Waste Assessment 2025





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| 2024 | Version 1.0 | Andrew Boyd | Resource Recovery and Waste Manager | | | |

| 2. Prepared by | | | | |
|-----------------------|-------------|-------------------------------------|--|--|
| Date Name Designation | | | | |
| 2024 | Jess Hawker | Resource Recovery and Waste Advisor | | |
| 2024 | Andrew Boyd | Resource Recovery and Waste Manager | | |

| 3. Reviewed by | | | | | |
|----------------|----------------|--|-------------------|--|--|
| Date | Name | Designation | Input | | |
| 2025 | Kimberley Hope | Principal Waste and Resource Recovery Consultant | Review of initial | | |
| | | Tonkin + Taylor | draft | | |



Selwyn District Council

Waste Assessment 2025

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Appendices

Appendix 1: Feedback from the Medical Officer of Health



Glossary

Clean fill: A Class 5 clean fill site. Accepts only clean fill material.¹

Clean fill material: VENM (virgin excavated natural materials) such as clay, soil and rock that are

free of combustible, putrescible, degradable or leachable components.

When discharged to the environment, clean fill material will not have a detectable effect relative to the background, and the fill site will be able to be utilised for an unrestricted purpose on closure. Future excavation into the

filled materials will be unrestricted.1

Commercial waste: General or non-hazardous waste from premises used wholly for the purpose of

sport, recreation, education, healthcare or entertainment but not including

household, agricultural or industrial waste.¹

Construction andNon-putrescible, non-hazardous waste generated from the construction, repair or demolition of structures such as residential and

commercial buildings, roads and bridges.

Controlled fill: A Class 4 fill site. Accepts only controlled fill materials.¹

Controlled fill material: Predominantly natural soil and inert C&D (construction and demolition)

materials; and material accepted in Class 5 clean fills. The soil may have contaminant concentrations in excess of local background concentrations, but below specified criteria which limit discharges to the groundwater environment and aquatic environments, and which allow the fill site to be

utilised for an unrestricted purpose on closure.1

Disposal: means—

(a) the final (or more than short-term) deposit of waste into or onto land set apart for that purpose; or

(b) the incineration of waste.²

Disposal facility: means—

(a) a facility, including landfill,—

(i) at which waste is disposed of; and

(ii) at which the waste disposed of includes household waste; and

that operates, at least in part, as a business to dispose of waste: and

(b) any other facility or class of facility at which waste is disposed of that is prescribed as a disposal facility.²

Diverted material: any thing that is no longer required for its original purpose and, but for

commercial or other waste minimisation activities, would be disposed of or

discarded.2

² Parliament of New Zealand, Waste Minimisation Act (2008)



¹ Waste Management Institute New Zealand (WasteMINZ), Technical Guidelines for Disposal to Land Revision 3.1 (September 2023)

Hazardous waste:

Waste that:

- (a) contains hazardous substances at sufficient concentrations to exceed minimum degrees of hazard specified by Hazardous Substances (Minimum Degrees of Hazard) Regulations 2000 under the Hazardous Substances and New Organisms Act 1996; or
- (b) meets the definition for infectious substances included in the Land Transport Rule: Dangerous Goods on Land; or
- (c) meets the definition for radioactive material included in the Radiation Protection Act 1965 and Regulations 1982.³

Household waste:

Waste generated as a result of the day-to-day running of a residential household.

Recovery:

means-

- (a) extraction of materials or energy from waste or diverted material for further use or processing; and
- (b) includes making waste or diverted material into compost.²

Recycling:

means the reprocessing of waste or diverted material to produce new materials. 4

Reduction:

means—

- (a) lessening waste generation, including by using products more efficiently or by redesigning products; and
- (b) in relation to a product, lessening waste generation in relation to that product.⁴

Residual waste

Waste that remains after any waste diversion has occurred and that will require final disposal (i.e. landfill)

Resource recovery park (RRP):

- (a) means a facility that—
 - (i). collects, sorts, or processes materials or energy from materials (or carries out any combination of those activities), for the purpose of recovering components for recycling or reuse; and
 - (ii). is not a disposal facility; and
 - (iii). does not incinerate waste (with or without energy recovery);and
- (b) includes a facility that is focused on a single waste stream, for example, a construction and demolition resource recovery facility, or a large-scale composting operations or materials recovery facility.⁵

Reuse:

means the further use of waste or diverted material in its existing form for the original purpose of the materials or products that constitute the waste or diverted material, or for a similar purpose.⁴

Treatment:

- (a) means subjecting waste to any physical, biological, or chemical process to change its volume or character so that it may be disposed of with no or reduced adverse effect on the environment; but
- (b) does not include the dilution of waste.4

⁵ Parliament of New Zealand, *Waste Minimisation (Information Requirements) Regulations* (2021), from the definition of "resource recovery facility"



³ WasteMINZ, New Zealand Waste Data Framework Volume 2: Information about Waste Services and Facilities (2015)

⁴ Parliament of New Zealand, *Waste Minimisation Act* (2008)

Waste:

- (a) means any thing disposed of or discarded; and
- (b) includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and
- (c) to avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded.⁶

Waste disposal levy:

A levy introduced under the Waste Minimisation Act 2008 as a per tonne cost on all waste sent to landfill in order to:

- (a) raise revenue to fund—
 - (i). the promoting and achievement of waste minimisation; and
 - (ii). activities that reduce environmental harm or increase environmental benefits; and
 - (iii). local authorities to manage emergency waste and to repair or replace waste management and minimisation infrastructure damaged by an emergency; and
 - (iv). the Ministry to undertake its functions and duties, and exercise its powers, in relation to waste management and minimisation and hazardous substances; and
 - (v). projects that provide for the remediation of contaminated sites; and
- (b) increase the cost of waste disposal to recognise that disposal imposes costs on the environment, society and the economy.⁷

Waste minimisation:

means—

- (a) the reduction of waste; and
- (b) the reuse, recycling, and recovery of waste and diverted material.⁶

⁷ Parliament of New Zealand, Waste Minimisation (Waste Disposal Levy) Amendment Act (2024)



⁶ Parliament of New Zealand, Waste Minimisation Act (2008)

1.0 Introduction

Selwyn District Council's current Waste Management and Minimisation Plan (WMMP) was adopted by Council in August 2019. Under the Waste Minimisation Act (WMA) 2008, each Territorial Authority (TA) must review its WMMP at least every six years and is required to undertake a Waste Assessment prior to the review.

The Waste Assessment (this document) will provide relevant background information and data on waste and diverted materials in the district to support Council's Waste Management and Minimisation planning process and establish the foundations for the upcoming WMMP review.

This Waste Assessment will:

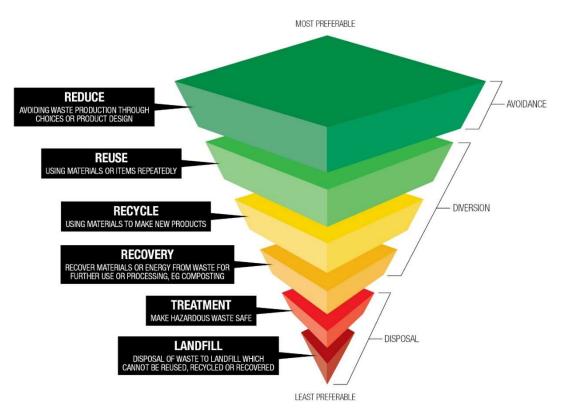
- describe the current waste situation in the district;
- identify issues or opportunities for improvement;
- forecast of future demands on waste and diverted material management;
- consider options available to meet forecast demands;
- assess the suitability of each option;
- establish the Councils role in meeting those future demands; and
- the extent to which the proposals will protect public health, and promotion of effective and efficient waste management and minimisation in Selwyn District.

The Waste Hierarchy

The waste hierarchy is a framework used to guide decision making by ranking options from most preferable to least preferable according to environmental impact. This is a core principle in the Waste Minimisation Act 2008.

When preparing, amending or revoking a WMMP, a TA must consider the Waste Hierarchy (Figure 1-1). The Waste Hierarchy is a set of priorities for the efficient use of resources. This is used worldwide to guide waste related legislation and strategies, including the WMA and Te Rautaki Para | New Zealand Waste Strategy (2023).

Figure 1-1: The Waste Hierarchy



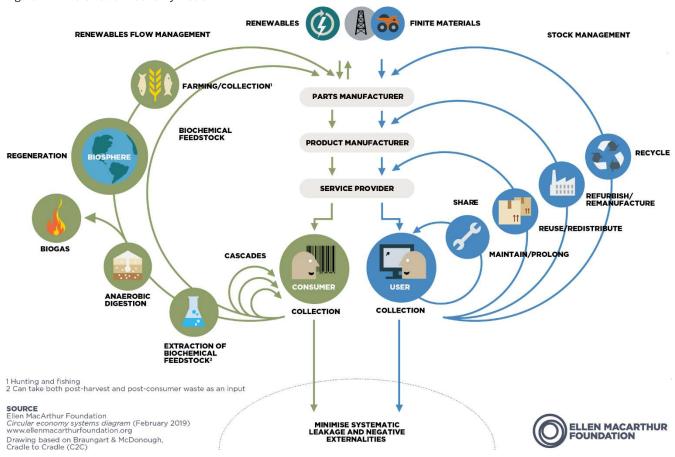


The Circular Economy

The circular economy model plays a key role in shaping Council's approach to waste management and minimisation planning.

The circular economy is an economic model aimed at eliminating waste and making more efficient use of resources, moving the focus away from the traditional linear 'take, make, dispose' model, by placing emphasis on designing out waste at the source, keeping materials in circulation for longer by encouraging reuse and repair, and the regeneration of natural systems.

Figure 1-2: The Circular Economy Model⁸



By embedding circular economy principles (such as promoting product stewardship, reuse, repair, and material recovery initiatives) across our planning, we can support reducing our community's reliance on finite resources, minimise harmful environmental impacts, and support a more sustainable and resilient local economy.

⁸ Ellen MacArthur Foundation, *Circular Economy Systems Diagram* (2019)



1.1 Legislative Context

This section outlines the legislative framework that must be considered when preparing a Waste Assessment.

Figure 1-3: Waste Management and Minimisation Planning Framework

Supporting Legislation Primary Legislation Hazardous Climate Change Resource Substances and Minimisation Act Litter Act 1979 Health Act 1956 Government Act Response Act Management Act **New Organisms** 2008 2002 Act 1996 Waste Long Term Plans **Emissions** Environmental Management and **Trading Scheme** Standards and Māori Minimisation Participation in **Emissions** Plans **Decision Making** Reduction Plan District Plans New Zealand National Climate Bylaws Waste Strategy **Targets** Wellbeing and · Waste Levy and Community Waste Outcomes Minimisation Public Fund Consultation Product Procurement and Stewardship Principles Supporting Guidance and Influencing Factors MfE Guidelines Industry International Local Goals and and Codes of Guidelines and Conventions **Policies** Practice **Best Practice**

1.1.1 Waste Minimisation Act 2008

The purpose of the Waste Minimisation Act is to encourage a reduction in the amount of waste we generate and dispose of in New Zealand. The aim is to reduce the environmental harm of waste and provide economic, social and cultural benefits for New Zealand.⁹

The Act attempts to achieve this by:

- Imposing a levy on all waste disposed of in landfills to generate funding to help local government, communities and businesses minimise waste and achieve other environmental goals.
- Establishing a process for government accreditation of product stewardship schemes which recognises
 those businesses and organisations that take responsibility for managing the environmental impacts of their
 products.
- Requiring product stewardship schemes to be developed for certain 'priority products' where there is a high risk of environmental harm from the waste or significant benefits from recovering the product.
- Allowing for regulations to be made to control the disposal of products, materials or waste, require takeback services, deposit fees or labelling of products.
- Allowing for regulations to be made that make it mandatory for certain groups (e.g. landfill facility operators) to report on waste to improve information on waste minimisation.
- Clarifying the roles and responsibilities of territorial authorities with respect to waste minimisation.
- Establishing the Waste Advisory Board to give independent advice to the Minister for the Environment on waste minimisation issues.

⁹ Ministry for the Environment, *Waste Minimisation Act 2008*, https://environment.govt.nz/acts-and-regulations/acts/waste-minimisation-act-2008/



Waste Management and Minimisation Plans

The WMA states that each territorial authority must:

- Promote effective and efficient waste management and minimisation within its district.
- Adopt a Waste Management and Minimisation plan that provides for the following:
 - (a) objectives and policies for achieving effective and efficient waste management and minimisation within the territorial authority's district:
 - (b) methods for achieving effective and efficient waste management and minimisation within the territorial authority's district, including—
 - (i) collection, recovery, recycling, treatment, and disposal services for the district to meet its current and future waste management and minimisation needs (whether provided by the territorial authority or otherwise); and
 - (ii) any waste management and minimisation facilities provided, or to be provided, by the territorial authority; and
 - (iii) any waste management and minimisation activities, including any educational or public awareness activities, provided, or to be provided, by the territorial authority:
 - (c) how implementing the plan is to be funded:
 - (d) if the territorial authority wishes to make grants or advances of money in accordance with section 47, the framework for doing so.
- Review the WMMP not more than six years after the last review.
- Conduct a Waste Assessment prior to the WMMP review.
- Either prepare a new or modified WMMP or, if it is decided to continue with the existing WMMP, notify the results of the review using the special consultative procedure set out in section 83 of the Local Government Act 2002.

51 Requirements for waste assessment

- (1) A waste assessment must contain—
 - (a) a description of the collection, recycling, recovery, treatment, and disposal services provided within the territorial authority's district (whether by the territorial authority or otherwise; and
 - (b) a forecast of future demands for collection, recycling, recovery, treatment, and disposal services within the district; and
 - (c) a statement of options available to meet the forecast demands of the district with an assessment of the suitability of each option; and
 - (d) a statement of the territorial authority's intended role in meeting the forecast demands; and
 - (e) a statement of the territorial authority's proposals for meeting the forecast demands, including proposals for new or replacement infrastructure; and
 - (f) a statement about the extent to which the proposals will—
 - (i) ensure that public health is adequately protected:
 - (ii) promote effective and efficient waste management and minimisation. 10

Waste Levy and Waste Minimisation Fund

The WMA 2008 provides for a waste disposal levy. The purpose of the levy is to:

- encourage New Zealanders to take responsibility for the waste they produce and to find more effective and efficient ways to reduce, recycle or reprocess waste
- create opportunities for funding waste minimisation initiatives

As of July 2021, central government have been progressively increasing the waste disposal levy. This was expanded further in 2024. The prices in Table 1-1 below are per tonne and exclusive of GST.

¹⁰ Parliament of New Zealand, *Waste Minimisation Act* (2008)



Table 1-1: Waste Disposal Levy Increases per Year

| Facility Class | Waste Types | 1 July 2021 | 1 July 2022 | 1 July 2023 | 1 July 2024 | 1 July 2025 | 1 July 2026 | 1 July 2027 |
|--|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Municipal landfill (class 1) | Mixed municipal waste from residential, commercial and industrial sources. | \$20 | \$30 | \$50 | \$60 | \$65 | \$70 | \$75 |
| Construction and demolition fill (class 2) | Waste from construction and demolition activities including rubble, plasterboard and timber. | - | \$20 | \$20 | \$30 | \$35 | \$40 | \$45 |
| Managed or controlled fill (class 3 and 4) | Inert waste materials from construction and demolition activities, earthworks or site remediation. | - | - | \$10 | \$10 | \$15 | \$15 | \$20 |

Te Pūtea Whakamauru Para - Waste Minimisation Fund is administered by the Ministry for the Environment. Half of the fund is distributed to each Territorial Authority (TA) for local waste minimisation initiatives. The remainder is allocated to administration costs and a nationally contestable fund. The Waste Minimisation Fund (WMF) has recently been opened to year-round applications.

In 2024, central government enacted the Waste Minimisation (Waste Disposal Levy) Amendment Act 2024. This introduced significant changes to the waste levy including:

- Broadened Scope of Levy Funds: The amendments allow central government's portion of the waste
 disposal levy to be allocated to a wider range of environmental activities beyond waste minimisation. This
 includes funding for the remediation of contaminated sites, such as landfills vulnerable to severe weather
 events.
- Levy Rate Increases: The Act introduced a second phase of waste levy increases, as described above.
- **Levy Waivers for Contaminated Site Remediation:** The Secretary for the Environment now has the discretion to waive the levy for waste disposal during the remediation of contaminated sites.

Additionally, provisions have been added to allow local authorities to request additional funding to manage emergency waste and to repair or replace waste management and minimisation infrastructure damaged by an emergency.

The impact of the amendment is discussed in Section 3.1.8.

Product Stewardship

Product stewardship is the responsible management of the environmental impact of a product. It aims to reduce the impact of manufactured products at all stages of the product life cycle.

Under a product stewardship scheme, any party involved in the life of a product (e.g., a producer, brand owner, importer, retailer or consumer) may accept responsibility for reducing the product's environmental impacts. For producers, this may mean designing products so they can be broken down into recyclable or reusable components. For retailers and consumers, it may mean taking an active role in the responsible disposal or recycling of a product. For Councils, this may mean a reduction in the frequency of kerbside collection, because a large proportion of kerbside recycling bin contents may end up diverted through a Container Return Scheme. However, in March 2023 central government announced their decision to defer work on a Container Return Scheme.

Current central government work on product stewardship is discussed further in Section 3.1.8.



1.1.2 Local Government Act 2002

The Local Government Act 2002 empowers councils to promote the wellbeing of communities.

The purpose of local government is to:

- Enable democratic local decision making and action by, and on behalf of, communities.
- Promote the social, economic, environmental, and cultural wellbeing of communities in the present and for the future.

The Local Government Act contains several provisions relevant to TAs when preparing WMMPs. These include consultation and the creation and review of waste bylaw provisions, as well as the introduction of section 17a in 2014. Section 17a requires that local authorities review "the cost-effectiveness of current arrangements for meeting the needs of communities within its district or region for good quality local infrastructure, local public services, and performance of regulatory functions...

A review under subsection (1) must consider options for the governance, funding, and delivery of infrastructure, services, and regulatory functions"

In a waste planning context, this impacts our main contracts: kerbside collection services and resource recovery park operations.

In 2024, central government announced its intention to remove the four wellbeings introduced to the Act in 2019, as well as what it has deemed other "system improvements" including reporting obligations, changes to consultation procedures and limits to expenditure.

It is unclear at this stage how much of an impact the proposed changes will have on how Council delivers its Resource Recovery and Waste activities.

Bylaws

The Council's Waste Minimisation and Management Bylaw was last reviewed and amended in 2019 (a copy is provided in Appendix A). Amendments were made to Schedule 2 of the bylaw in 2024, due to updates to recycling acceptability criteria at a national level. The amendments were minor and did not require public consultation pursuant to the Selwyn District Council General Bylaw 2009, item 8.1 on the basis that the amendments did not alter the core principles of the bylaw from a compliance point of view, and that the updated to the classification of waste and diverted material as defined in the schedules is a directive from central government and was heavily publicised in the lead-up to the national change.

The bylaw continues to regulate waste and diverted material services to protect public health and safety and minimize nuisances. It also includes provisions for waste management and minimisation at events; however, due to staff resourcing and other priorities, these provisions have not been actively enforced. Instead, the Council has collaborated with the Christchurch City Council to implement the Sustainable Events Canterbury initiative.

1.1.3 Resource Management Act 1991

In March 2025, the New Zealand Government announced plans to replace the RMA with two distinct pieces of legislation:

- **Planning Act**: This act will focus on regulating land use and development, aiming to streamline urban development and infrastructure projects.
- **Natural Environment Act (NEA)**: This act will address the protection and enhancement of the natural environment, covering aspects such as freshwater management, biodiversity, and landscape preservation.

The proposed legislative changes will likely affect how Council manages its Resource Recovery and Waste Activity. The Planning Act's emphasis on streamlined urban development may influence waste infrastructure planning, while the NEA's focus on environmental protection could introduce new regulations for waste disposal and recycling practices. However, at the time of writing, specific details on these impacts are yet to be defined.



Planning regulation such as the RMA or its replacement(s) could impact development of land near waste and diverted material infrastructure.

Central government aims to introduce these new laws by the end of 2025, with full implementation expected by mid-2026.

1.1.4 Other Legislation

Health Act 1956

The Health Act 1956 places obligations on territorial authorities (TAs) regarding waste management for public health protection. Specifically, Section 25 empowers the Minister of Health to require TAs to provide sanitary works for refuse collection and disposal, while Section 29 identifies certain waste management practices as nuisances, and the Third Schedule designates specific activities as offensive trades.

The Health Act enables TAs to raise loans for certain sanitary works and/or to receive government grants and subsidies, where available.

Litter Act 1979

The Litter Act was established to make better provision for the abatement and control of litter. The Act is a mechanism for local government to address littering.

The functions of the Act include:

- Establishing enforcement officers and litter wardens who may issue fines and abatement notices for litter
 offences.
- Allowing territorial authorities to force the removal of litter.
- Allowing public authorities to make bylaws pursuant to the provisions of the Act.

Enforcement officers may liaise with the waste related Council officers about litter issues such as fly tipping or the need for or placement of litter bin equipment.

In late 2021, the Ministry for the Environment consulted on developing new waste legislation to replace the Waste Minimisation Act 2008 and the Litter Act 1979. At the time of writing, it is uncertain whether this will continue under the current government.

Climate Change Response (Zero Carbon) Amendment Act 2019

The Climate Change Response Act 2002 put in place a legal framework to allow New Zealand to ratify the Kyoto Protocol and to meet its obligations under the United Nations Framework Convention on Climate Change.

In May 2019, Central Government introduced an amendment to the Climate Change Act 2002, instead of creating separate legislation as was originally proposed. This way, all key climate change legislation is within one Act¹¹.

The Climate Change (Zero Carbon) Amendment Act 2019 provides a framework to develop and implement policies that:

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

¹¹ https://environment.govt.nz/acts-and-regulations/acts/climate-change-response-amendment-act-2019/



Waste is a contributor to emissions, both in its collection and the emissions resulting from the decomposition of waste in landfills – particularly organic waste. The Canterbury regional landfill at Kate Valley is a modern, highly engineered facility with an efficient gas capture system. This results in a reduction in the potential financial impact of the New Zealand Emissions Trading Scheme on the district, when compared with regions with lower grade landfills. However, the Act's targets for reducing biogenic methane emissions underscore the need for continued improvements in waste management strategies, such as enhancing organic waste diversion and treatment processes.

Health and Safety at Work Act 2015

The Health and Safety at Work Act and associated regulations are the primary legislation governing health and safety in New Zealand. The guidelines sit beneath health and safety legislation in a hierarchy of compliance, which also includes codes of practice and standards.

The main purpose of this Act is to provide for a balanced framework to secure the health and safety of workers and workplaces by:

- protecting workers and other persons against harm to their health, safety, and welfare by eliminating or minimising risks arising from work or from prescribed high-risk plant; and
- providing for fair and effective workplace representation, consultation, co-operation, and resolution of issues in relation to work health and safety; and
- encouraging unions and employer organisations to take a constructive role in promoting improvements in work health and safety practices, and assisting PCBUs and workers to achieve a healthier and safer working environment; and
- promoting the provision of advice, information, education, and training in relation to work health and safety;
 and
- securing compliance with this Act through effective and appropriate compliance and enforcement measures; and
- ensuring appropriate scrutiny and review of actions taken by persons.

The Act refers to a 'PCBU'. A PCBU is a 'person conducting a business or undertaking. While a PCBU may be an individual person or an organisation, in most cases the PCBU will be an organisation (for example, a business entity such as a company).

A PCBU must ensure, so far as is reasonably practicable, the health and safety of workers (e.g. employees or contractors, including their subcontractors or workers). That other persons are not put at risk by the work of the business or undertaking (e.g. a visitor to the workplace, or members of the public who could be affected by a work activity).

HSWA requires workers to take reasonable steps to ensure the safety of workers at work.

The primary duty of care required a PCBU to ensure health and safety 'so far as is reasonably practicable'12.

In May 2021, the government proposed changes to regulations under the HSWA concerning plant, structures, and hazardous work. However, further work on these regulations is currently on hold pending the outcome of a broader public consultation on the work health and safety regulatory system.

As a result of the operation of a resource recovery park, and a kerbside collection fleet, a number of hazards exist and therefore a range of health and safety factors must be considered under the legislation.

Hazardous Substances and New Organisms Act 1996 (HSNO)

The Hazardous Substances and New Organisms Act 1996 prohibits the import and manufacture of hazardous substance unless it is done under an approval. An approval sets controls (rules) for the substance throughout its lifecycle such as requirements for storage, identification, emergency management and disposal. The approval covers the lifecycle of the substance until it is disposed of according to the controls on the approval (e.g. treating it so that it is no longer a hazardous substance or exporting it from New Zealand as a waste).

¹² WasteMINZ, Health and Safety Guidelines: for the Solid Waste and Resource Recovery Sector – parts one, two, three, four and five (2024)



The rules for managing hazardous substances transferred from HSNO to the Hazardous Substances Regulations under the Health and Safety at Work Act 2015. Rules for non-workplace use, environmental controls and hazardous substances disposal controls are set in the Environmental Protection Agency (EPA) Notices which came into effect in December 2017.

The HSNO (Hazardous Substances Assessment) Amendment Act came into effect in November 2022. The amendments included updates to the process under which the EPA reassesses hazard classification and controls.

Freedom Camping Act 2011

The Freedom Camping Act (2011) came into force on 30 August 2011. This statute provides local authorities with access to stronger regulatory measures to better manage the nuisance created by errant freedom campers.

Local authorities are able to issue infringement notices for the offence of depositing waste under Section 20(1)(b)(ii) and 20(1)(d).

1.2 Mana Whenua Planning and Guidance

1.2.1 Mahaanui Kurataiao lwi Management Plan and Te Taumutu Rūnanga Natural Resources Plan 2003

Iwi Management Plans are afforded explicit statutory recognition under the Resource Management Act (1991). Council has statutory obligations under the Local Government Act 2002 and Resource Management Act 1991 to appropriately recognise, protect and provide for tangata whenua values and interests.

The Mahaanui Iwi Management Plan (IMP) provides a statement of Ngāi Tahu objectives, issues and policies for natural resource and environmental management in the takiwā of the IMP rūnanga. The Te Taumutu Rūnanga Natural Resources Plan 2003 sets out Ngāi Te Ruahikihiki ki Taumutu values and policies regarding natural resource management in the Taumutu takiwā.

This highlights iwi perspective on natural resource management, land and water quality, and cultural wellbeing, all of which are impacted by waste generation and disposal. For waste and resource recovery planning this means:

- Ensuring waste and resource recovery services and activities do not contaminate waterways and wāhi tapu.
- Supporting iwi aspirations for kaitiakitanga by actively promoting waste minimisation, resource recovery, and circular approaches.
- Recognising iwi perspectives when making decisions on the site, design, and operation of waste and resource recovery infrastructure and on provision of waste and diverted material services.

1.2.2 Te Rūnanga o Ngāi Tahu He Rautaki Mō Te Huringa o Te Āhuarangi Climate Change Strategy

This strategy provides direction for Ngāi Tahu interests, assets and activities reflecting the broad impact of climate change. The purpose of this strategy is to create Ngāi Tahu responses to the risks and opportunities presented by climate change, referencing the entire tribal structure, so that iwi, hapū and whānau aspirations can be met in the face of climate change. Aligned to Ngāi Tahu 2025, a vision and strategic direction is established, followed by short/medium term actions to be achieved by 2025 and longer-term actions to be achieved by 2050.



Waste is recognised as a contributor to greenhouse gas emissions, particularly through methane generation. This strategy reinforces the importance of waste minimisation activities. For waste and resource recovery planning this means:

- Reducing organic waste to landfill.
- Ensuring that waste and resource recovery infrastructure and services are resilient to the impacts of climate change.

1.3 Strategies and Industry Guidelines

1.3.1 New Zealand Waste and Resource Efficiency Strategy

In 2023, the New Zealand government released Te Rautaki Para | New Zealand Waste Strategy, outlining a vision for transforming waste management through 2050, aiming for a circular economy and reduced environmental impact.

In March 2025, the newly elected government introduced the New Zealand Waste and Resource Efficiency Strategy, superseding the more comprehensive 2023 strategy. This replacement reflects the current central government's evolving priorities and desire for a targeted approach to waste management.

The updated strategy aims to refine the broad goals established in Te Rautaki Para, emphasising regulation and infrastructure development.

Building on the framework established by the 2023 strategy, the key outcomes of the New Zealand Waste and Resource Efficiency Strategy are as follows:

- Reduction of Waste Disposal per Person: Aiming to decrease the average amount of waste each individual contributes to landfills.
- **Increase in Reuse and Recycling:** Promoting the reuse and recycling of materials and products to retain valuable resources within the economy.
- **Minimisation of Environmental Harm:** Reducing emissions and environmental impacts resulting from waste and litter.
- Management of Resource Recovery and Disposal Facilities: Ensuring these facilities operate in ways that minimize their environmental footprint.
- Addressing Contaminated Sites: Limiting environmental harm caused by contaminated and legacy sites.

