



Queenstown Lakes District Council

Waste Assessment

March 2018

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1 Introduction

Queenstown Lakes District Council (Council) has a statutory responsibility to promote effective and efficient waste management and minimisation within the Queenstown Lakes District (Section 42, Waste Minimisation Act 2008 (WMA)). As part of this responsibility, the Council is required to complete a Waste Assessment (WA) which in turn informs the development of the Council's Waste Management and Minimisation Plan (WMMP).

This WA report has been prepared in accordance with Section 51 of the WMA. It provides details of the following:

- existing waste services provided in the District (Council and non-council)
- waste quantities, composition and flows
- identification of issues
- future demand for services
- vision, goals, objectives and targets for waste management and minimisation
- guiding principles to direct how to get to where the Council wants to be
- an options assessment/statement of proposals for waste services and identified district issues through the Waste Management and Minimisation Programme Business Case (PBC)

The Council is planning to review and adopt its WMMP by Dec 2017 in order to meet the six yearly review requirement of the WMA and to fit in with the timeframe for the Long Term Plan 2018-2028. Council adopted the current WMMP in December 2011.

2 Common themes

In undertaking this WA, a number of common themes and interlinked issues have emerged which are outlined below.

2.1 Strategic importance

The WA and WMMP need to be undertaken within the context of the New Zealand Waste Strategy 2010 (NZWS), Council's strategic framework, vision and goals and the legislative requirements of the WMA.

The NZ Waste Strategy sets out the government's long term priorities for waste management and minimisation, and has two goals:

- Goal 1: Reducing the harmful effects of waste
- Goal 2: Improving the efficiency of resource use

Each option and opportunity needs to be brought back and analysed with this at the forefront, to ensure alignment with these strategic goals and objectives.

2.2 High number of visitors

The Queenstown Lakes area is a magnet for tourists, which brings particular challenges in the area of waste management. The number of tourists visiting the area far out numbers local residents, however residents are paying for a level or frequency of service for parts of the district that has to meet the need of a highly mobile, and in many cases outdoor-focused tourist, rather than a resident population. The 2015/16 Annual Plan indicates that at peak times 100,000+ people are using the district's infrastructure which has a resident population of 30,700¹ and 22,400 rateable properties that are paying for that infrastructure. Because of the high number of tourists, statistics on waste are skewed (e.g. the volume of waste generated per usual resident population is inaccurate as the data includes all waste generated by the visitor industry), and it means that solutions to district specific issues need to focus on the needs of both the resident and non-resident. This visitor impact is more pronounced in Queenstown Lakes District than in other districts of New Zealand.

2.3 Education across industries, tourists and residents

In order to meet the vision of the WMMP – “Towards Zero Waste and a Sustainable District” there needs to be a targeted education programme to reach those groups that are impacting on the ability to achieve the vision of the WMMP. Work needs to be undertaken with the tourism industry, whether that is rental companies, tramping / transport / tour operators, to continually educate and provide a consistent message on how to reduce, re-use and recycle in the District. Clear signage and directions would be instrumental for changing visitor behaviours to encourage them to do the right thing when it comes to waste.

Similarly, industry, particularly the construction and demolition industry, need to have clear messaging and access to sound advice on reducing waste to landfill as the increase in development has seen an increase in construction and demolition waste to landfill.

Council needs to make it easy for industry, residents and tourists to do the right thing. To work towards this Council can provide the right services and facilities in the right location, provide clear messaging, signage and directions to make it easy to dispose of material in the right way. There is a need to encourage the people of the district, and those passing through, to make better and easier choices when it comes to waste management and minimisation. Council services need to be supported and promoted by effective education in order to change behaviours and to achieve better waste outcomes for the District.

2.4 Section 17A – Delivery of services

Section 17A of the Local Government Act 2002 (LGA) sets out the requirement for local authorities to “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.”

The two prongs of a Section 17A assessment as shown in Figure 1 below, puts the customer at the forefront of the assessment in tandem with cost-effectiveness. For the customer, this may mean that cost-effectiveness does not mean least cost, and therefore understanding what your community needs is critical to delivering a service in alignment with community expectations.

¹ Annual Plan 16/17 p18

WASTE ASSESSMENT SECTION 17A REVIEWS

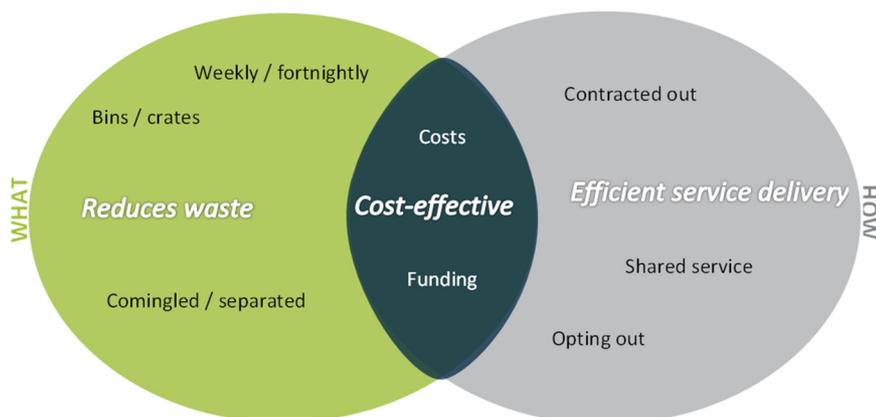


Figure 1 Interlinked Section 17A components of cost-effectiveness and community needs

Section 17A reviews provide Council with the opportunity to undertake a full review of the way in which a service is delivered. As part of this process, discussions with surrounding territorial authorities are critical as there may be options for regional collaboration that benefits more communities, and results in greater efficiencies and opportunities to achieve waste minimisation goals. A solid waste Section 17A review is to be undertaken on a regional basis in 2017.

2.5 National advocacy

Many waste minimisation initiatives are more suitably implemented at a national level, such as:

- Product stewardship schemes for problematic waste streams (e.g. e-waste, tyres);
- National Environmental Standards (e.g. for the outdoor storage of tyres);
- Changes to the Waste Disposal Levy; or
- Container Deposit legislation.

There is a need to work with national bodies such as WasteMINZ and the Ministry for the Environment to encourage ongoing support for and the implementation of waste minimisation activities through a coordinated advocacy approach to government and industry.

Alongside other organisations, Council will continue to support development and implementation of national waste minimisation initiatives. Depending on the final make up of any national scheme, Council support could be through the provision of infrastructure, services or regulatory processes, or education and support for businesses and residents to meet their obligations under any new scheme.

3 Part 1 – The waste situation

Council provides a range of waste management services across the district to businesses and households and to some of the rural townships (refer Appendix 2).

The following section contains information regarding:

- council provided services and facilities
- non-council provided services and facilities
- waste flows
- waste quantities and composition
- identified waste issues
- forecast future demand.

3.1 Council services and facilities

Council provides a range of waste collection, recycling, recovery, processing and disposal services and facilities in the district that are funded through targeted rates, the waste levy, user charges and general rates.

Council waste services and facilities include:

- Kerbside refuse collection using council approved bags and wheelie bins
 - weekly service provided to Queenstown, Glenorchy, Arrowtown, Lake Hayes, Kingston, Wanaka, Gibbston, Albert-Town, Hawea, Makarora and Luggate
 - twice daily collection of refuse in the Queenstown CBD
 - daily collection refuse from the Wanaka CBD
- Rural refuse collection points
 - weekly collection of refuse in rural areas from four collection points at Gibbston, Hawea, Dublin Bay and Maungawera
- Kerbside recycling collection
 - Wakatipu - weekly recycling collection service provided to eligible residential properties in Queenstown, Glenorchy, Arrowtown, Lake Hayes and Kingston
 - Wanaka – weekly kerbside recycling collection service to eligible residential properties in Wanaka, Albert Town, Makarora, Hawea and Luggate
- Rural recycling drop off facilities
 - Wakatipu – weekly recycling collection service in rural areas from one collection point at Gibbston Valley
 - Wanaka - twice weekly collection service in rural areas from three collection points (Off peak in Hawea is twice a week, Dublin and Maungawera are once per week. In peak times Hawea is 7 days a week, and at least twice per week for Dublin and Maungawera).
- Transfer stations - Frankton (Queenstown) and Wanaka – acceptance of waste and acceptance, sorting and storage of recyclable materials, public drop off facilities for recycling and green waste, tyres, scrap metal, hazardous goods

