responding to the changing environment (both natural and technological) and retaining Invercargill’s character including the built environment. Three key areas of focus are:
 - Planning for the impacts of climate change
 - Responding to changing community requirements for water quality outcomes, reflected in changing Central Government regulations
 - Revitalising the inner city.
- Meeting our long-term renewal expectations for infrastructure
- Encouraging growth projects whilst ensuring financial and operational sustainability for future generations
- Ensuring the Council works in a financially prudent manner that promotes the current and future interests of the community
- The City’s changing demographic profile and its ability and willingness to pay.

Table 7

Solid Waste Activity Key Issues and Challenges

Area	Issue or Challenge	Potential Responses
Levels of Service	Community desire for extending the kerbside recycling and rubbish collection service i.e. central business district, semi-rural and rural areas, district wide.	Overall solid waste customer service delivery review to gauge the community’s desired level of service, expectations, awareness and support for waste minimisation initiatives.
Demand	Demand for solid waste services is highly dependent on the community’s perception and level of awareness of the impact solid waste has on our environment, economy and health.	Review and adoption of Southland Waste Management and Minimisation Plan (as per Waste Minimisation Act 2008).
	How the waste services are used by the community i.e. sorting waste, recycling right, diverting materials, appropriate disposal.	Work in collaboration with WasteNet Southland to provide waste education and communication programmes.
	New River Estuary closed Landfill – potential change in regulation/monitoring following the adoption of the Regional Water and Land Plan.	Work in collaboration with Environment Southland to effectively and efficiently meet the regulatory changes.
	Transfer Station – as environmental awareness increases, the Community’s desire for better access to alternative disposal options will increase.	Investigate the development of a “Resource Recovery Park” which will provide a centralised waste management and minimisation activities i.e. dry-recycling, textiles, electrical waste, construction and demolition materials and residual waste.
	Expiry of contract.	Procure a new recyclables acceptance service contract (and consider if regional collaboration is an option).
	Procuring new service delivery contracts	In collaboration with WasteNet Southland, work through the

Area	Issue or Challenge	Potential Responses
	<ul style="list-style-type: none"> ➤ Contract 5/279 - Landfill expires in 2039 ➤ Contracts 550 expire in 2027 	procurement process for these services. It is recommended that landfill procurement commences 10-years prior to contract expiry (by 2029).
Asset	Invercargill Transfer Station – The facility has issues with subsidence; is operating at 100% performance and at times can be oversubscribed; and has limited capacity for additional services.	Asset Management Plan for the Invercargill Transfer Station.
	Kerbside recycling and rubbish bin service – the mobile bins will reach the end of their useful life in 2027.	Start building a funding reserve to purchase new mobile bins in 2027.
Sustainability	Community buy-in that “waste is a resource”.	Implementation of the: <ul style="list-style-type: none"> ➤ Shared Service - WasteNet Southland ➤ Southland Waste Management and Minimisation Plan.
Resilience	The unknown “unknowns”	Keep up-to-date with current waste industry best practice, i.e. how resilience issues are managed by others.

Alternative Investment Approaches

Capital works involving asset renewals are committed to and undertaken purely on their own individual merits. Their funding is influenced by their individual cost with timing set up by the expiry of their nominal service life.

A different approach is taken for service level improvements. Council works in collaboration with WasteNet Southland. Proposals are put forward to the governance committee – Waste Advisory Group. When the delegated Authority of this committee is exceeded, the preferred recommendation is forwarded to the individual WasteNet Council for approval.

With regard to the Shared Service, in December 2016, WasteNet Southland on behalf of the WasteNet Councils carried out a service delivery review of the solid waste services delivered through the shared service WasteNet Southland. This review was undertaken as part of achieving the Local Government section 17A clause, which states: “A local authority must review the cost-effectiveness of current arrangements for meeting the needs of the communities within its district or region for good-quality local infrastructure, local public services and performance of regulatory functions.”

The Service Delivery Review outcome confirmed that the WasteNet Southland Shared Service was an effective solid waste service delivery mechanism for the Territorial Authority Councils in Southland. The next review is scheduled for 2024.

Key operational issues

Operation / Maintenance Strategy

Invercargill City Council takes a collaborative approach to the provision of solid waste services. Council is a key stakeholder in WasteNet Southland. The Southland Waste Management and Minimisation Plan is the strategic document which records the vision, objectives, actions and funding policy.

Each financial year WasteNet Southland adopts an Action Plan which documents the 12 month work programme based on the Southland Waste Management and Minimisation Plan. The Action Plan categorises activities into four groups – Education, Community, Regulatory, Administration and Contract Management.

Outside of the WasteNet Southland shared service agreement there are Activities and Assets that are managed solely by the Invercargill City Council i.e. Closed Landfills, Mobile Bins, Transfer Stations. The Strategy for these operations is the same as WasteNet Southland which is to meet the legislative requirements of the Waste Minimisation Act 2008.

Operation / Maintenance Standards and Specifications

The Solid Waste Activity is primarily managed and operated to meet levels of service. Day-to-day operational activities are carried out to achieve the following:

- Maintain the quality of the service to protect the health of the community
- Ensure the service is accessible to the community within the serviced area
- Ensure the service is reliable with minimal service disruptions
- Ensure the activities are operated safely for public and operational staff
- Operate to maximise the sustainability of the activities
- Operate to minimise the overall cost of the activities.

Other factors that directly influence the operation of the solid waste activity include:

- Meeting the requirements specified in Council policies and strategies
- Compliance with Resource Consents
- Compliance with national legislation
- Compliance with industry standards and guidelines.

The two key Contracts for the services delivered through WasteNet Southland include:

Contract 279 Waste Disposal Services (approximately \$3 million regional value)

This contract is for regional Landfill services. The WasteNet Councils have a 30 year contract with the owner/operator – AB Lime. The Contract commenced in July 2004 and is entering its 17th year of operation.

The facility is also an active lime quarry and dairy farm. Lime is mined and refined on site. The landfill cells are built where the lime quarry is no-longer operating. The dairy farm surrounds the lime and landfill operations.

Under the Contract, WasteNet manages/administers the fees and charges for the Southland account holders. (It is noted that waste entering the landfill from outside of the region is not controlled by WasteNet). The revenue generated from the fees and charges is used to fund services provided by WasteNet including waste education, behaviour change, enforcement and contract administration.

Contract 550 Collection and Transfer Station services (approximately \$7 million regional value)

This contract is for the provision of:

- Kerbside collection of recycles and landfill-rubbish service
- Operation of transfer station services
- Transport of deposited materials to nominated facilities (e.g. Material Recovery Facility, Transfer Station, Landfill, scrap metal merchants etc).

The WasteNet Councils have a 16-year contract with the operator – Bond Contracts Limited. The Contract commenced in July 2011 and is entering its 10th year of operation.

Council manages Recyclables Acceptance Services independent of the WasteNet Southland services. This contract is for the operation of the Material Recovery Facility (MRF), which receives, sorts, bales and sells dry-recyclables. This was preceded by the 9-year WasteNet Southland Contract 650 and expires on 30 June 2021.

Education and Behaviour Change Programmes

The key strategy document behind the Education and Behaviour Change programmes is the “Waste is a Resource: A Communication and Education Strategy”. The goals of this strategy are for participants to:

- Recognise waste is a resource
- Take action to improve the use of resources.

Operation/Maintenance Options and Alternatives

In 2016 WasteNet completed a Service Delivery Review as per section 17A of the Local Government Act 2002. The process for the review included:



Key assessment criteria relating to the delivery of waste services were determined, including both financial and non-financial benefits of service delivery. The options were scored against the assessment criteria and ranked based on their score in order of effectiveness.

Furthermore, neighbouring councils were contacted to gain a high-level understanding of their current waste services, whether they were currently considering shared services or had the potential to work with WasteNet. The next review is schedule for 2024.

Recommended activity programme

Renewal Strategy

The on-going preventative maintenance programme is largely based on the contractors experience and manufacturer’s recommendation rather than any specific analysis to determine the most cost effective strategy of the assets associated with the Solid Waste Activity. Council has identified a need for higher level Renewal Strategy.

Reactive maintenance is carried out when preventative maintenance fails to catch the deterioration of the asset.

With regard to the mobile bins, these are allocated to participating properties and ownership is retained by Council. Council will repair or replace mobile bins that are damaged while out for collection, on collection day (typically between 6.00 am and 6.00 pm). It is noted that the customer is responsible for its renewal when damaged outside of collection day. Maintenance issues are recorded by both the Council and Contractor operators.

Renewal Criteria/Intervention Standards

The general renewal strategy is to maintain or replace assets when justified by:

- Asset performance
- Economics
- Risk/Condition
- Criticality.

Planned and reactive replacement works are prioritised in accordance with the following priority ranking table and then programmed or, in urgent cases, undertaken immediately.

Capital expenditure for renewal is used to renew assets where processes such as net present value calculation indicate the renewal is more appropriate than ongoing maintenance.

Programmes are developed in each asset area and prioritised to establish the annual programmes which are submitted to Council for their consideration and approval.

Renewal Options and Alternatives

Table 8

Solid Waste Activity Renewal Options and Alternatives

Asset Area	Renewal Option and Alternatives
Closed Landfill	<p>The options available are:</p> <ul style="list-style-type: none"> ➤ <i>Do Minimum</i>: meet resource consent conditions ➤ <i>Optimum</i>: achieve resource consent conditions, and apply further monitoring if results are undesirable. ➤ <i>Over Invest</i>: exceed the required resource consent conditions and have an extensive monthly monitoring schedule. <p>Given the size of the budget these options have not been further evaluated as best asset practice is that Optimum is appropriate.</p>
Transfer Stations ➤ Bluff ➤ Invercargill	<p>The options available are:</p> <ul style="list-style-type: none"> ➤ <i>Do Minimum</i>: meet resource consent conditions and level of service ➤ <i>Optimum</i>: meet resource consent conditions and review level of service. ➤ <i>Over Invest</i>: this would involve upgrading the facility to provide full recovery options for the community. <p>It is recommended a review of the current levels of service be undertaken for these facilities.</p>
Mobile Bins	<p>The only option available for this asset is based around technology e.g. RFID tags and/or GPS tracking. This approach is likely to be evaluated at the end of life for the current mobile bins.</p>
Public Place and Event Receptacles	<p>Refer to the Roading Asset Management Plan for information on the public place (street) receptacles.</p> <p>The options available for the Event Receptacles are an area where further improvement is required.</p>

What's changing and why?

The assessment compiles and analyses information on waste and diverter materials produced in the Southland region and is used to determine priorities for our future solid waste needs. These priorities will be included in the next Waste Management and Minimisation Plan.

The assumptions we've made

The Invercargill City Council 2021-2031 LTP Assumptions document covers all the assumptions used in the development of the Long Term Plan. The assumptions relevant to the Solid Waste Activity are shown below.

Table 9

Key Assumptions from 2021-2031 LTP related to Solid Waste Activity

	Assumption	Level of certainty	Impact of uncertainty	Management response
Population				
Significant Assumption	<p>Population growth At 30 June 2020, the estimated population of Invercargill was approximately 57,100¹².</p> <p>The population growth for Invercargill is around 1%³. This rate has been observed during eight of approximately the past twelve years, making it a reasonable assumption for the current plan.</p> <p>Based on a 1% growth assumption, the expected population for 2031 is estimated to be around 62,810.</p> <p>Covid-19 might significantly change the previous growth forecasts for Council. Population growth is expected to be minimal in the short term as a result of</p>	Medium	<p>Council is not planning for a major change in population during the life of the current plan.</p> <p>There are multiple uncertainties related to population growth in Invercargill:</p> <ul style="list-style-type: none"> • While International students currently in New Zealand are able to return to SIT for study, the number of EFTS⁴ to date for 2021 is only 337. This is compared to 775 in 2020. • Riding out recession impacts of Covid-19 Alert Levels 4 and 3 • Proposed Tiwai Aluminium Smelter closure • Mid-range population forecast but noting underlying increase in population that has already surpassed StatsNZ estimates 	<p>The critical infrastructure and resources that Council provides were designed for a city with a population larger than we are now. Council has appropriate infrastructure and resources to service our population without significant financial impact as we have plenty of room to grow.</p> <p>This is in line with the higher forecast of the Southland Regional Development Strategy.</p> <p>Council will continue to monitor change in population growth during the life of the current long term plan to prepare for/respond to any significant changes realised from the multiple uncertainties</p>

¹ [Subnational population estimates \(TA, SA2\), by age and sex, at 30 June 1996-2020 \(2020 boundaries\) \(stats.govt.nz\)](#)

² [Stats NZ Overview of data quality ratings, interim coverage and response rates, and data sources for 2018 census](#)

³ As above.