1.3.2 Industry Guidelines and Standards

In addition to legislative requirements, the following guidelines / standards also influence waste management practices:

- Ministry for the Environment, (2015) Waste Assessments and Waste Management and Minimisation Planning: A Guide for Territorial Authorities
- Ministry for the Environment, (2002 & 2004) Guidelines for the Management of Hazardous Waste (Module 1 & 2)
- WasteMINZ, (2022, revision 3) Technical Guidelines for Disposal to Land
- WasteMINZ, (2024) Health and Safety Guidelines: for the Solid Waste and Resource Recovery Sector
- WasteMINZ, (2008) The New Zealand Resource Recovery Park Design Guide
- WasteMINZ, (2021) New Zealand Guide for Temporary Traffic Management Guidelines for Waste Industry Activities



1.4 Planning Context

1.4.1 Planning Period

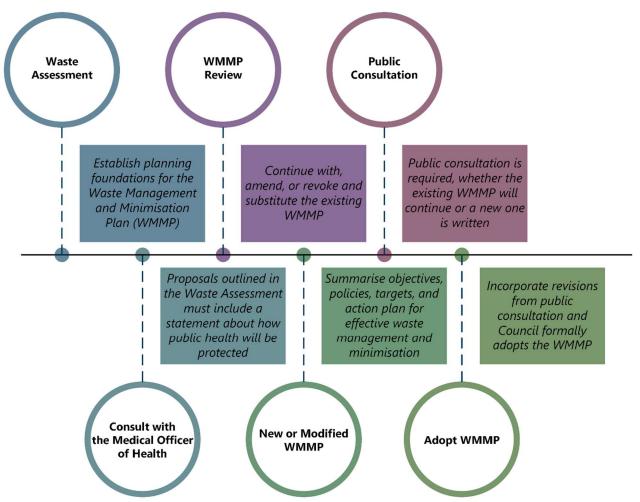
Resource Recovery and Waste requires a long-term view. In determining a planning period, factors to consider include changing attitudes to waste and waste avoidance, new and planned legislation, duration of service contracts, reporting targets, financial investment in waste and recovery infrastructure, and changes in community needs. This Waste Assessment aligns with Council's Infrastructure Strategy and Long Term Plan.

1.4.2 Planning Framework

Overview

Local, regional and national plans and policies affect Council's provision of waste and diverted material services and infrastructure. Primarily, they are requirements under the Waste Minimisation Act 2008 and the Local Government Act 2002. Figure 1-4 illustrates the statutory planning requirements that Council is required to follow under the Waste Minimisation Act 2008.

Figure 1-4: Waste Minimisation Planning Requirements





Other documents considered in the preparation of this Waste Assessment include:

- Selwyn District Council Long Term Plan 2024-34
- Selwyn District Council Resource Recovery and Waste Activity Management Plan 2024
- Selwyn District Council Infrastructure Strategy 2024-54
- Operative Selwyn District Plan
- Canterbury Land and Water Regional Plan
- Selwyn District Council Policies:
 - o Waste Management Policy 2020
 - o Climate Change Policy 2024
 - o Asset Management Policy 2021
 - o Financial Policy 2024

Long Term Plan

A Long Term Plan (LTP) is prepared in accordance with the Local Government Act 2002 and sets the framework that shapes community development. Outcomes indicate the community's desire for how the district should progress socially, environmentally, economically and culturally.

The goal of the Resource Recovery and Waste Activity in the current 2024-2034 LTP is to promote effective and efficient waste management and minimisation services in Waikirikiri Selwyn.

Table 1-2 outlines how the Resource Recovery and Waste Activity contributes to achieving community outcomes.



Table 1-2: Resource Recovery and Waste Activity Contribution to Community Outcome

| Statement | Key Community | Activity Contribution to Commu Council's Role | How the Resource Recovery and Waste Activity Contributes | | |
|--|---|--|---|--|--|
| | Outcome | | | | |
| Environmental: Waikirikiri Selwyn's whenua land, wai water, and Taonga o te Taiao biodiversity | A clean Taiao | We will live within our air, soil, water, and Taonga o te Taiao biodiversity limits. | Providing services that collect and recover or dispose of waste materials in a manner that maximises the recovery of, and the efficient use of resources while minimising any potential harm to people and to the environment. Providing services that allow the effective and affordable collection, processing and marketing or beneficial use of diverted materials, in a manner that prioritises the ongoing circularity or resource use. Advocating to other relevant organisations to | | |
| are protected and enhanced. Our towns are cleaner and greener, and | environment | Healthy wai water, wetlands, and waterways | improve our air, soil, water, and biodiversity. Effectively managing and monitoring waste disposal and old landfills to ensure risk or negative effects to water are avoided or minimised. | | |
| we address climate change. | | We utilise smart and toitū sustainable practices. | Developing and delivering smart and sustainable practices. Providing opportunities for reusing and recycling in a manner that prioritises the ongoing circularity of resource use. Delivering services that are based on smart technologies. | | |
| Social Waikirikiri Selwyn is a resilient district and a great place to live, work, and play; where | Honoka Connected community | We have affordable ways to easily connect with the facilities, services, and communities within and outside of our district. | Providing a resource recovery park close to the district's most populated townships. Providing a waste minimisation education facility offering programmes for local communit groups and schools. Providing a kerbside waste and recycling collection service to 96% of households in the district. | | |
| our takata people support each other, enjoy | ach oy time and feel a nonoka Strong neighbourhoods | We are ready for emergency events and disasters. | Drafting a Disaster Waste Management Plan. Reviewing the Importance Level of refuse structures. | | |
| spending time together and feel a sense of honoka connection. | | We can effectively respond to, and recover from, emergency and disaster events. | Pines RRP is wired to accept a generator to power the site in the event of a loss of grid power. Pines RRP has a solar array capable of powering some of the site operations. | | |
| Economic: Waikirikiri Selwyn is a prosperous diverse economy that employs and empowers our takata people and invests in our towns and communities. | Quality innovative infrastructure | Our infrastructure is adaptive and resilient. | Providing a well-maintained, operated, and affordable infrastructure. | | |



Resource Recovery and Waste Activity Management Plan

The Activity Management Plan provides a detailed analysis of issues and actions proposed to ensure service delivery for the activity is appropriately managed and provided to the community. It includes growth and future demand analysis, risk management, asset lifecycle management, improvement planning and upcoming projects.

Council's Resource Recovery and Waste Activity Management Plan was most recently updated in 2024 in preparation for the Council's 2024-34 Long Term Plan.

Infrastructure Strategy

The Infrastructure Strategy identifies issues and challenges in managing Council infrastructure over a 30-year period and provides options for how Council will manage its infrastructure in response to these challenges. It was last updated in 2024 and includes all core infrastructure activities of Council: Five Waters, Transportation, Community Facilities, and Resource Recovery and Waste.

Waikirikiri Ki Tua | Future Selwyn

Waikirikiri Ki Tua | Future Selwyn was finalised in late 2024, and is Council's strategic approach to intergenerational wellbeing, resilience, growth, change and development in the district.

Operative District Plan

The District Plan is written under the Resource Management Act 1991 in order to "assist territorial authorities to carry out their functions in order to achieve the purpose of this Act'. ¹³ It determines resource management issues, objectives, policies, methods, and rules to control and manage development (including suitability for collection vehicles) whilst ensuring that important characteristics of Waikirikiri Selwyn remain protected.

It addresses how land can be used for activities such as waste disposal, resource recovery, recycling, and landfill operations. The Plan ensures that these activities comply with the broader goals for environmental sustainability, public health, and urban development.

Council's District Plan is currently under review.

Canterbury Land and Water Regional Plan

The Canterbury Land and Water Regional Plan (part of the broader Canterbury Regional Policy Statement) provides regional guidance on land and water resource management. It sets rules and policies aimed at protecting water quality, managing land use, and addressing the impacts of land-based activities on the environment. The plan incorporates provisions for waste management, such as how stormwater runoff is managed, wastewater treatment, and the disposal of solid waste in a way that prevents harm to water resources.

¹³ Parliament of New Zealand, Resource Management Act (1991)



Selwyn District Council Policies

Waste Management Policy 2020: outlines how Council will provide Resource Recovery and Waste services that support:

- a quality service for the community where charges cover costs;
- an effective and efficient solid waste service;
- the minimisation and diversion of waste from landfill; and
- compliance with legal and statutory obligations.

Climate Change Policy 2024: includes strategies to reduce the district's carbon footprint, support renewable energy, and enhance resilience to climate change impacts. Waste management and minimisation are key elements of this, as waste disposal (especially in landfills) contributes to greenhouse gas emissions.

Asset Management Policy 2021: sets the appropriate level of asset management practice for all of Council's infrastructure activities. The Resource Recovery and Waste activity under this policy is set as "Core". The Policy defines this as "Core' asset management practice is basic technical asset management planning undertaken at a level designed to meet minimum legislative and organisational requirements for financial planning and reporting. 'Core' practice provides technical management outputs for current levels of service, demand management, asset lifecycles, asset forward replacement programmes, new capital expenditure and associated cash flow projections."

This establishes how Council intends to fund, plan, and maintain the infrastructure needed for waste management and minimisation in the district to meet current and future service demands.

Financial Policy 2024: sets out the approach Council will take to manage its finances, including budgeting, funding, and financial sustainability. This policy governs how waste management and minimisation services are funded, including fees, rates, and any external funding sources. It also covers capital expenditure planning for new infrastructure and services, as well as ongoing operational costs.



2.0 Where We Are Now

This section will cover current waste management and minimisation services and infrastructure, as well as the quantities, composition, sources and destinations of wastes within the district.

Table 2-1 contains a high-level overview of waste and waste minimisation services and infrastructure within the district, whether this service or infrastructure is provided by Council, by a third party, or both, and alignment with the Waste Hierarchy.

Table 2-1: Waste Management and Minimisation Services and Infrastructure in Selwyn District

| | Service or Infrastructure | Provided by Council | Provided by Other Parties |
|-----------|---|------------------------|------------------------------|
| Reduce | Waste minimisation education | ✓ | ✓ |
| Reuse | Reuse shop | ✓ | ✓ |
| Recycle | Kerbside recycling collections | ✓ | |
| | Large commercial recycling collections | | ✓ |
| | Drop-off facilities | ✓ | |
| | Subsidy of processing fees | ✓ | |
| Recovery | Kerbside organic waste collection | ✓ | |
| | Composting facility | ✓ | ✓ |
| Treatment | Household hazardous waste drop-off facilities | ✓ | |
| | Commercial hazardous waste collections | | ✓ |
| Disposal | Kerbside residual waste collections | ✓ | ✓ |
| | Large commercial residual waste collections | | ✓ |
| | Transfer station facility | ✓ | |
| | Managed fill disposal facility | ✓ | ✓ |

Waste management and minimisation services in the district can be split into three main groups: Collection Services, Disposal and Diversion Infrastructure, and Waste Minimisation Initiatives. For consistency purposes, these groupings are utilised throughout this document.

2.1 Collection Services

Waste and diverted material collection services in the district can be divided as follows:

- Council kerbside collection of residual waste, recycling and organic waste from households and small businesses.
- High country village residual waste and recycling collection.
- Public litter bins.
- Non-council provided collection services.

2.1.1 Council Kerbside Collection Services

Council provides collection services to the majority of households (and some small businesses) in the district, which enables it to collate reliable data about quantities for household waste and diverted material streams.

This service is provided under Contract No. 1144 to Waste Management NZ Ltd (expiring June 2029). Residents have access to a flexible service with different options to select the combination of bins or bags that best suit their individual household needs.

Approximately 96% of the district has direct access to a kerbside service outside their property. The remainder take their bins, bags or crates to the nearest kerbside drop-off point, to Pines Resource Recovery Park, or in some cases dispose of waste into farm pits and burn it.



Requests to extend the kerbside service into rural areas outside of the current collection routes are considered on a case-by-case basis following the consideration of number of households per kilometre, distance from the current collection route, demand and the viability of the proposed extension in terms of safe and suitable access and turning for large collection vehicles, against access to kerbside collection drop-off points.

Kerbside collections are funded through targeted rates, on a user-pays basis.

Table 2-2: Description and Rateable Charges for Kerbside Collection Options at July 2025

| Refuse Uniform Charge | Uniform annual charge | \$32.00 per annum | Compulsory charge per dwelling on the kerbside collection route. |
|--------------------------|--|---|---|
| Recycling | 240 litre yellow lid wheelie bin | \$94.00 per annum | Compulsory charge per dwelling on the kerbside collection route. |
| | 2x 60 litre black crates | \$94.00 per annum | Optional service available only for properties off the collection route. |
| Organics | 240 litre lime green lid wheelie bin | \$198.00 per annum | Optional service in some townships only. |
| Residual Waste | 80 litre red lid wheelie bin | \$160.00 per annum | Optional service. |
| | 240 litre red lid wheelie bin | \$477.00 per annum | Optional service. |
| | 60 litre official Council refuse bags | \$17.50 per pack of 5 (\$3.50 per | Optional service. Sold in packs of 5 and can be purchased from Council services centres and libraries as well |
| | | bag) | as some supermarkets. |

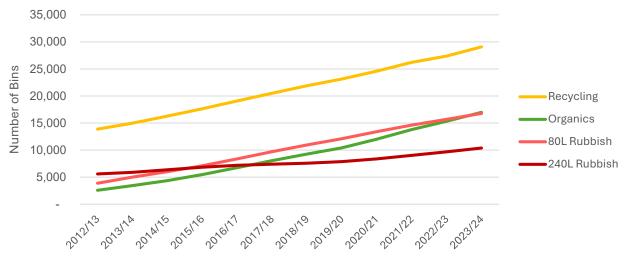
Prices shown are inclusive of GST.

In September 2019 Council undertook a wheelie bin stocktake involving the fitting of RFID tags to all Council issued wheelie bins in the district. The purpose of this was to accurately record the number and type of bins at each property, to ensure fair charging as well as maintaining database accuracy without the need to perform physical on street audits.

As of June 2024, there are approximately 74,570 bins in place throughout the district. This is made up of 27,650 residual waste bins, 17,370 organics bins and 29,550 recycling bins.

The bin numbers shown in Figure 2-1 reflect the significant population growth the district has experienced and continues to experience.

Figure 2-1: Kerbside Bin Numbers



Strong growth is evident in recycling, organic and the 80 litre residual waste bin option. This demonstrates that the pricing incentives / disincentives that are in place for the services are producing the desired result.



Kerbside Residual Waste

Kerbside residual waste is collected weekly and is transported by the collection contractor to the Pines Resource Recovery Park (refer Section 2.2.1) for compaction, transfer and disposal at Kate Valley Regional Landfill.

The service is not compulsory, and residents are able to choose from either a 240 litre wheelie bin or an 80 litre wheelie bin, or they may opt to use 60 litre Council branded pre-paid refuse bags. Refuse bags are sold at all Council service centres and some supermarkets and petrol stations across the district. The cost of the service is included in the price of the bag and may be left on the kerbside on collection day for the contractor to collect or taken to the Pines RRP for disposal at no additional cost.

Kerbside Recycling

Kerbside recycling is collected fortnightly and is taken by the collection contractor directly to EcoCentral Ltd in Christchurch for sorting, processing and sale.

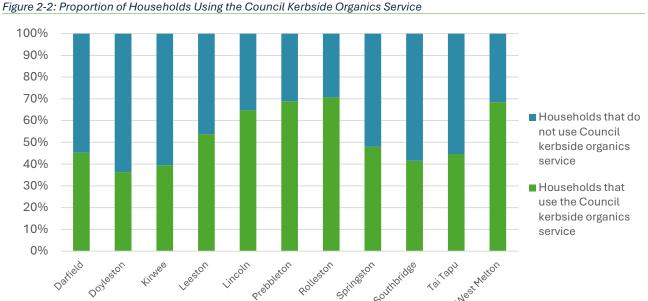
This is the only compulsory refuse service rated for each separately used or inhabited part of a property (SUIP) on the kerbside collection route. A 240 litre wheelie bin is available for households on the collection route, whilst those offroute who utilise drop-off points may opt for two 60 litre crates instead of a wheelie bin.

Kerbside Organics

Council offers a combined food and organic (FOGO) collection service, collected weekly and transported by the collection contractor to the Pines RRP where it is composted onsite.

Kerbside organic collection is currently available in the townships of Darfield, Kirwee, Leeston, Doyleston, Lincoln, Prebbleton, Rolleston, Springston, Southbridge, West Melton and most recently Tai Tapu (in 2020). This allows approximately 75% of households in the district to access the organics collection service. This service is not compulsory, and a 240 litre wheelie bin is provided for residents in areas where the service is available who choose to use it.

Figure 2-2 shows the uptake of the kerbside organics service in the townships where it is offered (as at June 2023).



Townships Where Council Kerbside Organics Service is Offered

In December 2024, residents in Coalgate, Glentunnel and Dunsandel were surveyed to gauge interest in uptake of the kerbside organics service. These townships were surveyed following consultation on the 2024-2034 Long Term Plan, as well as general resident enquiries from those areas.



Results were collated in late January 2025 and none of the townships surveyed expressed sufficient interest in the service to make an extension viable. Any extension of the kerbside organics collection must be carefully balanced between sufficient demand for the service in the area and collection vehicle resources, emissions, and cost.

The results are shown in Table 2-3 below.

Table 2-3: Results from Kerbside Organic Collection Extension Survey in 2024/25

| | Coalgate | Glentunnel | Dunsandel |
|-------------------------------|-----------|------------|-----------|
| Number of Households Surveyed | 181 | 84 | 177 |
| Responded "Yes" | 45 (25%) | 18 (23%) | 25 (14%) |
| Responded "No" | 19 (10%) | 12 (14%) | 15 (8%) |
| No Response | 117 (65%) | 54 (63%) | 137 (77%) |

In 2023, the Ministry for the Environment issued a directive to all Territorial Authorities to implement a compulsory food scraps collection to all households in urban areas by 1 January 2027. As of 2025, the current government has abandoned this initiative.

Introducing compulsory organics collection in urban areas with a population of more than 1,000 (despite the national policy being cancelled) is included in Section 5.4 as an option for consideration in the WMMP Action Plan. This could reduce organic waste in household rubbish bins and increase diversion.

Acceptability Criteria

Materials accepted in Council managed kerbside recycling and organics collections have been standardised nationally since February 2024.

The changes involved in order for Selwyn District collections to comply were minor. Namely, the exclusion of aerosol containers from the kerbside recycling collections and the exclusion of cardboard or paper in kerbside organics (except in cases where it is used to line the bin). Existing accepted materials within Selwyn's kerbside collection service were already compliant with the new guidelines.

All kerbside collection bins are provided with a sticker affixed to the inside of the lid showing what items may be placed in each bin. This information is provided on the Selwyn District Council website and residents may collect spare stickers from their local Council library or service centre.

Table 2-4 shows the types of material accepted in each bin, along with a non-exhaustive list of items that cannot be accepted in that stream.



Table 2-4: Materials Accepted in Kerbside Bins

| Recycling | Organics | Rubbish |
|--|--|---|
| ✓ Cardboard ✓ Paper ✓ Aluminium tins and cans ✓ Glass bottles and jars ✓ Plastic bottles and containers ☎ ☎ ☎ | ✓ Garden prunings ✓ Grass clippings ✓ Leaves and weeds ✓ Fruit and vegetables ✓ Bread and dairy products ✓ Meat, bones and fish ✓ Coffee grinds | Everything that cannot go in the recycling or organics bins except for the below unacceptable items |
| Soft plastic All lids Plastics numbered 3, 4, 6 and 7 Liquid paperboard cartons (e.g. TetraPak®) Takeaway coffee cups Nappies and sanitary items Polystyrene Clothes and toys Aluminium foil Batteries Window glass and crockery | Plastic bags (including those labelled 'compostable', 'degradable' or 'biodegradable') Flax and cabbage tree leaves Rocks, stones and bricks Animal waste Timber Plant pots Dead animals | Explosive and flammable material Tyres Paints and solvents Household cleaners Dry and liquid chemicals Waste oil and automotive products Batteries Soil and concrete |

2.1.2 High Country Village Collection

There are approximately 280 household properties in High Country Villages within the district including Arthur's Pass, Castle Hill and Lake Coleridge.

Residual Waste

Residents, holiday home users and visitors to Arthur's Pass and Castle Hill take their residual waste to large (4.5 m³) frontload bins with lids located within the townships. These bins are emptied fortnightly by a front-end load compactor truck, with additional collections scheduled over busy holiday periods.

Lake Coleridge residents and visitors take their refuse to a community refuse trailer with a covered bin. This is emptied on a fortnightly basis. At the time of writing, Council is reviewing the method of service delivery for this area.

Recycling

Two large recycling stations, constructed from modified shipping containers and fitted with

Figure 2-3: Recycling Station at Castle Hill



'kea-proof' flaps, are located in Arthur's Pass. Another was installed in Castle Hill in December 2020. These are emptied on an as needs basis. Recycling from the stations is taken to EcoCentral Ltd in Christchurch for processing.

Recycling wheelie bins are located at the community refuse trailer area at Lake Coleridge. These are taken by the contractor to the Pines RRP for recycling. At the time of writing, Council is reviewing the method of service delivery for this area.



2.1.3 Public Litter Bins

The provision and management of public litter bins falls between Council's Resource Recovery and Waste, and Community Facilities Departments. Community Facilities manages the majority of public litter bins, with the Resource Recovery and Waste Department providing approximately 47 large 240 litre residual waste litter bins, and 13 large 240 litre recycling bins, mostly housed within steel enclosures to the high street areas of townships. These are emptied under the Kerbside Collections Contract no. 1144. Smaller capacity litter bins at parks and reserves are emptied by the Community Facilities contractor Corde Ltd. The litter bin service is funded from Council's general rate via township budgets.

At the time of writing, there is work underway to evaluate the possible transfer of all litter bins to Council's Community Facilities Department. This would mean all public litter bins are managed under the same contract – reducing confusion, misallocation of service requests, and improved levels of service able to be achieved as a result of more collection frequency flexibility than the kerbside service can offer.

The management of fly tipping is currently managed by Council's Transportation Department. Collection of fly tipped material is undertaken by the roading contractor. The main reason fly tipping is managed by the roading team is because fly tipping typically occurs in the road reserve. Furthermore, Waka Kotahi | New Zealand Transport Agency contributes 51% of roading environment related costs – therefore reducing the cost burden on ratepayers.

2.1.4 Non-Council Provided Services

A proportion of waste and diverted material in the district is collected by private commercial companies, a summary of these companies is outlined in Table 2-5.

Table 2-5: Main Private Collection Service Providers in Selwyn District

| Company Name | Size | Services Provided within Selwyn District |
|--|---------------|--|
| EnviroNZ Services NZ Ltd | Very large | Commercial wheelie bins, frontload bins and skips (construction waste) Residential skips Commercial recycling collection Hazardous waste collection |
| Waste Management NZ Ltd | Very large | Commercial wheelie bins, frontload bins, skips (construction waste) and hookload bins Residential skips Commercial recycling collection Hazardous waste collection |
| JJ Richards Ltd | Large | Commercial wheelie bins, frontload bins Commercial recycling collection |
| Waste Co | Large | Commercial wheelie bins, frontload bins, skips (construction waste) and hookload bins Residential skips Commercial recycling collection Sweeping, sump clearing |
| Container Waste Ltd | Medium | Commercial and residential skips, hookload bins |
| Malvern Waste Solutions | Small | Commercial and residential skips, drums, and wheelie bins |
| Selwyn Environmental 2020 Ltd (t/a Ellesmere Bins) | Small | Commercial and residential drums and wheelie bins |
| Tidy Bins | Small | Commercial and residential trailer skips and wheelie bins |
| Oji Fibre Solutions | Large | Commercial cardboard and paper recycling collections |
| Reclaim | Large | Commercial cardboard and paper recycling collections |
| Scrap metal (numerous providers) | Various | Scrap metal collections |



2.2 Disposal and Diversion Infrastructure

The following are the main avenues for disposal or diversion of waste materials from the district:

- Pines Resource Recovery Park (Council's transfer station infrastructure).
- Satellite RRP Services.
- Managed fill and old closed landfills.
- Non-council provided infrastructure.

Error! Reference source not found. Figure 2-4 shows the location of disposal and diversion infrastructure discussed in this section.

Figure 2-4: Map of Disposal and Diversion Infrastructure





2.2.1 Pines Resource Recovery Park

The Pines Resource Recovery Park (Pines RRP) is Council's only permanent waste and recycling facility. It is located on Burnham School Road closest to the district's most populous township Rolleston. This facility receives residual

waste, organic material, cleanfill, household volumes of hazardous waste and most recyclable materials.

Pines RRP is operated by Corde Ltd under Contract no. 1245 (expiry June 2029), with this contract managed by Council's Resource Recovery and Waste Team. Corde Ltd is a Council controlled organisation.

The Pines RRP opened in March 2006 and is located on a 16 hectare site with a land designation for resource recovery activities as well as discharge consents for activities on site.

in Section 2.5.2.



The district's residual waste is transferred into large hookload containers and dispatched for disposal at the Kate Valley Regional Landfill. Further information on the types and quantities of wastes received at Pines RRP are detailed

The Pines RRP is identified in the Council's Significance and Engagement Policy as a Strategic Asset. Section 97 of the Local Government Act 2002 requires that certain decisions about strategic assets can only be taken if the decision is explicitly provided for by a statement of proposal in the Community Plan. The Pines RRP is central to minimising the quantities of residual waste sent to landfill. Council's intention is to retain the Pines RRP and to modify or improve it where necessary to cope with growth in the district, to meet new requirements or to expand the range of recovery related activities.



Figure 2-6: Pines RRP Site Map



Pines RRP is operated on a user pays basis and is open 7 days per week. Most recyclable materials are accepted free of charge for household volumes and are transported to, or collected by, commercial processors. Charges (Table 2-6) for disposal of residual waste, organic waste and cleanfill are set to cover operating and life cycle costs.

Kate Valley Landfill disposal costs will continue to increase as a result of capital and operational cost increases, price index adjustments, fuel price increases as well as changes to the National Waste Levy. As such, adjustments are made to targeted rates and user charges as required through Annual Plan and budget setting to achieve a cost-neutral position.



Table 2-6: Charges at the Pines Resource Recovery Park at July 2025

| Material | Charge |
|---|---|
| Minimum waste or organic tipping fee | \$8.00 |
| Residual waste | \$395.00 per tonne |
| Building and construction waste | \$395.00 per tonne |
| Organic waste | \$120.00 per tonne |
| Plasterboard (new, clean off-cuts) | \$130.00 per tonne |
| Cleanfill | \$57.00 per tonne |
| Recyclable polystyrene >1m³ included in general waste loads | \$250.00 per load (over and above waste |
| | disposal fee) |
| Non-recyclable polystyrene and expanded foams >1m ³ | \$7,500.00 per tonne |
| TVs and monitors | \$12.00 per item |
| All other e-waste | No charge (household volumes only) |
| Tyres | No charge (under Tyrewise criteria) |
| Child car seats | \$15.00 per item |
| Hazardous waste (cleaning agents, garden chemicals, batteries, | No charge (household volumes only) |
| waste engine oil, paint, LPG cylinders) | |
| Recycling (scrap metal, cardboard, paper, plastic containers 1-2- | No charge (household volumes only) |
| 5, glass bottles and jars, polystyrene, steel and aluminium cans, | |
| clothing) | |

Prices shown are inclusive of GST.

Recycling and Waste Minimisation

- Child car seat recycling joint promotion with Council's Road Safety team, with a 50% fee subsidy by Council.
- Partly subsidised TV / monitor recycling drop-off, and fully subsidised e-waste drop-off.
- Fully subsidised household recycling drop-off under the canopy (paper, cardboard, glass, scrap metal, polystyrene, plastic containers 1, 2, 5).
- Tyrewise drop-off facility.
- Fully subsidised household hazardous waste drop-off (waste engine oil, paint, cleaning chemicals, pesticides, batteries).
- AgRecovery product stewardship scheme for the collection of farm plastics, such as agrichemical containers. A container is provided on site for this purpose.



Figure 2-7: Items Accepted at Pines RRP





ReDiscover

Council view education as the key way in which we can influence public behaviours in the upper tiers of the waste hierarchy – by getting people to think differently about consumption and 'waste'.

In early 2023, Council opened the ReDiscover Education Centre at the Pines Resource Recovery Park, and this is staffed by one full-time Waste and Sustainability Educator.

Figure 2-8: ReDiscover Education Centre



The building (which itself is made-up of two second-hand classroom buildings), purchase and fit out were funded by the locally returned portion of the national waste levy. The levy also funds the Waste and Sustainability Educator's salary. Most of the materials used in the fit out were second-hand. Where second-hand was not available or practical, conscious sustainable choices were made in the selection of materials. The choices made are highlighted to demonstrate 'walking the walk'.

Education programmes associated with the ReDiscover Education Centre include:

- Free waste minimisation and sustainability programmes for schools and community groups across the district. These programmes are hands-on, interactive and feature solutions-based activities for all ages.
- Outreach programmes are targeted towards early childhood ākonga and provide kaimahi and tamariki with an opportunity to investigate waste management and reduction practices within their own classroom.
- On-site programmes are targeted towards primary, intermediate and high school ākonga, making use of this
 unique learning environment by providing place-based learning within a working resource recovery park and
 large-scale composting facility.

Whilst the main focus for the on-site programmes is directed towards school groups, the content can be tailored to all ages and tours/information sessions can be booked by any community group or business within the district.