- Wakatipu Transfer Station owned by council and operated under contract by AllWaste - drop off facilities for recyclable materials (green waste, tyres, scrap metal, hazardous goods drop off) and disposal of general waste
- Wanaka Transfer Station site owned by Queenstown Lakes District Council and operated under contract by All Waste - drop off facilities for recyclable materials (green waste, tyres, scrap metal, hazardous goods drop off) and disposal of general waste
- Wakatipu Recycling Centre - Material Recovery Facility operated by Smart Environmental Ltd under Build Own Operate and Transfer contract. Owned and operated by Smart Environmental on a site owned by Council
 - Accepts kerbside-collected recyclables from council collections from both the Queenstown Lakes and Central Otago Districts Accepts recyclable material from private recycling services for both the residential and commercial sectors
 - Co-mingled recyclables are sorted using a combination of mechanical equipment and manual sorting
 - Consolidates separated recyclables and arranges transport to processing facilities in New Zealand and overseas
 - Operates a re-sale shop
- Victoria Flats landfill – owned by Queenstown Lakes District Council, operated by SCOPE under Build Own Operate and Transfer contract. Accepts waste from the Queenstown Lakes and Central Otago Districts.
- Rural greenwaste drop off points in Glenorchy, Kingston, Luggate, Hawea and Makorara
- Hazardous waste drop off services for residential quantities of hazardous waste at the Frankton transfer station and Wanaka Transfer Station
- Biosolids disposal / processing
 - Council is progressing a vermicomposting trial at the Victoria Flats landfill
- Provision and servicing of litter bins and public place recycling bins
- Waste minimisation education/initiatives and programmes including:
 - EERST (Environmental Education for Resource Sustainability, EnviroSchools programme and Dr Compost (environmental education contracted to Wanaka Wastebusters)
 - Love Food Hate Waste campaign
 - Waste Free Parenting,
- Monitoring and maintenance of nine closed landfills at Tucker Beach, Wanaka, Glenorchy, Hawea, Kingston, Makarora, Luggate, Albert Town and Warren Park.
- Annual inorganic collection in Glenorchy, Biannual in Makarora, Twice yearly in Kingston
- Subsidised home composting initiative “Bokashi” Bins

3.2 Non-council provided services and facilities

Private companies continue to provide user charges services to meet additional requirements of the community. The following services are known to be provided:

- Private collection services for refuse and recycling for residential and commercial customers, including skip bin services for construction and demolition waste
- Collection of divertible material – recyclables and greenwaste, including soft plastics and bottle banks
 - by private companies
 - by community groups/enterprise
- Cleanfill sites
- Wanaka Wastebusters – recycling resale shop

3.3 Waste flows

The map of the Queenstown Lakes District Council area as shown in Figure 2 below indicates the scale of the area for which Council provides waste services. The area is divided into two wards, Wakatipu and Wanaka.

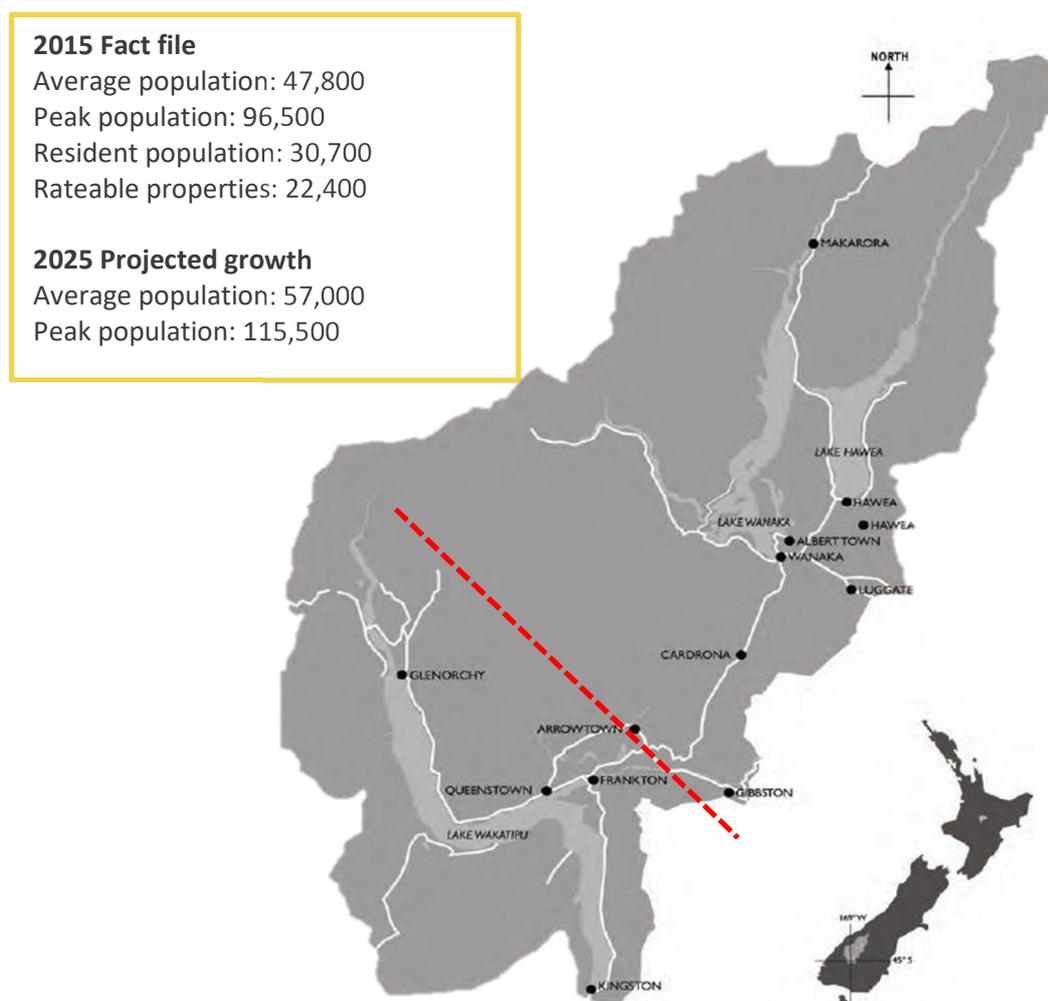


Figure 2 Map of the Queenstown Lakes District with the Wakatipu and Wanaka Areas

Figure 3 below shows the various waste flows and volumes into the Victoria Flats Landfill from the two transfer stations in the District, two transfer stations in Central Otago District, and also kerbside collection, general waste, special waste and glass from the Wakatipu recycling centre.

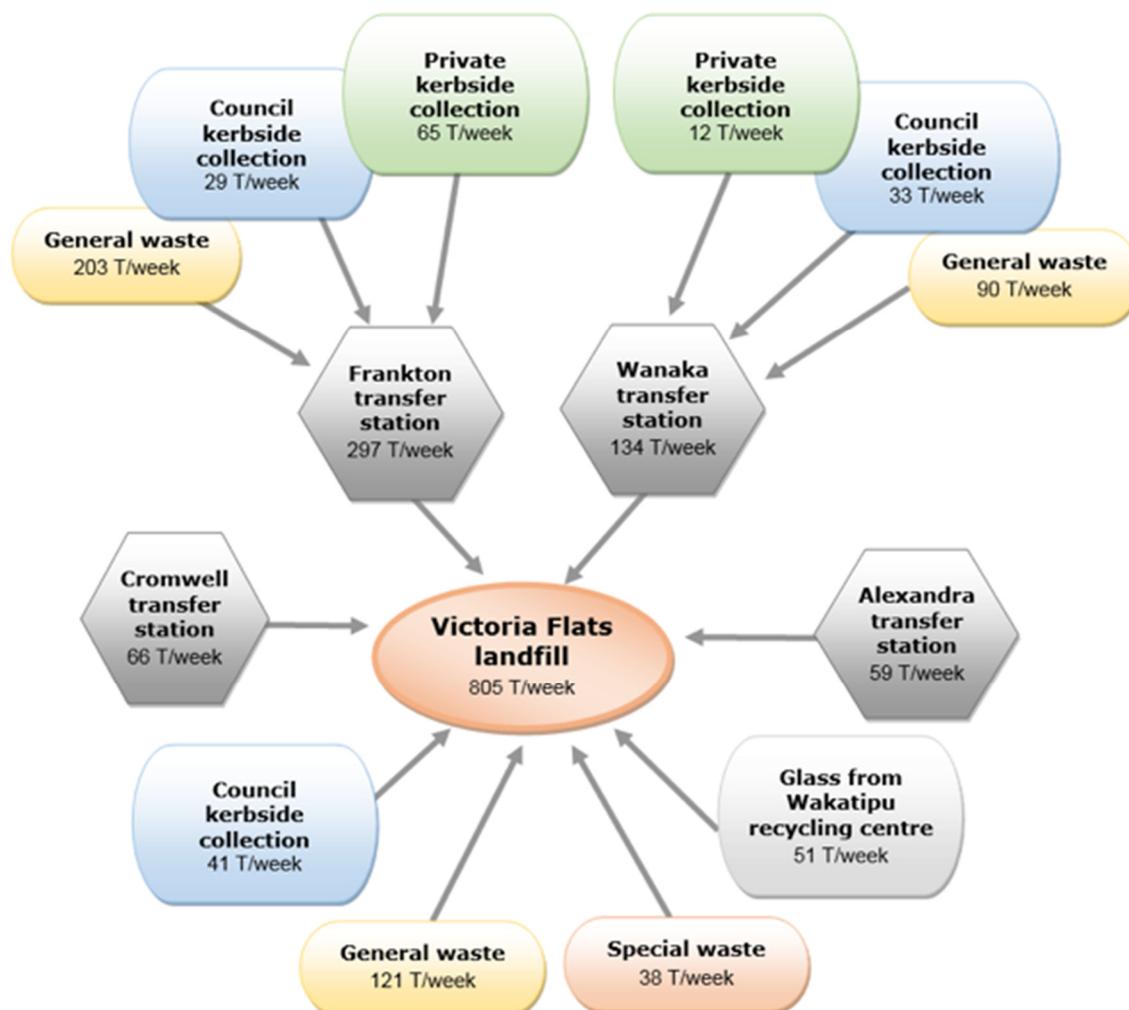


Figure 3 Victoria Flats landfill waste flows – July and August 2016 (from 2016 Survey report)

3.4 Waste quantities and composition

It is important for Council to understand the quantity and composition of waste coming through its services so that it can identify opportunities to reduce waste to landfill. This could be by making appropriate policy, service and community education responses that ultimately achieve the vision, goals, objectives and targets of delivering the WMMP.