⁴ EFTS – Equivalent Full Time Student

	Assumption	Level of certainty	Impact of uncertainty	Management response
	Covid-19 limiting the ability of students and migrant workers to travel, along with continued aging of the population.			identified.
Significant Assumption	Diversity The population will continue to become more diverse. The Maori population will grow from 17% to 19% ⁵ . The Asian population will grow from 6% to 9% ⁶ .	Medium	Interruptions to travel may affect international migration although it is not expected to effect this assumption significantly. Impact of uncertainty is low.	Council continues to explore new ways of engaging and ensures a balanced sample in customer research to ensure it understands changing needs and expectations.
Significant Assumption	Ageing population Those aged 65 and older will form 23% of the population in 2031, which is higher than the current aged population in 2020 ⁷ (estimated at 10,000 of 57,100, or 17.51%) ⁸ .	High	The pattern of aging in the population is a long-term trend which is not expected to be disrupted.	The needs of older people and younger people are different from those in the working age and Council will continue to consider the needs of all users of its services.
Significant Assumption	Households The number of households will increase as the population ages. The size of households will decrease slightly and may vary between 2.35 and 2.25 people over the time of the infrastructure strategy ⁹	Medium	The impact of a potential decline in numbers of students and migrant workers on demand for housing is uncertain.	Council's infrastructure has sufficient capacity to accommodate the potential increase in population and/or demand.

⁵ Growth in line with NZ stats estimate of 2% growth in the Southland region (NZ. Stats, population projections)

⁶ Growth in line with NZ stats estimate of 3% growth in the Southland region (NZ. Stats, population projections)

⁷ NZ Census Area unit forecast

⁸ [Subnational population estimates \(TA, subdivision\), by age and sex, at 30 June 2018-20 \(2020 boundaries\)](#)

⁹ To calculate the projected average occupancy rates we took past and projected population data from Statistics New Zealand and cross referenced this to past and projected number of households. The average occupancy is the total population divided by the total occupied households.

	Assumption	Level of certainty	Impact of uncertainty	Management response
Economy				
Significant Assumption	Economy A recessionary period is expected for the first five years of the LTP and longer-term structural changes to the economy beyond this time. This will lead to higher unemployment and lower GDP. ¹⁰	Medium	The shape of the recession (u or v) is as yet unknown. The relative impact across regions, based on industries impacted most by COVID-19, as well as potential impacts of proposed Tiwai closure and SIT becoming a subsidiary of Te Pūkenga needs to be better understood by Council in order to reduce this uncertainty. Significant errors in this area could have a significant impact on Councils budgets over the forecast period ¹¹ .	Council will focus on efficiency savings. Investment will only be made in activities which can be serviced. Council will continue to review its work programme and priorities as the level of uncertainty reduces.
Social and cultural				
Activity Level	Māori culture Māori culture will become more visible in the city.	Medium	Increased awareness of the need to recognise Maori culture and tikanga (methodology), with a particular focus on partnership, participation and protection.	Promote the principle of Kaitiakitanga/Stewardship. All residents are responsible for looking after the environment, and for the impact of products and wastes they make, use and discard. Kaitiakitanga expresses an integrated view of the environment and recognises the relation between all things. It represents the obligation of current and future generations to maintain the life sustaining capability of the environment for present and future generations.

¹⁰ BERL Local Government Cost Adjustor Forecasts – Three Scenarios Reference No: #6109

¹¹<https://www.infometrics.co.nz/industry-concentrations-and-the-fall-of-think-big/> ; <https://www.infometrics.co.nz/examining-the-nz-industries-hit-hardest-by-the-covid-19-pandemic/> ; BERL Local Government Cost Adjustor Forecasts – Three Scenarios Reference No: #6109

	Assumption	Level of certainty	Impact of uncertainty	Management response
				Council will invest more in Maori engagement to ensure strategic projects reflect Maori culture in the city.
Resilience				
Significant Assumption	<p>Natural disaster</p> <p>No natural disaster is expected to impact the City during the life of the plan.</p>	Medium	<p>The impacts of a disaster will be assessed at the time and an appropriate response prepared.</p> <p>Infrastructure renewals are undertaken using resilient design practices.</p>	<p>Natural or man-made disasters create waste which needs to be clean up in a timely manner to mitigate negative health impacts.</p> <p>Council has a focus on resilience. Council continues to support and invest in Emergency Management Southland.</p>

Environment – Climate Change

Climate change impacts will vary across regions in Southland. The following is a summary of impacts taken from the *Southland climate change impact assessment, August 2018* report.

Significant Assumption	<p>Mean sea level is expected to rise. By 2040: 0.2-0.3 m By 2090: 0.4-0.9 m</p>	High	<p>Errors in modelling will have significant impact on capital works programme required</p> <p>Stormwater – increased tailwater levels require consideration for outfall design.</p> <p>Flood Banks – Renewals need to consider increased sea level during design life.</p> <p>Sewerage – Clifton outfall may need to be pumped long term.</p>	<p>Impact on closed New River Estuary and Invercargill Transfer Station</p> <p>A planned pathway for the review of these assumptions and the impacts will minimise large impacts upon activities.</p>
Council operations				
Significant Assumption	<p>Council services and structure Council is planning for the current structure to deliver the current set of services, with the exception of water and sewerage.</p>	Medium	<p>If amalgamation does occur, costs to the ratepayer will remain the same, although revenue and financing will be done by a different operator.</p>	<p>The Invercargill City Council, Southland District Council and Gore District Council have been working collaboratively on solid waste issues under the banner of WasteNet Southland since 2000.</p> <p>Council will proactively engage with neighbouring authorities and central government to ensure that the best result is achieved from any amalgamation.</p>
Financial forecasting				
Significant Assumption	<p>Inflation Operational forecasts and capital work programmes will increase by the accumulated Local Government Cost Index inflation forecast by BERL.</p>	Medium	<p>Cost change factors are based on information developed for Council's by Business and Economic Research Limited (BERL). Significant variations to inflation would have an impact on Council's financial management.</p>	<p>Council will continue on the planned pathway for the Capital Works programme and review operational revenue & expenses each year.</p>

Significant Assumption	Asset revaluation Asset values will increase by the accumulated Local Government Cost Index inflation forecast be BERL on the last valuation value. Revaluation occurs in 2021/22 and every third year therefore.	Medium	Changes in the valuation or life of Council assets may have a significant impact on Council's financial management and capital programme.	Council will continue on the planned pathway for the Capital Works programme and monitor with after each revaluation cycle.
Activity Report Level	Interest rates - Borrowing Expected interest rates on borrowing will be 2.5%.	High	The treasury report from Bancorp projects the ICC Borrowing interest rate are currently at 2.20% in 2020, and is expected to fall and remain under 2% for the next 10 years. Significantly higher interest rates would impact Council's financial position.	2.5% would allow some upside if the situation changed (interest rates increase or credit rating decreases); but Council have potential to go to 2.25% or 2% to lower costs.
Activity Report Level	Interest rates – Cash and Deposits Return on cash and term deposits are forecasted to expect a negative rate at some stage within 2020/2021.	Medium	Term deposit rates currently vary from 0.5% for under 6 months to a flat 1% for longer. Most forecasts still expect a negative rate at some stage within 2020/2021.	An assumption of 0.5% should be comfortable and if rates do increase again in the future, this will put Council in a more positive position.
Activity Report Level	Dividends from ICHL will be \$4.8m + CPI.	Medium	This would have a negative impact on Council's overall revenue and cash position, which would increase the burden on ratepayers.	Council will consider strategic reliance on dividends noting increased levels of economic uncertainty.
Activity Report Level	External Funding It is assumed Council will achieve the level of external funding as estimated.	High	The immediate impact of Covid-19 has been seen in the local community, with reduced funding available from major community funders including the Community Trust of Southland and Invercargill Licencing Trust and Foundation.	Council acknowledges the challenge of obtaining external funding at this time. Should Council not be able to obtain funding as indicated this would impact project scope and in some cases require further consultation.

A full list of the assumptions can be found online.

Sustainability

The Local Government Act requires Council to take into account the social, economic and cultural interests of people and communities, the need to maintain and enhance the quality of the environment, and the reasonably foreseeable needs of future generations by taking a sustainable development approach.

Sustainability can be defined as:

Development which meets the needs of the present generation without compromising the future generation from meeting their own needs (Brundtland Report, 1987).

The Solid Waste Activity is strongly influenced by sustainability, being lead from the top with Central Governments Waste Minimisation Act 2008 and the New Zealand Waste Strategy.

The purpose of the Waste Minimisation Act 2008 (section 3) is to “*encourage waste minimisation and decrease waste disposal in order to protect the environment from harm; and to provide environmental, social, economic and cultural benefits*”. The key tools for achieving this vision include the national Waste Disposal Levy (WDL) and Product Stewardship schemes.

The WDL is a financial disincentive to disposing of waste to landfill. The WDL is current set at \$10 per tonne, and will be progressively increased to \$60 per tonne by 2025.

Product Stewardship describes the process through which those involved in the lifecycle of a product or service (designers, manufacturers, retailers, consumers) all take responsibility for the health, safety and environmental impacts produced by the goods or service. In 2020 the Government declared 6 priority product for regulated product stewardship under the Waste Minimisation Act, which are:

- Plastic packaging
- Tyres
- Electrical and electronic products (e-waste)
- Refrigerants
- Farm Plastics
- Agrichemicals and their containers.

The Southland Waste Management and Minimisation Plan vision is that “waste is a resource”. Beneath this vision are three goals:

- Work together to improve the efficient use of resources
- Use the waste hierarchy to guide decision making
- Reduce the harmful effects of waste to our health and environment.

Social and Cultural

The key social and cultural drivers for the Solid Waste Activity are to:

- Meet the obligations of the Health Act 1956 and Health & Safety at Work Act 2015.
- Provide behaviour change programmes to increase participation in waste minimisation initiatives and inform customers on how to use services.
- Promote the principle of Kaitiakitanga/Stewardship. All residents are responsible for looking after the environment, and for the impact of products and wastes they make, use and discard. Kaitiakitanga expresses an integrated view of the environment and recognises the relation between all things. It represents the obligation of current and future generations to maintain the life sustaining capability of the environment for present and future generations.

Environmental

The Southland Waste Management and Minimisation Plan identifies five key strategic objectives:

- Reduce the amount of material entering the waste stream.
- Reuse or repurpose material so it has a life before recycling or disposal.
- Reduce the amount of materials sent to final disposal by maximising recycling.
- Make the best use of recoverable waste as a renewable resource.
- Appropriate treatment and disposal of waste for the protection of our health and environment.

Under each of these objectives, actions have been developed to achieve the objective, resulting in movement towards achieving the overarching vision 'waste is a resource'.

Economic and Financial

Solid Waste is a significant infrastructural activity that looks to provide the desired level of service in the most cost effective manner while meeting the health, safety, social, cultural and environmental interests.