All programmes have been designed around the Waste Hierarchy and reflect the top four tiers, Reduce, Reuse, Recycle and Recover.



Events are summarised in Table 2-7.

Table 2-7: Waste and Sustainability Educator Reach July 2023 – April 2025

| Programme / Activity Type | Ages | # of |
|---|---------------------------------|--------|
| | | People |
| External event or expo attended by Educator | All | 2,806 |
| Outreach programmes | Early childhood | 679 |
| Outreach programmes | Primary school and intermediate | 2,913 |
| Outreach programmes | Highschool | 151 |
| Outreach programmes | Adult | 145 |
| On-site programmes | Primary school and intermediate | 1,267 |
| On-site programmes | Highschool | 105 |
| On-site programmes, events and tours | Adult | 918 |

As of 30 May 2025, the ReDiscover Education Centre, through onsite, outreach and events, has engaged with a total of 11,476 people.

ReUse Shop

The ReUse Shop at the Pines Resource Recovery Park opened in March 2025, with the purpose of providing an alternative to landfill for residents' unwanted goods, and for shoppers to purchase second-hand items as opposed to new – reducing overall consumption.

The shop has a 1,000m² floorspace and, like ReDiscover, was constructed with sustainable choices. It includes natural lighting panels, insulated panels, timber framing, solar power (which is used to power the shop itself and % of all other operations on site at Pines RRP), rainwater harvesting, and the fitout incorporates many second-hand items.

It is open to the public Wednesday to Sunday from 9am to 4.30pm. Good quality unwanted goods are accepted under the recycling canopy during usual Pines RRP opening hours (Monday to Sunday from 9am – 4.30pm).

Money received through sales in the shop covers its operational costs, and any surplus is used to help offset the costs of other recycling and recovery initiatives on site.

ReNourish

The ReNourish Community Garden opened in 2024 and is situated adjacent to ReDiscover. The community garden aims to cultivate connections, share knowledge, and establish a sense of community. It is a low impact garden that focuses on using resources wisely by repurposing, recycling, and recovering materials for beneficial use.

Repurposed items at ReNourish include worm farms, compost bins, washing machine drums, scrap metal plant frames, and outdoor furniture. Compost demonstrations and preserving workshops are held here. The garden is managed by a coordinator who works with a group of volunteers.



2.2.2 Satellite RRP Service / Community Drop-off Days

In addition to the Pines RRP facility, Council also provide periodic community drop off days at locations in Ellesmere and Malvern. These are provided with the purpose of improving accessibility and proximity to properties located at a more considerable distance from the Pines RRP.

As of 2025, the types of materials accepted at these days are:

- Garden waste
- Bulky waste (items too big to fit in a wheelie bin, e.g. furniture, carpets)
- Scrap metal
- Tyres
- E-waste
- Cardboard
- Mixed household recyclables
- Child car seats



Figure 2-9: Images from Malvern and Ellesmere Community Drop-off Days



2.2.3 Managed Fill and Old Closed Landfills

Council's Springston Pit near Lincoln is consented for the disposal of cleanfill and hardfill material. The pit is closed to the public and commercial access is managed by Council's contractor Corde Ltd. Cleanfill/hardfill received at Pines RRP is consolidated and taken to Springston Pit for disposal. Carefully managing access to Springston Pit ensures Council's ability to comply with consent conditions.

The district contains a number of old landfills that were in operation prior to the opening of the Kate Valley Regional Landfill in 2005. The known closed landfills include Arthur's Pass, Springfield (Cox's pit), Hawkins Pit (Darfield), Hororata, Killinchy and Springston / Luggs Pit.

An Environmental Risk Assessment (ERA) report was completed in 2021 for Council's 72 sites classified on the Listed Land Use Register as 'G3 - Landfill Sites' land use. Sites have been graded in terms of their risk and priority for any remediation works.



A Closed Landfill Management Plan (CLMP) was prepared for the Council's five consented closed landfills in 2023 (Springston Pit, Killinchy Pit, Hawkins Pit, Cox's Pit and Hororata Landfill). Further detail of these sites is included in Table 2-8. Some elements of the CLMP (e.g. capping design and timeframes) were discussed with ECan during preparation and the finalised document was approved by ECan in July 2024. The CLMP specifies the long-term capping plans for each site and other ongoing monitoring requirements such as annual groundwater monitoring and routine inspections. The capping plans are specific to each site and based on the presence of existing capping, currently known waste extent and waste types.

Capping will be undertaken in phases over the next decade as suitable, locally sourced material is available to be delivered to site. The consent for works relating to capping in accordance with the Selwyn District Plan was activated in 2025.

Active monitoring of Council's closed landfills is ongoing, for example post flood inspections were undertaken at landfill sites located next to riverbeds following the May 2021 floods. Following river scour of waste into the Hororata River at the former Hororata Landfill on Duncan's Road, Council are planning an initial investigation which may include flood modelling, geophysical survey and historical imagery review then tabling potential solutions and possibly preparing high level cost estimates to form the basis of a discussion with ECan and Toitū Te Whenua | Land Information New Zealand in 2024. Council also undertakes groundwater monitoring at several of these in accordance with consent requirements. Council is aware that other old historic closed town landfills are also present across the district but the knowledge of where they are located is limited. From time to time these are identified during development of subdivisions or building activity that disturbs the soil surface.

Gaining a better understanding of these and any liability, environmental contamination, or clean-up costs that could potentially be present is an important area requiring continued investigation. Other old gravel pits and cleanfills exist, however these are managed by the Council's Community Facilities Department and sometimes involve leases to companies for gravel extraction, cleanfill deposition and remediation. This includes Cemetery Pit between Leeston and Southbridge, which the Resource Recovery and Waste Department uses for Community Pop-up Recovery Park days and Farm Waste One stop shop days.

Council has made provision for expenditure associated with the future remediation of these sites. Significant costs can be expected to source, transport and place capping material. Landfill aftercare provision has been made to recognise landfill post-closure costs expected to occur.



Table 2-8: List and Description of Cleanfills and Old Closed Landfills

| Site | Location | Activity | Monitoring |
|---------------------------------|---|--|--------------------------------|
| Arthur's Pass | Halpins Creek, Arthur's Pass, State highway 73 | Closed (November 1997) 'landfill' located on Kiwi Rail land. | - |
| Springfield | Corner of Coxs and Junction Roads | Closed for residual waste on 30 June 2001 and for green waste on 30 June 2008. Managed in accordance with the post closure landfill management plan. | Fences, litter, groundwater |
| Hawkins | Cullens Road, Darfield | Closed for residual waste on 30 June 2003 and for green waste on 30 June 2008. Managed in accordance with the post closure landfill management plan. Currently used 2x per annum for the Malvern Community Satellite RRP and has been sued for the AgRecovery One Stop Shop farm waste events. | Fences, litter, groundwater |
| Hororata | Hawkins Road | Closed on 30 June 1998. Managed in accordance with the post closure landfill management plan. | Fences, litter, groundwater |
| Killinchy | Corner of Heslerton and Kings Roads | Closed for residual waste on 30 June 2003 and for green waste on 30 June 2008. At the time of writing, fill from the Ellesmere Pipeline Project is being utilised as part of the capping plan for this site. | Fences, litter, groundwater |
| Springston (incl. Luggs Pit) | Weedons Road | Considerable capacity for cleanfill disposal remains. | Fences, litter, groundwater |

2.2.4 Resource Consents

Resource consents are held for various activities relating to the Resource Recovery and Waste Activity. The Selwyn District is located within the bounds of the Canterbury Regional Council (ECan), the regulatory authority for integrated management of the natural resources of the region and regional council resource consents.

Table 2-9**Error! Reference source not found.** lists are current active consents associated with the Resource Recovery and Waste Activity.



Table 2-9: Schedule of Resource Consents

| Consent Number | Activity | Location | Expires |
|----------------------|---|--|------------------|
| CRC201524 | Discharge operational-phase stormwater to land | Pines RRP, Burnham School Road | 17 December 2044 |
| CRC211594 | Discharge contaminants to air | Pines RRP, Burnham School Road | 17 December 2044 |
| CRC201523 | Discharge construction-phase stormwater to land | Pines RRP, Burnham School Road | 17 December 2029 |
| CRC970036.1 | Discharge contaminants to land | Closed landfill, Arthur's Pass, SH73 | 5 June 2033 |
| CRC970038 | Discharge contaminants to land | Hawkins Pit, Cullens Road, Darfield | 5 June 2033 |
| CRC970040 | Discharge contaminants to land | Hororata Landfill, Hawkins Road, Hororata | 5 June 2033 |
| CRC970042 | Discharge contaminants to land | Killinchy Cleanfill, Kings Road, Killinchy | 5 June 2033 |
| CRC970046.1 | Discharge contaminants to land | Springston Cleanfill, Weedons Road, Springston | 5 June 2033 |
| CRC970044 | Discharge contaminants to land | Springfield Cleanfill, Coxs Road, Springfield | 5 June 2033 |
| RC195418 | Ellesmere farm waste | Cemetery Pit, Southbridge Leeston Road, Leeston | - |
| RC205125 | Malvern farm waste | Hawkins Pit, Cullens Road, Darfield | - |
| RC175059 RC175033 | Establish and operate refuse and recycling facilities | State Highway 73, Arthur's Pass | - |
| RC205109 | Establish and operate a refuse and recycling facility | West Coast Road, Castle Hill | - |
| RC245216 | Rehabilitation of landfill – transport, deposit and stockpiling of capping material | Springfield Cleanfill, Coxs Road, Springfield | - |
| RC245217 | Rehabilitation of landfill – transport, deposit and stockpiling of capping material | Killinchy Cleanfill, Kings Road, Killinchy | - |
| RC245218 | Rehabilitation of landfill – transport, deposit and stockpiling of capping material | Springfield Cleanfill, Coxs Road, Springfield | - |

2.2.5 Non-Council Provided Infrastructure

It is unknown how much of the rubbish generated within Waikirikiri Selwyn is disposed of at Council facilities in comparison to non-Council facilities. The only refuse transfer station in the district is the Pines Resource Recovery Park located in Burnham, which is Council owned infrastructure.

Some rubbish and recycling may be taken by residents or commercial collectors to transfer stations in Christchurch or Rakaia. Some commercial collectors have made the decision to take rubbish (mainly building and construction related waste and some commercial frontload skip collectors) to other transfer stations in Christchurch due to favourable per tonne rates. The Pines Resource Recovery Park does not offer a lower rate for commercial providers, and the public price is the same for all customers.

Equally, it is unknown how much out of district waste is disposed of at the Pines Resource Recovery Park.

Anecdotally it is not thought to be a large amount due to the distance required to travel to Burnham from

Christchurch City in comparison with the convenience of the more centrally located transfer stations within the city.



Regional standardised data collection in Canterbury is being investigated by the Canterbury Waste Joint Committee, with the possibility of aligning with the Waste Operator Licensing and Data System (WOLDS) that is being used in other regions. The data requirements would align with the National Waste Data Framework and central government waste levy reporting requirements that are already in place.

Neighbouring District Transfer Stations and Material Recovery Facilities

The closest out of district transfer stations for Selwyn residents is EcoDrop on Parkhouse Road (Christchurch City Council) and the resource recovery park in Rakaia (Ashburton District Council).

It is unknown how much waste generated in Selwyn is disposed of at either of these transfer stations.

Privately Run Facilities

There is one privately run composting facility in Selwyn district: Southern Horticultural Products Ltd (Intelligro) located on Manion Road near Rolleston. Household volumes of green waste, cleanfill and hardfill materials are accepted for disposal.

Frews Contracting operate a managed fill facility. Green waste, hardfill, cleanfill and mixed construction and demolition waste are accepted for disposal at their quarry in Hororata.

2.3 Other Initiatives

Other waste and resource recovery related initiatives in the district can be divided as follows:

- Council-supported initiatives.
- Non-council provided initiatives.

2.3.1 Council-supported Initiatives

In addition to ReConnect at the Pines RRP, waste related education in the district is tackled in three broad groups: schools and preschools, businesses and the public. Council partners with a number of organisations to achieve results in these areas. Key initiatives include:

• Schools and preschools:

- o Enviroschools Council contributes funding (via the Resource Recovery and Waste Budget) towards the Enviroschools programme in the district. Other partners include Department of Conservation, Environment Canterbury, and the Toimata Foundation (funded by Ministry for the Environment). Enviroschools takes a holistic approach to teaching and connecting students with their environment. They employ a 'train the trainer' type approach whereby the Enviroschool Facilitator runs cluster meetings training teachers from participating schools to deliver sessions to students as well as running sessions directly with students.
- Schools are directly assisted by Council from time to time with equipment for waste minimisation, such as internal recycling bins.

Businesses:

 Lincoln Envirotown are funded by Council's waste budget to assess the sustainability of businesses in the district. This is achieved through the Responsible Business Awards - a voluntary Environmental Assessment and rating process for businesses in the district.



• Public:

- Council regularly communicates waste related messages to residents through a number of local newspapers, flyers, direct mail (addressing recycling or organics bin contamination), social media platforms such as Facebook and by SMS.
- o Direct education to households via periodic on-street auditors inspecting bins.
- o Council Resource Recovery and Waste staff talk at community group meetings from time to time. For example, Responsible Business Awards (Envirotown), Enviroschool cluster meetings.
- A combination of Food Lovers Masterclass and Waste Free Living Workshop events are held twice per annum in Rolleston and Lincoln.
- Funding and equipment for waste minimisation at events is made available to event organisers.
- o Providing equipment and free disposal for community litter clean-ups.
- Contribute funding to joint campaigns such as Waste-Ed with Kate social media educational posts on TikTok and Facebook.
- o "Pop-up" satellite recovery park facilities (Section 2.2.2).

Other initiatives align with Council's waste management and minimisation goal, including:

- AgRecovery: Previously Council also helped to facilitate periodic One Stop Shop farm waste drop-off days in the district. These have fallen away since the COVID-19 pandemic. It is hoped that they be restablished in the future.
- Regional waste minimisation initiatives: The Canterbury Waste Joint Committee operates a fund for local regional waste minimisation projects. This fund is contributed to by Selwyn District Council and other territorial authorities in the region.
- Local joint Council staff initiatives including the development of the One Planet website and Love Food Hate Waste regional resources.
- Support and promotion of initiatives such as Keep New Zealand Beautiful Clean-up Week and Plastic Free July.

2.3.2 Non-Council Supported Initiatives

While Council supports a wide range of waste-related initiatives within the Selwyn District, there are also several initiatives that operate independently of Council. These are delivered by community groups, businesses, or national organisations.

Many waste minimisation activities, particularly those that are community- or business-led, are based in neighbouring Christchurch but are accessed by Selwyn residents. These initiatives contribute to reducing waste, promoting reuse, and supporting the circular economy beyond Council's direct involvement.

Table 2-10 outlines a selection of waste management and minimisation initiatives available to the Selwyn community, both locally and in nearby Christchurch. Some are part of wider national programmes. This list is not exhaustive but highlights the broader ecosystem of services supporting waste reduction in the region.



Table 2-10: Non-Council Recycling / Waste Minimisation Initiatives

| Initiative | Location |
|--|--|
| Community Gardens | Rolleston |
| | Springston |
| | Lincoln |
| | Kirwee |
| Re:mobile | Drop-off point at Noel Leeming Rolleston |
| Soft Plastics Recycling Scheme | Drop-off point at Woolworths Rolleston |
| | The Warehouse Rolleston |
| Terracycle | Drop-off point at Weedons School |
| Hair care and colour packaging | |
| Oral care and packaging | |
| Terracycle | Drop-off point at Petstock Rolleston |
| Pet food packaging | Prebbleton Veterinary Hospital |
| | Selwyn Veterinary Centre |
| Charity Op-Shops (e.g. Hato Hone St John, | Rolleston |
| Salvation Army) | |
| TOCK.earth | Selwyn |
| MENZSHED | Lincoln |
| | Rolleston |
| | Darfield |
| Selwyn Food Bank | Rolleston |
| Habitat for Humanity | Christchurch |
| Kilmarnock Enterprises | Christchurch |
| Caps & Lids Recycling Scheme | Drop-off points in Christchurch |
| Save Board | Drop-off points in Christchurch |
| Fair Food (KiwiHarvest) | National |
| Community Pantries | Various |
| Para Kore | National |
| Sustainable Coastlines | National |
| Recycle A Device (RAD) | Christchurch |
| Gear Up Ōtautahi | Christchurch |
| Community Energy Action | Christchurch |
| Ōtautahi Tool Library | Christchurch |
| Repair Café Aotearoa | Christchurch |
| RAD Bikes | Christchurch |

The option for soft plastic recycling is requested by the community from time to time. Council staff have previously contacted The Packaging Forum to request that a drop-off point be located at the Pines Resource Recovery Park however they advised that they are only focusing on partnerships with supermarkets and retailers and indicated that they were not willing to expand the programme to other locations at that stage.

There are plans to include a Terracycle drop-off point at the Pines RRP in the future.



2.4 Funding

Resource Recovery and Waste services and infrastructure in the district are funded by a variety of ways. This is shown in Table 2-11.

Table 2-11: Funding Sources for the Resource Recovery and Waste Activity

| Activity | Funding Source | | | | |
|--|---|--|--|--|--|
| Kerbside waste, recycling and organics collections | Tourseted votes | | | | |
| High country waste and recycling | Targeted rates | | | | |
| Public Litter Bins | Township budgets | | | | |
| Pines Resource Recovery Park | | | | | |
| Satellite RRP Service | User pays | | | | |
| Cleanfill | | | | | |
| Closed landfill capping | Landfill aftercare provision | | | | |
| Waste Minimisation Education | Waste levy | | | | |
| ReUse Shop | User pays | | | | |
| Capital projects | Capital budget / waste minimisation fund / waste levy | | | | |

Adjustments are made to targeted rates user charges as required through Long Term Plan and Annual Plan budget setting to achieve a cost neutral position.

More detailed funding information can be found in the Resource Recovery and Waste Activity Management Plan, Annual Plans and Long-Term Plans.

2.5 Waste Quantities and Composition

Council provides a kerbside collection service to 96% of households in the district which enables us to collect reliable data about quantities and composition of household waste and diverted materials.

Residual waste and organics data is obtained from measurements at the Pines Resource Recovery Park weighbridges. The quantities of recyclables from kerbside recycling collection are provided monthly to the Council by EcoCentral Ltd who are responsible for sorting and sale of the material. Managed fill data is captured within our weighbridge software package.

Figure 2-10 displays the waste and diverted material streams managed by Council, processed through Council's Pines Resource Recovery Park, or processed under contract to Council.

The largest contributor of residual waste tonnes is kerbside, followed by waste disposed of by private waste service providers, such as waste from businesses and construction activities. Residual waste is consolidated at the Pines Resource Recovery Park where it is compacted and transferred to Kate Valley Regional Landfill for final disposal. Other residual waste to landfill, that does not pass through Pines RRP, includes the small amount of contamination from kerbside recycling processed through EcoCentral, and, following treatment, any hazardous waste that cannot be recycled by the processor.

Kerbside organic waste is the largest contributor of organic waste received at Pines RRP. Organic waste is managed on-site at the Pines RRP, where it is shredded and composted.

Recycling collected at the kerbside is delivered directly to EcoCentral in Christchurch where it is combined with other regional recycling collections, sorted, baled, and on-sold to third party recyclers. Household recycling dropped off at the Pines RRP by public customers is collected by various private recycling companies and directed to recovery markets.



The bulk of cleanfill is deposited directly at Springston Pit. A small amount from public customers is consolidated at the Pines RRP and then transported by the Pines RRP operator to Springston Pit.

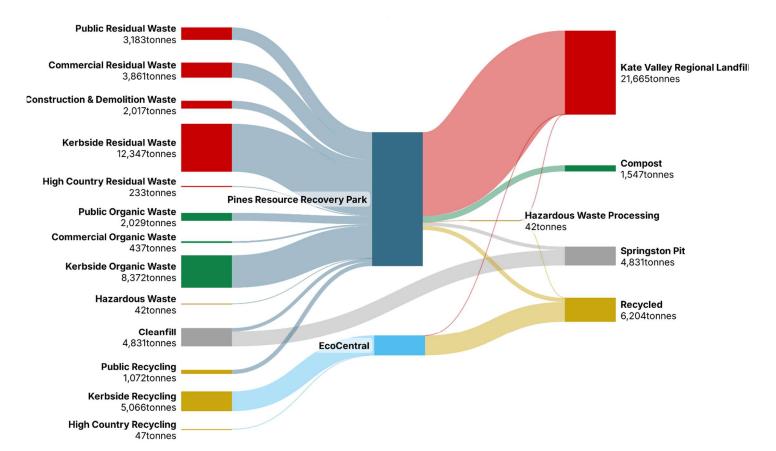


Figure 2-10: Waste and Diverted Material Flow 2023/24

Note: The weight of organic waste 'in' is greater than the final weight of compost 'out'. Composting reduces the weight of organic material by 40–60%, depending on the moisture content, type of material, and composting conditions. Additionally, due compost processing timeframes and sales variations, incoming organics tonnages will not always correspond with outgoing compost tonnages within the same year.

It is noted that the Pines RRP receives some of the commercial and industrial waste tonnes from within Selwyn District, but none of the commercial and industrial recycling tonnes. This has the effect of potentially skewing overall diversion rates. The district's proximity to Christchurch means that some public waste will be disposed of there instead of at Pines RRP.

This report focuses on data associated with residual waste and diverted material streams that Council has current visibility over such as that collected by Council or received at Pines RRP. Council intends to obtain better visibility of inter-district tonnage / material movements using regulatory tools such as the Waste Management and Minimisation Bylaw.

Error! Reference source not found. Table 2-12 shows the total quantities of residual waste disposed to landfill and quantities of diverted material. As shown in the table, the proportion of diverted material has remained relatively static. Note that hardfill and cleanfill is not included within diversion figures.



Table 2-12: Source and Ouantities of Residual Waste and Diverted Material

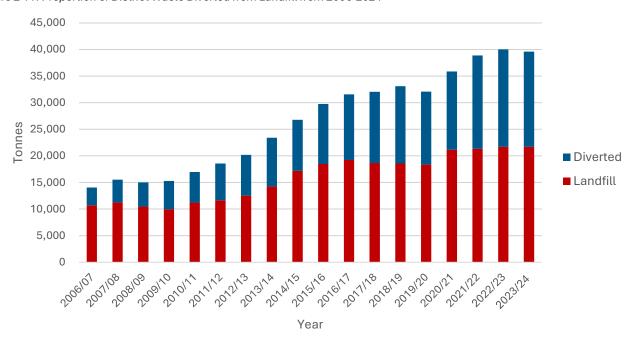
| Residual Waste Stream | Waste Disposed to Landfill (tonnes per year) | | | | | | | |
|---|--|----------|---------|---------|---------|---------|--|--|
| | 2018/19 | 2019/20* | 2020/21 | 2021/22 | 2022/23 | 2023/24 | | |
| Kerbside residual waste collection | 10,057 | 10,301 | 10,735 | 11,981 | 11,916 | 12,347 | | |
| Commercial and public residual waste drop-off at Pines RRP | 6,462 | 5,766 | 7,811 | 7,479 | 7,005 | 7,045 | | |
| Construction and demolition waste drop-off at Pines RRP | 1,853 | 1,612 | 2,252 | 1,604 | 2,553 | 2,017 | | |
| High country village residual waste collection** | 184 | 176 | 180 | 195 | 198 | 233 | | |
| Contaminated kerbside recycling to landfill | 0 | 491 | 159 | 37 | 11 | 21 | | |
| Hazardous waste drop-off at Pines RRP for treatment and disposal (paint, chemicals) | 15 | 14 | 22 | 26 | 24 | 26 | | |
| Total to landfill | 18,571 | 18,360 | 21,159 | 21,322 | 21,707 | 21,689 | | |

| Diverted Material Stream | Waste Diverted (tonnes per year) | | | | | | | |
|---|----------------------------------|----------|---------|---------|---------|---------|--|--|
| | 2018/19 | 2019/20* | 2020/21 | 2021/22 | 2022/23 | 2023/24 | | |
| Kerbside recycling collection | 5.090 | 4.687 | 4.779 | 5.075 | 5.069 | 5,045 | | |
| Public recycling drop-off at Pines RRP | 715 | 791 | 945 | 973 | 970 | 1,045 | | |
| High country village recycling collection | 46 | 43 | 39 | 44 | 49 | 48 | | |
| Kerbside organics collection | 5,857 | 5,768 | 6,197 | 8,295 | 8,757 | 8,372 | | |
| Commercial and public organics drop-off at Pines RRP | 2,016 | 1,647 | 1,760 | 2,106 | 2,446 | 2,466 | | |
| Commercial and public cleanfill drop-off at Pines RRP | 893 | 844 | 1,036 | 1,045 | 986 | 884 | | |
| Hazardous waste drop-off at Pines RRP for recycling (batteries, waste oil, LPG cylinders) | 13 | 20 | 21 | 33 | 41 | 44 | | |
| Total diverted material | 14,629 | 13,801 | 14,778 | 17,571 | 18,319 | 17,903 | | |
| % of waste stream diverted from Kate Valley Landfill | 44% | 43% | 41% | 45% | 46% | 45% | | |

^{*}Note 2019/20 year: COVID-19 related disruptions to the economy and therefore waste generated. Additionally, 421 tonnes of kerbside recycling needed to be landfilled during Alert Level 4 lockdown in April and May of 2020.

Figure 2-11 shows a significant increase in the proportion of the total waste stream diverted from landfill (24% in 2006/07 to 45% in 2023/24), with the proportion levelling out in 2016/17. This presents an opportunity to continue to increase diversion by additional means (for example, providing more opportunities for reuse).

Figure 2-11: Proportion of District Waste Diverted from Landfill from 2006-2024





^{**}Note this includes some waste collected from commercial businesses on the alpine waste collection route.

Table 2-13 below shows total waste alongside kerbside waste per capita in Selwyn District.

Table 2-13: Total District Waste and Kerbside Waste per Capita

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|---------------------------------|---------|---------|---------|---------|---------|
| Total District Waste per Capita | 275 kg | 296 kg | 288 kg | 259 kg | 251 kg |
| Kerbside Waste per Capita | 161 kg | 152 kg | 163 kg | 142 kg | 143 kg |
| Estimated Resident Population* | 66,850 | 71,472 | 73,843 | 83,780 | 86,299 |

^{*}Note the steep increase between 2021/22 and 2022/23 is due to population estimates and may not necessarily be a true indicator of net increase over that year.

It is noted that population numbers for the district include Burnham Military Camp. Burnham Military Camp can accommodate over 1,000 staff, and waste quantities generated by Burnham Military Camp may be included in the district totals. Whether they are included is dependent upon the disposal facility used by the commercial contractor collecting Burnham's waste. Most loads are tipped at Pines RRP however some loads are tipped at facilities in Christchurch, dependent on collection vehicle routing and operational requirements.

2.5.1 Collection Services Quantities and Composition

Separating kerbside waste and diverted material quantities from total district waste quantities shows a continued clear improvement in diversion rates - from 26% in 2006/07 to 52% in 2023/24. In recent years this increase is mostly attributed to the strong uptake of the optional kerbside organics collection service as well as pricing disincentives for the larger residual waste bin.

The district has experienced strong population growth following the 2010 and 2011 Canterbury earthquakes. This is reflected in the growth of both landfill and diverted waste tonnes. Population growth in Selwyn is discussed in more detail in Section 3.1.1.

16,000 14,000 12,000 10,000 Landfill 8,000 6,000 Diverted 4,000 2,000 0 Financial Year

Figure 2-12: Kerbside Collection Quantities of Landfilled Waste and Diverted Material



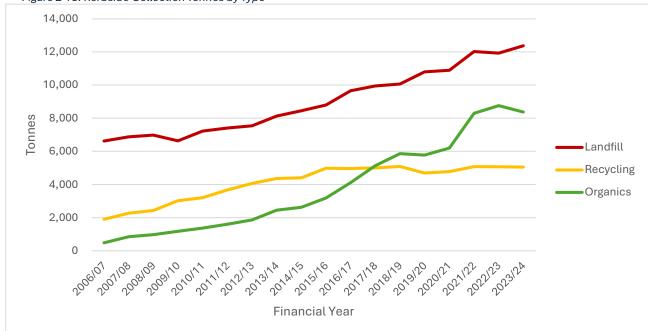


Figure 2-13: Kerbside Collection Tonnes by Type

Kerbside Residual Waste

Council has robust data for the composition of the kerbside residual waste stream as a result of a kerbside residual waste analysis done in 2022 (Table 2-14). The purpose of these studies is to understand the materials and volumes of potentially divertible material remaining in the rubbish stream, with a view to informing the development and implementation of initiatives to further divert waste from landfill.