3.4.1 Waste

Figure 4 shows the amount of waste generated by the Queenstown Lakes District that is disposed at the Victoria Flats landfill. From 2003 to 2008 there was an increase in the amount of waste going to the landfill, however, this dropped back to just under 2003 levels in 2012 as a result of a slowdown in economic activity following the Global Financial Crisis. Since 2012 there has been a steady increase in the amount of waste from the District going to the

landfill, and in 2016 it is at its highest recorded. This in part due to increased tourism, the construction boom and the recent landfilling of glass, due to the existing recycle end-use market being no longer available.

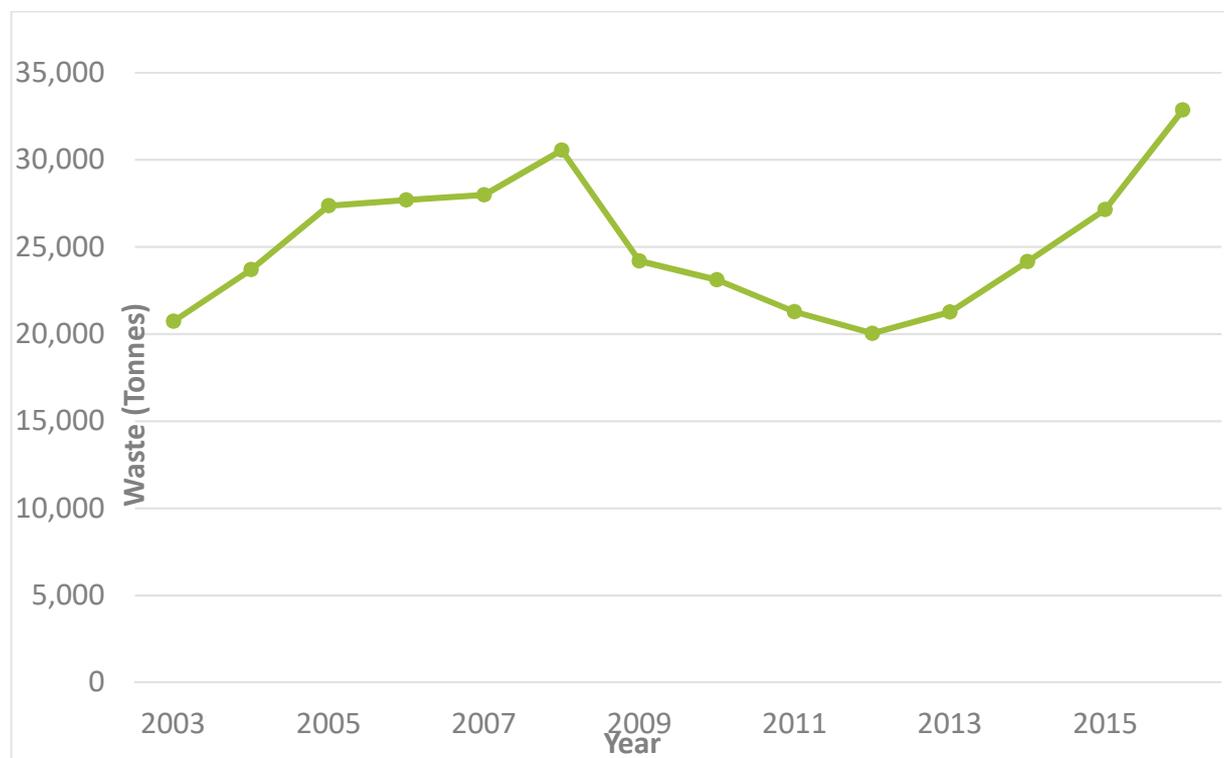


Figure 4 Waste quantities (tonnes) sent to Victoria Flats landfill from Queenstown Lakes District from 2003-2016

Since 2004 the Council has been recording the quantities of waste and diverted material that they have handled. In July/August 2016, the Council commissioned an analysis of the composition of waste being disposed of to landfill from the District. The studies comprised six days of surveying at Wanaka and Wakatipu transfer stations and the analysis of weighbridge records for the transfer stations and Victoria Flats landfill. The methodology for the analysis was designed to be consistent with the Ministry for the Environment’s Solid Waste Analysis Protocol (SWAP). The figures below are taken from the SWAP report which is attached in Appendix 1.

Council has a target in its current Long Term Plan (2015) to reduce the amount of residential waste to landfill per head of population from a baseline of 188kg (June 2014) to less than 160kg for the 2016/17 financial year, and reducing again to 155kg in the 2017/18 financial year. However, there was an increase in residential waste to landfill in 2015/16 to 258kg. This can be explained by the recent landfilling of glass and as a result of the 100,000+ visitors to the district in 2015/16. In no way can this be attributed solely to the resident population. Therefore it is proposed that more representative targets to track performance are used in the new WMMP.

There has been a significant increase in the amount of glass going to the Victoria Flats landfill, rising 7% in the last 4 years because the glass collected in the Wakatipu Ward was landfilled. This is due to the fact that the glass product generated from the MRF processing the commingled recycling at the Wakatipu Recycling Centre (MRF) has a low financial value because it is not colour-sorted and contains a high degree of contamination reducing the recyclables value.

Similarly there has been an increase in the amount of rubble being received at the Victoria Flats landfill. This reflects the high level of construction and demolition waste being produced as a result of the current construction boom in the Queenstown Lakes District (timber also remains a high proportion of the waste received at these facilities).

The amount of organic material in the waste stream has reduced between 4-14% across the facilities between 2012 and 2016. However, Table 1 below demonstrates that organic material represents the highest material tonnage per week at 152t at the Victoria Flats landfill, 17t greater than timber, the second highest material going to landfill.

Table 1 Composition of the overall waste stream at Wanaka and Frankton transfer stations and the Victoria Flats landfill (Victoria Flats also receives waste from Central Otago transfer stations and waste carted directly to landfill)

Overall waste streams – 8-13 August 2016	Wanaka transfer station	Frankton transfer station	Victoria Flats landfill
Paper	17 T/week	33 T/week	99 T/week
Plastics	16 T/week	26 T/week	82 T/week
Organic	26 T/week	53 T/week	152 T/week
Ferrous metals	4 T/week	6 T/week	16 T/week
Nonferrous metals	1 T/week	2 T/week	6 T/week
Glass	5 T/week	13 T/week	86 T/week
Textiles	6 T/week	17 T/week	45 T/week
Sanitary paper	5 T/week	7 T/week	28 T/week
Rubble	27 T/week	62 T/week	109 T/week
Timber	27 T/week	76 T/week	135 T/week
Rubber	1 T/week	1 T/week	7 T/week
Potentially hazardous	1 T/week	1 T/week	40 T/week
TOTAL	134 T/week	297 T/week	805 T/week