We do this by:

- Recognising the consumption of assets and appropriately funding it.
- Categorising capital versus operational expenditure and understanding how each influences the community.
- When procuring goods and services, taking into account market sustainability, best practice and smart buying processes.
- Reporting on financial performance.
- Where appropriate and practicable applying full-cost pricing / user pays principle e.g. the environmental effects for disposal of goods is consistently costed and charged as closely as possible to the point they occur.
- Undertaking projects which are affordable and justified under the Better Business Case.
- Working collaboratively with WasteNet Councils and other Territorial Authorities / Organisations to reduce cost and achieve shared objectives.

Potential Significant Negative Effects

The amount of waste we produce is directly linked to how many goods and services we consume – the greater our wealth the more we waste. By its nature, waste can be bad for our environment, bad for our health and bad for our economy.

The inappropriate disposal of waste can lead to significant environmental effects. International reports show a clear correlation between waste disposal to landfill and climate change.

Potential negative effects associated with the Solid Waste Activity Management Plan are:

Table 10

Potential Significant Negative Effects related to Solid Waste Activity

Consideration	Effect	Significant (Yes / No)
Social wellbeing		
Public Image	Excess residual waste and/or recyclables falling out of receptacles is unsightly and can be the source of windblown litter.	No
Community Welfare	Collection causes more heavy traffic usage on road network.	No
	Illegal disposal of “hot” material or hazardous waste within a receptacle has the potential to start a fire.	No
	Windblown litter and littering is unsightly and potential health risk and/or pollute the environment.	No
	Actual physical effect of decomposing waste generates odour, leachate and methane gas emissions.	No
Lifestyle	Noise generated by vehicles emptying mobile bins.	No
	Noise generated by vehicles entering the site and operating equipment at the Transfer Stations.	No
	Pests and rodents.	No
Cultural wellbeing		
Customer Services	Elderly or disabled residents may have difficulty placing mobile bins out for collection.	No
Economic wellbeing		
Future capital requirements	New technology for separating and sorting waste is expensive.	No
Environmental wellbeing		
Energy efficiency	Vehicle fuel and emissions.	No
	Compostable material disposed to landfill could have been beneficially used.	No
	Recyclable materials disposed to landfill could have been beneficially used, saving energy and raw materials to generate new materials.	No

There are no significant negative environmental effects identified for the Solid Waste Activity.

Summary of Sustainability Challenges and Issues

The key sustainability challenge for the Solid Waste Activity is community buy-in. The vision of the Southland Waste Management and Minimisation Plan requires radical changes in our collective behaviour. This challenge is addressed through the implementation of the Southland Waste Management and Minimisation Plan.

Risk

The Council recognises that it is obliged to manage effectively and to review regularly its risks at a strategic, operational and project level. The Council has done this by developing a Risk Management Framework and a range of risk management processes that apply across the organisation. Risk assessment is a major consideration in planning and budgeting processes at all levels within the Council. Risks must be considered and documented as part of the justification for undertaking our activities. Risk assessment and monitoring must form part of the management of operational activities. The Chief Executive and the Council encourage the taking of controlled risks to better improve the effectiveness and efficiency of the services and functions that the Council provides on behalf of the community, provided the resultant exposures are acceptable.

Critical Assets Decision-Making

Critical assets are those which have a high consequence of failure, but not necessarily a high probability of failure. This is important as it draws attention to those assets which are the most important, irrespective of the likelihood of failure of the asset. Critical assets typically require more proactive management to minimise or eliminate this risk.

The likelihood of failure of an asset is often difficult to assess, however condition and age are parameters that provide an indication. The worse the condition of the asset, the more likely it is to fail.

Assets which are both extremely critical and more likely to fail should have higher priority and be replaced or rehabilitated earlier in their lifecycle than others, and at lower levels “run to failure” may be perfectly acceptable.

Risk Identification and Assessment

Table 11

Health and Safety Risk Identification and Assessment

Level of Service Indicator	Caused By	Consequence								Likelihood	Risk Severity	Controls	
		Health and Safety (0.20)	Service Delivery – Customer Impact (0.15)	ICC Financial Impact (0.20)	Financial – Community (0.15)	Corporate Image and Reputation (0.10)	Legal Compliance (0.20)	Weighted Averaged Consequences Score	Current Practice			Recommended Actions	
Contractors unable to provide agreed levels of service	Mechanical breakdown	1	1	2	1	3	1	1.4	D	L	Contractor has spare collection vehicle. Minimum of 3-days storage capacity at Transfer Stations and Material Recycling Facility.	Continue current practice.	
	Fire in collection vehicle or at transfer station e.g. hot ashes in receptacles	1	1	2	1	3	1	1.4	D	L	Customers regularly reminded on how to use the service (e.g. advertising). Contractor has procedures to manage fires i.e. call NZ Fire Service, remove public from area, notify Council.	Continue current practice.	
	Hazardous waste spill at Transfer Station or in collection vehicle	1	1	2	1	3	1	1.4	D	L	Contractor has procedures to manage spills i.e. use emergency spill kit, notify Environment Southland, notify Council.	Continue current practice.	
	Business failure	1	5	4	4	3	1	2.85	F	L	WasteNet Southland (and	Continue current	

Level of Service Indicator	Caused By	Consequence								Risk Severity	Controls		
		Health and Safety (0.20)	Service Delivery – Customer Impact (0.15)	ICC Financial Impact (0.20)	Financial – Community (0.15)	Corporate Image and Reputation (0.10)	Legal Compliance (0.20)	Weighted Averaged Consequences Score	Likelihood		Current Practice	Recommended Actions	
												Council) has good working relationships with its contractors. All issues are openly discussed and resolved for the benefits of all parties.	practice.
	Unable to gain required resource consents	1	5	4	4	3	3	3.25	E	L	WasteNet Southland (and Council) has good working relationships with its contractors. Council work with contractors to ensure that they applying early to renewal of resource consents, therefore there is sufficient time to resolve any outstanding issues that affect the consent.	Continue current practice.	
	Load rejected at Southland Regional Landfill or Materials Recovery Facility	1	1	1	1	4	2	1.5	E	L	Contractor is required to make the load compliant and find alternative disposal options for the non-compliant material.	Continue current practice.	
	Mobile bin participant places wrong material in mobile bin.	3	3	1	1	1	2	1.9	A	H	WasteNet Southland educates the community on how to use the service, and where necessary apply enforcement actions.	Continue current practice.	
	Mobile bins vandalised or stolen	1	1	1	1	1	1	1	C	L	Customers advised to place their mobile bin/s out on collection day	Continue current practice.	

Level of Service Indicator	Caused By	Consequence								Risk Severity	Controls		
		Health and Safety (0.20)	Service Delivery – Customer Impact (0.15)	ICC Financial Impact (0.20)	Financial – Community (0.15)	Corporate Image and Reputation (0.10)	Legal Compliance (0.20)	Weighted Averaged Consequences Score	Likelihood		Current Practice	Recommended Actions	
	while out for collection.											(not the night before), and return them to their property as soon as practicable after emptying.	
Ensure the health and safety of customers, public and contractors.	Traffic accident	4	1	3	3	2	3	2.8	C	M	Contractor has health and safety procedures in place i.ge. check health of all parties, notify emergency services, investigate, implement recommendations.	Continue current practice.	
	Mobile bin collection truck has a near miss with a pedestrian.	3	1	3	3	2	3	2.6	D	L	Customer/pedestrians and footpath users awareness of their own health and safety. WasteNet Southland works with schools to advice students of risks.	Continue current practice.	

Note: risk schedules will be updated following implementation of corporate framework.

Summary of Key Risk Issues

The main risks for the Solid Waste Activity are circumstances where the contractor cannot meet the level of service due to mechanical issues, fire, contamination, traffic accident, theft or vandalism. These risks are managed through Contractual obligations, enforcement, public awareness, education/behaviour change programmes.

Possible Approaches to Risk Mitigation

A risk management approach alone is not sufficient and needs to be complemented by a resilience approach to events that fall outside of the realms of predictability and where failure may be inevitable.

Resilience

The working definition of resilience to Invercargill City Council is the ability of the organisation to survive a crisis and thrive in a world of uncertainty. Resilience includes both planned risk management (Section 6.2) and adaptive capacity. In this context resilience refers to our capacity to adapt, rather than preparedness or recovery, which is the capacity of people, the community and systems to adapt in the face of unpredictable change the 'unknown unknowns'.

*100 Resilient Cities*¹² has four dimensions and three drivers within each:

- **Health and Well-being**
 - Meet basic needs,
 - Support livelihoods and employment,
 - Ensure public health services

- **Economy and Society**
 - Foster economic prosperity
 - Ensures social stability, security and justice
 - Promote cohesive and engaged communities

- **Infrastructure and Environment**
 - Provide reliable communication and mobility
 - Ensure continuity of critical services
 - Provide and enhance natural and man-made assets

- **Leadership and Strategy**
 - Promote leadership and effective management,
 - Empower a broad range of stakeholders,
 - Foster long-term and integrated planning

Business Continuity and Emergency Response Arrangements

Emergency Management Southland (EMS) is a shared service between Invercargill City Council, Southland District Council, Environment Southland and Gore District Council. It focuses on ensuring communities are prepared for emergencies and that they are able to

¹² <http://www.100resilientcities.org/resilience>

respond to and recover from these when they do happen. Specific actions include public education and ensuring a pool of trained personnel. Having this combined organisation results in streamlined decision making, faster response times and cost savings.

Contracts for this Activity include contractual obligations for the provision and implementation of Emergency Planning.

Current and Desired Resilience Assessment

Resilience is a topic that we are learning about from events such as the Christchurch, Kaikoura and Wellington earthquakes, Invercargill City Council is seeking to make our organisation and infrastructure more resilient. Resilience will be part of the review of risk management being undertaken in the 2018-19 financial year.

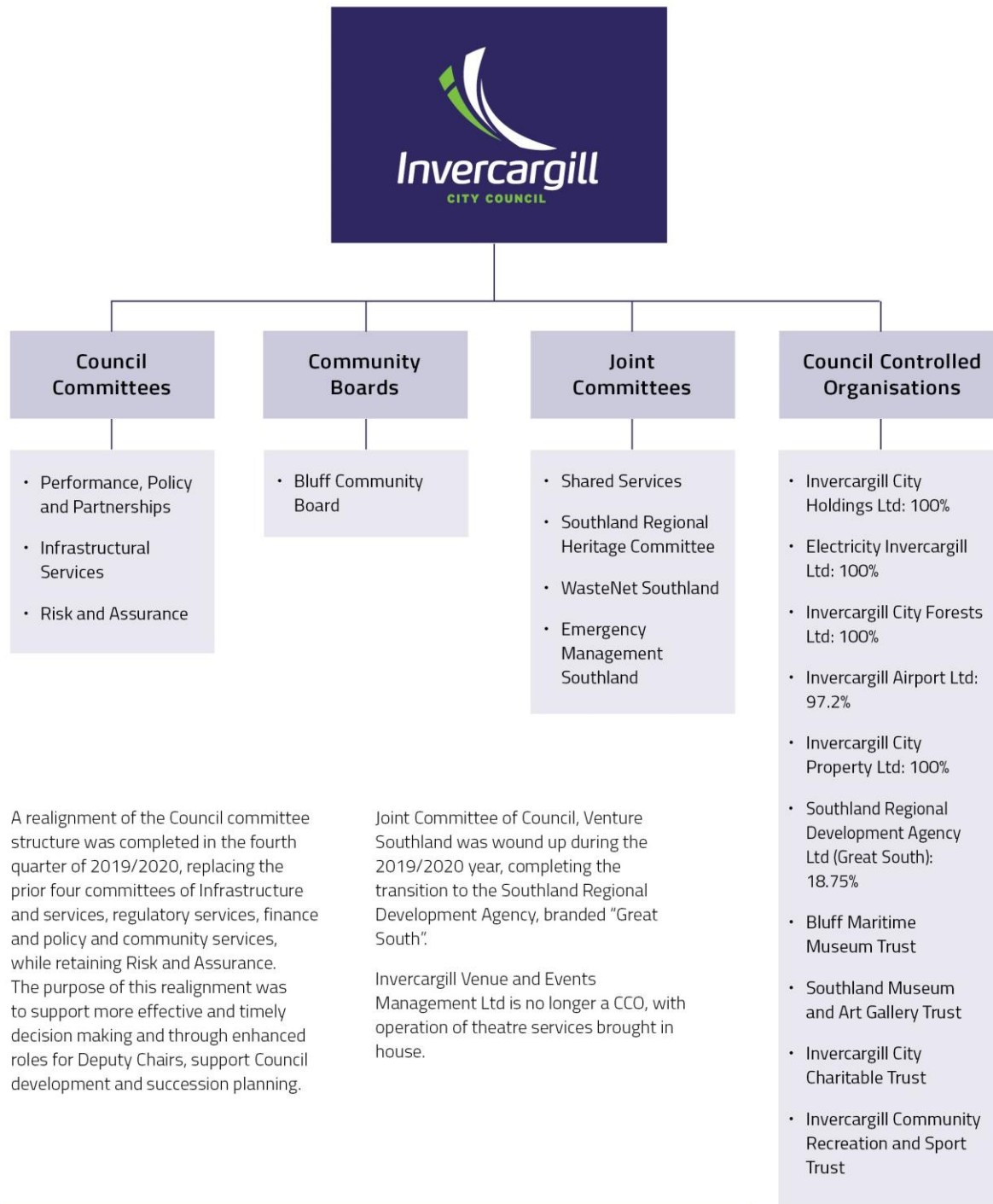
Summary of Resilience Issues and Challenges