Table 2-14: Composition of Kerbside Residual Waste in 2022¹⁴

| Type of Waste | | % of Total Weight | Kg per Average Wheelie Bin |
|----------------|---|----------------------|-------------------------------------|
| | Drink containers | 0.2% | 0.03kg |
| Paper | Recyclable paper | 5.3% | 0.60kg |
| | Non-recyclable paper (e.g. takeaway coffee cups, Tetra Pak®) | 2.6% | 0.29kg |
| | #1-2-5 drink bottles | 0.4% | 0.04kg |
| | #1-2-5 other rigid containers (e.g. margarine tubs, milk bottles) | 2.4% | 0.27kg |
| Plastic | #3-4-6-7 containers | 0.1% | 0.01kg |
| | Plastic bags / film | 6.0% | 0.68kg |
| | All other non-recyclable plastic items | 4.0% | 0.45kg |
| | Kitchen waste | 31.6% | 3.55kg |
| Organics | Garden waste (excluding soil) | 12.7% | 1.43kg |
| | Other (e.g. cat litter, hair) | 6.3% | 0.71kg |
| Ferrous | Steel cans | 0.8% | 0.08kg |
| Metals | Other steel | 1.7% | 0.19kg |
| Non-Ferrous | Aluminium drink cans | 0.2% | 0.03kg |
| Metals | Other aluminium cans (e.g. food cans) | 0.2% | 0.02kg |
| | Other non-ferrous | 0.5% | 0.05kg |
| | Beverage bottles | 1.0% | 0.12kg |
| Glass | Other recyclable glass (e.g. food jars, milk bottles) | 1.0% | 0.12kg |
| | Non-recyclable glass (e.g. lightbulbs, drinking glasses) | 0.6% | 0.06kg |
| Textiles | Clothing and rags | 2.0% | 0.22kg |
| TEXTILES . | Other textiles (e.g. backpacks, shoes, rugs) | 2.3% | 0.26kg |
| Sanitary Paper | Disposable nappies, paper towels, tissues, menstruation products | 9.6% | 1.08kg |
| Rubble | Concrete, soil, ceramic | 5.4% | 0.60kg |
| Timber | All items made primarily of timber | 2.0% | 0.22kg |
| Rubber | All items made primarily of rubber (e.g. kitchen gloves) | 0.4% | 0.04kg |
| Potentially | Household (e.g. batteries, medicines, cleaning agents) | 0.7% | 0.08kg |
| Hazardous | Other (e.g. used engine oil, garden chemicals) | 0.1% | 0.02kg |
| | Total | 100% | 11.23kg |

Figure 2-14 shows that 56% of the materials within the residual waste stream are potentially recoverable / recyclable via the kerbside organics and kerbside recycling service. This could potentially equate to over 6,500 tonnes for the 2022/23 year and is predominantly organic waste such as food waste and garden waste (79% of all potentially divertible material).

Extrapolated over one year, this equates to approximately 6,926 tonnes of potentially divertible material per annum.

¹⁴ WasteNot Consulting, Composition of Selwyn District Kerbside Rubbish (2022)



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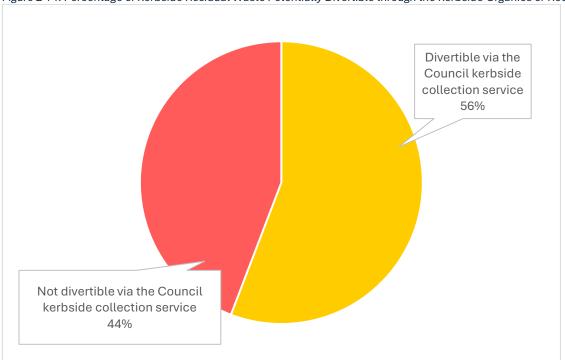
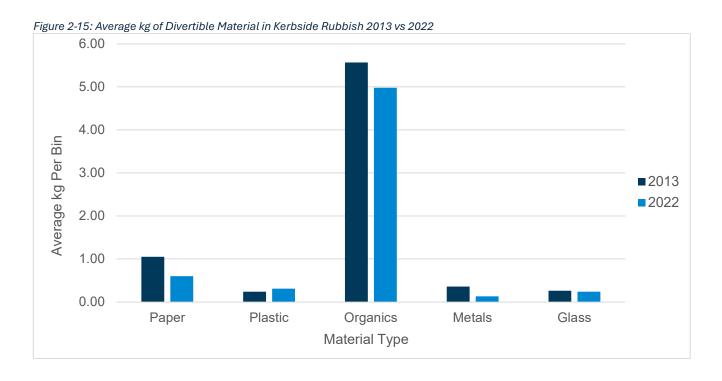


Figure 2-14: Percentage of Kerbside Residual Waste Potentially Divertible through the Kerbside Organics or Recycling Service

Figure 2-15 shows that the overall amount of potentially divertible material in Selwyn kerbside rubbish bins has decreased since the analysis undertaken in 2013. This is an average of all bins sampled (the 2013 SWAP included refuse bags as well as 80 litre and 240 litre bins, whereas the 2022 SWAP only analysed 80 litre and 240 litre bins).





Organic waste remains as a considerable portion of kerbside waste to landfill. Despite the general decrease in total divertible organic waste found in kerbside rubbish bins between 2013 and 2022, the composition of this has changed, as shown in Figure 2-16 below. It is worth noting that the presence of garden waste in bins can fluctuate dependent on weather patterns and the time of year that the audit took place. Both the 2013 and 2022 SWAP studies were conducted in November.

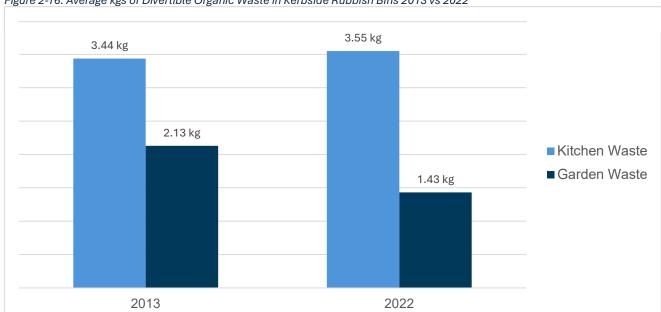


Figure 2-16: Average kgs of Divertible Organic Waste in Kerbside Rubbish Bins 2013 vs 2022

The general decrease in garden waste could be attributed to an increase in the uptake of organic bins in the areas where the service is offered; an average uptake of 39% in 2013 compared to an average of 53% uptake in 2022.

The relatively consistent amount of food waste in residual waste bins despite an increase in organic bin uptake could be due to the 'ick' factor when disposing of food waste and the unwillingness of residents to dispose of unbagged food waste. Whilst plastic bags (even those labelled biodegradable or compostable) are not accepted in the organics waste bins, plain brown paper bags and newspaper used as liners are an option. Another possible reason could be a lack of awareness that food waste is accepted in the Council organics bin (i.e. it is not just a garden organic waste bin). All new bins are delivered with a sticker on the underside of the lid that shows accepted materials, and this information is advertised by Council from time to time on social media and in local newspapers. Food waste is still a significant opportunity for Council to focus on as a divertible stream.

Introducing compulsory organics collection in urban areas with a population of more than 1,000 (despite the national policy being cancelled) is included in Section 5.4 as an option for consideration in the WMMP Action Plan. This could reduce organic waste in household rubbish bins and increase diversion.

Kerbside Recycling

Figure 2-17 displays the breakdown of the contents by material type. We note that the mixed paper volumes are decreasing as a percentage. We believe this to be predominantly a result of more online marketing and communication, and a move away from paper-based marketing. Anecdotally, an increasing number of households appear to have 'no junk mail' stickers on their letter boxes. At the same time, an increase in cardboard has occurred. We attribute this increase to an increase in online shopping, where purchases are received via courier or post in cardboard boxes.



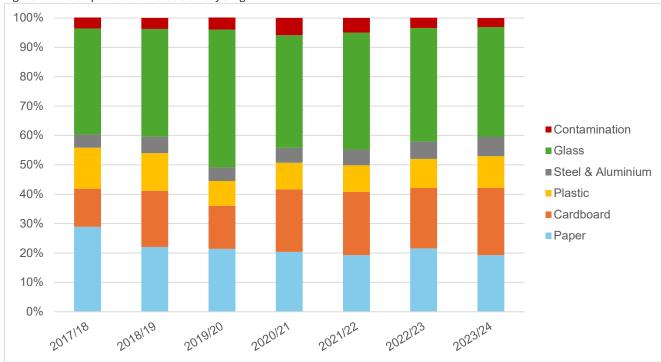
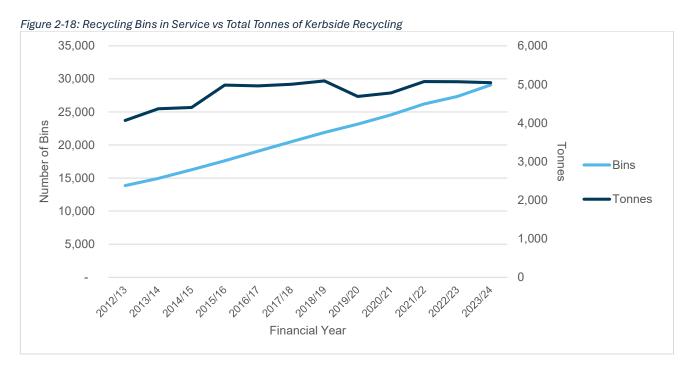


Figure 2-17: Composition of Kerbside Recycling

The composition of kerbside recycling has a direct impact on total tonnes collected. Figure 2-18 shows that the number of recycling bins in service are steadily increasing, whilst total tonnes of kerbside recycling remain relatively static.

The dip in recycling tonnages in 2019/20 were due in part to the closure of the regional recycling processing plant during the COVID-19 Alert Level 4 lock down. This closure and unfortunate messaging from a large neighbouring Council led to widespread confusion, resulting in increased levels of contamination and the subsequent rejection of some recycling loads (as identified in Figure 2-19).





Recycling Contamination

Instances of entire truckloads of kerbside recycling needing to be landfilled due to excessive amounts of contamination are rare in Selwyn. A spike in rejected recycling loads was observed following the first COVID-19 Alert Level 4 lockdown (discussed above). Prior to this period, there had not been any incidences of rejected recycling loads in Selwyn.

On street contamination checks were initiated in September 2020 and lasted for 6 months, with another six week audit carried out in late 2024. Contamination levels decreased noticeably following this and have remained low since then. At the time of writing, contamination in kerbside recycling is averaging 2.63%.

The tonnes of kerbside recycling to landfill are shown in Figure 2-19, split by reason. It is noted that this does not show the recycling that was sent to landfill during the four weeks of the first COVID-19 Alert Level 4 lockdown when the recycling processing plant closed (totalling 422 tonnes).

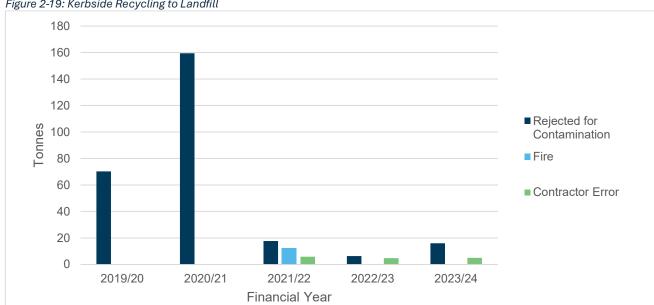


Figure 2-19: Kerbside Recycling to Landfill

Disposal of batteries in the kerbside has caused fires in the hopper of the collection vehicle. There have been two instances of this in Selwyn where this has resulted in the recycling within that truck requiring landfilling, as fire damage renders the material within the bin contaminated and therefore unrecyclable. It is notable that no Selwyn kerbside truck fires caused by battery disposal have occurred since Council installed battery recycling stations in December 2021.

'Contractor error; includes reasons such as instances of hydraulic oil leaks within the compactor of the hopper, or instances where a half load of a different waste stream was left on board overnight and correct process was not followed to notify the driver the next morning, resulting in comingled streams and contamination.

Organics

Kerbside organics collection in Selwyn is a combined food organic and garden organic (FOGO) service. A SWAP study to determine the composition of kerbside organics has not been completed but is planned for the future. Based on current observations, the bins comprise primarily of garden waste (grass clippings, weeds, tree trimmings), with food waste estimated to make up approximately 5% of the volume.

Food waste continues to represent a significant portion of the material found in kerbside residual waste bins (see the SWAP study data in the Residual Waste subsection above), even among properties that also have an organics bin. This could be due to the 'ick' factor when disposing of food waste and the unwillingness of residents to dispose of unbagged food waste. Whilst plastic bags (even those labelled biodegradable or compostable) are not accepted in the organics waste bins, plain brown paper bags and newspaper used as liners are an option.



A kitchen food waste caddy trial is included in our options to meet future demand (Section 5.4) as well as one of our proposed targets for the draft WMMP (Section 4.3).

Uptake of the optional organics bin service in areas where it is offered has been increasing steadily over the years, with an average uptake of 39% in 2013 compared to an average of 53% uptake in 2022, and the tonnes of material collected has grown in line with this trend as shown in Figure 2-20.

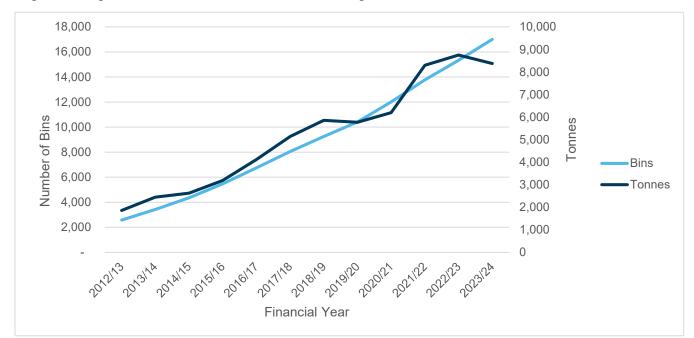


Figure 2-20: Organic Bins in Service vs Total Tonnes of Kerbside Organics

Organics Contamination

Contamination in kerbside organics remains a moderate issue. Currently, contaminants are manually removed by Pines RRP staff prior to shredding. Trials using a trommel for decontamination have been completed and were highly successful. Funding from MfE has been approved to support the purchase and commissioning of this equipment. The trommel is expected to be operational at the Pines RRP by the end of 2025.

As stated above, a SWAP study has not yet been completed on kerbside organics, but staff have observed that contamination mostly comprises of plastic bags (often labelled "compostable" or "biodegradable"), takeaway packaging such as coffee cups (also often labelled "compostable" or "biodegradable"), and items likely placed in bins unintentionally such as garden tools and dog toys.

2.5.2 Disposal and Diversion Infrastructure Quantities and Composition

The Pines RRP receives the bulk of residual waste in the district. For the purposes of this Waste Assessment, and as a result of the limited access to information from other disposal facilities outside of the district, this section will focus on those facilities within Council's control.

Pines Resource Recovery Park

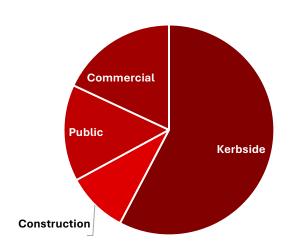
Four main streams of residual waste are received at the Pines RRP: kerbside, commercial, construction and demolition, and public. Three main streams of organic waste are received at the Pines RRP: kerbside, commercial and public.



Kerbside collections make up the largest portion of both residual and organic **tonnages** at Pines RRP. In contrast, public drop-offs contribute a relatively small proportion of the overall tonnage for both streams. In terms of the **number of transactions**, the public make up the majority of transactions for both residual and organic waste, reflecting the importance of the facility to the community.

Figure 2-21: Residual Waste Tonnes to Pines RRP by Source (2023/24)

Figure 2-22: Organic Waste Tonnes to Pines RRP by Source (2023/24)



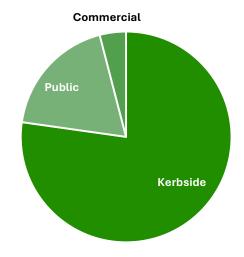
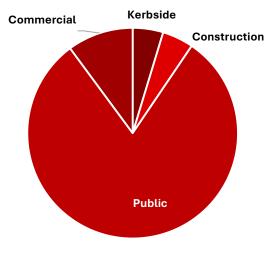
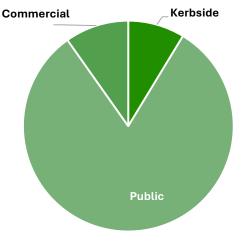


Figure 2-23: Residual Waste Number of Transactions at Pines RRP by Source (2023/24)

Figure 2-24: Organic Waste Number of Transactions at Pines RRP by Source (2023/24)







Recycling

Recyclables taken to the Pines RRP for recycling have a different composition to that of kerbside. This is primarily as a result of the cardboard and scrap metal received. The kerbside recycling service is limited in its ability to handle large volumes of cardboard and, in terms of metal, only accepts aluminium and steel cans.

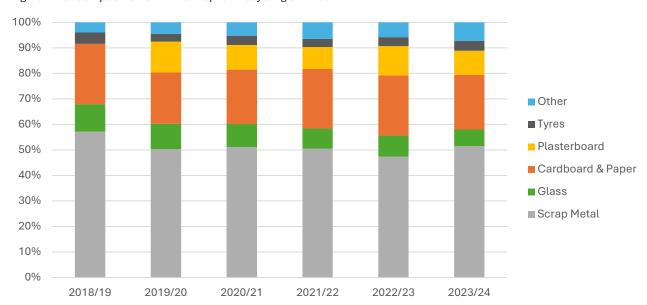


Figure 2-25: Composition of Public Drop-off Recycling at Pines RRP

Other includes plastics 1, 2 & 5, polystyrene, child car seats, e-waste and batteries

2.5.3 Data Knowledge Gaps

Council's confidence in the data captured for different waste streams varies between the quantity and composition of waste, as shown in Table 2-15 (**quantity** data) and Table 2-16 (**composition** data).

Table 2-15: Level of Confidence in the Capture of **Quantity** Data by Waste Stream

| | High | Medium | Low |
|--|------|--------|-----|
| Kerbside residual waste | ✓ | | |
| Kerbside recycling | ✓ | | |
| Kerbside organics | ✓ | | |
| Public residual waste taken to Pines RRP | ✓ | | |
| Public residual waste taken out of district | | | ✓ |
| Public recycling taken to Pines RRP | ✓ | | |
| Public recycling taken out of district | | | ✓ |
| Construction residual waste taken to Pines RRP | ✓ | | |
| Construction residual waste taken out of district | | | ✓ |
| Commercial residual waste from private contractors taken to Pines RRP | ✓ | | |
| Commercial residual waste from private contractors taken out of district | | | ✓ |
| Commercial recycling from private contractors taken out of district | | | ✓ |
| Hazardous waste taken to Pines RRP | ✓ | | |
| Hazardous waste from private contractors taken out of district | | | ✓ |
| Waste disposed of in farm pits or burned | | | ✓ |



Table 2-16: Level of Confidence in the Capture of Composition Data by Waste Stream

| | High | Medium | Low |
|--|------|--------------|-----|
| Kerbside residual waste | ✓ | | |
| Kerbside recycling | ✓ | | |
| Kerbside organics | | ✓ | |
| Public residual waste taken to Pines RRP | | ✓ | |
| Public residual waste taken out of district | | ✓ | |
| Public recycling taken to Pines RRP | ✓ | | |
| Public recycling taken out of district | | \checkmark | |
| Construction residual waste taken to Pines RRP | | ✓ | |
| Construction residual waste taken out of district | | \checkmark | |
| Commercial residual waste from private contractors taken to Pines RRP | | | ✓ |
| Commercial residual waste from private contractors taken out of district | | | ✓ |
| Commercial recycling from private contractors taken out of district | | | ✓ |
| Hazardous waste taken to Pines RRP | ✓ | | |
| Hazardous waste from private contractors taken out of district | | | ✓ |
| Waste disposed of in farm pits or burned | | √ | |

High Confidence Areas

- Quantity data confidence for all waste processed through the Pines RRP is high due to record keeping via the weighbridge system.
- Composition data confidence is high for the following:
 - o Kerbside residual waste: a recent SWAP study completed in 2022.
 - o Kerbside recycling: monthly audit reports provided by EcoCentral
 - o Public recycling taken to Pines RRP: each separate stream collected from Pines RRP by commercial recyclers is weighed out, in addition to monthly reporting from recyclers.
 - Hazardous waste taken to Pines RRP: all hazardous waste is sorted and recorded by staff at Pines RRP, in addition to monthly reporting from the hazardous waste collection company.

Medium Confidence Areas

- Public waste and recycling taken out of district are rated medium for both data sets. Although there's some understanding of the volume and expected composition (assumed to mirror Pines RRP).
- Kerbside organics is marked as medium for composition as no SWAP study has been completed.
- Commercial construction waste to Pines RRP is marked as medium for composition as no detailed study
 has been conducted, and the same for commercial construction waste taken out of district as it is expected
 composition would be largely the same.
- The composition of waste disposed of in farm pits or burned is marked as medium as we expect the composition to reflect NZ farm waste studies.

Low Confidence Areas

- A significant number of commercial waste streams taken out of district (both residual and recycling) are
 rated low confidence for both quantity and composition. These streams are largely managed by private
 contractors, outside of Council's direct oversight.
- Waste disposed of in farm pits or burned shows low confidence for quantity. This is consistent with the informal and unregulated nature of these disposal methods.

Overall, Council's confidence is highest where services are directly provided or managed (e.g., kerbside and at Pines RRP), and lowest where private contractors are involved, and waste is taken out of the district. This gap analysis highlights the need for better data-sharing arrangements, licensing, or reporting obligations. This is something to be addressed in the future through regulatory tools such as licensing requirements under the Council's Waste Management and Minimisation Bylaw.



3.0 Future Growth and Forecast of Demand

A Waste Assessment must contain a forecast of future demands for collection, recycling, recovery, treatment and disposal services within the district whether by Council or otherwise.

In the context of this Waste Assessment, a demand means a current or potential future need for waste or diverted material service in the district. This section contains a forecast of future demands covering the next 10 years for waste and diverted material services, infrastructure and programmes. For this reason, we have included 'future growth' within this section – growth directly affects demand.

3.1 Key Factors

Key factors influencing demand for waste and diverted material services are:

- Population growth, spread and household numbers.
- Tourism.
- Level of service expectations.
- Economy and Gross Domestic Product (GDP).
- Industrial and commercial growth and employment.
- Decisions by private waste collectors.
- Changes in consumption habits.
- Legislative changes.
- Changes in waste management approaches.
- Climate change
- Disaster waste management

3.1.1 Population Growth, Spread and Household Numbers

The population in Selwyn has continued to grow over the past 30 years, with an increased growth rate following the Canterbury Earthquakes (in 2010 and 2011). Over the past six years the population of the district has grown by 3,800 per annum, while the number of swellings consented has grown by 1,500 per annum.¹⁵

Selwyn's population has grown from 46,700 in 2013 to 79,300 in 2022. In the last 10 years there has been a 78.6% increase in population. ¹⁵

Looking ahead, projections indicate a continuous upward trajectory for the district's population. The estimate is set to reach 109,664 by 2034, representing an addition of 43,696 residents in the next 10 years.

As a high-growth local authority, the population of Selwyn District is expected to grow at or above the national population growth rate according to the projections of Statistics New Zealand (Stats NZ).

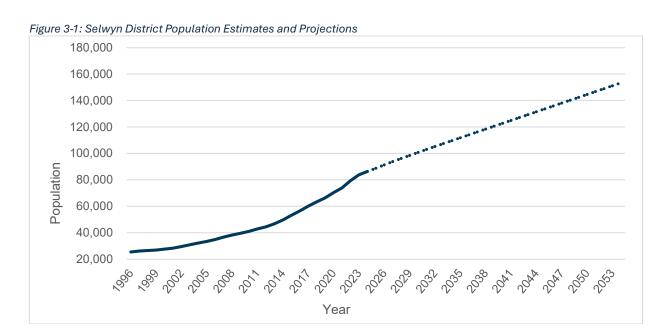
The following summarises key changes to population, household and dwelling numbers.

¹⁵ Selwyn District Council, *Growth and Demand Report*, Chapter 2 (June 2023)



Table 3-1: Township Population Growth Projection 2023-2034

| Township | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Arthurs Pass | 49 | 51 | 53 | 54 | 56 | 57 | 58 | 59 | 61 | 62 | 62 | 63 |
| Castle Hill | 64 | 70 | 76 | 82 | 87 | 92 | 96 | 101 | 105 | 109 | 113 | 117 |
| Coalgate | 390 | 399 | 408 | 416 | 425 | 433 | 442 | 451 | 459 | 468 | 477 | 483 |
| Darfield | 3,224 | 3,350 | 3,476 | 3,603 | 3,729 | 3,841 | 3,954 | 4,067 | 4,179 | 4,287 | 4,395 | 4,505 |
| Doyleston | 337 | 344 | 351 | 358 | 365 | 371 | 378 | 384 | 390 | 396 | 402 | 407 |
| Dunsandel | 497 | 513 | 529 | 546 | 562 | 578 | 593 | 608 | 624 | 639 | 654 | 669 |
| Glentunnel | 192 | 195 | 199 | 203 | 207 | 210 | 214 | 218 | 221 | 225 | 229 | 232 |
| Hororata | 259 | 276 | 293 | 310 | 326 | 343 | 360 | 376 | 393 | 409 | 426 | 441 |
| Kirwee | 1,047 | 1,081 | 1,114 | 1,147 | 1,180 | 1,212 | 1,244 | 1,277 | 1,309 | 1,341 | 1,372 | 1,397 |
| Lake Coleridge | 82 | 85 | 89 | 92 | 95 | 97 | 100 | 102 | 104 | 106 | 107 | 108 |
| Leeston | 2,515 | 2,570 | 2,626 | 2,681 | 2,737 | 2,784 | 2,831 | 2,878 | 2925 | 2,969 | 3,013 | 3,059 |
| Lincoln | 10,060 | 10,438 | 10,817 | 11,195 | 11,574 | 11,922 | 12,269 | 12617 | 12,964 | 13,302 | 13,639 | 13,978 |
| Prebbleton | 5,392 | 5,523 | 5,655 | 5,786 | 5,917 | 6,032 | 6,148 | 6,263 | 6,379 | 6,489 | 6,599 | 6,691 |
| Rakaia Huts | 186 | 187 | 188 | 189 | 190 | 191 | 191 | 192 | 193 | 194 | 195 | 195 |
| Rolleston | 30,465 | 31,363 | 32,261 | 33,160 | 34,058 | 34,861 | 35,665 | 36,468 | 37,271 | 38,043 | 38,814 | 39,597 |
| Sheffield | 220 | 228 | 235 | 242 | 250 | 257 | 264 | 271 | 278 | 286 | 293 | 299 |
| Southbridge | 1,075 | 1,111 | 1,147 | 1,184 | 1,220 | 1,255 | 1,290 | 1,325 | 1,361 | 1,396 | 1,430 | 1,460 |
| Springfield | 377 | 393 | 410 | 426 | 443 | 459 | 475 | 491 | 507 | 523 | 540 | 555 |
| Springston | 484 | 490 | 496 | 502 | 508 | 513 | 519 | 524 | 530 | 535 | 541 | 545 |
| Tai Tapu | 747 | 777 | 806 | 835 | 864 | 892 | 919 | 946 | 974 | 1,000 | 1,027 | 1,053 |
| Waddington | 152 | 155 | 157 | 160 | 163 | 166 | 168 | 171 | 174 | 176 | 179 | 181 |
| West Melton | 2,744 | 2,865 | 2,986 | 3,108 | 3,229 | 3,343 | 3,458 | 3,572 | 3,687 | 3,799 | 3,912 | 4,036 |
| Whitecliffs | 230 | 235 | 241 | 246 | 252 | 257 | 263 | 268 | 274 | 279 | 285 | 289 |
| Rest of the District | 22,993 | 23,611 | 24,230 | 24,849 | 25,468 | 26,026 | 26,584 | 27,142 | 27,700 | 28,237 | 28,775 | 29,304 |
| Total District | 83,780 | 86,311 | 88,842 | 91,373 | 93,904 | 96,193 | 98,483 | 100,772 | 103,061 | 105,270 | 107,479 | 109,664 |



The updated projections which use the Stats NZ 2022 base year have Rolleston achieving the status of city around 20,501. This means that Rolleston by 2050 would be comparable to present day small cities of Rotorua, Nelson, Invercargill, Whangārei, Whanganui and Hastings. Rolleston is projected to receive around 38% of the Selwyn District's total population between 2022-2034.

Strong growth is projected for all of the townships in the Greater Christchurch portion of the district. Lincoln is project to grow a population of just over 20,000 by 2054 which is comparable to Rolleston in 2019. Lincoln is projected to receive around 15.8% of the Selwyn District's total population between 2022-2034. Prebbleton is projected to grow to a population of 8,525 which is comparable to present day Lincoln. Prebbleton is projected to receive around 4.7% of the Selwyn District's total population between 2022-2034. West Melton and Darfield are projected to each receive around 4.6% of the Selwyn District's total population between 2022-2034.



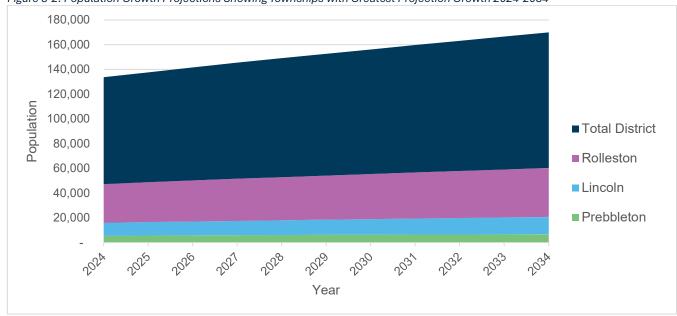


Figure 3-2: Population Growth Projections Showing Townships with Greatest Projection Growth 2024-2034

The growth of the Selwyn District has meant there has been a rapid increase in residential development activity. The significant increase in housing demand within the district, has resulted in in significant urban expansion, particularly in the larger townships.