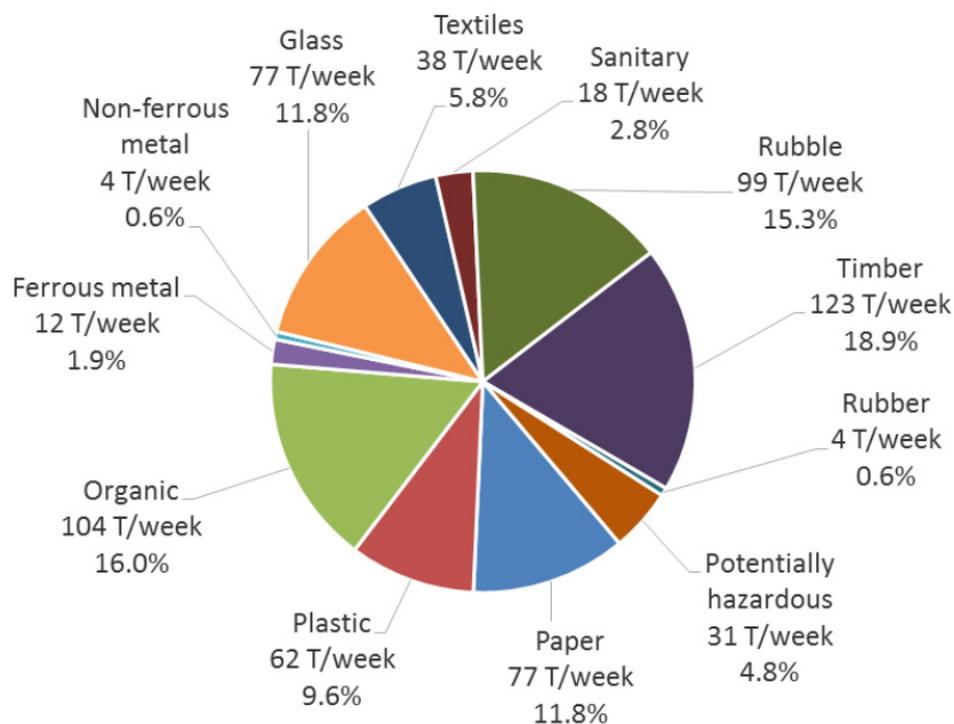


Figure 5 Primary composition of Victoria Flats landfill waste from Queenstown Lakes District (from 2016 Survey) (Total 649 T/week including waste carted directly to landfill from the Queenstown Lakes District)

Figure 5 gives the waste composition breakdown of the types of waste entering the Victoria Flats landfill from the Queenstown Lakes District. Timber was the largest component with 18.9% of the total by weight. Organic material was the next highest component at 16%, and rubble close behind at 15.3% of total weight.

3.4.2 Diverted material

Diverted materials are predominantly those from kerbside recycling collection services, from drop off facilities for recycling and green waste and re-use shops. The Annual Report 2015/2016 indicates that diverted materials from landfill increased from 226kg to 260kg per head of population from 2014/15 to 2015/16.

The waste diversion percentage is shown in Figure 6. The figures prior to 2011/12 are taken from the 2012 Asset Management Plan (AMP). The underlying waste tonnage figures in the 2012 AMP were taken from different sources, however the historical figures still provide some comparison with the last five years.

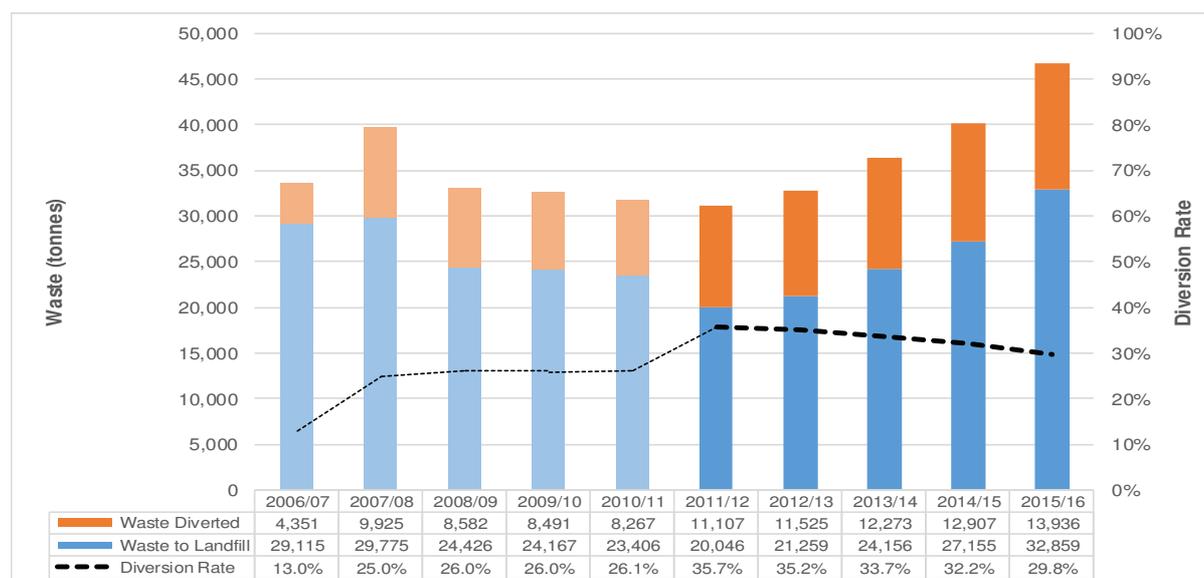


Figure 6 Queenstown Lakes District waste generated and waste diversion rate

Figure 6 shows that the amount of waste diverted has increased in recent years, however the total amount of waste generated has increased at a greater rate. This has resulted in a decrease in the diversion rate over the last five years.

Table 2 shows the percentage of divertable material in the overall waste streams across the two transfer stations and the Victoria Flats landfill. There is potentially 53% divertable material across the waste streams.

Table 2 Potentially divertable materials in overall waste streams (SWAP 2016)

Divertable materials in overall waste streams - 8-13 August 2016	Frankton transfer station	Wanaka transfer station	Victoria Flats landfill
CURRENTLY RECYCLABLE MATERIALS			
Paper - Recyclable	5.1%	6.0%	5.0%
Paper - Cardboard	4.5%	5.1%	4.9%
Plastic - Recyclable	1.4%	1.7%	1.6%
Ferrous metal - All	2.0%	2.6%	2.0%
Nonferrous metal - All	0.6%	0.5%	0.7%
Subtotal	13.6%	15.8%	14.2%
CURRENTLY COMPOSTABLE MATERIALS			
Organics - Compostable greenwaste	2.4%	1.3%	2.2%
Subtotal	2.4%	1.3%	2.2%
POTENTIALLY RECOVERABLE MATERIALS			
Organics - Kitchen waste	13.0%	13.8%	13.4%
Glass - Recyclable	3.2%	2.6%	9.1%
Rubble - Cleanfill	7.7%	1.1%	3.4%
Rubble - New plasterboard	4.3%	11.4%	4.0%
Timber - Reusable	2.9%	4.0%	2.1%
Timber - Untreated/unpainted	6.2%	3.6%	4.2%
Subtotal	37.3%	36.4%	36.2%
TOTAL - POTENTIALLY DIVERTABLE	53.2%	53.5%	52.7%

3.4.3 Sewage Treatment Residuals

The sludge from Council’s waste water treatment plants until recently was taken to the Victoria Flats landfill. Sludge was viewed as potentially causing odour when delivered to landfill and an agreement was reached to take sludge somewhere else as an interim measure. Sludge is currently disposed of at the AB Lime’s landfill in Southland. Council is exploring other options to dispose of sludge and is currently trialling a vermicomposting solution as an alternative means of dealing with the sludge. The end product from the vermicomposting would be a soil conditioner that could be applied to land being used to produce hay or silage. Vermicomposting also uses greenwaste and cardboard and could be expanded to process other organic wastes e.g. organic waste. A solar drying facility near Luggate is expected to be operational by Dec 2017 to process Wanaka’s sludge into a biosolids for land application.

3.5 Forecast of future demand

The Queenstown Lakes District is one of the fastest growing parts of the country. Total waste in the District is expected to increase due to high population, visitor and economic growth. Queenstown Lakes District also has a significant rural area. As the population increases demand for waste and diversion services also increase. Capacity improvements for the waste facilities will be required to accommodate the expected increase of both waste and diverted materials, or alternative facilities will need to be identified.

3.5.1 Growth projections

Population growth increases demand for waste services. Visitor and economic growth will increase demand for commercial collections and place increased demand on Council and private facilities, including transfer stations and the Victoria Flats Landfill.

Note: Growth forecasts used from 2016-17 were adopted for the WA. More recent forecasts predict even higher growth, and the programmes identified allow for this increased growth.