The resilience challenge for the solid waste activity is how to manage/mitigate the unknown "unknowns". This is an issue that other activities will also be facing. Council's risk management review being conducted in 2018-19 will include work on resilience. In the meantime the solid waste team keep up-to-date with current waste industry best practice and how resilience's issues are managed by others.

4. How we'll manage what we do

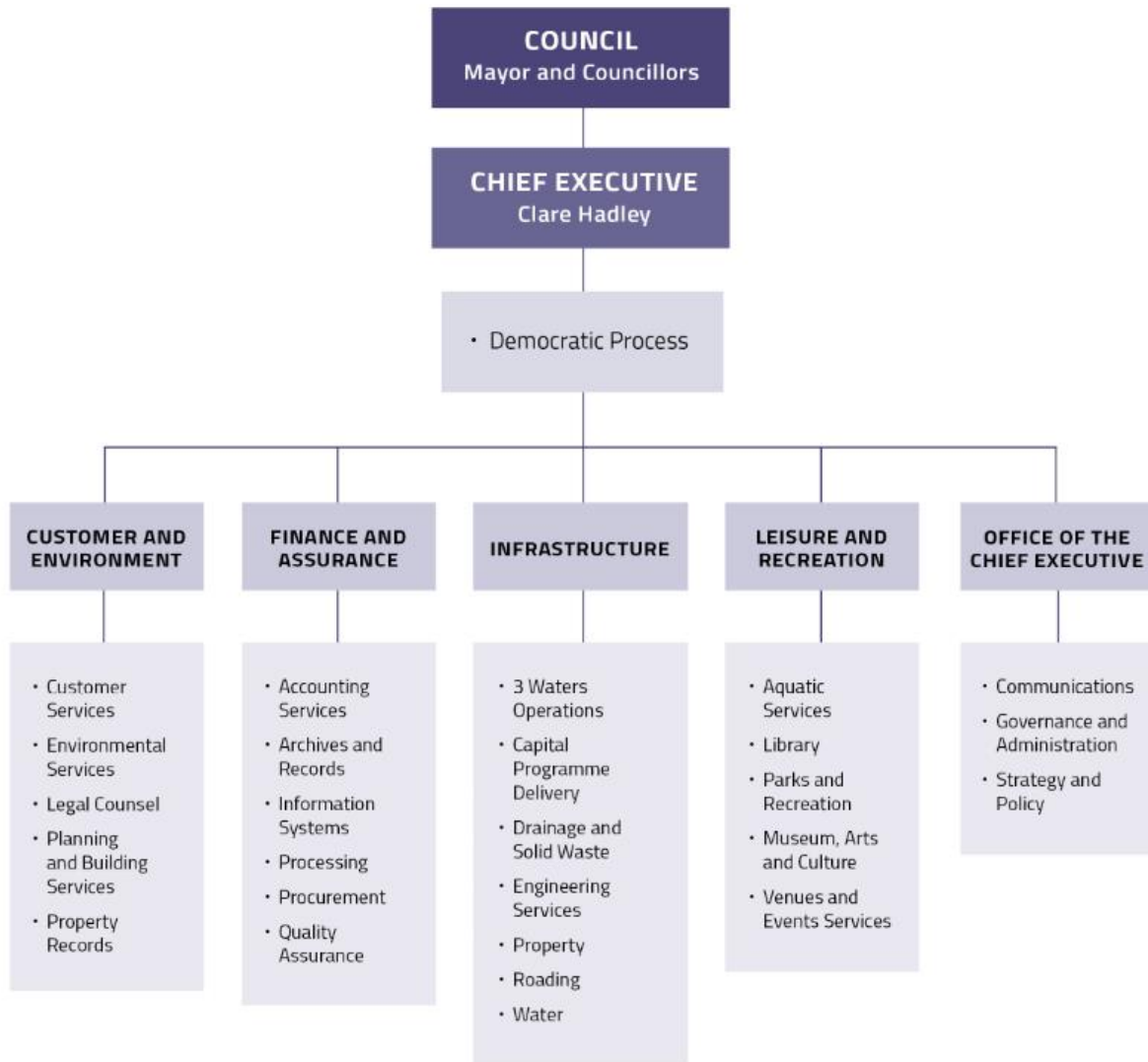
Responsibility and resourcing

Council Structure



Invercargill introduced

Management Structure



Asset Development Strategy

Table 12

Solid Waste Activity Asset Development Strategy

Asset Area	Asset Development Strategy
Closed Landfills	No asset development is planned at this time.
Transfer Stations	The outcome of the proposed level of service review will determine the asset development strategy for these assets.
Mobile Bins	The strategy is to extend the kerbside collection area over time in response to customer demand.
Public Place and Event Receptacles	Refer to the Roading Activity Management Plan for further information on the public place (street) receptacles. No asset development is planned at this time for the event receptacles.

Capital Development Selection Criteria

Each growth or decrease to service level project is required to fill in an assessment case. The assessment case documents the problem the project is solving, the benefits, the risks, estimated capital and operational costs and how it aligns with Community Outcomes.

Capital Development Options and Alternatives

Council would consider each proposal on its merits. Council may decide to be supportive of development that contributes to progressing the Southland Waste Management and Minimisation Plan vision and target, and benefits the effective and efficient management and minimisation of solid waste.

Managing the condition and performance of our assets

Asset Overview

This section provides the detail of the key asset components comprising the Solid Waste Activity including a description of the assets, their condition, performance and capacity, together with individual asset management strategies for the maintenance, renewal and development of these assets.

Asset Description

The Solid Waste Activity assets comprise:

- Closed Landfills
 - Bluff Closed Landfill
 - New River Estuary Closed Landfill

- Bluff Transfer Station
 - Compactor
 - Shipping Container
 - Mobile Bins
 - Infrastructure – roading, signage, drainage, fencing and other associated infrastructure

- Invercargill Waste Transfer Station – which includes
 - Weighbridges
 - Kiosk building
 - The Garage Reuse Shop buildings
 - Transfer Station main building
 - Hazardous waste building
 - Composting area
 - Infrastructure – roading, signage, drainage, fencing and other associated infrastructure

- Kerbside Collection Assets
 - Mobile Bins

- Public Place and Event Receptacles
 - Street receptacles, mobile bins

The Southland Regional Landfill is privately owned and operated, therefore there are no Council Assets associated with this activity.

Closed Landfills

The Council owns two closed landfills:

- Bluff Closed Landfill
- New River Estuary Closed Landfill

Bluff Closed Landfill



Address	75 Suir Street, Invercargill.
Ownership	Invercargill City Council
Description	<p>The site is located on the corner of Foyle and Suir Streets Bluff, on the western edge of the Bluff Township. The site is bounded by pasture on the northern, eastern and southern sides. A wetland is present along the western boundary of the site.</p> <p>Only a portion of the site was used for landfill. The closed landfill is located in an old quarry in the south-eastern corner of the site. The southern half of the site is situated on a moderately sloping hill. The northern half of the site is generally flat and at the same level as the road. This portion of the site was used for cleanfill deposition and was accessed by a vehicle access track.</p> <p>Refer to Appendix 15.05 Bluff Closed Landfill Post Closure Landfill Management Plan October 2007.</p>



Caption: Bluff Closed Landfill Site Plan

Resource Consents	Discharge permit No 20169950. To discharge leachate to landfill, where it may enter groundwater from a closed landfill. Expiry date: 19 May 2027.
Monitoring	Consent compliance is measured by Council staff. The site is operating in compliance with resources consents.
Capacity	The facility closed to receiving solid waste in 1998.
Performance	The key landfill management issue is compliance with the after-care consent requirements post landfill closure and management of the waste transfer station that now occupies a portion of the site.
Utilisation	The Bluff Transfer Station operates out of the northern corner of the site. The remainder of the site is not used.

New River Estuary Closed Landfill



Address	303, 351, 383 Bond Street Invercargill
Ownership	Invercargill City Council
Description	<p>The New River Estuary Closed Landfill is located in the area known originally as Pleasure Bay and is bordered on the North by Bond Street, on the East by the New Zealand Railways Bluff Line, and on the West by an estuary embankment. A lagoon is located along the southern boundary of the site.</p> <p>There are two vehicle access roads to the site off Bond Street.</p> <p>The landfill was closed in June 2004, following the opening of the Southland</p>

	<p>Regional Landfill located at Kings Bend, Winton.</p> <p>In 2007 the Invercargill City Council was awarded a Ministry for the Environment Green Ribbon Award for the restoration of the former New River Estuary landfill into a serene recreation area.</p> <p>The majority of the post-closure works are complete, with only minor works (replanting) expected to continue for the next couple of years.</p> <p>Refer to Appendix 15.06 New River Estuary Landfill Post Closure Management Plan March 2011 for more information.</p>
Resource Consents	<ul style="list-style-type: none"> ➤ Discharge Permit (No. 94457). To discharge solid wastes and leachate from a landfill onto and into land. Expiry date: 29 April 2033. ➤ Coastal Permit (No 204270). To occupy a coastal marine area with a structure in the form of a wooden boardwalk, and to deposit rock rip rap and crystal sand. Expiry date: 26 March 2042.
Monitoring	Consent compliance is measured by Council staff. The site is operating in compliance with resource consents.
Capacity	The facility closed to receiving solid waste in June 2004.
Performance	The key landfill management issue is compliance with the after-care consent requirements post landfill closure and management of the waste transfer station that now occupies a portion of the site.
Utilisation	<p>The site now comprises of two activities:</p> <p>(1) Recreation area and,</p> <p>(2) Invercargill Waste Transfer Station.</p> <p>The Recreation area covers approximately 80% of the site. This part of the site has been transformed into an attractive wildlife and recreational area, which includes the Roger Sutton Walkway, and is used by pedestrians and cyclists. The Recreation Area is managed by Parks. Refer to the Parks Asset Management Plan for more information.</p> <p>The Invercargill Waste Transfer Station is located in the Northwestern part of the site. This facility is currently managed by Council Contractor as per Contract 550 Collection and Transfer Station Services. More information on the Transfer Station asset is included in this document.</p>