The SCGM (Selwyn Capacity for Growth Model) estimated that there are 30,559 dwellings in the Selwyn district in 2022. An increase of over 6,156 dwellings since 2018. It is projected that the number of dwellings will continue to increase to 42,617 in 2034 which represents an additional 12,058 dwellings in the next ten years.

The district's household size is about 2.86, with higher sizes in larger townships. For example, Rolleston and Prebbleton are 3.0 and 3.1 respectively, whilst household sizes in Leeston and Darfield are 2.9 and 2.5 respectively.

Table 3-2: Township Dwelling Number Growth Projection 2023-2034

| Township | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Arthurs Pass | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 41 |
| Castle Hill | 63 | 65 | 68 | 70 | 72 | 74 | 75 | 77 | 78 | 80 | 81 | 83 |
| Coalgate | 155 | 158 | 162 | 165 | 169 | 172 | 176 | 179 | 182 | 186 | 189 | 192 |
| Darfield | 1,345 | 1,395 | 1,445 | 1,495 | 1,545 | 1,592 | 1,639 | 1,686 | 1,732 | 1,778 | 1,824 | 1,871 |
| Doyleston | 125 | 128 | 130 | 133 | 136 | 139 | 141 | 144 | 146 | 149 | 151 | 153 |
| Dunsandel | 171 | 177 | 183 | 189 | 196 | 202 | 207 | 213 | 219 | 225 | 231 | 237 |
| Glentunnel | 81 | 82 | 84 | 85 | 87 | 88 | 90 | 91 | 93 | 94 | 96 | 97 |
| Hororata | 88 | 94 | 101 | 107 | 113 | 119 | 126 | 132 | 138 | 144 | 151 | 157 |
| Kirwee | 395 | 408 | 421 | 434 | 446 | 459 | 471 | 484 | 497 | 509 | 522 | 533 |
| Lake Coleridge | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 |
| Leeston | 932 | 954 | 976 | 998 | 1,020 | 1,040 | 1,059 | 1,079 | 1,098 | 1,117 | 1,136 | 1,155 |
| Lincoln | 4,051 | 4,201 | 4,352 | 4,502 | 4,652 | 4,797 | 4,942 | 5,086 | 5,231 | 5,373 | 5,516 | 5,661 |
| Prebbleton | 1,821 | 1,874 | 1,926 | 1,978 | 2,030 | 2,078 | 2,126 | 2,174 | 2,222 | 2,269 | 2,315 | 2,354 |
| Rakaia Huts | 67 | 67 | 68 | 68 | 69 | 69 | 69 | 70 | 70 | 70 | 71 | 71 |
| Rolleston | 10,839 | 11,196 | 11,553 | 11,910 | 12,267 | 12,601 | 12,935 | 13,269 | 13,603 | 13,930 | 14,256 | 14,591 |
| Sheffield | 79 | 82 | 85 | 88 | 90 | 93 | 96 | 99 | 102 | 105 | 107 | 110 |
| Southbridge | 371 | 384 | 398 | 412 | 426 | 439 | 453 | 466 | 480 | 493 | 507 | 519 |
| Springfield | 135 | 142 | 148 | 154 | 161 | 167 | 174 | 180 | 186 | 193 | 199 | 205 |
| Springston | 184 | 187 | 189 | 191 | 193 | 195 | 197 | 199 | 201 | 203 | 205 | 207 |
| Tai Tapu | 255 | 266 | 277 | 288 | 300 | 310 | 321 | 331 | 342 | 353 | 363 | 374 |
| Waddington | 54 | 55 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 |
| West Melton | 923 | 971 | 1,019 | 1,068 | 1,116 | 1,163 | 1,211 | 1,259 | 1,307 | 1,354 | 1,402 | 1,455 |
| Whitecliffs | 89 | 91 | 94 | 96 | 98 | 100 | 102 | 105 | 107 | 109 | 111 | 113 |
| Rest of the District | 9,660 | 9,911 | 10,161 | 10,411 | 10,662 | 10,900 | 11,139 | 11,378 | 11,616 | 11,851 | 12,085 | 12,310 |
| Total District | 31,982 | 32,988 | 33,994 | 34,999 | 36,005 | 36,957 | 37,909 | 38,862 | 39,814 | 40,748 | 41,682 | 42,617 |



3.1.2 Tourism

Selwyn has a robust visitor and tourism offering that is spread throughout the district and relies heavily on natural capital. Tourism is a significant industry supported and encouraged by the Council. Tourist numbers have continued to grow nationally and within the Canterbury region.

Tourism is a dynamic and multifaceted industry that faces uncertainty, changing global trends and shocks. Nationally, there is considerable uncertainty about when, if ever, international tourism will return to pre-pandemic levels. Tourism forecasts which provided expectations on future tourism demand has ceased since the pandemic due to the challenge of forecasting with such uncertainty and lack of data.

Visitor spending has shown significant improvement on pre-pandemic levels and throughout the COVID-19 pandemic and was proven to have rebounded quickly in response to restrictions and public health containment measures. As with the national experience, Selwyn experienced a sharp downturn in international visitor spending in early 2020, with a slow sustained recovery from 2021 onwards.

Tourism contributes to the demand placed on Resource Recovery and Waste services within the district, with additional waste generated during peak times in the smaller settlements such as Arthur's Pass, Castle Hill, and Lake Coleridge, which are popular places for holiday homes and recreational facilities.

3.1.3 Level of Service Expectations

Expectations around the level of service in New Zealand have increased and continue to increase. This appears to be driven by larger influences in society around the ability to purchase items on credit, the rise of internet shopping, and the ability to have most goods or services instantly or within a very short timeframe, even from the other side of the world. There is a growing intolerance to wait for goods or services. Social media provides the ability to compliment or complain about anything and to have an audience to listen and share their own experiences. Comments on social media can tend towards negativity in relation to Council services, but this appears to be a small but vocal minority.

Apart from society's general increased level of expectations, there are local drivers for increased expectations. This relates to residents who have moved to the area from an urban area such as Christchurch. In cases where residents have moved to a lifestyle block or rural area, there may not always be a kerbside collection service (as well as other services such as reticulated sewer or fibre internet connection), or they may find the distance to the Pines RRP is further than they are used to.

The range of items that are accepted for recycling through the kerbside system is at times perceived by the public to be limited. Acceptability criteria is not within Council's direct control. As the service provider, Council is constrained by recycling processors, the wider recycling commodity markets, export restrictions, and more recently by national standardisation of kerbside materials. The standardisation of kerbside materials in 2024 required Council to stop accepting kitchen and bathroom aerosol containers in kerbside recycling, as well as no longer allowing cardboard or paper in kerbside organics (except in cases where it is used to line the bin). At the time of writing there has been no noticeable impact on waste volumes or contamination levels within recycling. The community by and large appear to have implemented the changes, with minimal complaints.

Few options for recycling are available onshore within New Zealand due to our distance to large population centres and a limited manufacturing and market base.

Some items not able to be recycled through the kerbside system can be dropped off at Pines RRP. The Resource Recovery and Waste Team are actively exploring options to expand the items accepted, where options are available, and time and resources allow.



3.1.4 Economy and GDP

Waste is an undesirable, yet currently unavoidable, byproduct of increased economic activity.

In general, landfill waste quantities are linked to the economy (GDP). When GDP increases, there is a corresponding increase in waste produced. This correlates to increased consumption, manufacturing, importation of goods and provision of services. Waste volumes rise as a result of the increased activity. Significant improvements in reducing waste at source through design, and ability to reuse items and then recycle waste when the product is at the end of its useful life are the key methods in order to reduce the correlation between GDP and waste.

The Selwyn economy continues to experience strong growth and outperform the rest of the country. Over the last decade Gross Domestic Product (GDP) has grown on average of 5.3% per annum compared with an average of 3% per annum in the national economy. Infometrics' provisional estimate for Selwyn's GDP for the year to March 2023 (2022 prices) is \$3,507 million. The Selwyn economy is outperforming the rest of the country. ¹⁶ Selwyn saw its GDP and employment grow faster than the national average and this in turn led to higher productivity and household incomes.

Council would normally expect the positive GDP growth and outlook to increase the commercial waste tonnes received at Pines RRP. However, because of the reasons outlined in Section 2.5.2, this does not appear to be the case. Household waste per capita is not increasing in line with GDP, however this is also affected by population estimate revisions and potential changes in waste composition (e.g. light weight plastic packaging).

GDP increases may be more associated with growth in commercial waste tonnes, however the availability of comprehensive data on waste trends in New Zealand is still relatively limited.

Inflationary pressures over the last few years have impacted household spending, resulting in reduced purchasing and consumption. This could reasonably be expected to flow through to reduced waste volumes on a per capita basis.

3.1.5 Industrial and Commercial Growth and Employment

Industrial and commercial growth has an ongoing influence on commercial waste volumes received at Pines RRP.

Selwyn's population growth is fuelled by migration of a particular demographic, which has led significant gains in the working-age population. Economic growth can come from growth in inputs (such as labour and capital) or from producing more with the same inputs (productivity growth). For the Selwyn District population growth has been a strong driver of economic growth in terms of total economic output due to the increase in the labour input. In addition to GDP, economic growth has also been measured by employment or filled jobs has increased from around 16,700 jobs in 2012 to over 25,000 jobs in 2022 (around 50% increase in the last ten years).

Employment is projected to increase by an additional 9,314 jobs from 25,524 jobs in 2022 to 34,838 in 2034.

Selwyn has a flourishing business environment, with a high rate of business start-ups and a low business death rate. In the last 10 years, the number of businesses in the district has increased by almost 40% from 5,685 in 2012 to 7,929 in 2022. Since 2012, there has been a significant increase in demand for commercial land, leading to new commercial developments and expansions of existing centres. Industrial areas have greatly expanded due to Council's proactive approach to provide industrial land in a well-connected location which attracted businesses to relocate from Christchurch City following the Christchurch Earthquake Sequence. This industrial specialisation is a comparative advantage of the Selwyn District.

¹⁶ Selwyn District Council, *Growth and Demand Report* (June 2023), Chapter 4



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Selwyn District's proximity to Christchurch as well as the railway links and major State Highway 1 improvements provides an attractive destination for commercial and industrial activity and strong demand for commercial land within the district is continuing. This in turn drives local demand for goods and services, and subsequently waste generation.

The rapid growth in Selwyn District is underpinned by strong employment opportunities. Originally these have been in the agricultural sector, Lincoln University and research centres, as well as commuting to Christchurch City. The Izone development and other initiatives have meant there are more opportunities within the district.

Major employer sectors or industries in the district include:

- Agriculture.
- Dairy processing Fonterra, Synlait, Westland Milk all have large plants in Selwyn.
- Commercial and industrial (e.g. The Warehouse's distribution centre).
- Department of Corrections facilities.
- Forestry.
- Education and Local Government.
- NZ Defence Force (Burnham Military Camp).
- Various small to medium industry (e.g. Meadow Mushrooms).
- Retail, hospitality and service-related businesses.

The recent commercial growth including supermarkets, hospitality, gyms, and recreation facilities in Selwyn has not increased commercial tonnes received at Pines RRP, as a significant proportion of this waste appears to still be taken to Christchurch for disposal.

3.1.6 Decisions by Private Waste Collectors

As commercial and industrial activity grows in the district, particularly in Rolleston, private commercial waste collectors may increasingly find it is beneficial to route their collection vehicles in a way that will enable them to dispose of waste in Christchurch as opposed to at Pines RRP. The reason for this is the ability to dispose of waste at a lower rate per tonne at a commercial only transfer station in Christchurch than what is offered at Pines RRP. Though the public rate at the Pines RRP is less expensive than in Christchurch City, the Pines RRP does not offer discounted a commercial rate for higher volume customers. The southern motorway improvements have reduced drive times between Christchurch and Rolleston, adding further incentive to tip in Christchurch.

This is considered to be behind observed downward trend of commercial tonnages received at the Pines RRP (see Figure 3-3). This decreasing trend is expected to continue because of the reasons stated above.

Pines RRP receives an unknown proportion of the residential construction waste generated from district housing stock growth. Construction waste tonnes received at Pines RRP has fluctuated over the last few years as shown in Figure 3-3.



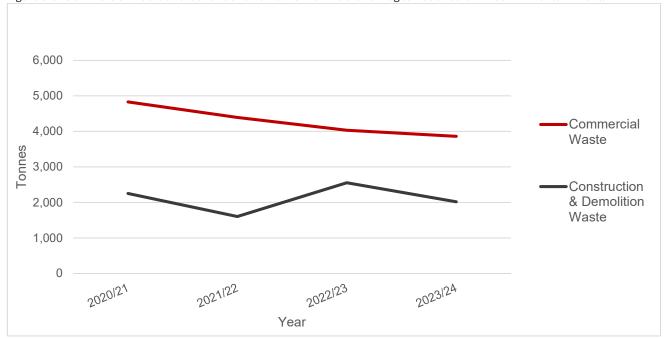


Figure 3-3: Commercial Waste and Construction & Demolition Waste Tonnages Received at Pines RRP 2020/21-2023/24

3.1.7 Changes in Consumption Habits

Changes in technology (for example smart phones, social and news media platforms) are contributing to a global reduction in newsprint consumption. This has flow on effects to the composition of kerbside recyclables.

Other consumption trends are influenced by the marketing of consumer goods. For example, trends towards bottled beer, or towards tap beer can affect the volumes of glass in the general waste or in recycling collected. Marketing promotions may result in changes to packaging materials, affecting their ability to be recycled.

It is evident from kerbside residual waste and diverted material (organics and recycling) quantity data presented in this report are increasing, however kerbside recycling tonnages and kerbside residual waste tonnages are staying relatively static (see Section 2.5.1).

The additional kerbside recycling bin numbers deployed each year are high, but with no corresponding increase in recycling tonnages collected. This is a result of the changing packaging trends for our goods. For example, paper and plastics have both decreased as percentages of total weight in recycling collected. It could be reasonably expected that online shopping trends will persist and therefore packaging associated with courier deliveries would continue to make up a large amount of household waste and recycling.

With the rise in popularity of cheap, low-quality goods available online (e.g. Temu, Shein), these items would invariably to be expected to contribute to household waste and overall disposal to landfill.



3.1.8 Legislative Changes

Legislation is discussed in more detail in Section 1.1.

Of all existing legislation that could influence demand for waste services or infrastructure, the waste levy administered under the Waste Minimisation Act (WMA) 2008 has one of the most significant potential and probability of any legislation to have an impact in the waste sector. This is because it disincentivises disposal to landfill (due to higher costs), and it generates significant funding for waste minimisation related activities and infrastructure. As the levy costs increase, alternatives to final disposal become more economically viable. The effect of changes to the waste levy are likely to drive increased affordability and uptake of products or services that minimise waste to landfill and provide a fund for waste minimisation activities and infrastructure.

From January 2021, new control procedures for the export and import of plastic waste under the Basel Convention came into effect. This followed the Chinese government's ban on the import of many types of recycling materials. This particularly effected postconsumer mixed plastics streams. In May 2020, EcoCentral (the recycling processing facility which handles kerbside waste from Selwyn as well as other neighbouring Canterbury councils) stopped being able to accept plastics numbered 3, 4, 6 and 7. This was a relatively small proportion of the recycling materials collected kerbside (an average of 4.5% of the total weight at the time). Beginning in October 2022, the Ministry for the Environment had begun phasing a ban on packaging products made from these types of plastic.

The Government Waste Work Programme will also have an effect on how the Resource Recovery and Waste Activity is managed in the coming years. This includes:

- National Data Framework.
- CRS.
- Waste Levy review.
- Phasing out some single use plastic items.
- Standardising kerbside recycling criteria.
- Product stewardship.
- Investment in recycling infrastructure.

As of July 2021, Central Government have been progressively increasing the waste disposal levy for municipal waste landfills (Class 1) over four years. In 2024 this was expanded further.

Table 3-3: Waste Levy Charges per Tonne by Landfill Class 2021-2027

| Facility Type | 1 July 2021 | 1 July 2022 | 1 July 2023 | 1 July 2024 | 1 July 2025 | 1 July 2026 | 1 July 2027 |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Municipal Waste (Class 1) | \$20 | \$30 | \$50 | \$60 | \$65 | \$70 | \$75 |
| Construction and Demolition (Class 2) | - | \$20 | \$20 | \$30 | \$35 | \$40 | \$45 |
| Managed and Controlled Fill (Class 3 and 4) | - | - | \$10 | \$10 | \$15 | \$15 | \$20 |

In 2023, central government amended the WMA to broaden the scope of how the waste disposal levy is spent, enabling the Minister for the Environment to approve projects that provide for the remediation of contaminated sites, including landfills vulnerable to severe weather impacts (Tahua mō ngā Pae Hawa me ngā Ruapara | Contaminated Sites and Vulnerable Landfills Fund). It also added provisions to allow local authorities to request additional funding to manage emergency waste and to repair or replace waste management and minimisation infrastructure damaged by an emergency.



In 2020, central government declared six priority products for regulated product stewardship under the WMA:

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

When a priority product is declared, a product stewardship scheme must be developed and accredited.

At the time of writing, MfE have made the following progress on the six priority products:

- Plastic packaging phased bans of certain single use plastic items began in October 2022 and will continue until 2025. A timeline for accreditation and consultation on regulations has not been confirmed.
- Tyres tranche one and tranche two of Tyrewise (the accredited product stewardship scheme for tyres) have been in operation since 1 March 2024 and 1 September 2024 respectively.
- E-waste consultation on regulations is expected in 2025.
- Refrigerants proposed regulations were consulted on in late 2022, and the Cool-Safe Product Stewardship Scheme was accredited in 2024. At the time of writing, regulations are not yet in place.
- Farm plastics the Green-farms Product Stewardship Scheme was accredited in 2024 and will initially focus on agrichemical containers, bale wrap and silage sheets, small seed and feed bags, and large fertiliser sacks.

It is also noteworthy that in December 2024, the government announced the cancellation of several waste minimisation initiatives, including plans to enhance recycling, introducing compulsory kerbside food scraps composting, data reporting for commercial household recycling providers, and diversion targets.

3.1.9 Changes in Waste Management Approaches

A number of different drivers are present that influence the approaches taken to manage waste. These could include:

- Technological advances in recyclability and waste minimisation techniques (such as sorting machinery or the pyrolysis of timber, plastics and tyres).
- Product stewardship schemes.
- Regulation, local policies and bylaws.
- Increased landfill costs.
- Landfill levy expansion.
- Recyclable commodity market fluctuations and global economic activity.
- Political party in government.

3.1.10 Climate Change

Climate change is expected to have both direct (e.g. extreme weather events creating sudden increases in waste volume) and indirect (effects on society, behaviour, the economy, and regulation) impacts on the demand for waste and diverted material services within the district.



Extreme weather events such as flooding, high winds, and drought are projected to increase in frequency and intensity¹⁷. These events can generate large volumes of debris and damaged infrastructure that place sudden pressure on waste facilities. Emergency clean-up operations often result in increased residual waste tonnages requiring rapid collection, consolidation, and disposal. At the same time, recovery of recyclable or reusable material may be limited in disaster scenarios, reducing diversion.

Transfer stations, landfills, and recycling facilities may be exposed to flooding, high winds, or fire risk, as well as road damage that may disrupt regular collection services to some communities. Planning resilient infrastructure and services is essential to maintain operations during climate change related events.

Climate change can also influence consumption and disposal behaviour. Factors such as property damage, rising costs from supply chain disruptions, and energy cost increases may encourage households and businesses to buy less, choose reusable or repairable goods, and adopt more sustainable behaviours. Greater public awareness of climate change impacts may also drive shifts toward local, low-waste, and circular economy practices.

Local and national policy responses to climate change such as emissions reduction targets and circular economy strategies are likely to affect demand for waste and diverted material infrastructure and services, particularly in diversion of organic waste from landfill. Landfills can be a significant source of methane emissions, and reducing the quantity of biodegradable material disposed of will be an important step to meeting climate commitments. This is likely to increase pressure on Council to expand existing diversion services.

3.1.11 Disaster Waste Management

Extreme weather events or major earthquakes like the Alpine Fault rupture, affects demand for waste and diverted material services and infrastructure. Large volumes of demolition waste, damaged property, and construction waste can quickly exceed normal collection and disposal capacities, placing pressure on transfer stations, landfills, and recycling facilities. Waste generated as a result of these events can be contaminated and have public health implications. Contingency planning will help to ensure that there is sufficient capacity, safe handling and storage of waste, and continuity of services.

Disaster waste planning also requires flexible collection systems, temporary storage solutions, and staff preparedness.

A draft Disaster Waste Management Plan was developed in 2022. Work at national and regional levels is currently ongoing.

3.2 Future Demand and Quantities

The following section outlines the forecast future demands on Council's Resource Recovery and Waste services and infrastructure resulting from the key factors discussed in the previous section.

Short to medium term growth in refuse volumes is affected by a combination of population growth and the prevailing economic environment. While population growth is a recognised tool used in many areas to forecast future growth, the prediction of future economic environments is less predictable.

¹⁷ Bodeker, G., Cullen, N., Katurji, M., McDonald, A., Morgenstern, O., Noone, D., Renwick, J., Revell, L. and Tait, A. (2022). *Aotearoa New Zealand climate change projections guidance: Interpreting the latest IPCC WG1 report findings*. Prepared for the Ministry for the Environment, Report number CR 501, 51p.



Figure 3-4 presents predicted waste and diverted material quantities in a status quo scenario based on the following:

- the assumption that the quantity of total residual waste will continue to grow at current rates, aligned with population growth projected in the Selwyn District Council Growth Modelling 2023;
- exclusion of the outliers for the effects of the COVID-19 pandemic on tonnes to landfill when calculating historical trends;
- the assumption that kerbside collection services remain accessible to approximately 96% of the district's households, noting that most growth is anticipated in areas currently serviced, or able to be serviced under current operations;
- predicted quantities are based on current dwelling numbers, with growth rates calculated based on the Selwyn District Council Growth Modelling 2023; and
- the assumption that commercial and construction waste volumes will continue to be disposed of at Christchurch transfer stations for the most part.

The Effect of Waste Minimisation Activities

The projections in

Figure 3-4 consider the waste minimisation effects of increasing costs for landfill disposal.

Because the below points are unable to be sufficiently quantified at this early stage, the projections do not factor in:

- promotion of home composting for households unable to access the organics kerbside collection service;
- the recent opening of the ReUse Shop and salvage yard potential at Pines RRP (expected to be <1,000 tonnes per annum);
- construction waste sorting and recovery at Pines RRP;
- other waste minimisation activities such as education and communication;
- increasing public environmental awareness; and
- emergence of new technologies or the ability to recover additional materials from residual waste.

The cumulative effects of these factors are expected to maintain, or potentially decrease, the current levels of residual waste per capita and increase the quantities of diverted waste. The potential impact is very difficult to quantify, especially in view of the construction activity within the district, decisions by private waste providers as to disposal locations, and the already relatively high kerbside diversion rates.

Figure 3-4: Projected Residual Waste and Diverted Material Quantities 50.000 180.000 45,000 160.000 40.000 140.000 35,000 120.000 30,000 Waste to 100.000 Landfill 25,000 80.000 Ē20,000 Diverted 60,000 Material 15,000 40,000 10,000 · · · Population 20.000 5,000



3.2.1 Demand on Collection Services

Kerbside Residual Waste, Recycling and Organics Collections

The kerbside collection service is funded on a user-pays basis and can accommodate growth by adding bins and collection trucks as required. Kerbside Collection Contract 1144 (expiry June 2029) has generous assumed growth levels included to allow for this.

Increasing expectations from rural residents for an urban level of service (bin collection at gate) places increased demand regarding 'dead running' time between less dense housing areas. This has the potential to marginally increase the collection cost per bin. Not all roads, however, are suitable for kerbside collection vehicles. These are assessed on a case-by-case basis. Solutions can include investigating route extensions or additional drop off points. Part of the solution is to manage the expectations of residents in these areas.

The projected bin numbers in Figure 3-5 were calculated based on a combination of projected household numbers incorporating recent trends. Larger 240 litre rubbish bins are projected to move from 'plateauing' to a decrease, in favour of a smaller 80 litre rubbish bin combined with a 240 litre organics bin. This option is priced more favourably to encourage increased diversion.

If Council were to move to a fortnightly waste collection service, the number of 240 litre waste bins would likely rise, not fall. This has not been accounted for in this report.

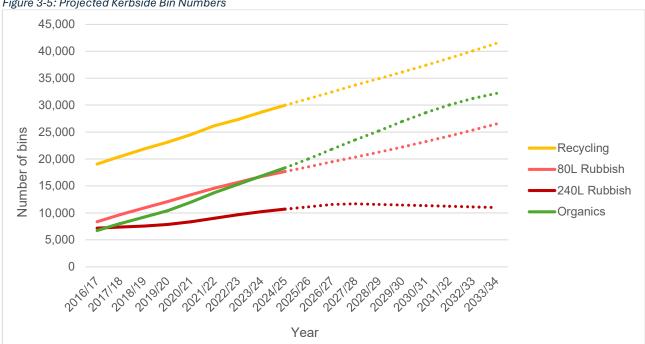


Figure 3-5: Projected Kerbside Bin Numbers

Kerbside recycling tonnages have remained static over the last few years (as discussed in Section 2.5.1) and are expected to continue to remain as such. While the year-on-year percentage change of organic tonnages have fluctuated between -5% to +25%, as gardens mature, we expect that growth will become steadier, unless organic bins become mandatory. Growth in residual waste tonnes have been reasonably consistent (excluding 2020-2021 during the COVID-19 Alert Level 4 lockdowns) and this pattern is expected to continue.



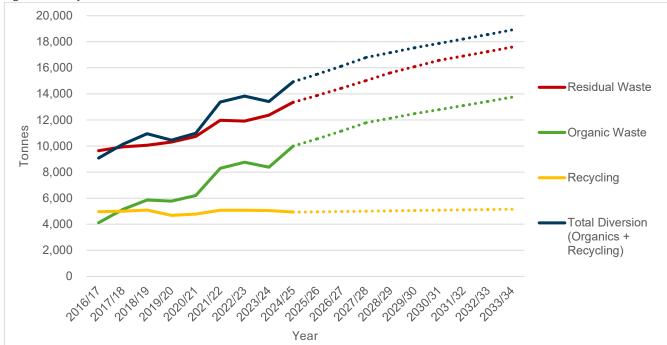


Figure 3-6: Projected Kerbside Tonnes

Kerbside Recyclable Materials

The current contractual arrangement between Council and EcoCentral Ltd is in place until June 2029. This agreement covers the processing and marketing / sale of recyclables from kerbside collection and is flexible enough to meet future forecast demand. At the time of writing, the plant is not operating 24/7, and additional shifts could be added if required. Commodity markets for recyclable materials are volatile and future demands for the collected materials are expected to continue to fluctuate, as will the processing costs.

Material quality is a significant factor in market demand; however, the key driver is the global economy, and Asian economies in particular. Increasingly strict regulation in China has impacted the ability to send recyclables to manufacturing plants there. To meet the more stringent requirements, EcoCentral have recently upgraded their facility and sorting machinery in order to produce higher quality (less contaminated) product. Council also conducted an on-street audit of recycling bins in 2020 which had a significant effect on reducing rejected loads and general contamination levels.

Contamination levels (Section 2.5.1) have been trending downwards, with auditing of bins occurring periodically on a localised and as required basis.

These measures, as well as the recent standardisation of kerbside recycling materials, are expected to ensure continued access to viable end markets locally and internationally.

Collection from High Country Villages

The Arthur's Pass / Castle Hill frontload refuse truck has somewhat limited capacity to cater for increasing demand on the current fortnightly collection cycle, particularly in summer. The installation of recycle stations in Arthur's Pass in 2017/18, and in Castle Hill in 2020, has diverted recyclable material from residual waste bins, easing volumes to some degree. Peak times for issues are around long weekends. More frequent rubbish collections are pre-emptively scheduled over long-weekends and the summer holiday period.

At the time of writing the refuse collection methodology for Lake Coleridge is under review.



Residual Waste and Recycling Collection from Public Litter Bins

The current capacity for collecting residual waste and recyclables from public litter bins is sufficient and additional capacity can be added when required.

It should be noted that the bulk of additional public litter bins tends to be in parks and reserves and therefore managed by the Council's Community Facilities department.

At the time of writing, there is work underway to evaluate the possible transfer of all litter bins to the Community Facilities department. This would mean all public litter bins are managed under the same contract - reducing confusion, misallocation of service requests, and improved levels of service able to be achieved as a result of more collection frequency flexibility than the kerbside service can offer.

High levels of contamination in public recycling litter bins continues to be an issue. There is an expectation by the public to have recycling litter bin options, but the high levels of contamination jeopardise the service.

3.2.2 Demand on Disposal and Diversion Infrastructure

Residual Waste

The residual waste compactor at Pines RRP had an original estimated maximum processing ability of 30,000 tonnes per annum. Based on this the compactor is currently at approximately two-thirds of expected maximum capacity. According to current residual waste projections this would be reached by approximately 2035. The existing residual waste compactor is expected to require replacement for end-of-life reasons in approximately 2027/28 (after a recent refurbishment in 2024). An assessment of replacement options will be done closer to this time in conjunction with a redesign of the rubbish receival area.