Financial year ending	Adopted growth projections		High growth scenario	
	Usually resident population	Total waste to landfill (T)	Usually resident population	Total waste to landfill (T)
2017	34,406	32,606	34,558	32,750
2018	35,404	33,551	35,632	33,767
2019	36,304	34,404	36,620	34,704
2020	37,204	35,257	37,608	35,640
2021	38,104	36,110	38,596	36,576
2022	39,004	36,963	39,584	37,513
2023	39,904	37,816	40,572	38,449

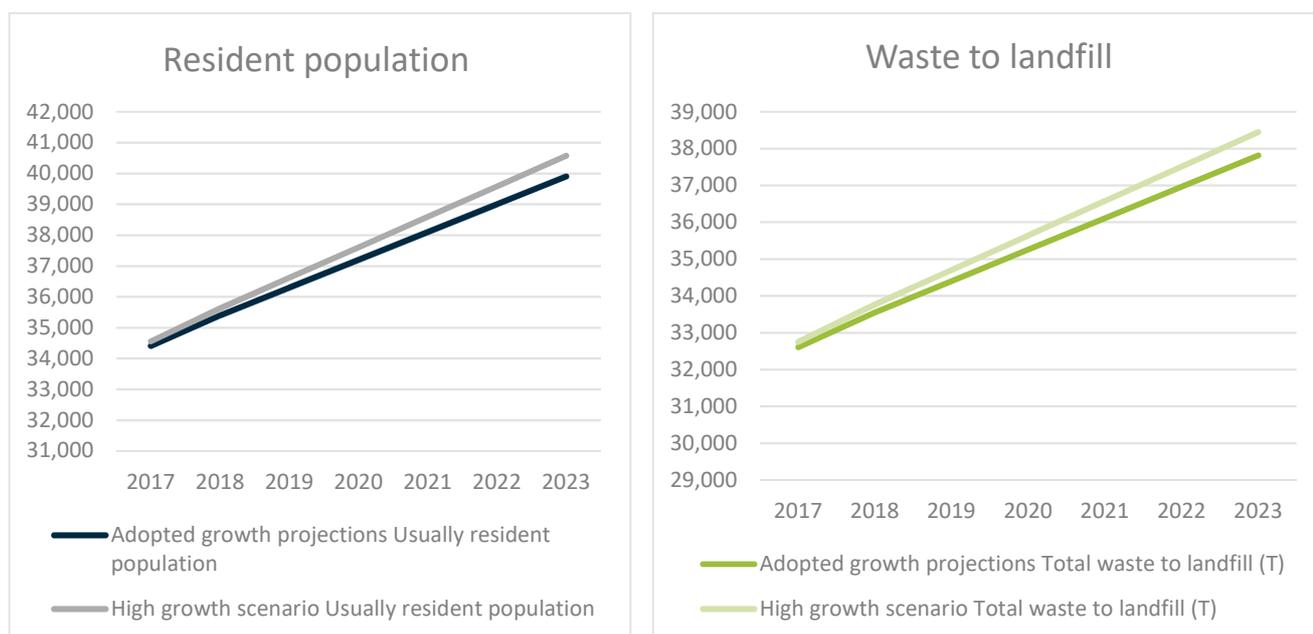


Figure 7 Projected Population and Waste to landfill comparison

3.5.2 Meeting customer needs

Council undertakes an annual ratepayers and residents survey, the most recent survey being in 2016. The main themes from the survey relating to waste were:

- get rid of blue plastic bags
- provide more rubbish bins in public spaces and green spaces (in particular for dog owners and freedom campers)
- empty rubbish bins more frequently
- clean up litter in the outskirts of the main centres
- provide recycling and green waste services to reduce rubbish into landfill
- concerns about roadside litter beyond the town centres
- builders' rubbish blowing around near work sites and torn blue rubbish bags making the streets messy.

From these themes there are a number of opportunities that arise for Council to better educate the community on the facilities and services already available.

3.6 Identified waste issues

Having reviewed progress against the previous WMMP Action Plan and considering the change in waste quantities since the last WMMP, Council has identified the following issues that need to be addressed in the next WMMP:

- glass going to landfill rather than being recycled
- the high volume of organic waste going to landfill
- the high volume and increasing proportion of construction and demolition waste going to landfill
- biosolids disposal

- the impact of tourists/visitors generating, and high volumes, of unseparated waste that is resulting in recyclables going to landfill
- the high proportion of paper and plastics going to landfill
- how to manage permitted activity cleanfill sites
- the lack of capacity of the Wakatipu Transfer Station and Wakatipu Recycling Centre to meet future demand
- the location of public place litter and recycling bins and frequency of clearing
- challenges in the accessibility to collect waste from the CBD and multi-unit developments (MUDs)
- increased landfill disposal costs due to the phasing out of the one-for two transitional measure of the Emissions Trading Scheme which commenced in 1 January 2017.

These issues are addressed within Table 4, the Waste Management and Minimisation Project Business Case included in Part 3 of this WA.

4 Part 2 – Where do we want to be?

4.1 Vision, goals, guiding principles, objectives and targets

Working together, Council and the community can achieve more effective and efficient waste management and minimisation in the District. Council is proposing the following vision, goals, objectives and targets. Taken together these form the strategy for Council’s WMMP.

4.1.1 Vision

Our vision for the future is:

“Towards zero waste and a sustainable district”

4.1.2 Goals

The goals that we will use are those from the New Zealand Waste Strategy:

- Improving the efficiency of resource use
- Reducing harmful effects of waste

4.1.3 Our objectives

Our objectives to meet our goals are:

Table 3 Objectives

Goals	Objectives:
Goal 1: Improving the Efficiency of Resource Use	Provide and support opportunities to minimise waste through reduction, reuse, recycling and recovery (in priority order)
	Educate and support generators (residents, visitors, and businesses) with options and responsibilities
Goal 2: Reducing Harmful Effects of Waste	Avoid or mitigate any adverse effects on public health or the environment
	Provide effective and efficient waste minimisation and management services supported by the right funding mechanisms

4.1.4 Our targets

Council does not set targets in the WMMP, however does measure performance through the Long Term Plan (LTP) and Annual Plan (AP). Targets will be based on the final adopted programme. Proposed measures for the LTP 2018 are:

Table 4 Measures and Targets

Measure	Source of data	Comment
Total waste to landfill (T/Year)	Measured at Wanaka & Wakatipu transfer stations	Existing measure adjusted for total volume
Total waste diverted (T/Year)	Reported kerbside recycling after processing, green waste and recycle drop off	Existing measure adjusted for total volume
Consent Compliance (%)	Landfill and transfer stations consents	Existing measure
Customer Satisfaction (%)	% satisfied in annual ratepayer survey	Existing measure

5 Part 3 - How are we going to get there?

5.1 Our guiding principles

In developing options, Council will be guided by the following principles:

- Global citizenship
- Kaitiakitanga / stewardship
- Product stewardship
- Full cost pricing
- Life cycle pricing
- Precautionary principle.

5.2 Options for meeting future demand (Statement of Proposals)

In looking at options for meeting future demand the Council will reconsider its current waste minimisation actions (i.e. the status quo) to focus on key issues rather than continuing with the many actions in the current WMMP. In saying that, the Council will continue to provide and support educational programmes such as Enviroschools, the Nappy Lady, and the environment education for resource sustainability programme. Council will also continue to support existing waste minimisation and resource efficiency initiatives, advocate to government for change, maintain the existing recycling and transfer station facilities and Victoria Flats landfill and collaborate with other councils to promote waste management and minimisation.

With additional waste diversion the Victoria Flats landfill is also expected to be able to meet the districts residual waste needs until the end of its consent in 2029.

5.2.1 Focusing in on key issues

Council, working with a Stakeholder Working Group, has made a decision that rather than creating a WA and WMMP which has too many actions for it to reasonably achieve over the life of the WMMP (a criticism of the last WMMP 2011), to instead focus effort where Council has the greatest ability to influence, and target the waste streams with the most opportunity to reduce waste to landfill i.e.

- reduced glass and
- either reduced organics or reduced construction and demolition waste

Focusing on specific areas enables a targeted effort to achieve goals and provide clear messaging to residents, ratepayers and visitors on the key waste issues facing the district.

5.2.1.1 Reducing glass to landfill

Council currently provides different levels of service for glass collection in the District. In doing this Council is not able to take advantage of a national market for colour sorted glass and is sending glass to landfill that could be diverted.

5.2.1.2 Reducing organics to landfill

Reducing organics to landfill will have an ongoing significant impact on the Victoria Flats landfill given the current high tonnage of 104T/ week. The benefits of choosing to target reducing organics to landfill is that this will have an ongoing benefit with households and business continuing to generate organic waste even when the construction boom ends.

5.2.1.3 Reducing construction and demolition waste to landfill

Reducing construction and demolition waste will have a significant impact on the Victoria Flats landfill as it currently represents approximately 34% (indicatively rubble 15.3% and timber 18.9%) of the total weight going to landfill. In considering whether to prioritise this option over reducing organics, consideration needs to be given to the projected population growth over time to determine whether the current high volumes are likely to be for a short duration, or if there is likely to be a longer time period where a sustained reduction in construction and demolition waste is possible.

5.2.2 Waste management and minimisation programme business case (PBC)

In looking at the options to address waste issues and to select which targeted areas Council should focus on, a Waste Management and Minimisation PBC approach was used to identify a preferred programme of work. NZ Treasury are advocating the use of this approach to enable smart investment decisions for public value.

Potential intervention options were identified by the Working Group for each of councils waste services activities: waste minimisation education, advocacy and collaboration, regulation, refuse, recycling, glass, organics, biosolids, C & D waste, cleanfill, waste facilities and landfill, landfill, hazardous waste, public place wastes and visitors.

Seven different programmes of work were identified that utilised different intervention options depending on the focus for that programme. The seven options were assessed through the PBC process. The interventions chosen for each programme option are shown in Table 4 below.