Bluff Transfer Station



Address	75 Suir Street, Bluff
Ownership	Invercargill City Council
Description	<p>This facility is a remote/satellite station to allow the Bluff Community a bulk disposal point for their solid waste. It is designed for households or residential waste volumes only.</p> <p>The facility is open 5 days a week:</p> <ul style="list-style-type: none"> ➤ Monday, Wednesday and Friday from 2pm to 4pm, ➤ Saturday from 11am to 2pm and ➤ Sunday from 10am to 12:30pm. <p>The facility is closed all public holidays.</p> <p>Customers are met by the Attendant, who accepts payment (where applicable) and directs them where to dispose of their materials. Payment is by eftpos or token. Tokens can be purchased from the Councils Bluff Service Centre.</p> <p>The facility accepts household quantities of: garden waste, landfill-rubbish and has limited capacity for dry-recyclables. It does not accept commercial waste volumes, liquid waste or hazardous waste.</p>

	<p>The facility has a compactor with a loading chute into which solid waste is directly loaded from vehicles.</p> <p>Refer to Appendix 15.02 for further information.</p>
Condition	<p>No formal condition rating has been undertaken. It is noted that the facility has the following assets: compactor, 40-foot shipping container, building, boundary fence, gates (entrance/exit), signage, roading.</p> <p>The compactor was replaced in 2020 with a second-hand unit (this unit was previously at the Invercargill Transfer Station).</p> <p>The 40-foot shipping container was supplied by the Ministry for the Environment as part of the TV TakeBack Programme. The intent is to use the container as dry-storage for collected electrical waste.</p>
Monitoring	Contractor as per Contract 550 Collection and Transfer Station Services.
Capacity	No recent capacity studies have taken place, however Contractor and Staff estimate that the facility is underutilised. This assessment is based on the lower than expected revenue received.
Performance	No recent performance monitoring has taken place.
Utilisation	The facility is currently managed by Councils Contractor as per Contract 550 Collection and Transfer Station Services.

Invercargill Transfer Station



Address	303 Bond Street, INVERCARGILL
Land Area	480,471
Ownership	Invercargill City Council
Description	<p>This facility is designed to “bulk-up” solid waste as preparation to transport it, to the Southland Regional Landfill.</p> <p>The Invercargill Transfer Station is open:</p> <ul style="list-style-type: none"> ➤ Summer Hours (October 1 to March 31) <ul style="list-style-type: none"> ▪ Monday – Saturday 8am to 6pm ▪ Sunday – 9am to 6pm ➤ Winter Hours (April 1 to September 30) <ul style="list-style-type: none"> ▪ Monday – Saturday 8am to 5pm ▪ Sunday – 9am to 5:30pm. <p>The facility is closed 3-days per year: Christmas Day; New Year’s Day; and Good Friday.</p> <p>Customers drive onto a weighbridge, where they are greeted by an Attendant who weighs the vehicle and directs them where to dispose of their waste materials. When the customer comes to exit, they drive onto the second weighbridge and payment is calculated by the weigh and type of product disposed of. Payment is by eftpos, cash or account.</p> <p>The facility accepts:</p> <ul style="list-style-type: none"> ➤ Household quantities of: garden waste, tyres, used oil, hazardous waste, cleanfill and landfill-rubbish. ➤ Commercial quantities of: garden waste and landfill-rubbish. <p>A reuse and recovery facility is located at the entrance of the facility – The Garage Reuse Shop. The property, carpark and associated buildings are</p>

leased to a private commercial operator.

The Solid Waste Transfer Station was constructed in 1997. Design was by Royds Consulting and constructed by Naylor Love Construction. It is constructed on landfill waste material therefore has significant piling beneath the pit and building foundations. It is also close to high tide level and significant drainage and tanking has been included in the collection pit and compactor pit construction. Considerable settlement of the paved areas around the Transfer Station has occurred over time and paving has been built up to provide level access to the dump face of the pit. The pit floor was recoated with concrete during Labour Weekend, 2014. The pit floor recoated failed and the pit floor was fully replaced in May 2020. The compactor was also replaced in March 2020.

It is the contractor's responsibility to prepare an asset management plan for the facility as per clause 8.1 of Contract 550. The individual assets that make up this facility are owned by Council or the Contractor.

The Building Assets team are contracted to Solid Waste for advice and assistance, as and when required. Refer to Building Asset Management Plan for further information.



Caption: Aerial Image of Invercargill Waste Transfer Station, 303 Bond Street Invercargill.

Resource consents	Air Discharge Permit (No. 200038). To discharge contaminants to air from a composting operation. Expiry date 30 June 2021.	
Capacity	3 days storage	
Performance	100%	
Utilisation	Contractor as per Contract 550 Collection and Transfer Station.	
Materials	Walls	Corrugated Coloursteel

	Joinery	Aluminium
	Roof	Corrugated Coloursteel
	Structure	Steel
Energy Supply	Electricity	

Mobile Bins

Properties receiving the kerbside recycling and rubbish collection service are provided with mobile bins (wheelie bins) for sorting their waste into dry recyclables and landfill-rubbish.

The Council purchased the mobile bins in June 2011, with an estimated useful life of 16-years.



Caption: A red rubbish bin (140-litre) and yellow recycling bin (240-litre) at the kerbside waiting to be emptied.

The standard service provided to participating properties is:

- One yellow recycling bin: 240-litres
- One red rubbish bin: 140-litres

360-litre mobile bins are available (upon request) for servicing commercial properties such as motels, hotels, student accommodation.

Tactile symbols are moulded into lids of the mobile bins to allow customers with visual impairments to identify the two types (recycling or landfill-rubbish).

The mobile bin asset consists of:

Table 13

Mobile Bin Assets

Mobile Bin	Size	Number in Service
Yellow Recycling Bin is made up of: black body, yellow lid, 2 wheels and an axle	140-litres	2,875
	240-litres	18,531
	360-litres	58
Red Rubbish Bin is made up of: Black body, red lid, 2 wheels and an axle	140-litres	21,180
	240-litres	263
	360-litres	29



Figure: What happens to the contents of the yellow-recycling bin

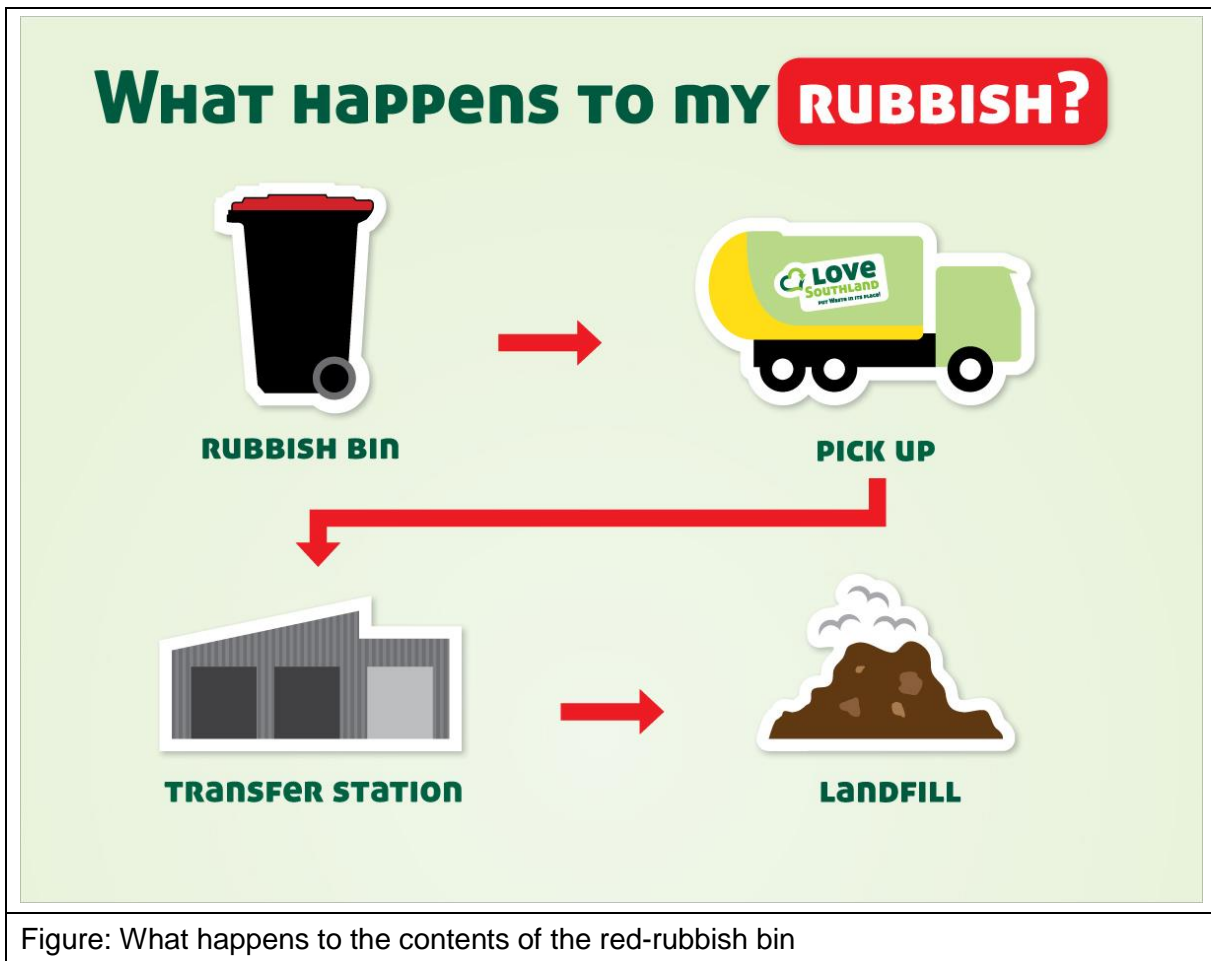


Figure: What happens to the contents of the red-rubbish bin

Public Place Receptacles and Event Mobile Bins

Council provides public place receptacles for the disposal of rubbish (litter) created by the public. The majority of these receptacles are located in the central business areas of Invercargill, Bluff and Windsor. Smaller shopping centres and dairies in residential areas may also be provided with this service.

It is noted that Council received national funding to trial public place recycling during the Rugby World Cup 2011, which resulted in five receptacles for recycling being installed in Esk Street and Dee Street. In 2016 Council upgraded the City Centre and installed new recycling receptacles.

For more information on this asset see the Roding Asset Management Plan.

It is also noted that there can be public place receptacles in the Parks and Reserves, managed by the Parks Team. For more information on these assets, see the Parks Asset Management Plan.

WasteNet Southland has a small supply of equipment available to assist events to manage their solid waste. This equipment is stored by the Contractor (Bond Contracts) and is available upon request.

Table 14

Mobile Bin Infrastructure

Infrastructure	Number
Mobile Bin Hoods – Yellow Plastic Bin hood that can be placed over an open 140/240-litre mobile bin.	12
Mobile Bin Hoods – Red Plastic Bin hood that can be placed over an open 140/240-litre mobile bin.	12
Mobile Bins – Green 80-litre mobile bins made up of black body, green lid, 2-wheels and an axle.	6



Caption: The 2012 International Junior World Cycling Championships held at the ILT Velodrome used the event bin hoods to assist participants in sorting their waste.