The operating hours for the Pines RRP were increased on weekends and public holidays in 2019. Now the Pines RRP is open to the public Monday to Sunday from 9am - 4:30pm, closing only on New Year's Day, Good Friday and Christmas Day.

Projects such as the ReConnect Project have the potential to offset some of the projected growth in residual waste tonnes, prompting and improving waste minimisation and diversion.

Cartage of residual waste from Pines RRP to Kate Valley Landfill is through Waste Management New Zealand Ltd and is covered for a 20-year period (ending 2025) under an agreement between the Council and Transwaste Canterbury Ltd. At the time of writing Council is expected to shortly engage in contract extension discussions. Waste Management replace and add vehicle fleet and compactor bins as required to meet forecast demand.

Kate Valley Landfill services Ashburton, Selwyn, Christchurch, Waimakariri and Hurunui Districts as well as some private transfer stations. The landfill is consented to operate until 2040. It is therefore concluded that the Council has no issue with landfill capacity over the period covered by this Waste Assessment. It is expected that an application for consent after 2040 will be sought as the site has sufficient future options to pursue.

Emerging technologies such as pyrolysis and gasification have not currently materialised in New Zealand, however there are waste to energy plants attempting to obtain resource consents in Waimate and in Manawatu. There are conflicting views on these types of technology across the country and sector. Should an alternative option to landfilling residual waste be available within a viable distance from Selwyn, Council would evaluate the technology compared with continuing to landfill waste.



Recyclable Materials

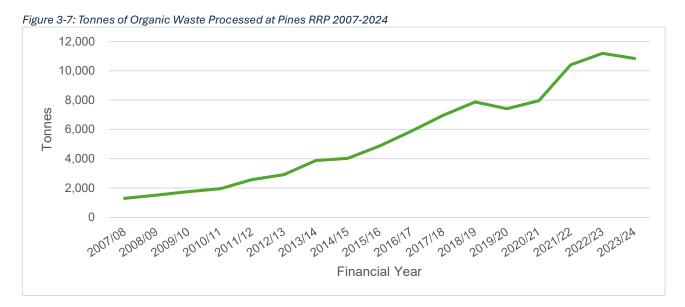
Following upgrades to the recycling area and addition of a large, long recycling canopy in 2020, Pines RRP has adequate capacity to accept, store and transfer public drop-off recyclables and to accommodate increasing quantities of materials during peak periods and with future population growth. If market demands for further source separation of recyclables increase, the RRP has sufficient space and flexibility to accommodate any change. Developments within the ReConnect Project (such as the recycling canopy) have been intentionally kept flexible to accommodate future changes. Reuse options have been provided with the recently opened ReUse Shop.

The site is sufficiently large and appropriately established to cater for the district's resource recovery activities for the foreseeable future.

Additional options for recycling (e.g. Terracycle, bottlecaps, PVC / HDPE pipes, plant pots) are being investigated for Pines RRP and is included as a proposed target for the draft WMMP.

Organic Waste

On average the organics tonnes received at Pines RRP have historically grown by an average of 12% per annum however more recently the annual tonnages have been erratic. This appears to be linked to significant variation in the seasonal rainfall over the last 5 years.



Aside from COVID-19 variances in tonnages, the amount of organic waste is dependent on weather. Organic bin growth has remained steady (an average of 15% per annum for the same time period). Extremes in weather patterns are expected to continue as a result of climate change.

In 2020 a large concrete pad was constructed onsite to become a new organics shredding and processing area. This, along with a consent variation in 2018, enables Council to have sufficient capacity for predicted growth beyond 2044.

In December 2023 Christchurch City Council announced they had awarded the processing of Christchurch City's organic waste to EcoGas Ltd. EcoGas are proposing to construct a Regional Composting Facility in Hornby to replace the city's existing composting facility located in Bromley. It was announced that the facility is expected to be operational by late 2026. Impacts of this for Selwyn's organic waste has not been considered in forecasts at this stage.



Hardfill / Cleanfill

There are no forecast capacity restrictions on disposing of cleanfill. There is still significant space available, especially at the Springston Pit site. The remaining capacity of the Council's other gravel pit sites is not fully known and will be assessed in conjunction with Council's Community Facilities department. A number of these have been leased to third parties.

The application of a waste levy (\$10 per tonne, with an increase to \$15 per tonne from 1 July 2025) to hardfill material disposed of to land is expected to drive increased diversion of this material (for example concrete crushing and increased recovery of asphalt millings). There are no anticipated capacity issues arising from this.

Community Recycling Drop-off Days

It is expected that demand will increase for the Community Recycling Drop-off Days held in Ellesmere and Malvern. These events initially started only for garden waste and have expanded to allow additional recyclable materials for drop-off as well as "bulky waste" (i.e. items too large for residential wheelie bins such as furniture) in effect making these events "pop-up" transfer stations. Currently the events are held two times per annum at each site, but resource consents allow for more frequent events. Space onsite at these locations allows for suitable future expansion.

3.2.3 Demand for Other Initiatives

Waste minimisation is currently promoted through a number of different initiatives. With increasing population and development in the district, along with increased expectations around environmental protection, the demand is expected to increase, both for Council provided services and infrastructure, as well as Council-supported initiatives.

With the increasing awareness of climate change (including emission reduction targets), sustainability, and the effects of plastics in the environment, it is expected that interest will grow in waste minimisation initiatives. To provide for this, we continue to progress work on the ReConnect Project at Pines RRP. This is becoming a multifaceted waste minimisation hub, with onsite education centre (completed in 2023), a reuse shop and salvaged materials yard (completed in early 2025), and in the future potential maker-spaces to repurpose waste materials, and a multipurpose waste hub for deconstruction and basic processing of some waste streams.

A full-time Waste and Sustainability Educator is based at the education centre at the Pines RRP and facilitates programmes for schools and community groups.

Council also continues to partner with organisations such as Lincoln Envirotown, Enviroschools, Kate Meads, and others, and plans to do so for the foreseeable future. Council remains open to opportunities to partner or support waste minimisation.



3.3 Challenges and Opportunities

Council must manage growing demand for waste services while ensuring affordability, safety, and environmental protection. Key priorities include maintaining or improving levels of service, reducing emissions, improving diversion, and building resilience to climate change and disasters. These challenges also create opportunities to promote waste minimisation, embrace new technologies, and strengthen community education and engagement.

Table 3-4 lists these challenges and opportunities and how we respond to them.

Table 3-4: Resource Recovery and Waste Activity Challenges and Opportunities

| Table 3-4: Resource Recovery and Waste Activity Challenge or Opportunity | Council's Response |
|--|--|
| Population growth and geographic spread | Incremental extension of collection routes to accommodate new developments. |
| increasing demand on kerbside | Keep abreast of new and emerging technologies associated with collection services to increase efficiency in collection services. |
| collections, whilst ensuring that services remain fair, affordable, and aligned with rising community expectations for waste | Provide a range of user-pays services (where practical) so people can make a cost-effective choice which best suits their household needs. |
| minimisation. | Provide education, incentives, and community-based programmes that support and encourage waste reduction. |
| Increase in disposal costs resulting from | Allowance has been made in budgets to cover disposal cost increases. |
| emissions-related legislation and Waste Levy increases. | Provision within the Council's Waste Management and Minimisation Plan to increase diversion opportunities, therefore minimising the cost effect on residents who divert waste. |
| Increase diversion of waste by focusing | Ongoing developments at the Pines RRP as part of the ReConnect Project. |
| on the upper tiers of the Waste Hierarchy. | Continue to promote education, lend support to, and encourage national and local initiatives. |
| | Investigate feasibility of further developments at the Pines RRP. |
| Potential changing requirements (e.g. | Liaise with other councils to ensure a consistent approach. Budget appropriately. |
| glass-out collections). | Clear, concise and timely communication with residents. |
| Contamination of recycling and organics | Continue our education campaign via advertisements, social media posts, bin tags and contamination audits. |
| streams. | Education programmes provided at ReDiscover and ReNourish. |
| Kerbside collections using bins, bags and | Provide high quality bins and crates. Provide bin clips for high wind areas. |
| crates can result in litter from wind or animals, while bag collections create | Disincentivise bags and incentivise 80 litre refuse bins through pricing. |
| additional health and safety risks for the collection contractor. | Extend kerbside service to additional properties wherever practical and cost effective. This allows for better uptake of wheelie bins instead of bags and crates. |
| | Continue, and intensify efforts to minimise waste. Work with contractors towards minimising emissions from waste |
| Climate change and emissions reduction. | collection and processing vehicles and equipment. |
| | Investigate and embrace new/emerging technologies (e.g. electric loaders). |
| | Ensure resilience through disaster waste planning. |
| | Ensure a robust safety plan and procedures are in place. Monitor and review these plans and procedures periodically. |
| The Pines Resource Recovery Park is a | Conduct regular staff training and emergency drills. |
| multi-hazard site. | Daily site management and hazard identification. |
| | Signage and controlled access areas. |



| Challenge or Opportunity | Council's Response |
|--|--|
| Potential nuisance from operational and legacy waste facilities. | Ensure on-site operations and activities at Pines RRP are managed in accordance with consent conditions and minimise risk of causing nuisance beyond the boundary. Operate regular litter collections across the site at Pines RRP and along approaching roadside. Utilise fencing and planting to capture litter or to reduce wind speed in operational areas. Manage composting operations in accordance with the Odour and Dust Management Plan. Manage closed landfill in accordance with the Closed Landfill Management Plan. Dispose of cleanfill only at consented cleanfill sites and monitor groundwater regularly. Dispose of residual waste at Kate Valley Regional Landfill where stringent resource consent conditions are met. |
| Gaps in waste quantity and composition knowledge. | Improve Council knowledge of commercial, construction, and public waste composition received at Pines RRP. Use regulatory tools where appropriate. Improve Council knowledge of farm waste and investigate service options or partnerships. |



4.0 Where We Want to Be

A Waste Assessment must contain Council's vision, goals and objectives for the district's current and future waste management and minimisation requirements.

This section provides the foundation for our draft WMMP and will guide Council's decision-making when presenting potential options to meet forecast demand for services and infrastructure.

4.1 Vision

The vision of the district in relation to waste management and minimisation is:

Selwyn District leads by example, embracing the Waste Hierarchy to its fullest potential, wherever practical and affordable, to make the most of our resources, champion a thriving circular economy, reduce consumption, and minimise waste, all while nurturing a cleaner, healthier environment for current and future generations.



4.2 Goals and Objectives

The goals and objectives outlined below provide strategic direction for the planning, delivery, and continuous improvement of waste and diverted material infrastructure and services in Waikirikiri Selwyn.

They reflect the Council's commitment to environmental stewardship, regulatory compliance, operational resilience, and community engagement, while promoting innovative approaches that reduce waste generation and maximise resource recovery.

Goals

- Deliver a high-quality, customer-focused service.
 - o Achieve agreed levels of service for customers.
 - Provide a cost-effective, convenient, appealing, and comprehensive range of services to the community.
- Promote sustainable and responsible waste management.
 - o Reduce waste generation and waste volumes sent to landfill by promoting, engaging in and funding activities aligned with the upper tiers of the Waste Hierarchy.
 - Encourage and facilitate the development and uptake of services in rural areas to reduce inappropriate disposal, such as burning or farm pit dumping.
 - Foster innovation around waste management and leverage recovery activities for positive social and environmental outcomes.
 - Reduce emissions from waste and waste related operations.
- Ensure environmental, social, and operational sustainability.
 - Safeguard human, animal, and environmental health through safe and hygienic storage, handling, collection, and disposal of waste.
 - o Ensure the operational, financial, social, and environmental sustainability of waste services.
 - Preparedness for climate change related impacts and disaster events.
- Strengthen community knowledge, engagement, and ownership.
 - o Improve Council and community understanding of waste streams and related issues.
 - o Facilitate increased community engagement and ownership of waste generated.
 - o Support and participate in local, regional, national, or industry-led initiatives that minimise the harmful effects of waste.
- Maintain compliance and safety.
 - o Comply with all relevant legislation.
 - o Reduce Council's exposure to risk from potential asset failures.
 - o Assist with enforcement action related to illegal waste activities.
- Embrace innovation and technology.
 - o Embrace changes in technology that improves any meaningful aspect of waste related activity.

Objectives

- Develop and fund projects and programs aligned with the Waste Hierarchy to reduce waste generation and landfill volumes.
- Organise or support local and wider initiatives that reduce the harmful effects of waste.
- Provide guidance and educational resources to improve community knowledge and understanding of waste issues.
- Implement initiatives to improve the customer experience at the Pines Resource Recovery Park (e.g., enclosed structures).
- Facilitate rural waste services to reduce inappropriate disposal.
- Monitor, evaluate, and report on service performance, environmental outcomes, and compliance.
- Adopt technologies and practices, where appropriate, that improve operational efficiency and waste minimisation and management effectiveness.
- Build resilience of services and infrastructure to both climate change impacts and disaster scenarios.



It is acknowledged that a less-comprehensive Waste Strategy was released in 2025, however the goals and objectives of our WMMP are more closely aligned with the 2023 Strategy and therefore this will continue to guide Council's approach to waste management and minimisation in Selwyn.

To ensure that our waste management and minimisation planning is compliant with legislation (i.e. giving regard to the New Zealand Waste Strategy when preparing a WMMP), Table 4-1 outlines how the themes and direction of Te Rautaki Para (2023) remain relevant under the 2025 New Zealand Waste and Resource Efficiency Strategy (2025).

Table 4-1: Direction and Alignment with Te Rautaki Para and Waste and Resource Efficiency Strategy 2025

| Key Theme | Te Rautaki Para (2023) | NZ Waste and Resource | SDC's Approach |
|---|---|---|---|
| | | Efficiency Strategy (2025) | |
| Circular economy | Strong emphasis on systemic change | Not stated | Continue to prioritise reuse, repair, and material recovery |
| Equity and inclusion | Included as a core principle | Not stated | Ensure equitable access to services |
| National diversion targets | Contained specific, measurable targets | Not stated | Continue to report against Council's diversion targets in the absence of national targets |
| System-level reform | Focused on policy, regulatory reform, and product stewardship | High-level, detail not defined | Support product stewardship schemes and collaboration with industry and government where appropriate |
| Behaviour change and education | Included as a core principle | Not stated | Waste minimisation education is a key objective |
| Landfill waste reduction per capita | Target defined as 30% reduction per person by 2030 | Mentioned as an outcome with no measurable targets defined | Continue to include waste reduction per capita as a Performance Measure in the LTP |
| Emission reduction | Target defined as 30% reduction on biogenic methane emissions from waste by 2030 | Mentioned as an outcome with no measurable targets defined | Continue to improve in this area under Council's Climate Change Policy 2024 and the WMMP |
| Management of disposal and material recovery facilities | Emphasises creating a national network for the circular management of resources | Minimising environmental impacts in the management of facilities stated as an outcome | Continue to manage the Pines RRP facility in accordance with consent conditions Further develop the Pines RRP to expand diversion opportunities Continue to provide rural community recycling and bulky waste drop-off days Investigate and, where appropriate, provide more diversion opportunities for outlying areas |
| Contaminated land | Highlights the importance of remediation and management of contaminated sites | Mentioned as an outcome with no measurable targets defined | Maintain monitoring and remediation of closed landfills under Council's Closed Landfill Management Plan |
| Data and monitoring | Supports the development and implementation of a detailed national waste data programme | Not stated | Council has strong, reliable methods for gathering waste related data Continue to monitor and report as required |



4.3 Targets

- Reduce the use of residual waste bags by 10% per annum through the promotion of wheelie bins, pricing incentives / disincentives and the benefits of wheelie bins over bags.
- Actively and regularly promote the appropriate disposal of household hazardous wastes to the community.
- Develop a comprehensive approach and strategy to waste education by 2028.
- Develop a more thorough understanding of farm waste in the district. Investigate options for and possible partnerships or methods to facilitate the development of services to farming areas so as to more appropriately dispose of waste by 2030.
- Trial a Tool Library at Pines RRP by 2027.
- Maintain or continue to reduce the percentage of contamination in household kerbside recycling year on vear.
- Reduction in the kilograms of kerbside residual waste per capita year on year.
- Maintain or decrease the kilograms of total residual waste per capita year on year.
- Commence a recycling station trial in Darfield by 2026.
- Operate at least twice per annum community recycling / bulky waste drop-off days for the Ellesmere and Malvern communities.
- Award a new service delivery contract for kerbside collections by 2029.
- Award a new service delivery contract for Pines RRP operations by 2029.
- Kitchen food-waste caddy trials commenced by 2030.
- Reduce the percentage of recyclable or recoverable materials in kerbside residual waste by 15% by 2030.
- Investigate feasibility of an enclosed / semi-enclosed refuse receiving area for the Pines RRP by 2028.
- Commence construction waste sorting trials at Pines RRP by 2027.
- Provide additional recycling options at the Pines RRP by 2027.
- Develop a Disaster Waste Management Plan by 2028.

Additionally, Table 4-2 shows the Service Targets for the Waste and Resource Recovery Activity as outlined in the Council's 2024-2034 LTP.



Table 4-2: 2024-2034 LTP Service Targets for Resource Recovery and Waste

| Objective | Current Service | Service S | ndicative Service 2027-34 | Performance Measure | Current Performance | 2023/24 | 2024/25 | 2025/26 | 2026-34 |
|---|---|---|---------------------------------|--|---|---|---|---|---|
| To provide a quality kerbside collection service for the community | The quality of the Resource Recovery and Waste service meets the expected levels of service. | The quality of Reso Recovery and Was facilities and oper meets expected le service. | ste services, rations | Successfully completed kerbside collections as a percentage of bins in service. | New measure | ≥99.90% | ≥99.90% | ≥99.90% | ≥99.90% |
| To protect the environment by minimising waste to landfill | Total residual waste to landfill in the district equates to 259kg per capita. Total household kerbside residual waste to landfill in | Total kilograms of waste per capita r static or decrease year. Kilograms of hous kerbside residual | remains es year on sehold | The total amount of landfill waste per capita measured against the previous year. The amount of household kerbside landfill waste | Achieved: 11% decrease on the previous year. Achieved: 14% decrease on | No increase in kg per capita compared with the previous year Reduction in kg per capita | No increase in kg per capita compared with the previous year Reduction in kg per capita | No increase in kg per capita compared with the previous year Reduction in kg per capita | No increase in kg per capita compared with the previous year Reduction in kg per capita |
| | the district equates to 142kg per capita. | capita decreases year. | year on | per capita measured against the previous year. | the previous year. | compared with the previous year | compared with the previous year | compared with the previous year | compared with the previous year |
| | Average annual recycling contamination percentage equates to 3.48%. | Percentage of con in household kerb recycling decrease year. | oside | Percentage of contamination in the kerbside recycling measured against the previous year. | Achieved: 30% reduction in contamination on the previous year. | Reduction in percentage contamination compared with the previous | Reduction in percentage contamination compared with the previous | Reduction in percentage contamination compared with the previous | Reduction in percentage contamination compared with the previous |
| | | | | | | year | year | year | year |



5.0 How We're Going to Get There

A Waste Assessment must contain a statement of options available to meet the forecast waste and resource recovery demands of the district. This section will present an assessment of those options, as well as a review of Council's progress since the 2019 WMMP.

5.1 Review of the 2019 WMMP

The WMA states that each territorial authority must:

- Promote effective and efficient waste management and minimisation within its district.
- Adopt a Waste Management and Minimisation plan that provides for the following:
 - (e) objectives and policies for achieving effective and efficient waste management and minimisation within the territorial authority's district:
 - (f) methods for achieving effective and efficient waste management and minimisation within the territorial authority's district, including—
 - (iv) collection, recovery, recycling, treatment, and disposal services for the district to meet its current and future waste management and minimisation needs (whether provided by the territorial authority or otherwise); and
 - (v) any waste management and minimisation facilities provided, or to be provided, by the territorial authority; and
 - (vi) any waste management and minimisation activities, including any educational or public awareness activities, provided, or to be provided, by the territorial authority:
 - (g) how implementing the plan is to be funded:
 - (h) if the territorial authority wishes to make grants or advances of money in accordance with section 47, the framework for doing so.
- Review the WMMP not more than six years after the last review.
- Conduct a Waste Assessment prior to the WMMP review.
- Either prepare a new or modified WMMP or, if it is decided to continue with the existing WMMP, notify the
 results of the review using the special consultative procedure set out in section 83 of the Local Government
 Act 2002.

The most recent Waste Management and Minimisation Plan was formally adopted by Council in August 2019. Under the Waste Minimisation Act, Council is required to review the WMMP every six years. This Waste Assessment is a key component of that review, providing insights into the existing WMMP's alignment with current challenges and developments in the rapidly evolving landscape of waste management and minimisation.

Vision

The wording of the vision has been updated to make it clearer, more aspirational, and aligned with Waikirikiri Selwyn's current goals and future focus.

Goals, Objectives and Targets

The goals and objectives set out in the 2019 WMMP remain largely relevant and continue to reflect the core priorities of Council and the community.

Table 5-1 shows progress on the targets set in the 2019 WMMP.



Table 5-1: Review of 2019 WMMP Targets

| Target | Progress | Comments | Recommendation |
|---|---------------------|---|---|
| Reduce the use of residual waste bags by 10% per annum through the promotion of wheelie bin alternatives. Pricing incentives / disincentives and benefits of wheelie bins over bags. | Achieved. | There has been an average 15% decrease per year in Council refuse bag use between 2018/19 and 2023/24 (based on sale of bags). | Maintain current approach and continue to monitor refuse bag use over the next few years. |
| Actively and regularly promote the appropriate disposal of hazardous wastes to all sectors of the community. | Partially achieved. | Battery recycling was heavily promoted in 2021. No kerbside truck fires have been reported since. | Expand hazardous waste education scope further. Include in the Action Plan in the 2025 WMMP. |
| 2% decrease on kerbside residual waste per capita by 2021 over the 2019/20 year. | Achieved. | 6% decrease between 2019/20 and 2020/21. Average decrease of 2% per annum between 2021-2024. | Update target in new WMMP |
| No increase to the total district residual waste per capita by 2021 over the 2019/20 year. | Not achieved. | 7% increase between 2019/20 and 2020/21. This is thought to be as a result of low residual waste tonnes in 2020 during COVID-19 lockdowns and then a rebound of residual waste tonnes in 2021. However, there has been an average decrease of 6% per annum between 2021-2024. | Update target in new WMMP |
| Divert 15% of annual construction waste material received at Pines RRP from landfill by 2021. | Not achieved. | Construction waste sorting at the Pines RRP did not commence as early as planned due to resourcing constraints and other projects taking precedence. | Include in the Action Plan in the 2025 WMMP. |
| Develop a comprehensive approach and strategy to waste education aligned with the education plans within the ReConnect Project. | Partially achieved. | Full-time Waste and Sustainability Educator position established at ReDiscover at Pines RRP. | Develop an education strategy. Include in the Action Plan in the 2025 WMMP. |
| Develop a more thorough understanding of farm waste in the district and investigate options for and possible partnerships or methods to facilitate the development of services to farming areas so as to more appropriately dispose of waste by 2021. | Not achieved. | Resources have not allowed for this work to take place. | Work in this space is underway by ECan and WasteMINZ which Selwyn will contribute to and keep abreast of. |
| Operate at least twice per annum community pop-up resource recovery parks for Ellesmere and Malvern areas – with an increased range of materials accepted. | Achieved. | Operated 4x events per annum (apart from 2020 during COVID-19 when 2x events were held). Bulky general waste material was added in 2020. | Maintain current approach. |
| Install recycling drop-off facilities at two locations by 2021. | Partially achieved. | Recycling station installed at Castle Hill in 2020. Darfield recycling station is underway at the time of writing. | Complete installation of a recycling station in Darfield as planned. |
| Provide a reuse shop option at Pines RRP by 2022. | Partially achieved. | ReUse Shop construction did not commence as early as planned. The ReUse Shop opened in 2025. | No further recommendation. |
| Reduce average annual kerbside recycling contamination levels to below 2% from July 2020. | Not achieved. | Changes to acceptability criteria as well as confusion during COVID-19 Alert Level 4 lockdowns resulted in increased contamination. Contamination has been steadily decreasing from 5% in 2019/20 to 3% in 2023/24. | Update target in new WMMP. Address problem areas with audits and education campaigns as required. |



2019 Action Plan

Table 5-2 shows options identified in the Action Plan in 2019 WMMP that have either been completed, are underway, or found to be unfeasible following investigation. Postponed, in progress or not yet started initiatives from the 2019 WMMP will be shown in Section 5.4 along with any new initiatives that have been identified.



Table 5-2: Review of the 2019 Action Plan

| Objective | Proposed Action | Current Status | Comment |
|---|--|----------------------|--|
| Achieve agreed levels of service to customers. | Continue to provide a cost effective, convenient and comprehensive range of services to the community. | Ongoing | Implemented new LTP performance indicator relating to percentage of successful bin collections. Continued strong uptake of the kerbside collection service. Increased patronage at the Pines Resource Recovery Park (54% since 2019/20). Expanded range of accepted recyclables at the Pines Resource Recovery Park (e.g. batteries), as well as opening the ReUse Shop. |
| Ensure the operational, financial, | Use any potential budget surpluses generated to assist with other waste related activities. Or specifically increase some collection service components in order to generate surplus for use for other waste related activities. | Ongoing | Pricing of the kerbside refuse collection bins is set to increase uptake of the smaller refuse bin option and disincentivise the more expensive larger refuse bin option. The general waste tipping fee at the Pines Resource Recovery Park is priced to offset the cost of most recycling drop-off options. |
| social and environmental sustainability of the service. | Address lack of awareness of Pines RRP facility for new residents. | Completed | Flyers sent with rates invoices. Advertising in the Selwyn Residents Guide and local newspapers. Significantly increased online social media presence. |
| | Review the Waste Management and Minimisation Bylaw to ensure it is still effective and appropriate. | Completed | The Waste Management and Minimisation Bylaw was reviewed, amended, consulted on and adopted by Council in 2019. Further minor amendments were made to the Schedules in 2023 to ensure alignment with central government legislation. |
| Reduce Council's exposure to risk, should there be a failure of the assets. | Ensure contractor undertakes preventative servicing and maintenance of plant and buildings. | In progress. | To be incorporated into audits and contract KPIs. Preventative maintenance of plant is required under the C1245 contract. Preventative maintenance of buildings is undertaken by Council's Facilities Management team. Maintenance of collection vehicles and bins is required under the C1144 contract. |
| | Review management of litter bins and fly tipping within Council. | In progress. | In discussions with the Reserves Operations team. |
| Comply with all legislation. | Use regulatory tools to capture tonnage and composition data from private collectors. | Not yet implemented. | Allowed for within the Waste Management and Minimisation Bylaw 2019. A regional approach is currently being considered. |
| | Old closed landfills – investigate current status, existence of other unknown landfills, liability and potential remediation costs. | In progress. | Conducted environmental risk assessment across Council owned sites. Closed Landfill Management Plan has been approved by ECan for the four most recently closed township landfills. Capping work at one site has commenced. Detailed planning for another site is underway. |



| Objective | Proposed Action | Current Status | Comment |
|---|--|----------------------|---|
| | On site windrow composting of organic waste. | Completed. | Under consent number CRC211594. |
| Safeguard human, animal and environmental health by | Hazardous waste disposal education. | Not yet implemented. | Future project. |
| promoting and encouraging safe and hygienic storage, handling, collection and disposal for all waste streams. | Continue to provide and extend kerbside collection services. | Ongoing. | This continues as new subdivisions open. Currently service 96% of households in the district. Organics collection route extended to include Tai Tapu in 2020. A survey to extend the organics collection route to other townships was completed in 2024, however demand was insufficient. |
| | Proactively reviewing properties not currently receiving kerbside service—is extension feasible? | Not pursued. | Currently service 96% of households in the district. Additional resourcing will be required to proactively review current routing, which is not viable at this stage. Extensions to the kerbside collection route will continue to be investigated and considered on an "as-requested" basis. |
| | Phase out residual waste bags. | Not yet implemented. | Bag use is organically steadily declining. Alternative option for off-route residents needs further exploration. |
| Provide a cost effective, | Investigate future kerbside contract ownership structure/model of wheelie bins. | Completed. | This has been incorporated into C1144 contract renewal. |
| convenient and comprehensive | Continue to provide the Pines RRP facility. | Ongoing. | |
| range of services to the community. | Increase the opening and staff operational hours at Pines RRP. | Completed. | Increased weekend opening hours. Currently open 7 days 9am-4.30pm. |
| | Increase the residual waste compactor capacity throughput (upgrade compactor at Pines RRP). | In progress. | Refurbishment completed in 2024. Upgrade of compactor unit planned for 2029 along with Pines RRP redesign. |
| | Continue to use levy funds to subsidise recovery of some material streams to encourage uptake of service – for example e-waste and car seat recycling. Expand where appropriate. | Ongoing. | Continuing. |
| | Investigate fortnightly kerbside residual waste | Not yet | This will be considered further during planning for the 2027 Long |
| | collection (instead of current weekly). | implemented. | Term Plan and will be included in the 2025 WMMP Action Plan. |
| | Promotion of organics collection service in | Completed / | Completed in 2022. |
| Promote, engage in and fund | serviced areas. | Ongoing. | Further promotion of the service will be considered in the future. |
| activities aligned with the upper tiers of the waste hierarchy in order to reduce waste generation and waste volumes sent to landfill. | Investigate supply of home kitchen food waste caddies and biodegradable liners to make separating food waste more convenient and hygienic. | Not yet implemented. | Future project. |
| | Develop a strategy to increase the diversion of recyclable or recoverable (organic) materials from kerbside residual waste. | Not yet implemented. | Future project. |