After a full assessment of all seven options, Programme 6 was selected as the preferred Option. Programme 6 focuses on organics and glass by providing more waste minimisation services and facilities that target organics and glass, and retains the current approach to education and regulation. In choosing Programme 6 over Programme 7, the key deciding factors were:

- the programme could have around 19% decrease of waste to landfill over 10 years which although is slightly less than the construction and demolition programme in terms of diversion, Council has more influence over residential waste than the construction sector's waste
- the construction sector may slow down whereas organics will continue to grow
- the programme complements Council's biosolids strategy
- construction and demolition facility opportunities can still be explored by the private sector which Council would support where possible
- the programme continues with existing education and regulation
- existing waste minimisation initiatives will continue.

Table 4 Waste management and minimisation programme business case options assessment

Note: C & D = Construction and demolition waste, Programme 6 is Preferred Programme.

Strategic Options	Intervention options	Programme Options						
		Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
		Status Quo	Do Minimum Provide minimum level of service to minimum legal requirements	More influencing Continue with current refuse and recycling collections and waste facilities but increase education and regulation	More services Provide more waste minimisation services and facilities and retain current education and regulation	Full council service More waste minimisation services, facilities, education and regulation council providing full service supported by education and regulation	Focus on organics and glass Provide more waste minimisation services and facilities that target organics and glass and retain current education and regulation	Focus on C&D and glass Provide more waste minimisation services and facilities that target C&D and glass and retain current education and regulation
Waste minimisation education Under programmes 3 and 5 Council would increase their resources to deliver more waste minimisation education and support to residents and businesses. Under programmes 4, 6 or 7 Council would continue with the current methods although additional communication will be required around new services. Under programme 2 Council would discontinue the current programme.	Continue to circulate educational information to promote Council waste services and how to responsibly dispose of organic and recyclable waste, including using private waste collection services	Y		Y	Y	Y	Y	Y
	Continue to update the council waste website	Y		Y	Y	Y	Y	Y
	Continue to investigate and provide (if appropriate) promotional support for commercial waste minimisation e.g. Agrecovery, Plasback, zero waste events, beach clean events	Y		Y	Y	Y	Y	Y
	Continue with existing waste education and promotional programmes for the general public, visitors, businesses, and in schools e.g. EnviroSchools, EERST, Dr Compost, Waste Free Parenting, "Love Food Hate Waste"	Y			Y		Y	Y
	Continue to provide subsidies for composting tools e.g. Bokashi buckets, worms	Y			Y		Y	Y
	Continue to work with residents, businesses and community organisations in the District so as to encourage and promote waste minimisation and optimal resource use in the District	Y		Y	Y	Y	Y	Y
	Employ dedicated waste minimisation resource to enable waste education, communication, advocacy, collaboration and regulation			Y		Y		
	Review and extend existing waste education and promotional programmes for the general public, visitors, businesses, and in schools e.g. EnviroSchools, EERST, Dr Compost, Waste Free Parenting, "Love Food Hate Waste"			Y		Y		
	Establish a grants scheme to support community initiatives focused on waste minimisation			Y		Y		
	Develop a multi-functional waste minimisation website or app for commercial and residential users and visitors			Y		Y		
	Create, maintain and make available to the public a schedule of diverted material types including actual and potential services for collecting and processing diverted material available within the District			Y		Y		
	Introduce a "waste ranger" service to provide hands-on help to areas with high waste outputs (such as businesses in the CBD) and link with business associations			Y		Y		
	Provide an education centre at a council waste facility					Y		

Strategic Options	Intervention options	Programme Options						
		Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
		Status Quo	Do Minimum	More influencing	More services	Full council service	Focus on organics and glass	Focus on C&D and glass
			Provide minimum level of service to minimum legal requirements	Continue with current refuse and recycling collections and waste facilities but increase education and regulation	Provide more waste minimisation services and facilities and retain current education and regulation	More waste minimisation services, facilities, education and regulation council providing full service supported by education and regulation	Provide more waste minimisation services and facilities that target organics and glass and retain current education and regulation	Provide more waste minimisation services and facilities that target C&D and glass and retain current education and regulation
Advocacy and collaboration Under programmes 3 and 5 Council would take a more active role in advocating for change. For all other options, Council would continue to take an observatory role.	Alongside other organisations, advocate to improve product stewardship e.g. disposable drink containers, single-use plastic bags, tyres	Y		Y	Y	Y	Y	Y
	Alongside other organisations, advocate for an increase in the waste disposal levy or extension of the waste levy to include other landfill classes	Y		Y	Y	Y	Y	Y
Waste minimisation regulation Under programmes 3 and 5 Council would enact a solid waste bylaw to regulate waste management. Under programme 2 council would discontinue all regulatory provisions. For all other options, Council would continue to enforce the current provisions within the district plan..	Enforce existing event waste management regulatory provisions	Y		Y	Y	Y	Y	Y
	Review whether a Solid Waste Bylaw is needed to specify new multi-unit development requirements for handling and storage systems for refuse and recyclable materials			Y	Y	Y	Y	Y
	Review whether a bylaw is needed to ensure minimum standards are maintained during collections and to monitor the quantities and compositions of waste streams, and origins and destinations of waste. Review whether to introduce waste operator licensing through the Solid Waste Bylaw			Y	Y	Y	Y	Y
	Review whether a bylaw is needed to regulate collection times and frequency in the CBD			Y	Y	Y	Y	Y
	Introduce local waste minimisation levy to fund waste minimisation initiatives			Y		Y		
Refuse Under programme 2 Council would discontinue its refuse collection service. For all other options Council will continue to provide a refuse collection service with methodology improvements assessed as part of the contract renewals.	Continue with council-provided refuse collection service for urban households. Investigate methodology improvements e.g. receptacles, funding method	Y		Y	Y	Y	Y	Y
	Continue with council-provided refuse collection service for CBD businesses. Investigate CBD-specific methodology e.g. frequency, receptacles (e.g. Big Belly Bins)	Y		Y	Y	Y	Y	Y

Strategic Options	Intervention options	Programme Options						
		Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
		Status Quo	Do Minimum Provide minimum level of service to minimum legal requirements	More influencing Continue with current refuse and recycling collections and waste facilities but increase education and regulation	More services Provide more waste minimisation services and facilities and retain current education and regulation	Full council service More waste minimisation services, facilities, education and regulation council providing full service supported by education and regulation	Focus on organics and glass Provide more waste minimisation services and facilities that target organics and glass and retain current education and regulation	Focus on C&D and glass Provide more waste minimisation services and facilities that target C&D and glass and retain current education and regulation
Recycling Under programme 2 Council would discontinue its recycling service. Under programmes 3 and 5 Council would regulate for private collectors to provide recycling services alongside refuse. Programmes 4 and 5 would extend the area receiving a recycling service. Programmes 6 and 7 retain the current recycling service.	Continue with council-provided recycling collection service for urban households	Y		Y	Y	Y	Y	Y
	Require private operators to provide recycling service if providing refuse service			Y		Y		
	Investigate extending council-provided recycling services to others e.g. targeted rural areas, new subdivisions or outlying townships, commercial premises, schools				Y	Y		
Glass Under programme 2 Council would discontinue glass recycling. For all other options Council will implement a change to glass recycling to increase quality, quantity and yield, and improve consistency between wards.	Continue co-mingled recycling bin system in Wakatipu and separate, kerbside-sorted glass collection service in Wanaka	Y						
	Implement a change to glass recycling methodology to increase quality, quantity and yield, and introduce consistency between wards (e.g. separate co-mingled, separate kerbside sorted, fully co-mingled recycling, CDL. Refer glass business case)			Y	Y	Y	Y	Y
Organics Under programme 2 Council would discontinue the current promotion of home composting. Programmes 4, 5 and 6 would see an organics collection and processing service introduced. Programme 7 would see existing promotion of home composting retained. Programme 3 would see an introduction of a ban on organics to landfill.	Continue to promote, educate and incentivise home composting	Y		Y	Y	Y	Y	Y
	Continue to provide organic waste drop-off facility and mulching at transfer stations	Y		Y	Y	Y	Y	Y
	Promote the use of compostable materials such as wood chip at veterinary clinics / kennels for animal litter - in conjunction with vermicomposting trial?			Y		Y		
	Require private operators to provide organics collection service if providing refuse service					Y		
	Introduce organics ban through Solid Waste Bylaw			Y		Y		
	Introduce council-provided organic waste collection service for urban households				Y	Y	Y	
	Provide an organic waste processing facility (funding and service delivery options to be determined through project business case. Likely to be aligned with biosolids processing option)					Y	Y	Y