Critical Assets

Asset Criticality Criteria

Table 15

Asset Criticality Criteria

Criticality Rating	Asset Importance	Consequence of Failure
5	Extremely important. The asset serves the most important city-wide function for this network or asset portfolio and is essential to ongoing operation (e.g. single water treatment plant, a single bridge link to the city, regionally significant park, Council HQ building, etc).	Catastrophic. Failure would have severe and long-lasting adverse impacts on many if not most of ICC's customers and stakeholders, affecting outcomes such as public health and safety, economic well-being, and environmental sustainability. Availability of suitable alternatives is limited.
4	Very important. The asset serves a major function within the network (e.g. an arterial road, large trunk main, one of a small number of water reservoirs in the city, Museum, etc).	Extreme. Failure would have major adverse impacts on many customers and stakeholders; and/or significant adverse impacts on the economy and/or the environment.
3	Important. The asset serves an important suburban function (e.g. a Collector road, minor pumping station, distribution main, suburban pool, park, housing or community building).	Major. Failure would have some adverse impacts on significant numbers of customers, and/or some adverse impacts on the local economy or the environment.
2	Minor importance. The asset serves a primarily local function (e.g. a local road, pipe serving several streets, small community facility).	High. Failure would have minor adverse impacts on some customers; and/or minor adverse effects on the local economy or the environment.
1	Not important. The asset serves a minor local function (e.g. a water pipe serving a single street, small local reserve, etc).	Moderate. Failure would have little to no adverse impacts on customers and no impact on the local economy or environment.

Identification of Critical Assets

Table 16

Identification of Critical Assets

Asset	Criticality	Comment
Closed Landfill ➤ Bluff ➤ New River Estuary	4	Closed landfills can be monitored for 30+ years for adverse environmental effects. If adverse environmental effects are found the financial and environmental cost of mitigation could be significant.
Bluff Transfer	2	Failure of the Bluff Transfer Station could place pressure on the

Asset	Criticality	Comment
Station		kerbside recycling and rubbish bin service, and inconvenience customers as they would need to drive to Invercargill to dispose of large products. It could encourage customers to inappropriately burn or bury their solid waste.
Invercargill Transfer Station	4	Failure of the Invercargill Station could have high adverse environmental, health, social and financial implications e.g. solid waste would be unable to be collected or transported to the Landfill.
Mobile Bins	2	Failure of the Mobile bins could have high adverse environmental, health and social implication as they are provided to allocated properties for sorting waste into recyclable and residual waste. It would place pressure on Transfer Station facilities, and could encourage customers is inappropriately burn or bury their solid waste.
Public Place Receptacles and Event mobile bins	1	The failure of public place receptacles and event mobiles bins is not important, as the other facilities will be able to manage this waste.

Asset Condition

Summary of Current Asset Condition

Table 17

Summary of current asset condition

Condition Grade	Definition	Proportion of Consumed Life	Description
1	Very good	Between New- 45%	Sound structure with no evidence of deterioration
2	Good	Between 45 - 60%	Functional, sound and showing minor deterioration of surfaces.
3	Moderate	Between 60 - 75%	Affected appearance and operation. Deterioration or damaged surfaces.
4	Poor	Between 75 – 90%	Fabric damage and operational performance affected, breakdowns or ongoing maintenance required.
5	Very poor	Between 90-100%	Badly damaged, operation unreliable immediate or imminent replacement required.

Asset	Condition	Comment
Closed Landfill ➤ Bluff ➤ New River Estuary	2	Both closed landfills are fully capped and monitoring systems are in place.
Bluff Transfer Station	2	A basic facility for the bulk disposal of some types of solid waste.
Invercargill Transfer Station	3	The Transfer Station was built in 1997 and is currently 20-years into its assumed 50-year lifespan. There are issues of subsidence on the site, with maintenance works taking place on both

		weighbridges and road surfaces. The pit floor was replaced in May 2020 and the compactor was replaced in March 2020.
Mobile Bins	3	The mobile bins are 10 years into their expected 16-year life. No formal condition surveys have been undertaken however they are believed to be in good condition for this stage of their lifecycle. Council Contractors are required to monitor and maintain the mobile bins as per the specifications set out in Contract 550. Customers contact Council with repair request. Minimal repairs are undertaken due to manufacturing faults.
Public Place Receptacles and Event mobile bins	- 1	Refer to the Roading Asset Management Plan for condition rating of the Public Place Receptacles. The Event Mobiles bins are in a good condition and are available to event organisers on the basis that they pay for repair/replacement for damage or loss.

Condition Monitoring

Condition monitoring is undertaken either by Council staff or by Council Contractor as per Contract 550.

Asset Capacity and Performance

Table 18

Capacity and Utilisation

Asset	Capacity and Utilisation	Comment
Closed Landfill ➤ Bluff ➤ New River Estuary	50% 100%	The Bluff Closed Landfill site is not fully utilised as the only activity taking place on site is the Bluff Transfer Station. The New River Estuary is fully utilised as it has been developed into a Recreational Area and Invercargill Transfer Station. Refer to the Parks Asset Management Plan for more information on the Recreational Area.
Bluff Transfer Station	50%	Not fully utilised and there are times when no customers use the facility when it is open.
Invercargill Transfer Station	100%	3 days storage.
Mobile Bins	100%	The current mobile bins were designed to provide the service for the full 16-year term of Contract 550. The 3 bins sizes available allow for some flexibility for customers e.g. elderly wanting smaller more manageable bins, and accommodation outlets with limited storage space. Mobile bins are provided to new properties when residents are permanently living at the address (and they are within the refuse collection area).
Public Place Receptacles and Event mobile bins	- 20%	Refer to the Roading Asset Management Plan for condition rating of the Public Place Receptacles. The event mobile bins are used 1-2 times per year. Venture Southland is a regular user for the annual ILT Kidzone Festival.

Performance

Table 19

Asset Performance

Asset	Performance	Measure	Comment
Closed Landfill ➤ Bluff ➤ New River Estuary	100%	Compliance with Resource Consents.	Both closed landfills are operating in accordance to their current resources consents conditions. Refer to the Parks Asset Management Plan for more information on Pleasure Bay Reserve activity that takes place on a portion of the New River Estuary Closed Landfill.
Bluff Transfer Station	70%	Hours/year	This facility is open 5-days per week, closed on public holidays and is able to provide the designated services to customers. The facility is not well used as it can be open and not receive any customers. It is noted that design of this facility (open chute into a compactor) is no longer a best practice method. Modern facilities are using "same-level" off-loading areas.
Invercargill Transfer Station	100%	Code of compliance, Warrant of fitness, Fire Alarm, Potable Water, Security = all achieved.	This facility is open every day but 3 public holidays and is able to safely provide the designated services to its customers. It is noted that design of this facility (drop onto a pit floor) is no longer a best practice method. Modern facilities are using "same-level" off-loading areas. At times the facility does not have sufficient capacity to safely manage customer demand, which can result in traffic jams backing into Bond Street.
Mobile Bins	100%	Collections/year	When used correctly the mobile bins performance is highly effective. The performance does reduce when customers incorrectly use the receptacles i.e. hot ashes are placed in the bins, or the bins are left in the path of vehicles. It is noted that on average the red rubbish bins are presented for collection 70-80% of the time, and the yellow recycling bins are presented for collection 60-70% of the time.
Public Place Receptacles and Event Mobile Bins	-	Usage	Refer to the Roding Asset Management Plan for more information. When the event mobile bins are used, they perform their functions in a safe manner.

Summary of Asset Trends, Issues and Challenges

Table 20

Summary of Asset Trends, Issues and Challenges

Asset	Specific Asset	Comment
Invercargill Transfer Station	Cavity beneath the main building pit floor	Contractor identified a large cavity beneath the main building pit floor when repairing a water leak.
	Site Subsidence	Continual building up of road surfaces to reduce the trip hazards.
	Peak capacity	Contractor has identified capacity issues during peak times. This issue needs to be further explored.

5. How we'll fund it

Table 21

Solid Waste - Total Expenditure OPEX and CAPEX 10 years

	2020/21 Annual Plan (\$000)	2020/21 Forecast (\$000)	2021/22 LTP (\$000)	2022/23 LTP (\$000)	2023/24 LTP (\$000)	2024/25 LTP (\$000)	2025/26 LTP (\$000)	2026/27 LTP (\$000)	2027/28 LTP (\$000)	2028/29 LTP (\$000)	2029/30 LTP (\$000)	2030/31 LTP (\$000)
OPERATING												
Rates revenue	4,597	4,597	4,826	5,050	5,283	5,527	5,783	6,050	6,270	6,496	6,731	6,975
Subsidies and grants (Capital)	-	-	-	-	-	-	-	-	-	-	-	-
Subsidies and grants (Operational)	-	-	-	-	-	-	-	-	-	-	-	-
Direct charges revenue	4,317	4,903	5,412	5,753	6,258	6,505	6,826	7,028	7,230	7,447	7,659	7,891
Rental revenue	-	-	-	-	-	-	-	-	-	-	-	-
Finance revenue	16	-	-	-	-	-	-	-	-	-	-	-
Dividends	-	-	-	-	-	-	-	-	-	-	-	-
Fines	-	-	-	-	-	-	-	-	-	-	-	-
Other revenue	39	-	-	-	-	-	-	-	-	-	-	-
Internal charges and overheads recovered	1,799	2,293	2,293	2,370	2,481	2,668	2,788	2,790	2,853	2,927	2,998	3,079
Total revenue	10,768	11,793	12,531	13,173	14,022	14,700	15,397	15,868	16,353	16,870	17,388	17,945
Employee expenses	-	164	187	192	197	202	207	213	218	224	230	236
Administration expenses	134	128	125	128	133	136	138	142	145	150	154	157
Grants & subsidies expenses	-	-	-	-	-	-	-	-	-	-	-	-
Operational expenses	8,375	9,358	9,863	10,303	10,935	11,529	12,003	12,120	12,411	12,742	13,060	13,411
Repairs & maintenance expenses	-	-	15	-	-	-	-	-	-	-	-	-
Depreciation and amortisation	111	111	111	116	116	116	126	126	126	136	136	136
Finance expenses	5	-	-	-	-	-	-	-	-	-	-	-
Internal charges and overheads applied	2,113	2,280	2,280	2,357	2,465	2,651	2,771	2,771	2,834	2,908	2,978	3,059
Total expenses	10,738	12,041	12,581	13,096	13,846	14,634	15,245	15,372	15,734	16,160	16,558	16,999
OPERATING SURPLUS / (DEFICIT)	30	(248)	(50)	77	176	66	152	496	619	710	830	946
CAPITAL EXPENDITURE												
• to meet additional demand	-	-	-	-	-	-	-	-	-	-	-	-
• to improve the level of service	-	-	-	-	-	-	-	-	-	-	-	-
• to replace existing assets	-	76	75	82	90	92	94	97	2,432	102	105	107
TOTAL CAPITAL EXPENDITURE	-	76	75	82	90	92	94	97	2,432	102	105	107
Gross proceeds from sale of assets	-	-	-	-	-	-	-	-	-	-	-	-