| Objective | Proposed Action | Current Status | Comment |
|--|---|----------------------|---|
| | | | |
| | Audit existing residual waste litter bins to identify further diversion opportunities (i.e. adding a recycling bin). | Not yet implemented. | Litter bin management within Council is currently under review. |
| | Investigate the feasibility of a waste sorting line, implement if appropriate. | In progress. | Construction waste separation at the Pines RRP is currently being investigated. |
| | Investigate the feasibility of a landscape supplies yard to assist with sale of compost generated and trailer hire to improve convenience, implement if appropriate. | Postponed. | Future project. |
| | Establish a reuse shop and salvage yard. | Completed. | Opened in March 2025. |
| | Investigate the feasibility of microenterprise units on site to repurpose and upcycle waste, establish if appropriate. | Postponed. | Future project. |
| Promote, engage in and fund activities aligned with the upper tiers of the waste hierarchy in order to reduce waste generation | Investigate provision of a multi-purpose waste building/structure for partial e-waste deconstruction, mattress recycling, farm waste processing, and other future but as yet unknown recoverable waste streams. | Postponed. | Possible future project. |
| and waste volumes sent to landfill. | Increase education around waste reduction through Council and external platforms. | Ongoing. | Education Centre (ReDiscover) at Pines RRP was opened in 2023. Full-time Waste and Sustainability Educator was employed in 2022. Continuing to support organisations (e.g. Envirotown). Continuing to offer waste minimisation workshops and external speakers. Continuing to support and promote national initiatives (e.g. Love Food Hate Waste). |
| | Make funds and support available for initiatives to reduce waste to landfill (e.g. reusable coffee cup schemes). | Ongoing. | Support and promote the Canterbury Waste Joint Committee Waste Minimisation Fund. |
| | Collaborate with other government bodies and councils to consider activities or initiatives that provide positive alternatives to landfill or other waste minimisation outcomes. | Ongoing. | Continuing. |
| Arrange local initiatives, or support and participate in community, regional, national or industry led | Provide 'Pop-up' Resource Recovery Park / Transfer Station facility periodically to Ellesmere and Malvern communities. | Ongoing. | Continuing. |
| initiatives that reduce the harmful effects of waste or minimise waste. | Work with other Councils, Central Government, local rūnanga and Industry to address New Zealand recycling issues. | Ongoing. | Continuing. |



| Objective | Proposed Action | Current Status | Comment Waste Assessment 2023 |
|--|---|----------------|---|
| | | | |
| Arrange local initiatives, or support and participate in community, | Continue to lend support to and encourage national initiatives, including Product Stewardship schemes (for example AgRecovery). | Ongoing. | Continuing. |
| regional, national or industry led initiatives that reduce the harmful effects of waste or minimise waste. | Work with businesses in the district to help minimise the waste generated by the products they sell and services that they provide. | Ongoing. | Currently partner with Envirotown to support the Responsible Business Awards. |
| | Provide a structure and utilities for a farm waste / recycling receiving and processing area (as part of proposed "multi-purpose waste building". | Postponed. | Possible future project. |
| Encourage and facilitate the development and uptake of | Increased number and distribution of kerbside drop-off points. | Ongoing. | Continuing. |
| services for rural areas in order to reduce waste to farm pits, or the burning of waste. | Provision of recycling and refuse drop-off facilities to accept material from houses not on kerbside routes. | In progress. | Darfield recycling station trial is expected to open in 2025. |
| | Trial farm waste days. | On hold. | AgRecovery "One Stop Shop" events held in 2019. Further events have not been organised by AgRecovery. Council is unable to arrange these events without assistance from AgRecovery. |
| Assist with enforcement action associated with illegal waste activity. | Use regulatory tools such as the Waste Management and Minimisation Bylaw and the Litter Act when necessary. | Ongoing. | Continuing. |
| | Installation of RFID tags on wheelie bins (and potential future charging options). | Completed. | Completed in 2021. |
| To embrace changes in technology that improves any meaningful aspect of waste related activity. | Investigate and embrace new or emerging technologies associated with collection services. | Ongoing. | One electric collection vehicle is intermittently used within Selwyn for kerbside collection. Kerbside collection contractor has implemented improved software and cameras in collection vehicles to allow better investigation and resolution of collection issues. |
| | Work with 3rd parties to facilitate pyrolysis or alternative processing techniques to generate more value and better environmental and social outcomes than landfill. | Cancelled. | |



| Objective | Proposed Action | Current Status | Comment |
|---|---|----------------------|--|
| Improve Council and community's level of knowledge and understanding of waste streams in the district and their associated key issues. Provide guidance for waste related issues. | Improve Council knowledge of commercial, construction and public waste composition received at Pines RRP. | Not yet implemented. | Future project. |
| | Investigate the feasibility of an Environmental Education Centre and onsite educator, implement if appropriate. | Completed. | Education Centre (ReDiscover) at Pines RRP was opened in 2023. Full-time Waste and Sustainability Educator was employed in 2022. |
| Facilitate increased community engagement and ownership of waste generated. Foster innovation around the way that | Continue to support education related programs such as Enviroschools, Lincoln Envirotown Responsible Business Assessments and other activities (e.g. Waste Free parenting classes) or organisations that fit within the Education Strategy. | Ongoing. | Continuing. |
| waste can be better managed. Leverage waste recovery activities | Develop a more comprehensive strategy for education. | Not yet implemented. | Future project. |
| to achieve positive social and environmental outcomes. | Develop a plan for initiatives that reduce contamination in kerbside recycling. | Ongoing. | Recycling bin street audits in 2020/21 and 2023/24. Contamination percentage reduction from 4.97% in 2019/20 to 3.05% in 2023/24. Social media and targeted messaging in areas where contaminated loads have occurred. |



In summary, excellent progress has been made under the 2019 WMMP including improvement in the diversion of waste, decreased contamination of recycling, and improvements to service delivery by way of developments at the Pines RRP and the establishment of remote recycling facilities.

However, the preparation of a new WMMP is recommended to reflect the district's growth, align with recent legislative changes, to pursue further waste diversion opportunities, and to provide a strategic framework for future service planning and investment.

5.2 Waikirikiri Ki Tua | Future Selwyn

Since the previous WMMP was written and adopted, Council has developed and adopted Waikirikiri Ki Tua. This is a long-term strategic framework outlining the district's vision for the future, setting key community outcomes that include environmental stewardship, resilient infrastructure, and community wellbeing. The preparation of a new WMMP will allow Council to ensure that its approach to waste management and minimisation is fully aligned with the outcomes set out in Waikirikiri Ki Tua.

Te Ao Māori and Engagement with Mana Whenua

The 2019 WMMP contains no reference to Te Ao Māori, and does not adequately reflect Māori values, perspectives, or aspirations in the context of waste and resource efficiency.

Te Ao Māori provides a holistic and interconnected worldview. Concepts such as kaitiakitanga (guardianship), mauri (life force), and taonga (treasured resources) offer frameworks for thinking about how materials are used, valued, and disposed of. These perspectives strongly align with modern circular economy principles and sustainability goals.

There is growing recognition across Aotearoa that waste minimisation is not just a technical or logistical challenge, but also a cultural and ethical one and that enduring solutions require the meaningful involvement of Mana Whenua.

The development of a new WMMP provides an opportunity to:

- Embed Te Ao Māori principles into the plan's vision, objectives and actions,
- Ensure M\u00e4ori values and m\u00e4tauranga M\u00e4ori (M\u00e4ori knowledge) inform how waste is understood and managed,
- Strengthen partnerships with Mana Whenua and ensure they are actively involved throughout the planning process, not just consulted at key decision points.

Engaging with Mana Whenua during the process of rewriting a new WMMP will contribute to the following Supporting Outcomes and Directions in Waikirikiri Ki Tua:

| Supporting Outcome | Direction |
|--------------------------------------|--|
| | IC1: Honour Te Tiriti and strengthen our partnership with mana whenua |
| Inclusive Communities | IC2: Promote biculturalism, cultural knowledge and cultural competence |
| | IC5: Foster a sense of belonging and connection |
| | IC6: Value and celebrate our diversity and multiculturalism |
| Thriving Ecosystems and Biodiversity | TEB1: Protect and maintain indigenous biodiversity |
| | LWEL1: Reduce greenhouse gas emissions |
| | LWEL2: Conserve and manage finite resources |
| Living Within Environmental Limits | LWEL3: Promote the use of renewable resources over non-renewable |
| Living Within Livilonnental Limits | resources |
| | LWEL4: Protect the life supporting capacity of the natural environment |
| | LWEL5: Reduce waste and promote circular practices |



ReConnect Project

The ReConnect Project (including ReDiscover, ReNourish, and the ReUse Shop) reflects a broader commitment to community wellbeing, waste reduction, and circular economy outcomes.

These spaces create opportunities for learning, connection, and participation in low-waste living. They also promote the values of reuse, repair, and resourcefulness, especially at a time when communities are seeking cost-saving, sustainable alternatives to traditional consumer habits.

The ReConnect project has the potential to expand further through initiatives such as:

- Maker spaces for repair, upcycling, and skills sharing.
- A tool library to reduce unnecessary consumption and support DIY activity.
- Additional public events and education programmes to engage all age groups.

A new WMMP provides the opportunity to further embed the ReConnect project within Council's strategic waste planning, recognising its role in delivering on both waste minimisation and broader community outcomes, including:

- Strengthening social connection and belonging.
- Enabling behaviour change at a household and community level.
- Providing accessible spaces for education and community-led initiatives.
- Supporting climate resilience and embedding circularity.

The ongoing ReConnect Project contributes to the following Supporting Outcomes and Directions in Waikirikiri Ki Tua:

| Supporting Outcome | Direction |
|------------------------------------|---|
| | TC2: Invest in and shape our public spaces |
| Thriving Communities | TC3: Provide community spaces and facilities responsive to the needs of |
| | present and future generations |
| | TC6: Provide opportunities for social connection and building relationships |
| | ResC3: Empower collective action, responsibility and community-led |
| Resilient Communities | initiatives |
| nesitient Communities | ResC4: Reduce risks faced by communities from natural hazards and the |
| | impacts of climate change |
| Recognised Communities | RecC6: Support community events and programmes |
| | PP2: Develop and prepare our people through education, training and |
| Prosperous People | lifelong learning |
| riospeious reopte | PP5: Support social enterprise |
| | PP7: Facilitate connections, collaboration and the sharing of knowledge |
| Liveable, Low-Carbon Towns | LLCT7: Strengthen the resilience of towns to natural hazards and climate |
| Liveable, Low-Carbon lowins | change |
| | LWEL1: Reduce greenhouse gas emissions |
| | LWEL2: Conserve and manage finite resources |
| Living Within Environmental Limits | LWEL3: Promote the use of renewable resources over non-renewable |
| Living within Environmental Limits | resources |
| | LWEL4: Protect the life supporting capacity of the natural environment |
| | LWEL5: Reduce waste and promote circular practices |
| | QI1: Strategically plan and coordinate infrastructure |
| | QI3: Deliver timely and intergenerational infrastructure |
| | QI5: Maintain and operate infrastructure efficiently and affordably |
| Quality Infrastructure | QI6: Prioritise investments in infrastructure that deliver on multiple |
| | outcomes over generations |
| | QI7: Encourage the reduction of emissions from the construction and |
| | operation of infrastructure |
| A Productive, Low-Carbon and | PLCDE8: Attract spending and inward investment |
| Diverse Economy | 1 200 20.7 Activot openiums und inward invocument |



Diversion of Organic Waste from Landfill

Reducing the amount of organic material going to landfill significantly reduces CO_2e emissions. Including this as an initiative in an updated WMMP plays a critical role in reducing methane emissions, extending landfill life, and promoting efficient use of resources.

The composting facility at the Pines Resource Recovery Park forms a key part of educational programmes provided by ReDiscover, giving schools and community groups a hands-on demonstration of the benefits of diverting organic waste from landfill and the efficient, circular use of resources.

Continuing to work on the diversion of organic waste from landfill will contribute to the following Supporting Outcomes and Directions in Waikirikiri Ki Tua:

| Supporting Outcome | Direction |
|---|--|
| | LWEL1: Reduce greenhouse gas emissions |
| Living Within Environmental Limite | LWEL2: Conserve and manage finite resources |
| Living Within Environmental Limits | LWEL4: Protect the life supporting capacity of the natural environment |
| | LWEL5: Reduce waste and promote circular practices |
| Their sing Faces sate was and Diadis sausitus | TEB1: Protect and maintain indigenous biodiversity |
| Thriving Ecosystems and Biodiversity | TEB4: Enhance the services provided by ecosystems |
| A Rich and Diverse Land | RDL3: RDL3: Integrate nature-based solutions |

Infrastructure Planning and Procurement

Within the next six years, Council will tender new contracts for kerbside collections and transfer station operations. This will impact how waste is managed across Waikirikiri | Selwyn for the coming decades. The WMMP is a strategic document that will inform these contracts and ensure that future service delivery aligns with community expectations, national policy direction, and climate goals.

The plan also sets the foundation for future infrastructure development, by identifying current trends, service gap analysis, population growth, and changes to material flows. Writing a new WMMP based on the most recent data will help Council to plan where future investment in infrastructure is required.

This will contribute to the following Supporting Outcomes and Directions in Waikirikiri Ki Tua:

| Supporting Outcome | Direction |
|------------------------------------|--|
| Prosperous People | PP1: Provide equitable access to employment and economic opportunities |
| Prosperous People | PP8: Attract and retain talent and skills |
| | LWEL1: Reduce greenhouse gas emissions |
| | LWEL2: Conserve and manage finite resources |
| Living Within Environmental Limits | LWEL3: Promote the use of renewable resources over non-renewable resources |
| | LWEL4: Protect the life supporting capacity of the natural environment |
| | LWEL5: Reduce waste and promote circular practices |
| | QI1: Strategically plan and coordinate infrastructure |
| | QI3: Deliver timely and intergenerational infrastructure |
| | QI4: Make efficient use of existing infrastructure |
| Quality Infrastructure | QI5: Maintain and operate infrastructure efficiently and affordably |
| Quality illiastructure | QI6: Prioritise investments in infrastructure that deliver on multiple |
| | outcomes over generations |
| | QI7: Encourage the reduction of emissions from the construction and |
| | operation of infrastructure |
| | PLCDE4: Support growth in industries with high innovation potential |
| A Productive, Low-Carbon and | PLCDE7: Improve the efficient movement of freight and goods |
| Diverse Economy | PLCDE9: Protect key infrastructure and industries, safeguarding their effective operations |



Alignment with Local and National Policy and Strategy

Since the current WMMP was adopted, the national waste policy landscape has undergone significant change. The repeal of previous waste strategies, the introduction of the Waste and Resource Efficiency Strategy (2025), the expansion of the waste levy, and increased regulatory oversight all signal a new direction in how waste is expected to be managed in Aotearoa.

A new WMMP will allow Council to effectively respond to these changes. It ensures that Council's waste activities are aligned with central government expectations and capable of adapting to further potential shifts in policy.

It will also more accurately reflect Council's priorities and be able to inform further climate-related planning and emissions reduction commitments.

Aligning plans with current policy will contribute to the following Supporting Outcomes and Directions in Waikirikiri Ki Tua:

| Supporting Outcome | Direction |
|------------------------------------|--|
| | LWEL1: Reduce greenhouse gas emissions |
| | LWEL2: Conserve and manage finite resources |
| Living Within Environmental Limits | LWEL3: Promote the use of renewable resources over non-renewable |
| Living within Environmental Limits | resources |
| | LWEL4: Protect the life supporting capacity of the natural environment |
| | LWEL5: Reduce waste and promote circular practices |

5.3 Options to Meet Future Demand

Growth expected and outlined in Section 3.0 for the district will increase the demand for waste and resource recovery services. This demand will be met by increasing capacity within existing services and infrastructure and/or by adding new services or infrastructure to meet demand.

In accordance with Section 51 of the WMA 2008 and Section 77 of the LGA 2002, this section contains a summary of reasonably practicable options to meet Council's forecast waste service demands as well as an assessment of the suitability of those options.

The preferred options will be presented in the WMMP as methods for achieving effective and efficient waste management and minimisation.

5.4 Presentation and Assessment of Options

Table 5-3 summarises potential options to meet the forecast demand. Each option in the table is assessed for its advantages and disadvantages against the following assessment criteria:

- Impact on climate change/emissions
- Alignment with the waste hierarchy
- Affordability
- Effect on levels of service
- Ease of implementation

These criteria will ensure that potential options have been considered and analysed against environmental, economic, social and cultural costs and benefits.

The final column questions, on balance, whether the option is one that is preferred in terms of future investigation and grades it in terms of priority after considering the preceding columns.



Table 5-3: Presentation of Options

| | nte 5-3: Presentation of | | | Assessment Criteria | | | |
|------------------------------|--|--|--|--|---|--|--|
| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
| Kerbside Collection Services | Improve access to recycling and/or refuse drop-off facilities and/or services to accept material from houses not on kerbside routes | Reduces the use of farm pits or burning of waste and recyclables. Reduces resident vehicle usage for those who currently take their recycling to the Pines RRP. | Increases opportunities for diversion from landfill if a convenient recycling option is made available. Does not create an incentive for travel to the Pines RRP where more options (such as reuse) are available for some items. | Transport costs in outlying areas are significant. Costs will be unable to be recovered as it is impossible to identify who would be using this service. Potential lease or purchase of land, site works, and establishment costs, depending on location. | Convenient and accessible for residents who live in rural areas off the collection route. Could reduce litter issues if freedom campers / tourists also use the facility. | Facilities will need to be monitored to prevent incidences of fly tipping, or contamination of the recycling. Will require identifying a suitable location and subsequent negotiation to lease or purchase. | Yes. Currently investigating |
| | Investigate feasibility of a fortnightly kerbside residual waste collection and implement the recommendations of the feasibility study | Reduced collection vehicle emissions. Currently this is one of only two key ways Council can impact CO ₂ emissions from waste related activities. | Expect reduction in waste to landfill. Encourages waste minimisation by restricted refuse container capacity. Restrictions in refuse container capacity may result in contamination of recycling and organic waste. | Expected reduction in annual residual waste collection cost. 80 litre refuse bins will be too small for fortnightly service and would have to be replaced with 140 litre (or larger) bins resulting in a significant cost to purchase and reissue these bins. | Expected reduction in customers' rates as fortnightly service costs will be lower. Fortnightly collection may increase odour issues with putrescible waste and disposable nappies. | A significant amount of work would be required to evaluate, consult on and implement this change. Potential for community opposition. | Yes (review longer term). |
| | Supply of in-home kitchen food waste caddies and possibly approved biodegradable liners | Reducing barriers/increasing convenience will increase quantities of organic waste diversion (reducing waste to landfill and resultant methane generation). | Increases beneficial use of organic waste. Increases quantities of diverted materials for recycling. | Cost reduction potential from food waste reduction in landfill disposal fees. Additional capital expenditure may be required to purchase caddies (possible opportunity for funding or levy use). | Improves convenience (and therefore usage). Reduces the "ick" factor of disposing of food waste in FOGO bins. Breathable biodegradable liners reduce in-home odour and fruit flies. | A significant amount of testing of various brands of biodegradable liners and caddies will be required. (Some trials are underway in parts of NZ). | Yes (medium term). Pilot trails will need to be conducted to determine feasibility first. Assists Council in meeting government diversion targets. |



| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
|------------------------------|--|--|---|---|--|--|---|
| Kerbside Collection Services | Phase out residual waste bag option (move to wheelie bins only) | Not providing a bag option to off-route properties may increase the use of less desirable alternatives for disposal of waste (e.g. burning) because of the inconvenience associated with taking a wheelie bin to a collection point compared with a bag. | May result in some very minor decrease in the use of single use plastic bags. | The smallest residual waste bin option cost is only marginally higher than a bag if put out weekly. Very low volume waste producers, or holiday homes will be financially worse off by the removal of a bag option. | Convenient for those with direct access to kerbside collection. Will reduce risk of manual handling injuries. Will reduce incidents of animals tearing open bags and subsequent animal health effects and windblown litter. May present issues for those who have to transport their waste to a collection point (note: other options do address this issue). | Some opposition expected. | Yes (low priority). Bag use is continuing to reduce year on year. Only on the proviso that off-route properties are provided with an easy-to-use alternative (e.g. a conveniently located recycling / refuse drop-off). |
| Kerbside C | Investigate compulsory organics collection in urban areas with a population of >1,000 and implement if appropriate | Will increase diversion of organic waste from household residual waste bins, decreasing organics going to landfill and associated methane emissions. | Diverts organic material from landfill (allowing for Recovery, which is above Landfill on the waste hierarchy). | Additional cost to ratepayers for an organics bin can be offset for those who choose to downsize their rubbish bin from 240L to 80L. Additional collection costs on the C1144 kerbside collection contract as contractor is paid for bins in service, regardless of presentation rate. | | Approx. 9,000 new bins will need to be procured and delivered. Will involve reassessment of kerbside collection route planning. Some community opposition is expected, especially for those who compost their own green waste at home. | Potentially. To be explored further. |



| | | 1 | | Assessment Criteria | | | Waste Assessment 202 |
|------------------------------|---|--|--|--|---|--|--|
| | | | | | | | |
| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
| Kerbside Collection Services | Kerbside separation of some recyclables (e.g. glass) | Improves quality and volume of diverted material, reducing waste to landfill and associated emissions. Additional truck movement may increase diesel use (this could be mitigated by reducing the frequency of the existing comingled recycling collection service, dual chamber collection vehicles, or EV collections). | Separated glass collection allows for more beneficial use of glass than comingled (e.g. allows for colour sorting to be recycled back into glass as opposed to "down-cycling" for use in aggregate or filtration). | Additional collection vehicles will be required. Likely to result in increased costs to ratepayers. CAPEX may be required to purchase bins / crates for separation if implemented prior to existing contract expiry. | Increased effort for resident, additional container to manage. Kerbside space availability for an additional container. | Requires significant behaviour change education. Community opposition expected. Separate glass collection may result in increased health and safety risks (depending on collection container), e.g. manual handling injuries, cuts. Would require renegotiation of existing contract if implemented prior to end of existing contract. | Will be investigated prior to tendering for the next kerbside collection contract. May need to be implemented if neighbouring Canterbury councils move to this collection method. |
| Kerbside Coll | Investigate alternative charging options (e.g. pay-per-lift or pay-by-weight) | Encourages waste minimisation behaviour, reducing waste to landfill and associated emissions. Encourages less frequent bin presentation, reducing truck emissions. | Incentivises waste minimisation behaviour. Potential for increased contamination of the recycling and FOGO streams (lower cost per collection). | Cheaper for residents who produce less waste. May become financially burdensome for high waste producers, or time poor families who do not have the resources to effectively reduce their consumption. | Expect community opposition. May result in instances of residents using others' bins (especially in a pay-by-weight scenario). | Additional staff time required to administer charging system, investigate potential errors, or manage complaints or conflicts. Pricing structure is more complicated and would require frequent analysing to ensure that costs are still being recovered (e.g. contractor is paid to complete the route regardless of whether bins are presented or not). | Not being considered at this stage. |
| Public Litter Bins | Status quo: add refuse/recycling litter bins as required in order to accommodate demand or growth | | | Installation, maintenance, and ongoing servicing of public litter bins is expensive. | Public tend to prefer more litter bins than fewer, from a convenience perspective. | Recycling from public litter bins is often too contaminated to be recycled. | BAU. |



| | | | Waste Assessment 2023 | | | | |
|-------------------------|---|---|---|---|--|---|---|
| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Assessment Criteria Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
| Public Litter Bins | Transfer of litter bin management to Parks and Reserves Team within Council | May allow for consolidation of service providers. | Allow more efficient oversight of district litter, and therefore potentially a strategy to better management. | | Would avoid grey area management challenges such as bus stop bins. Would provide greater oversight of litter bins and fly-tipping in the district, allowing better management. | Would require increased staff time of whichever department litter bins were allocated to. | Yes (low priority, currently investigating). |
| Services | Investigate and embrace new or emerging technologies associated with collection services | New technologies may improve efficiency of collections. | New technologies may improve quality of diverted materials (sensors recognising contamination, sensors that can communicate with residents, weigh and charging technology). | | Routing software upgrades will help resolve customer disputes, reducing conflicts (due to video evidence), better visibility for SDC staff on route collection progress as well as fewer instances of missed streets. This is underway with the collection contractor. | | Yes, currently underway. Keep informed of other advances in this area. |
| All Collection Services | Reduce emissions associated with collections | Reduction of emissions from decreased diesel usage. | Reduction of fuel use. | Currently more expensive. | Electric vehicles are quieter than diesel. | Difficult as this is emerging technology. | Yes. Explore further in 2029 contract. |
| | Invite private collectors to provide waste and recycling services to the district (Council no longer manages the service) | Less control and visibility over tonnages to landfill. Multiple private providers will result in decreased collection efficiency, more collection vehicles and diesel use. | No ability to influence behaviour change for waste minimisation. | Private providers would likely not be in a position to provide the service for the same price as Council's district-wide service. | Private providers unlikely to service rural / outlying areas of the district. | Expect significant community opposition. | No. |



| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
|------------------------------|--|---|---|---|--|---|--|
| All Collection Services | Investigate benefits of a regional waste services tender and pursue if appropriate | | | Potential cost reduction due to economy of scale. | Expected to remain at current service levels. | Potentially considerable complexities involved with preparing an appropriate tender document that would deliver the desired outcomes for each individual Council's needs. | To be considered further. |
| | Increase the compactor capacity throughput (upgrade compactor) | | | Cost is <\$1M and compactor has long operating life in which to depreciate. | | Challenging to install a new compactor whilst keeping site operational. | Yes (long term 2027/28). Allowed for in LTP 2024-29. |
| Pines Resource Recovery Park | Enclosed / semi- enclosed refuse receiving and processing area | A redesign would incorporate space for recovery of waste material (reducing waste to landfill and associated emissions). Materials used for the construction of the building will have generated emissions during manufacture. | Removing items and offering in the ReUse shop / salvage yard (e.g. timber, roofing) for purchase and reuse reduces consumption. | Expensive capital build project. An enclosed structure would reduce windblown litter and associated labour costs for litter picking. | Improved customer experience due to shelter from inclement weather. Reduced windblown litter. Space for recovery of waste materials for ReUse shop / salvage yard for public purchase. Waste recovery activities will be visible to public producing "feel good" factor (e.g. similar to buying local). | Very challenging to keep site operational during construction. Design and construction project will be resource heavy on SDC staff time. | Yes. Allowed for in LTP 2024-29. |



| | | | | Assessment Criteria | | | |
|------------------------------|---|---|--|--|--|---|--|
| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
| Pines Resource Recovery Park | Improve Council knowledge of commercial, construction and public waste composition at Pines RRP | | Improving Council's knowledge of composition enables decisions to be made in order to divert waste from landfill. Enables the recovery of additional resources from the waste stream that could be reused, recovered of recycled. | SWAP studies are relatively low cost. | | Impact on operations on site whilst SWAP studies are taking place. | Yes (long term). |
| | Construction waste sorting | Reduces waste to landfill (and associated emissions). | Removing items and offering in the ReUse shop / salvage yard (e.g. timber, roofing) for purchase and reuse reduces consumption. | Moderate – it is expected that the avoided landfill disposal fees would make this a cost-neutral exercise. | Space for recovery of waste materials for ReUse shop / salvage yard for public purchase. | Potentially challenging in areas such as health and safety, staff resourcing and a covered space for this work. | Yes (medium term). A trial is expected to be conducted during 2025. |
| | Investigate the feasibility of a landscape supplies yard to assist with sale of compost generated and trailer hire to improve convenience, implement if appropriate | Located at Pines RRP provides synergies with resident vehicle movement. | Seen as a good fit for the site and a drawcard to encourage activity in other areas of waste minimisation. | Expected to be funded by a 3 rd party. | A landscape supplies yard at Pines RRP would be an additional and convenient option for residents. | Expect 3 rd party to manage implementation. | Yes (low priority). 3rd party to do the investigation work associated with this part of the facility. Several parties have expressed interest in this opportunity. This will be explored further as part of the ReConnect Project. |