Figure 1

Solid Waste Operating Expenditure – 10 Years

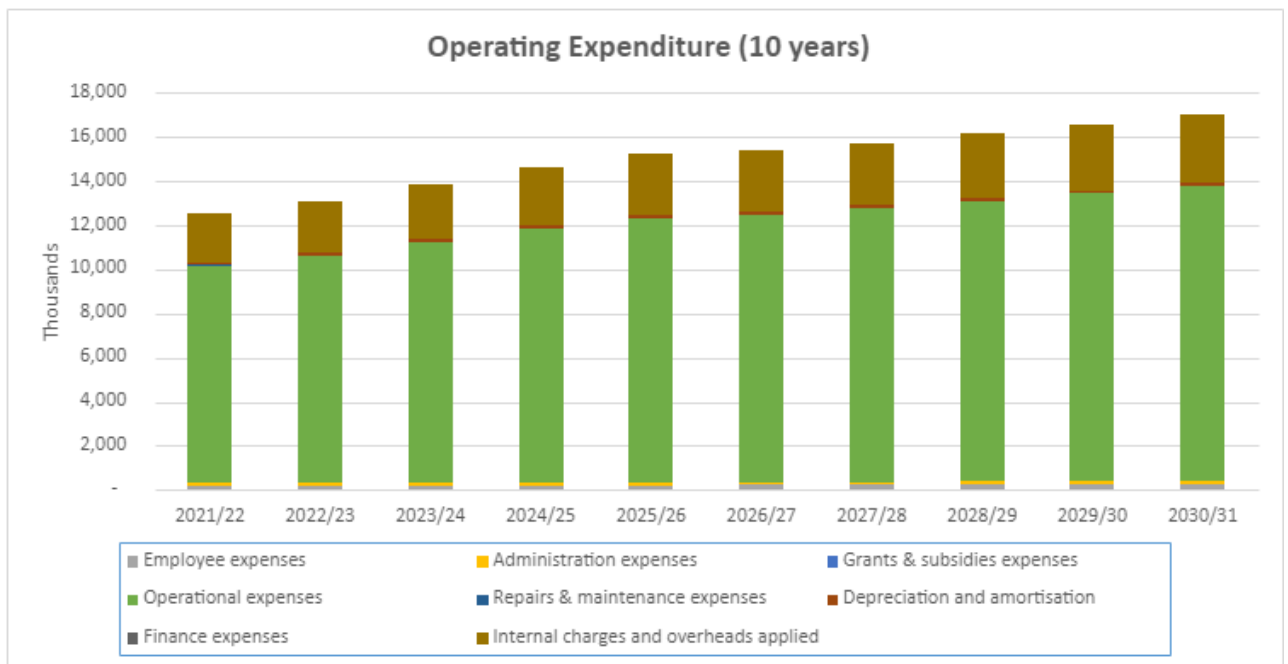


Figure 2

Solid Waste Capital Expenditure – 10 Years

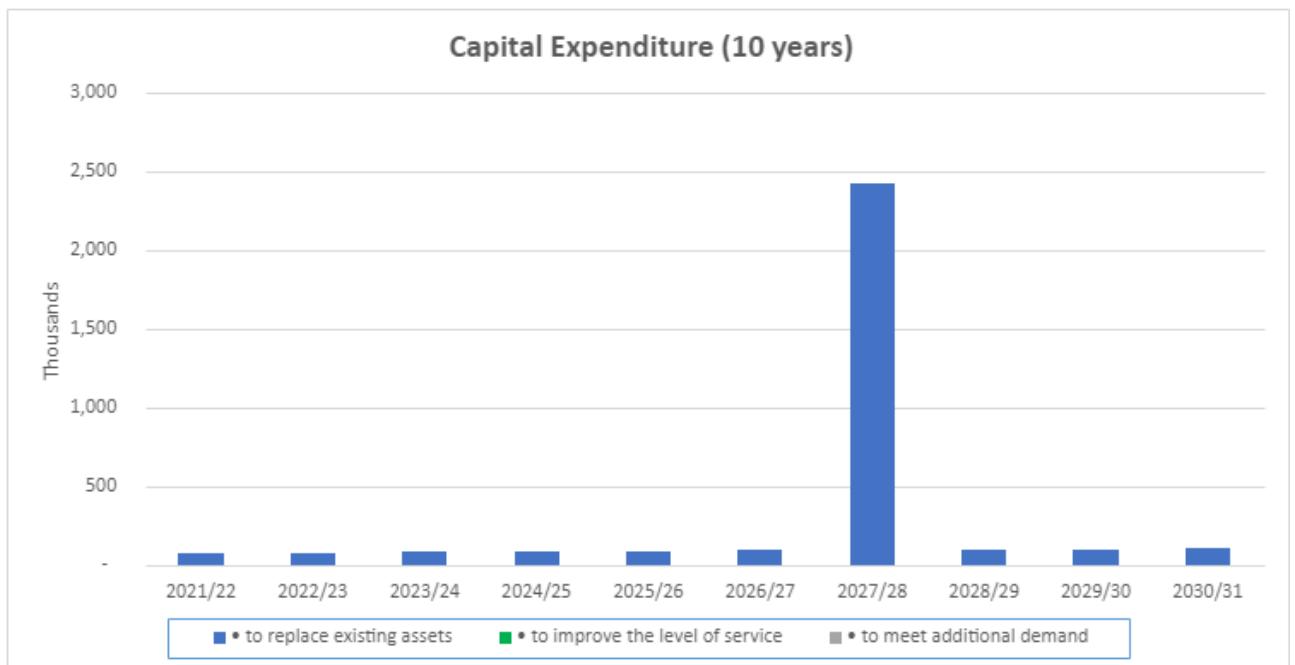


Table 22*Solid Waste - Total Expenditure OPEX and CAPEX 30 years*

	2022-2026	2027-2031	2032-2036	2037-2041	2042-2046	2047-2051
	LTP	LTP	LTP	LTP	LTP	LTP
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
<u>OPERATING</u>						
Rates revenue	26,469	32,522	38,847	46,401	55,424	66,202
Subsidies and grants (Capital)	-	-	-	-	-	-
Subsidies and grants (Operational)	-	-	-	-	-	-
Direct charges revenue	30,754	37,255	43,155	50,024	57,992	67,231
Rental revenue	-	-	-	-	-	-
Finance revenue	-	-	-	-	-	-
Dividends	-	-	-	-	-	-
Fines	-	-	-	-	-	-
Other revenue	-	-	-	-	-	-
Internal charges	12,600	14,647	16,440	18,331	20,437	22,785
Total revenue	69,823	84,424	98,442	114,756	133,853	156,218
Employee expenses	985	1,121	1,261	1,405	1,566	1,747
Administration expenses	660	748	843	939	1,046	1,167
Grants & subsidies expenses	-	-	-	-	-	-
Operational expenses	54,633	63,744	71,615	79,845	89,022	99,254
Repairs & maintenance expenses	15	-	-	-	-	-
Depreciation and amortisation	585	660	755	840	931	1,048
Finance expenses	-	-	-	-	-	-
Internal charges	12,524	14,550	16,332	18,211	20,302	22,637
Total expenses	69,402	80,823	90,806	101,240	112,867	125,853
OPERATING SURPLUS / (DEFICIT)	421	3,601	7,636	13,516	20,986	30,365
<u>CAPITAL EXPENDITURE</u>						
• to meet additional demand	-	-	-	-	-	-
• to improve the level of service	-	-	-	-	-	-
• to replace existing assets	433	2,843	574	639	712	12,953
TOTAL CAPITAL EXPENDITURE	433	2,843	574	639	712	12,953
Gross proceeds from sale of assets	-	-	-	-	-	-

Table 23

Solid Waste - Capital Expenditure Planned to be Delivered vs Required – 10 years

	2020/21 Annual Plan (\$000)	2020/21 Forecast (\$000)	2021/22 LTP (\$000)	2022/23 LTP (\$000)	2023/24 LTP (\$000)	2024/25 LTP (\$000)	2025/26 LTP (\$000)	2026/27 LTP (\$000)	2027/28 LTP (\$000)	2028/29 LTP (\$000)	2029/30 LTP (\$000)	2030/31 LTP (\$000)
<u>Capital expenditure required based on age</u>												
• to meet additional demand		-	-	-	-	-	-	-	-	-	-	-
• to improve the level of service		-	-	-	-	-	-	-	-	-	-	-
• to replace existing assets		108	100	103	105	108	111	114	2,450	120	123	126
Total capital expenditure required based on age		108	100	103	105	108	111	114	2,450	120	123	126
<u>Capital expenditure planned to be delivered</u>												
• to meet additional demand		-	-	-	-	-	-	-	-	-	-	-
• to improve the level of service		-	-	-	-	-	-	-	-	-	-	-
• to replace existing assets		76	75	82	90	92	94	97	2,432	102	105	107
Total capital expenditure planned to be delivered		76	75	82	90	92	94	97	2,432	102	105	107

Figure 3

Solid Waste Operating Expenditure – 30 Years

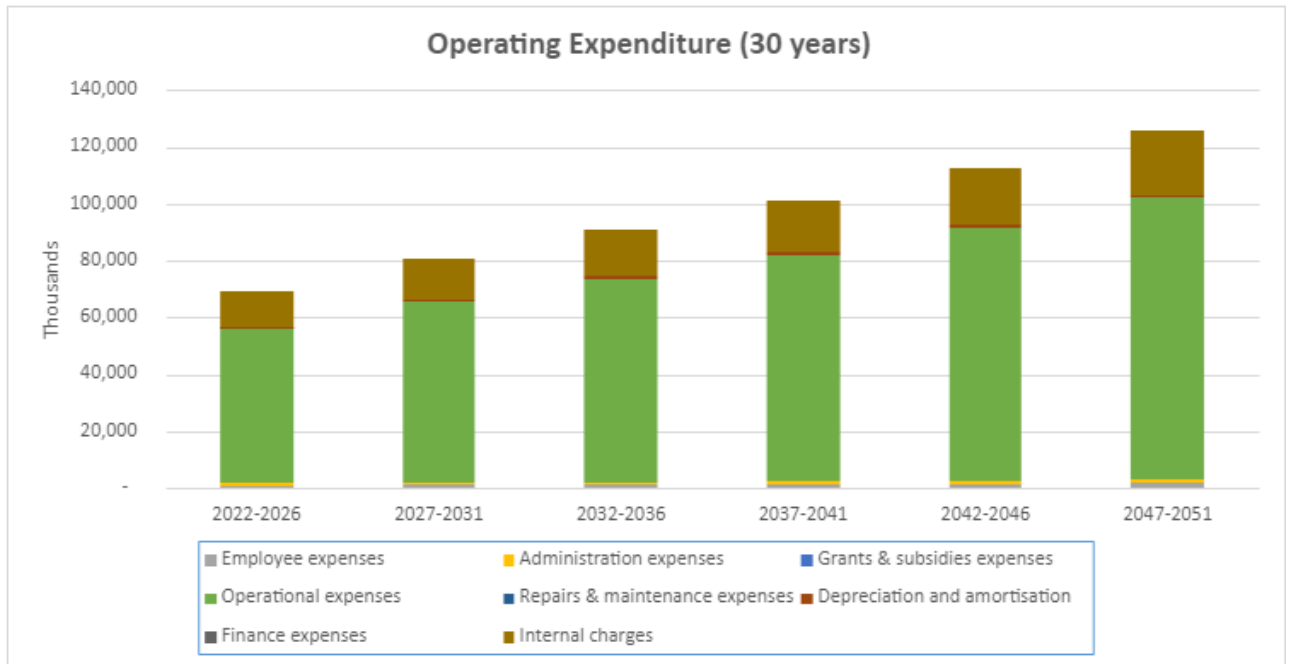


Figure 4

Solid Waste Capital Expenditure – 30 Years

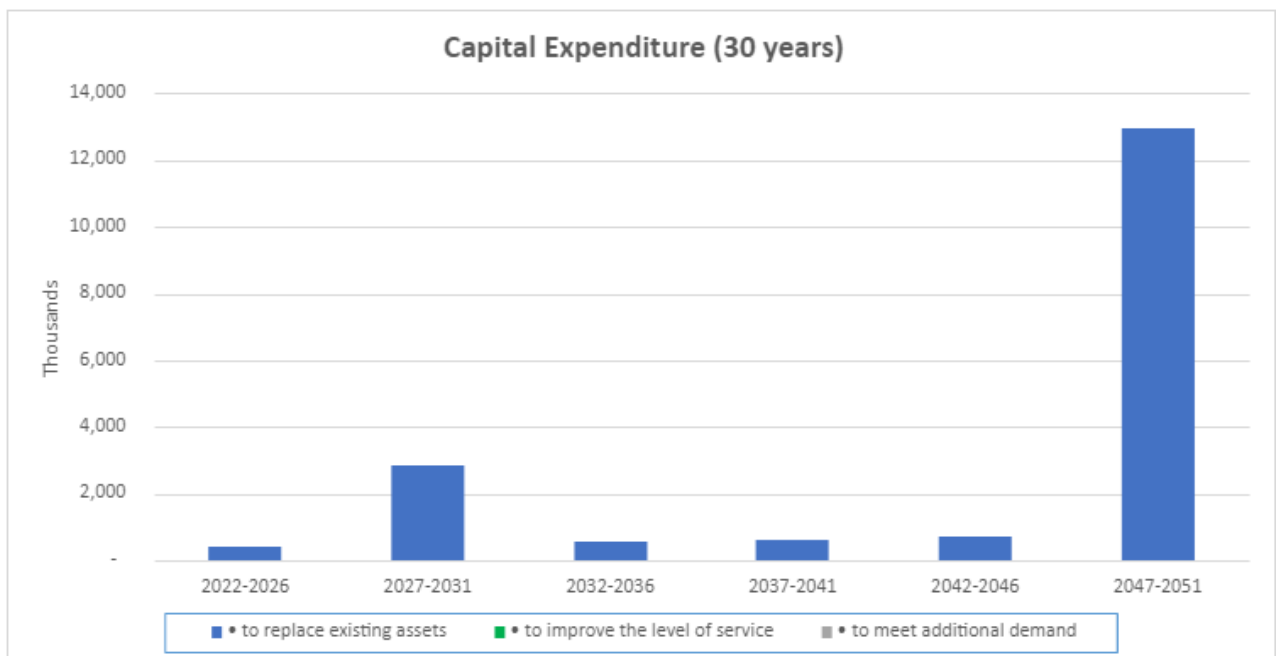


Figure 6

Solid Waste Operating Revenue – 10 Years

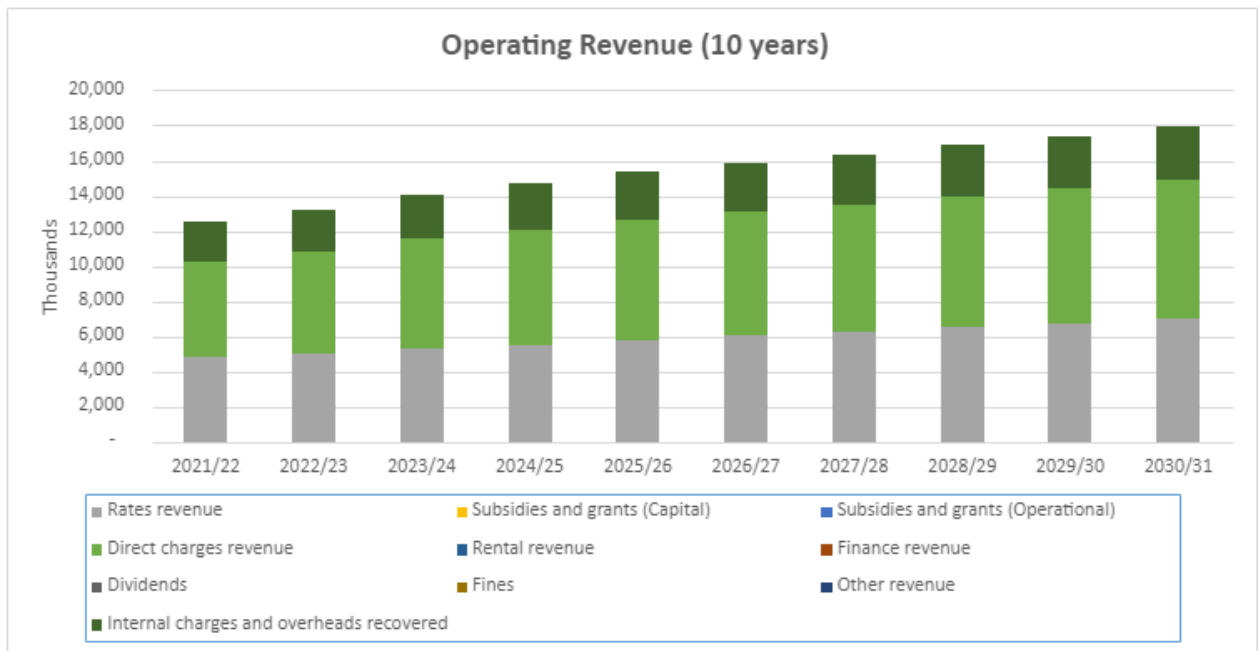


Figure 7

Solid Waste Operating Revenue – 30 Years

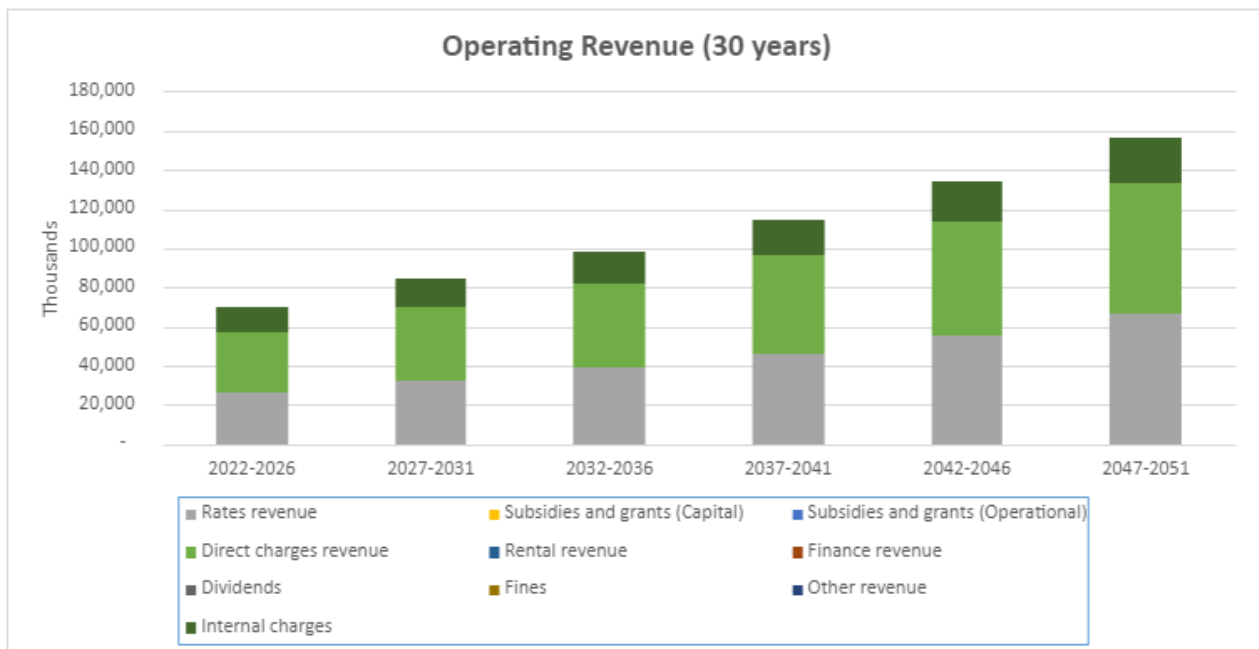


Figure 8

Solid Waste Capital Expenditure Planned to be Delivered vs Required – 10 Years

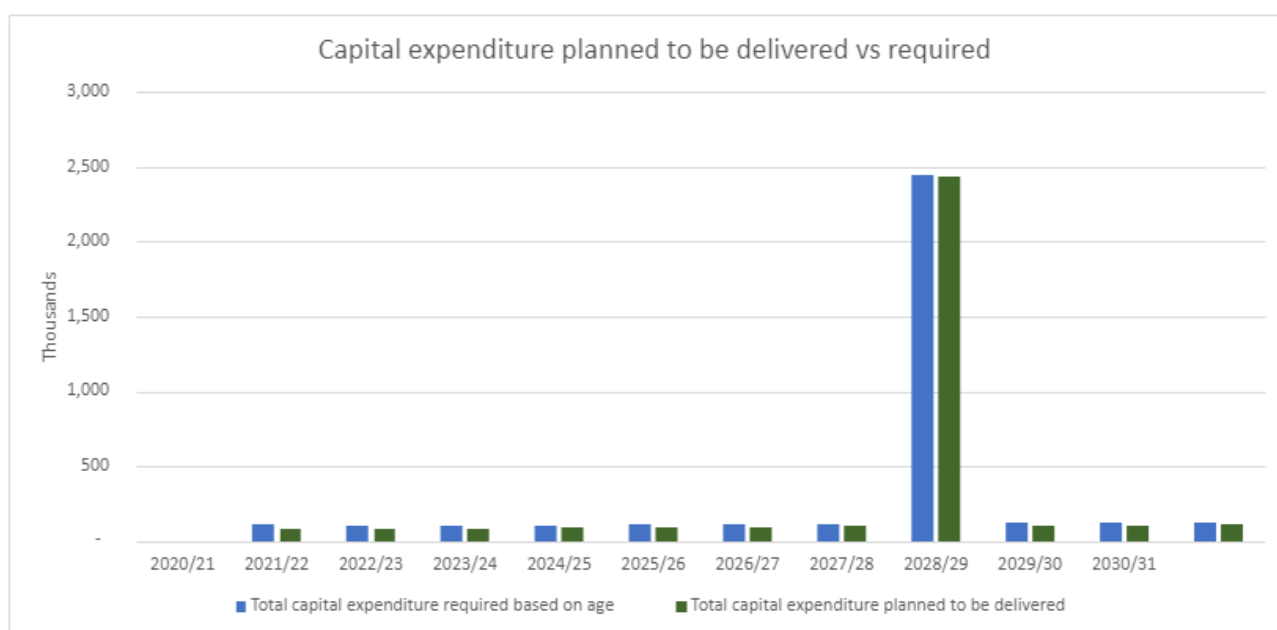


Table 24

Funding sources

Activity	Source of Funding	
	User Charge / Fees	Targeted Rate
Kerbside Recycling and Rubbish Collection		✓
Operation of waste at Transfer Stations	✓	
Capital Expenditure	✓	

National Waste Disposal Levy

A key tool of the Waste Minimisation Act 2008 is the creation of the national Waste Disposal Levy. The Levy is \$10 per tonne (excluding GST) on all waste sent to landfill. Disposal operators must pay the levy based on the weight of the material disposed of at their facility. However they pass the cost onto the waste producers such as Councils' and businesses.

Half of the levy money goes to Territorial Authorities to spend on waste minimisation activities as per their Waste Management and Minimisation Plan. The remaining levy money (minus administration costs) is put into the contestable Waste Minimisation Fund.

The Ministry for the Environment administers the Levy in accordance with section 30 of the Waste Minimisation Act 2008. Council receives quarterly payments from the Ministry. The funding is used to subsidise the ratepayer costs associated with the Kerbside Recycling Collection Service.

6. How we'll know we're delivering

How we'll manage improvements

Council operates on a four-weekly cycle with meetings for the two committees of Infrastructural Services Committee and Performance, Policy and Partnership Committee. These Committees monitor and consider reports on levels of services for activities and assets alongside monthly financial accounts for each department. Committee members question these reports with Managers present to answer any questions that arise from the reports.

The information for these reports is entered into various software systems. This monitors the performance both fiscal, and service based against targets and budgets from Council's Long-term Plan. Targets can be key performance indicators, internally driven targets or provided from a Ministry that oversees that area, i.e. Department of Internal Affairs. At a full Council meeting these reports are then received.

Frequency of Review

Every financial year Council prepares an Annual Report that is the key document in ensuring the expenditure for the year was efficient and is pertinent in ensuring accountability to the community and ratepayers.

The Annual Report does not just show the current financial status, but also shows the levels of service for all Council activities and assets measured against the yearly targets set in the Long-Term Plan. These are measured and reported quarterly in the Council meetings. The Annual Report is a holistic overview of their performance.