| | | | | Assessment Criteria | | | |
|-------------------------|---|---|--|---|---|---|---|
| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
| Park | Provide a multipurpose structure for processing (e.g. deconstruction, denailing, or consolidation) of various items and materials, enabling their reuse or recycling, potentially including farm wastes | May assist with the diversion of waste and recyclables from farm pits and reduce the burning of farm waste. Reduces waste to landfill (and associated emissions). Materials used for the construction of the building will have generated emissions during manufacture. | Enables the reuse, recycling, or recovery of additional materials. | It is envisaged that the initial capital outlay for the structure could be funded in part by WMF Levy Fund application. | Provides additional waste diversion options that are seen favourably by the community. | | Yes (low priority, long term). This will be explored as part of future ReConnect Project stages. |
| Pines Resource Recovery | Provide "maker spaces" to enable repair, repurpose, upcycling of items that may otherwise be landfilled | Reduces waste to landfill (and associated emissions). Materials used for the construction of the building will have generated emissions during manufacture. | Enables the reuse, recycling, or recovery of additional materials. | Moderately expensive capital expenditure. | Provides additional waste diversion options that are seen favourably by the community. Provides a space for community connection. Enables upskilling. | Would require Annual Plan / LTP funding. Potentially resource heavy in terms of staffing (would require someone to coordinate and operate safely). | Yes (long term). This will be explored as part of future ReConnect Project stages. |
| Q. | Establish a tool library | Reduces consumption, and therefore emissions associated with manufacture and ultimate disposal of items. | Reduces consumption (the top tier of the Waste Hierarchy). | Setup costs expected to be reasonable. Additional contractor staffing costs. | Provides an additional service that reduces costs to the community. | Initially resource heavy in terms of planning and setup. | Yes (long term). This will be explored as part of future ReConnect Project stages. |
| | Further increase public opening hours | | | Increased opening hours will increase operational costs (staffing). | Extended opening hours provides customers with increased flexibility for their visits. | Relatively easy to implement via NTC to contractor. | Yes (medium term). To be considered in future Annual Plan or LTP. |



| | | | | Assessment Criteria | | | |
|---|--|---|---|---|---|---|--|
| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
| , | Reduce recovery park emissions (e.g. electric loaders, solar power) | Electric vehicles would reduce diesel consumption and emissions for operations on site. | | Expensive and emerging technology currently. | | EV technology for heavy machinery such as loaders and excavators is currently in its infancy. | Yes (long term as technology improves). An electric forklift will commence operations onsite at the newly constructed ReUse Shop. |
| Pines Resource Recovery Park | Send organic waste to external processors for composting, as opposed to composting on site | Additional vehicle emissions for transport / double handling. | | Costs would be dependent on processing company. | Reduces risk of reverse sensitivity issues in the surrounding area. Double handling is an inefficient use of staff resourcing. | Would require additional vehicles. Rerouting of kerbside collection might be required. Negotiations with processor would be time consuming. | Not viable or necessary to do this at this stage. |
| Pines F | Provide additional recycling options for materials not accepted in the kerbside recycling | Reduces waste to landfill. Potential small amount of increased emissions from customer vehicle movements to the Pines RRP. | Creates an opportunity to divert recyclable items that would otherwise be landfilled. | Costs will be material/item specific. | Provides more options for recycling beyond the kerbside service. | Depends on options available. | Yes. Currently investigating options for Terracycle, bottle caps, lids, and other items. |
| Other Disposal and Diversion Infrastructure | Establish permanent satellite RRPs | Residents in outlying areas of the district will not have to travel to the Pines RRP to dispose of waste. Increased emissions from heavy transport. Construction related emissions. | A smaller satellite RRP will not include all services available at the Pines RRP, therefore reducing opportunities for diversion. | Operating costs may be prohibitively expensive. Permanent structures for operations would need to be constructed. Tipping costs could be unfavourable to residents. | Convenient for residents who live further away from the Pines RRP. | Resource consenting expected to be challenging. Would require additional staffing. | Not feasible. Community Bulky Waste / Recycling Days offer this service in a limited capacity - intentions to hold these events more frequently if demand exists. |



| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
|---|---|---|---|---|---|---|--|
| Other Disposal and Diversion Infrastructure | Manage closed landfills in accordance with Closed Landfill Management Plan | | | Expensive remediation required for some sites. | | CLMP has already been drafted. Availability of capping material. Cost of earthworks on landfill sites. | Yes. This is a consent requirement. |
| | Use regulatory tools to capture tonnage and composition data from private collectors. | | | No additional costs outside of staff time / resourcing. | | Challenges associated with commercial sensitivity concerns. Questions around ability to enforce this. | To be explored further. Currently being explored at a regional level by the CWJC. |
| Other | Develop a more thorough understanding of farm waste in the district. Investigate options for and possible partnerships or methods to facilitate the development of services to farming areas | Reduced emissions from burning of farm waste. | Opportunities to divert some materials for more beneficial use. | Unknown. | Improvement in options available for farms to appropriately dispose of waste. | Difficult due to geographical spread of the district. Staff resourcing to investigate and implement this. Potential resistance to implement change by some farmers. | Yes (longer term). |
| | Develop a final Disaster Waste Management Plan | | Some opportunity to divert disaster waste. | No additional costs outside of staff time / resourcing. | Reduced disruption to services and infrastructure following a disaster. | Staff time and resourcing. | Yes (medium term) |



| Service | Potential Option | Impact on Climate Change / Emissions | Alignment with the Upper Tiers of the Waste Hierarchy | Affordability | Effect on Levels of Service | Ease of Implementation | Overall Assessment |
|-----------|--|---|--|--|---|---|---|
| Education | Hazardous waste disposal education | Hazardous waste has increased potential to cause significant environmental harm compared to regular household waste. Efforts to minimise incorrect disposal reduce the risk of harm. Directs public to utilise existing facility designed to receive hazardous waste, or to hazardous waste collection service providers for commercial volumes. | Some hazardous waste is recycled (as opposed to treatment and, ultimately, disposal). E.g. batteries, LPG cylinders, waste engine oil. | Hazardous waste processing is expensive. | Improve awareness of what is hazardous waste, and how / where to dispose of it safely. Some issues for outer reaches of the district. Possible potential for inclusion in pop-up RRP facilities. | As resources allow, and options become available. | Yes (medium priority). Battery recycling was introduced in 2022. |
| ш | Continue to hold broad range of events at the ReDiscover Education Centre and ReNourish Community Garden | Changes implemented by the attendees are expected to increase diversion and/or successful recycling/recovery. | Widens the audience for education. Provides opportunities to create awareness of waste minimisation to broader demographics. | Existing service. | Offers additional services to the community. Potentially still less accessible for residents in outlying areas of the district. Potential to investigate options for offsite or online / streaming events. | Would not be challenging to implement into existing education planning. | Yes (medium priority). Underway. |



5.5 Further Assessment of Preferred Options

By maintaining a proactive leadership role, Council protects the community's interests and fulfils Council's legal responsibilities.

This section identifies Council's intended role in meeting the forecast future demands in terms of:

- Governance: Mechanisms for how the Council implements the preferred options.
- **Regulator:** The Council using a legal mechanism to facilitate or promote waste management and waste minimisation e.g. bylaws and District Plan rules.
- **Community Leader:** The Council providing information and promoting awareness and involvement in waste management and waste minimisation activities.
- Advocate: The Council promoting actions to address waste reduction and waste management issues
 which are outside the Council's direct control e.g. Environment Canterbury and central government for
 appropriate legislation, standards and guidelines.
- **Financier:** The Council investing in initiatives which facilitate waste management and minimisation activities e.g. grants and subsidies, developing a waste minimisation industry cluster.
- **Public Health Benefits:** Under the Health Act, Council has a responsibility to provide for collection and disposal of refuse and other offensive matter.

Error! Reference source not found. summarises the preferred options and issues to be addressed (excluding status quo) and reflects upon the waste hierarchy, the funding mechanism envisaged, an indication of timing, Council's role in delivering the option, and how the effectiveness of the option would be measured.



Table 5-4: Further Assessment of Preferred Options

| Goal | Preferred Option or Issue to be Addressed | Waste Hierarchy Tier Relevance | Funding Mechanism | Timeframe | Council Role(s) | Public Health Benefits | How Effectiveness is Measured |
|--|---|--------------------------------------|--|---------------------------|--|--|---|
| Deliver a high- quality, customer- focused service | Improve access to recycling and/or refuse drop-off facilities and/or services to accept material from houses not on kerbside routes | Recycle Disposal | Local TA Waste Levy National Waste Levy Targeted rates | Short term (1-2 years) | Governance Community Leader Financier | Reduced burning, burying and fly tipping of waste | Installation of recycling and/or refuse stations for remote/rural houses |
| Promote sustainable and responsible waste management | Investigate feasibility of a fortnightly kerbside residual waste collection and implement the recommendations of the feasibility study | Recover Recycle Disposal | Targeted refuse rate (reduced cost) | Medium (3-5 years) | Governance Regulator Financier | Possible reduced benefit due to potential for increased odour and vermin. However, appears to be satisfactory in other districts | Successful switch to fortnightly service Reduction in residual waste Minimal increase in contamination in kerbside organic and recycling Minimal increase in fly tipping Reduction in CO ₂ emissions |
| Maintain compliance and safety | Phase out residual waste bags | Reduce Reuse | User pays | Medium (3-5 years) | Governance Regulator Community Leader | Reduced manual handling injuries, reduce odour, and vermin issues | Monitoring bag orders/purchases for declining numbers |
| Promote sustainable and responsible waste management | Supply of home kitchen food waste caddies and possibly approved biodegradable liners to make separating food waste more convenient and hygienic | Recover | Local TA Waste Levy National Waste Levy Targeted rates | Medium (3-5 years) | Governance Community Leader Financier | | Increased food waste % within organics collection Reduced food waste % within residual waste collection Reduction in CO ₂ emissions |
| Promote sustainable and responsible waste management | Investigate compulsory organics collection in urban areas with a population of >1,000 and implement if appropriate | Recover | Targeted rates | Medium (3-5 years) | Governance Regulator | Diverting organic waste from landfill results in decreased methane emissions | Organics service is made compulsory in Darfield, Leeston, Lincoln, Prebbleton, Rolleston and West Melton Presentation rate of organics bins in these areas |
| Deliver a high- quality, customer- focused service | Investigate benefits of a regional waste services tender and pursue if appropriate | Recover Recycle Disposal | Targeted rates | Medium (3-5 years) | Governance Regulator Financier | | Operational cost per tonne at Pines RRP Cost per bin in service |



| | | | | | | | Waste Assessment 2025 |
|--|---|---|-------------------------------|---------------------------|---|---|---|
| Goal | Preferred Option or Issue to be Addressed | Waste Hierarchy Tier Relevance | Funding Mechanism | Timeframe | Council Role(s) | Public Health Benefits | How Effectiveness is Measured |
| Ensure environmental, social, and operational sustainability | Transfer of litter bin management to Parks and Reserves Team within Council | Recycle Disposal | N/A Council staff time | Short term (1-2 years) | Governance Leader Advocate Financier | Allows for more timely emptying of bins according to demand Improved safety for collection contractors due to reduced overflow issues | Transfer of litter bin management |
| Embrace innovation and technology | Investigate and embrace new or emerging technologies associated with collection services | All | N/A Council staff time | Ongoing | Governance Regulator Financier | Potentially – dependent on the technology | Dependent on the technology |
| Promote sustainable and responsible waste management. | Reduce emissions associated with collections | Reduce | Targeted rates | Long term (5+ years) | Governance Regulator Financier | Improved air quality | Reduction in CO ₂ emissions |
| Ensure environmental, social, and operational sustainability | Increase the residual waste compactor capacity throughput (upgrade compactor at Pines RRP) | Disposal | User pays | Long term (5+ years) | Governance Financier | | New compactor installed with greater processing capacity per hour |
| Deliver a high- quality, customer- focused service | Enclosed / semi-enclosed refuse receiving and processing area | Reuse Recycle Disposal | Local TA Waste Levy User pays | Long term (5+ years) | Governance Financier | Reduced windblown litter Reduced dust and noise | Construction of enclosed / semi- enclosed refuse processing area |
| Strengthen community knowledge, engagement, and ownership | Improve Council knowledge of commercial, construction and public waste composition received at Pines RRP | Reuse Recycle Recover Disposal | Local TA Waste Levy | Long term (5+ years) | Governance Financier | | Council has a clear understanding of the composition of the residual waste stream enabling better waste minimisation and diversion planning |
| Promote sustainable and responsible waste management | Construction waste sorting at Pines RRP | Reuse Recycle Recover | Local TA Waste Levy | Short term (1-2 years) | Governance Financier | | If implemented, by the diversion of waste (measured by weight) |



| | Waste Assessment 2025 | | | | | | |
|---|---|---|---|-------------------------|---|--|--|
| Goal | Preferred Option or Issue to be Addressed | Waste Hierarchy Tier Relevance | Funding Mechanism | Timeframe | Council Role(s) | Public Health Benefits | How Effectiveness is Measured |
| Deliver a high- quality, customer- focused service | Investigate the feasibility of a landscape supplies yard to assist with sale of compost generated and trailer hire to improve convenience, implement if appropriate | Recover (provides outlet for recovered material – increasing sustainability of the recovery option) | 3rd party User pays | Long term (5+ years) | Governance | | Whether a landscape supplies yard is implemented or not Sales of the compost produced |
| Promote sustainable and responsible waste management | Provide a structure and utilities for processing (e.g., deconstruction, denailing, consolidation) of various items and materials enabling their reuse or recycling, potentially including farm wastes | Recycle Disposal | Local TA Waste Levy National Waste Levy User pays | Long term (5+ years) | Governance Regulator Community Leader Financier | Reduced burning and burying of farm waste | Volumes of material diverted through system |
| Strengthen community knowledge, engagement, and ownership | Investigate the feasibility of 'maker spaces' on site to repurpose and upcycle waste, implement if appropriate | Reuse Recycle | Capital: Local TA Waste Levy National Waste Levy Operation: Volunteer run | Long term (5+ years) | Governance Community Leader Financier | Socially – mental health Loneliness, social connectedness | Development of maker spaces Utilisation of space Products made Volumes of materials diverted |
| Strengthen community knowledge, engagement, and ownership | Establish a tool library | Reduce Reuse | Capital: Local TA Waste Levy National Waste Levy Operational: User pays | Long term (5+ years) | Governance Community Leader Financier | | Number of customers using the service Reviews and feedback from public |
| Deliver a high- quality, customer- focused service | Further increase public opening hours at Pines RRP, if demand exists | Reuse Recycle Recover Disposal | User pays | Medium (3-5 years) | Governance Community Leader | | Opening hours at the Pines RRP are increased if demand exists |
| Embrace innovation and technology | Investigate and embrace new or emerging technologies at the Pines RRP (e.g. electric loaders) | Reuse Recycle Recover Disposal | User pays | Ongoing | Governance Community Leader Financier | Improved air quality | Dependent on technology. |



| | | | | | | | waste Assessment 2025 |
|---|--|---|--|-------------------------|--|---|---|
| Goal | Preferred Option or Issue to be Addressed | Waste Hierarchy Tier Relevance | Funding Mechanism | Timeframe | Council Role(s) | Public Health Benefits | How Effectiveness is Measured |
| Promote sustainable and responsible waste management | Provide additional recycling options at Pines RRP for materials not accepted in kerbside recycling | Recycle | User pays | Medium (3-5 years) | Governance Financier | | Increased range of recycling options at Pines RRP |
| Maintain compliance and safety | Manage closed landfills in accordance with Closed Landfill Management Plan | Disposal | Landfill Aftercare Provision Contaminated Sites and Vulnerable Landfills Fund | Long term (5+ years) | Governance Regulator Financier | Reduced potential for groundwater contamination | Old landfill sites are managed in accordance with the CLMP Consent compliance |
| Maintain compliance and safety | Use regulatory tools to capture tonnage and composition data from private collectors | Disposal | License charges | Medium (3-5 years) | Governance Regulator | | Weight and disposal locations of material collected by private contractors Records are supplied |
| Promote sustainable and responsible waste management | Develop a more thorough understanding of farm waste in the district. Investigate options for and possible partnerships or methods to facilitate the development of services to farming areas | Recycle Recover Disposal | Local TA Waste Levy User pays | Long term (5+ years) | Governance Community Leader Advocate Financier | Improved air quality from reduction in burning Reduced risk of groundwater / bore water contamination | Increased options available to farmers and the uptake of these options |
| Ensure environmental, social, and operational sustainability | Develop a final Disaster Waste Management Plan | Recycle Recover Treatment Disposal | Budgeted item | Medium (3-5 years) | Governance | Reduced risk of adverse health impacts of disaster waste | A Disaster Waste Management plan is finalised |
| Ensure environmental, social, and operational sustainability | Hazardous waste disposal education | Recycle Treatment | Budgeted item | Ongoing | Governance Community Leader Financier | Improved appropriate disposal of hazardous waste | Increased tonnes of hazardous waste dropped off at Pines RRP |
| Strengthen community knowledge, engagement, and ownership | Continue to hold broad range of events at the ReDiscover Education Centre and ReNourish Community Garden | Reduce Reuse Recycle Recover | Local TA Waste Levy | Ongoing | Governance Community Leader Financier | | Audience reached Feedback from event attendees |



Environmental, Economic, Social and Cultural Outcomes

Maintaining the status quo for waste services and infrastructure preserves historical levels of service, along with their associated environmental, economic, social, and cultural benefits and drawbacks. However, this approach risks falling short of the community's evolving expectations. Levels of service are not static; regulatory changes, increasing landfill levies, and rising disposal costs demand a proactive response. At the same time, growing environmental awareness is driving stronger public expectations that waste challenges be addressed through improved infrastructure and services.

The recent opening of the ReUse Shop, ReNourish community garden, and ReDiscover education centre at the Pines Resource Recovery Park reflects Council's recognition of this shift. These initiatives deliver tangible social benefits, particularly in addressing issues such as social isolation. Facilities like these provide informal opportunities for community interaction which is an important contribution given the growing prevalence of loneliness, especially among older adults.

The potential development of maker spaces adds another layer of social and economic value. These units could enable skill-sharing, training, and small-scale employment opportunities particularly for youth, the unemployed, or those reintegrating after incarceration. These units also offer a platform for creative and cultural expression through activities such as art, carving, and traditional crafts. Likewise, the community garden and biodiversity spaces offer opportunities for intergenerational learning, connection to place, and celebration of mātauranga Māori.

Adding a tool library alongside these services would contribute further to waste minimisation and community empowerment. Tool libraries reduce consumption by allowing residents to borrow rather than purchase infrequently used tools, lowering individual costs and environmental impact. They also foster community connection and knowledge-sharing, particularly when paired with educational workshops on repair, DIY, or sustainable building techniques. In combination with the maker spaces, a tool library strengthens the district's circular economy and supports community resilience through resourcefulness and collaboration.

Any future options to meet forecast demand should be assessed on their ability to deliver improved outcomes across environmental, economic, social, and cultural dimensions. Priority should be given to those initiatives offering the greatest overall benefit. There is no expectation that future developments would result in a reduction in value; rather, they offer the opportunity to build a more inclusive, sustainable, and future-proof system that reflects the community's aspirations and values.



6.0 Statement of Proposals

Based on the options identified in this Waste Assessment and the Council's intended role in meeting forecast demand a range of proposals have been put forward in Section 5.0.

It is expected that the implementation of these proposals will meet forecast demand for services as well as support the Council's goals and objectives for waste management and minimisation. These goals and objectives will be confirmed as part of the development and adoption of the Waste Management and Minimisation Plan.

A Waste Assessment must include a statement about the extent to which the proposals will:

- ensure that public health is adequately protected; and
- promote effective and efficient waste management and minimisation.

6.1 Protection of Public Health

Council, together with providers from the private sector, currently deliver a range of waste and diverted material services to the district that that play a critical role in protecting public health across the district. The existing Council-provided Resource Recovery and Waste services and infrastructure are set to continue into the future.

Under the Health Act 1956, Council is obligated to ensure solid waste collection services are available to residents and that closed landfills are managed in a way that minimises environmental and health risks. The delivery of waste management and minimisation services, as outlined in the Council's Long-Term Plan (LTP), supports these statutory obligations and contributes to maintaining a safe and healthy environment for the community.

Future service options have been assessed using a methodology that prioritises both the protection of public health and the promotion of effective waste minimisation.

It is considered that the proposals will adequately protect public health. A copy of this draft document has been provided to the Medical Officer of Health for review and comment, in accordance with legislative requirements.

6.2 Promotion of Effective and Efficient Waste Management and Minimisation

This Waste Assessment has examined the current and projected quantities of waste and diverted material generated within the district, the services currently provided, the anticipated future demand for these services, and the range of options available to meet that demand. It has also considered Council's appropriate role in delivering or supporting these services.

The assessment process has been robust, involving a comprehensive evaluation of service needs, infrastructure capacity, and alignment with Council's statutory obligations under the Waste Minimisation Act 2008 and related legislation. It is considered that Council's intended role is appropriate within this planning framework and supports the overarching goal of promoting effective and efficient waste management and minimisation.

In summary, the preferred approach is to maintain and grow the volume of material diverted from landfill while continuing to invest in and develop new or emerging infrastructure. This includes enhancing operational efficiencies, extending service reach, and supporting community-led initiatives that contribute to waste reduction outcomes.

Accordingly, the proposed direction is expected to promote effective and efficient waste management and minimisation throughout the Selwyn District.



Glossary of Abbreviations

| Abbreviation | Meaning |
|-------------------|--|
| CLMP | Closed Landfill Management Plan |
| CO ₂ | Carbon Dioxide |
| CO ₂ e | Carbon Dioxide Equivalent |
| CRS | Container Return Scheme |
| CWJC | Canterbury Waste Joint Committee |
| ECan | Environment Canterbury |
| EPA | Environmental Protection Agency |
| ERA | Environmental Risk Assessment |
| EV | Electric Vehicle |
| E-Waste | Electronic Waste |
| FOGO | Food Organics, Garden Organics |
| GDP | Gross Domestic Product |
| HDPE | High-Density Polyethylene |
| HSNO | Hazardous Substances and New Organisms |
| HSWA | Health and Safety at Work Act |
| IMP | Iwi Management Plan |
| KPI | Key Performance Indicator |
| LGA | Local Government Act |
| LTP | Long Term Plan |
| MfE | Ministry for the Environment |
| PCBU | Person Conducting a Business or Undertaking |
| PVC | Polyvinyl Chloride |
| RFID | Radio Frequency Identification |
| RMA | Resource Management Act |
| RRP | Resource Recovery Park |
| SCGM | Selwyn Capacity for Growth Model |
| SDC | Selwyn District Council |
| SUIP | Separately Used or Inhabited Part of a Rating Unit |
| TA | Territorial Authority |
| WA | Waste Assessment |
| WMA | Waste Minimisation Act |
| WMF | Waste Minimisation Fund |
| WMMP | Waste Management and Minimisation Plan |
| | |



Appendix 1

Feedback from the Medical Officer of Health

8th July 2025

Selwyn District Council 2 Norman Kirk Drive PO Box 90 Rolleston 7643

Tēnā koe

Selwyn District Council Waste Assessment

The Waste Minimisation Act 2008 requires that each Territorial Local Authority (TLA) must review its Waste Management and Minimisation Plan (WMMP) by 1 July 2012 (s50 (1)). In doing so, it must make a waste assessment before conducting the review (s50 (2)). In making a waste assessment the TLA must consult the Medical Officer of Health (s51(5)(a)).

A waste assessment must contain, amongst other things (s1(f)(i)) a statement about the extent to which the proposals contained in it will ensure that public health is adequately protected:

The following feedback is provided on the Draft Waste Assessment prepared by the Selwyn District Council.

General Comments

Waste has the potential to affect public health through many potential exposure routes including ingestion of contaminated materials, inhalation of chemicals and pathogens and dermal exposure to hazardous materials. The main issues for public health with regard to waste management and waste minimisation are:

- Identification of the various types of wastes and collection/disposal methods
- Satisfactory collection and disposal of waste so that public health risks are controlled and mitigated
- Addressing the particular issues of hazardous waste, including medical wastes, asbestos waste and electronic waste (e-waste)
- Consideration of future population demands and consumption rates on the current system and mitigation strategies in place
- Regional co-ordination of waste management and waste minimisation
- Ensuring that a waste disposal service is available to all residents/ratepayers
- Legislative and cost barriers that inhibit mitigation of public health issues related to waste
- The health impacts of climate change and the contribution that effective waste management and waste minimisation can make to reduction in greenhouse gas emissions

Specific Comments

Waste Data Collection and Analysis

The Medical Officer of Health is pleased to see a thorough analysis of waste data in Council's waste assessment. The demonstration of diversion of waste from landfill and an increase in hazardous waste disposal is particularly positive. Council's acknowledgement that there are still some data gaps including waste transferred outside of the Selwyn District is noted. The Medical Officer of Health understands that these waste flows can be difficult to track given the complexities of waste generation and proximity to other council districts. The Medical Officer of Health recommends that work continue with other neighbouring councils and the Joint Waste Committee to improve understanding of the extent of cross-boundary waste transportation and disposal.

Kerbside Refuse, Recycling and Organics collection

The Medical Officer of Health commends Council's vision of a circular economy. However, Council needs to remain vigilant that any changes which may affect access to kerbside collection - both urban and semi-rural - such as financial barriers like increased bin and bag costs do not lead to increased fly-tipping and associated public health risks.

It is good to see that Council's work on auditing of on-street recycling bins has led to a significant reduction in rejected loads and general contamination of recycling. The Medical Officer of Health also commends Council's auditing of capacity at Pines Resource Recovery Park (RRP) as well as the flexibility it has shown in accommodating changes in recycling needs at Pines RRP. We note that a SWAP is planned for the district to help identify the quantity and composition of organics waste disposal.

Drop off Refuse, Recycling and Organics and Construction Waste

The Medical Officer of Health commends Council for implementing the ReDiscover, ReUse and ReNourish programmes associated with the Pines RRP to help divert materials from landfill. It is also positive to note that Council has increased the number and distribution of kerbside drop-off points and facilities for those not on routine kerbside routes.

Signficant work has been completed at the Pines RRP to assist with processing the increasing volumes of organic waste being disposed of. The Medical Officer of Health notes that Council is aware of the planned EcoGas facility planned to replace the Christchurch City Council organics processing plant in Bromley but has not yet investigated the impact of this on organics disposal for the Selwyn District. The Medical Officer of Health encourages Council to continue to investigate various organics disposal methods to reduce the risk to public health from unintentionally stockpiled organic materials.

The Medical Officer of Health notes that construction waste is marked as a medium confidence waste stream. Construction waste has the potential to contain hazardous materials that can pose a risk to human health, such as asbestos. The Medical Officer of

Health New Zealand Te Whatu Ora

Health recommends further investigation to identify the quantity and composition of construction waste.

Refuse Transfer Stations

The Medical Officer of Health notes that the Pines RRP is the main transfer station within the Selwyn District and is aware of the significant investment in the infrastructure associated with the resource recovery park. Council's satellite RRPs and community drop-off days also play a significant role in reducing the incorrect disposal of waste materials.

E-Waste Collection and Disposal

Council has done significant work on e-waste collection and disposal. E-waste, along with other hazardous waste, has potential impacts on human health. The data analysis in the waste assessment indicates a significant volume of e-waste has already been diverted from landfill which is very positive. The Medical Officer of Health notes that Council is planning to investigate the possibility of partial e-waste deconstruction in addition to recycling efforts and encourages Council to continue this work to further reduce materials going to landfill.

Hazardous Wastes

Council is also commended for its significant work in promoting battery recycling. It is pleasing to learn that no truck fires associated with incorrectly disposed batteries have been reported since 2021. This is a significant achievement as exposure to fires, especially fires involving hazardous materials, can have a significant impact on public health, particularly respiratory health.

Community and Industry Engagement

It is good to see the first stage of the Reconnect project coming to fruition with the Education Centre opening in 2023 at Pines Resource Recovery Park, the community garden, and the recycling and reusable drop-off canopy installation and being operational by the end of 2024, alongside the council's full-time waste and sustainability educator. Council is commended for continuing to work with support organisations such as Envirotown, and the continuation of waste minimization workshops. The Medical Officer of Health also notes that the Community Drop-off days, which initially started for garden waste have expanded to allow additional recyclable materials to be dropped off including bulky waste (i.e items too large for residential wheelie bins, such as furniture) with good outcomes in the reduction of fly-tipping. Council is encouraged to continue this proactive work.

Iwi Engagement

The Medical Officer of Health acknowledges that in preparing this waste assessment Council has referred to the applicable statutory iwi management plans alongside the Te Rūnanga o Ngāi Tahu He Rautaki Mō Te Huringa o Te Āhuarangi Climate Change Strategy to recognise, protect and provide for tāngata whenua from various rūnanga within its takiwā. However,

Health New Zealand Te Whatu Ora

Council is encouraged to undertake active engagement with mana whenua in the preparation of its waste management and minimisation plan.

Event Waste Management

It is good to see that equipment to assist with waste minimisation can be provided to event organisers for use during their events. Council is commended for assisting with equipment and funding for community litter clean ups.

Smaller Settlements Without Kerbside Collection

Council's establishment of the High Country Village collection infrastructure to assist smaller settlements manage residual waste and recycling is noted. This is an especially important mechanism to reduce the risk of fly-tipping and associated public health risks. Council is commended for the use of satellite RRPs and Community Drop-Off Days. Initiatives such as these are an important way to enable access for areas within the district that are a significant distance from the Pines RRP.

Ngā mihi,

Dr Cheryl Brunton

Medical Officer of Health/Āpiha Tākuta mō te Hauora National Public Health Service Waitaha

Contact details

Gabi Barlow
NPHS Te Waipounamu
021722870
gabi.barlow@tewhatuora.govt.nz