Strategic Options	Intervention options	Programme Options						
		Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
		Status Quo	Do Minimum Provide minimum level of service to minimum legal requirements	More influencing Continue with current refuse and recycling collections and waste facilities but increase education and regulation	More services Provide more waste minimisation services and facilities and retain current education and regulation	Full council service More waste minimisation services, facilities, education and regulation council providing full service supported by education and regulation	Focus on organics and glass Provide more waste minimisation services and facilities that target organics and glass and retain current education and regulation	Focus on C&D and glass Provide more waste minimisation services and facilities that target C&D and glass and retain current education and regulation
Biosolids Under programme 2 landfill disposal of biosolids would continue. For all other options Council would implement enhancements to biosolids end use.	Implement enhancements to biosolids end-use e.g. co-composting, solar drying, incineration, monofill, direct land application (refer biosolids business case)			Y	Y	Y	Y	Y
C&D waste Under programme 2 landfill disposal of C&D waste would continue. All other options introduce monitoring of C&D materials with programmes 4, 5 and 7 introducing a C&D sorting facility	Monitor quality and quantity of C&D wastes at the Wakatipu transfer station and Victoria Flats landfill on an ongoing basis to gain a greater understanding of the types and quantities of material that could be diverted			Y	Y	Y	Y	Y
	Promote / make it less restrictive to build homes / buildings from reusable or more sustainable products i.e. earth ships, straw bales houses etc, e.g by promoting REBRI (Resource Efficiency in the Building and Related Industry) Guidelines	Y		Y	Y	Y	Y	Y
	Support and enable, where practicable, private operators in relation to a C&D facility.			Y			Y	
	Advocate a proactive and collaborative approach to working with the construction and demolition industry to change behaviours through education, promote waste separation, recycling of materials and beneficial reuse.			Y		Y		Y
	Introduce ban on particular construction and demolition wastes through a Solid Waste Bylaw					Y		
	Provide a C&D sorting facility (funding and service delivery options to be determined through project business case)				Y	Y		Y
Cleanfill Under programmes 3 and 5 Council would introduce licencing of cleanfills. Programmes 4, 5 and 7 introduce a new cleanfill facility. Programme 2 would see no cleanfill provision by Council.	Include cleanfill operator licensing through a Solid Waste Bylaw			Y		Y		
	Develop and enact cleanfill regulation e.g. advocate to the Otago Regional Council, and review District Plan requirements			Y		Y		
	Provide a cleanfill facility (if not already provisioned in 30-year infrastructure strategy)				Y	Y		Y

Strategic Options	Intervention options	Programme Options						
		Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
		Status Quo	Do Minimum Provide minimum level of service to minimum legal requirements	More influencing Continue with current refuse and recycling collections and waste facilities but increase education and regulation	More services Provide more waste minimisation services and facilities and retain current education and regulation	Full council service More waste minimisation services, facilities, education and regulation council providing full service supported by education and regulation	Focus on organics and glass Provide more waste minimisation services and facilities that target organics and glass and retain current education and regulation	Focus on C&D and glass Provide more waste minimisation services and facilities that target C&D and glass and retain current education and regulation
Facilities, landfill For all programmes continue to ensure facilities retain consent compliance. All programmes except programme 2 continue with Council providing the Victoria Flats landfill and transfer stations in Wanaka and Wakatipu.	Continue to check and maintain resource consent compliance at all waste handling facilities and closed landfills for which it holds resource consents	Y	Y	Y	Y	Y	Y	Y
	Continue to monitor the capacity of available landfills and search for alternative disposal options should the capacity decrease below a safe future-proof level	Y	Y	Y	Y	Y	Y	Y
	Continue with the waste disposal services provided at the Victoria Flats landfill	Y		Y	Y	Y	Y	Y
	Continue to provide a refuse transfer station that include resource recovery facilities in Wakatipu and Wanaka	Y		Y	Y	Y	Y	Y
	Investigate introduction of differential pricing tools to increase diversion at both the landfill and transfer station facilities (either through Council advertised fees and charges or by influencing site operator)			Y	Y	Y	Y	Y
	Operate the transfer station and recycle centre facilities through a contractual agreement that optimises the separation of diverted material in terms of quality and the cost of providing the service			Y	Y	Y	Y	Y
	Investigate reconfiguring both the Wakatipu transfer station and Wakatipu recycling centre layouts to encourage drop-off of reusable and recyclable materials before disposing of residual waste and improve throughput capacity				Y	Y	Y	Y
Hazardous waste For all options except programme 2, continue with current provision of hazardous waste drop off plus agrichemical and e-waste services where affordable and practical.	Provide facilities at Council transfer stations for domestic quantities of hazardous waste, including batteries and oil	Y		Y	Y	Y	Y	Y
	Provide drop-off facilities at the Council transfer stations for e-waste to an extent that they are affordable and complement national schemes or services	Y		Y	Y	Y	Y	Y
	Provide drop-off facilities at the Council transfer stations for agrichemicals to an extent that they are affordable and complement national schemes or services	Y		Y	Y	Y	Y	Y
	Investigate if a policy or bylaw is required for the management of health care waste (in line with communications strategies by neighbouring councils)			Y	Y	Y	Y	Y
Public place wastes	Continue to provide public litter bins for waste in accordance with Council's responsibilities under the Litter Act (1979). Review bin type and cleaning frequency as required	Y	Y	Y	Y	Y	Y	Y
	Provide public recycling bins alongside litter bins where practical and cost effective	Y		Y	Y	Y	Y	Y

Strategic Options	Intervention options	Programme Options						
		Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
		Status Quo	Do Minimum Provide minimum level of service to minimum legal requirements	More influencing Continue with current refuse and recycling collections and waste facilities but increase education and regulation	More services Provide more waste minimisation services and facilities and retain current education and regulation	Full council service More waste minimisation services, facilities, education and regulation council providing full service supported by education and regulation	Focus on organics and glass Provide more waste minimisation services and facilities that target organics and glass and retain current education and regulation	Focus on C&D and glass Provide more waste minimisation services and facilities that target C&D and glass and retain current education and regulation
Visitors Continue to provide waste minimisation information to visitors for all programmes except programme 2. Under programmes 3 and 5 Council would extend support to promote waste diversion. Under programmes 4 and 5 Council would invest in additional recycling drop off facilities for tourists.	Continue to prepare a document for visitors that explains waste minimisation opportunities and consumer responsibilities	Y		Y	Y	Y	Y	Y
	Continue to install drinking water fountains to encourage refill/reuse of drinking vessels and reduce plastic bottle waste	Y		Y	Y	Y	Y	Y
	Use additional languages to English to aid in communication and education of waste disposal and management	Y		Y	Y	Y	Y	Y
	Investigate customer centric technology solution targeted at visitor waste minimisation. This would be a first in New Zealand and could be worked on in collaboration with other councils.			Y	Y	Y		
	Provide behaviour change programmes, either by Council alone or on a regional basis, working with the tourism industry / service providers			Y		Y		
	Promote and facilitate waste minimisation and resource efficiency initiatives targeting the local commercial and industrial and institutional sectors that service the tourism sector			Y		Y		
	Work with the private sector to extend commercial recycling services to businesses in the tourism sector			Y		Y		
	Introduce local waste levies to spread the cost of providing waste services more equitably between residents and business servicing the tourism sector			Y		Y		
	Support "on the road" programmes that inform freedom campers of waste disposal access in the district			Y		Y		
	Investigate providing additional drop off facilities easily accessible for tourists for recyclables e.g. glass, cans				Y	Y		

Table 5 Waste management and minimisation programme business case – Evaluation and Ranking

Outcome: Vision: Towards zero waste and a sustainable district Goal 1: Improving the efficiency of resource use Goal 2: Reducing the harmful effects of waste			Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
			Status Quo	Do Minimum Provide minimum level of service to minimum legal requirements	More influencing Continue with current refuse and recycling collections and waste facilities but increase education and regulation	More services Provide more waste minimisation services and facilities and retain current education and regulation	Full council service More waste minimisation services, facilities, education and regulation council providing full service supported by education and regulation	Focus on organics and glass Provide more waste minimisation services and facilities that target organics and glass and retain current education and regulation	Focus on C&D and glass Provide more waste minimisation services and facilities that target C&D and glass and retain current education and regulation
		Relative Importance of objective	What is achievable if implemented	What is achievable if implemented	What is achievable if implemented	What is achievable if implemented	What is achievable if implemented	What is achievable if implemented	What is achievable if implemented
Investment Objective 1	Provide and support opportunities to minimise waste through reduction, reuse, recycling and recovery (in priority order)	25%	Partial	No	Partial	Yes	Yes	Yes	Yes
Investment Objective 2	Educate and support generators (residents, visitors, and businesses) with options and responsibilities	25%	Partial	No	Yes	Partial	Yes	Partial	Partial
Investment Objective 3	Avoid or mitigate any adverse effects on public health or the environment	25%	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Investment Objective 4	Provide effective and efficient waste minimisation and management services supported by the right funding mechanisms	25%	Partial	Partial	Partial	Yes	Yes	Yes	Yes
Cost									
Investment cost (Range)			\$	\$	\$	\$\$\$\$	\$\$\$\$\$	\$\$\$	\$\$\$\$
Operational costs if significant (Range)			\$\$ contracts	\$	\$\$ staff	\$\$\$\$ staff & contracts	\$\$\$\$\$ staff & contracts	\$\$\$ staff & contracts	\$\$\$\$ staff & contracts
Implementation timeframe (short, medium, long term)			Short	Medium	Medium	Long	Long	Medium-Long	Long

			Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
Outcome: Vision: Towards zero waste and a sustainable district Goal 1: Improving the efficiency of resource use Goal 2: Reducing the harmful effects of waste			Status Quo	Do Minimum Provide minimum level of service to minimum legal requirements	More influencing Continue with current refuse and recycling collections and waste facilities but increase education and regulation	More services Provide more waste minimisation services and facilities and retain current education and regulation	Full council service More waste minimisation services, facilities, education and regulation council providing full service supported by education and regulation	Focus on organics and glass Provide more waste minimisation services and facilities that target organics and glass and retain current education and regulation	Focus on C&D and glass Provide more waste minimisation services and facilities that target C&D and glass and retain current education and regulation
Benefits									
1	KPI 1	Reduced waste to landfill (T/yr)	✘	✘	✓	✓✓✓	✓✓✓	✓✓	✓✓
2	KPI 2	Increased diversion from landfill (T/yr)	0%	24% incr waste to landfill	5% decr waste to landfill	25% decr waste to landfill	29% decr waste to landfill	19% decr waste to landfill	22% decr waste to landfill
3	KPI 5	Reduced nuisance notices and complaints	✓	✓	✓	✓	✓	✓	✓
4	KPI 6	Resource consent compliance (%)	✘	✘	✓	✓	✓	✓	✓
5	KPI 7	Improved satisfaction with service (%)	✓	✓	✓	✓✓	✓✓✓	✓✓✓	✓✓
Indicative Programme Profile			<1 year Ongoing <i>implementation of status quo.</i>	1-3 years to exit service provision.	1-3 years to employ staff and commence new initiatives.	6+ years to implement full suite of new services.	6+ years to implement full suite of new services plus education and regulation initiatives.	3-6 years to implement new organics service.	6+ years to implement new C&D facility.
Ranking			6	7	5	2	3	1 – More achievable, earlier implementation, cost effective, aligns with other strategies e.g. sludge disposal, aligns with stakeholder delivery vision, delivers reduction to landfill, lower operational costs	4

5.2.3 Waste stream projections

Based on the options identified in the PBC in Table 4 and population growth, anticipated waste and diverted material is expected to increase over the next 10 years.

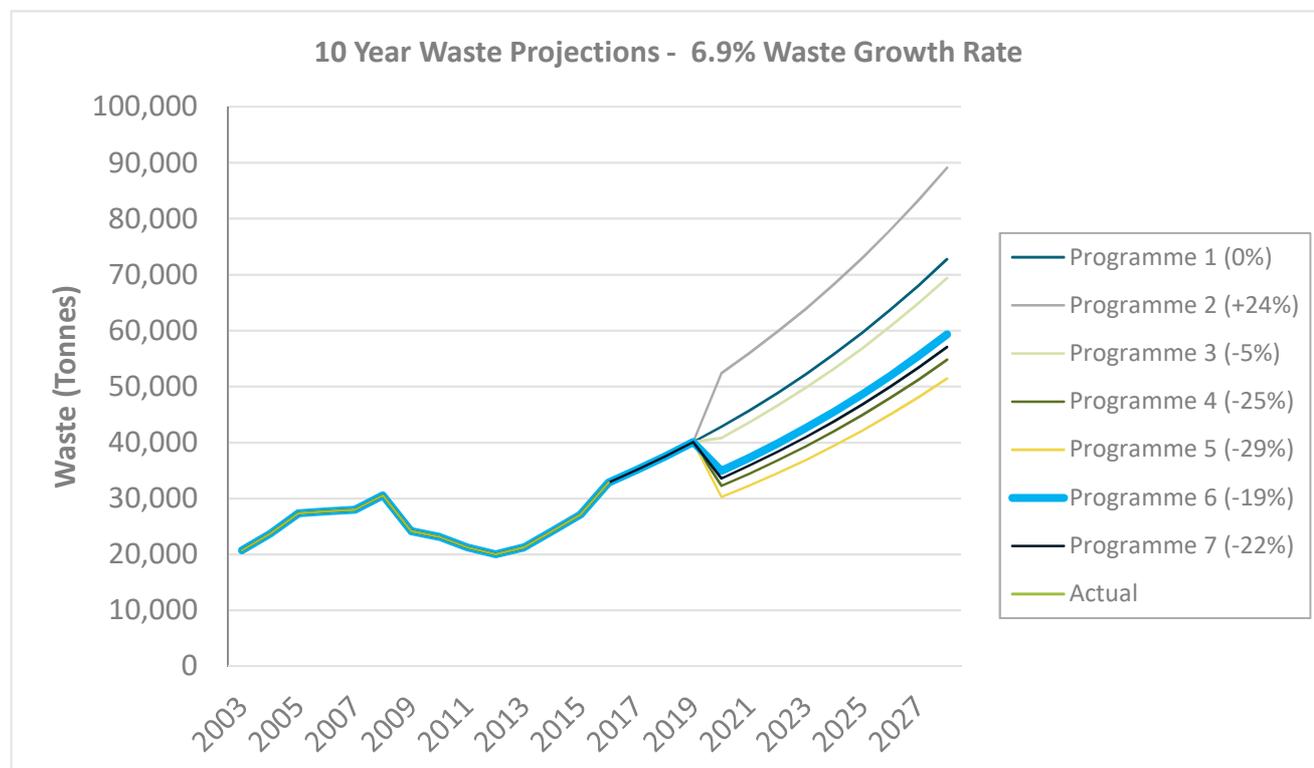


Figure 8 Waste stream projections

Figure 9 shows the 10 year waste projections assuming a 6.9% growth rate and the different waste diversion rates anticipated from the interventions proposed for each programme. The status quo will not result in any improvement in Council achieving its vision, objectives and targets. Only Programmes 4-7 show any real measurable reduction in waste of the seven PBC options, with the preferred Programme, Programme 6, having a 19% reduction in waste when looking towards 2027.

5.3 Medical Officer of Health statement

Public Health South notes that this plan is for the next 6 years and that growth is predicted to continue in QLDC. The vision is “Towards zero waste and a sustainable district” and the Council states it has adequate landfill facilities available for disposal of waste for the next 20+ years, however, this may change should growth rates change. Enhancing waste minimisation practices, such as diversion of recyclables and better re-use of organic material, along with education, is crucial for longer-term sustainability, population wellbeing and protection of public health over the period of the plan.

Appendices

Appendix 1 – 2016 Analysis of the Composition of Solid Waste in Queenstown Lakes District

Please see separate document available on QLDC's website

Filename: Solid Waste Analysis Protocol 2016.pdf

Appendix 2 – Council and commercial services and facilities

Waste hierarchy position	Council provided	Bin/bag sizes/infrastructure/frequency	Urban/rural	Funding	Provider
Reduce	Council	<ul style="list-style-type: none"> • Waste minimisation education/initiatives and programmes including: <ul style="list-style-type: none"> – Enviroschools programme – Love Food Hate Waste campaign – Waste Free Parenting – Dr Compost • limited environmental education through Council officers’ discussions with all sectors of the community • by monitoring public opinion on waste issues and responding accordingly • through information on Council’s website, e.g. Waste Management and Minimisation Plan 	Urban/rural	Targeted rate Waste levy	<ul style="list-style-type: none"> • Council under contract • Council staff
Reuse	Council Non-Council	<ul style="list-style-type: none"> • Reuse shops, second-hand shops etc. 	Urban	User charges	<ul style="list-style-type: none"> • Council under contract • Commercial/charities/community groups
Recycle	Council	<ul style="list-style-type: none"> • Wheelie bins – Wanaka Ward nominal 65L and Wakatipu Ward 140L and 240L • Weekly kerbside recycling collection <ul style="list-style-type: none"> – Wakatipu - recycling collection service provided to eligible residential properties in Queenstown, Glenorchy, Arrowtown, Lake Hayes and Kingston – Wanaka – recycling collection service to eligible residential properties in Wanaka, Albert Town, Makarora, Hawea and Luggate • Provision and servicing public place recycling bins 	Urban/rural	Targeted rate General rate	Council under contract

Waste hierarchy position	Council provided	Bin/bag sizes/infrastructure/frequency	Urban/rural	Funding	Provider
Recycle	Council	<ul style="list-style-type: none"> Transfer stations - Frankton (Queenstown) and Wanaka – accept sorting and storage of recyclable material, public drop off facilities and green waste <ul style="list-style-type: none"> Wakatipu Transfer Station owned by Council and operated under contract by AllWaste - drop off facilities for recyclable materials (green waste drop off and disposal of general waste) -separated greenwaste is shredded and used as mulch on Council parks and reserves Wanaka Transfer Station site owned by Council and operated under contract by AllWaste – drop off facilities for recyclable materials (green waste drop off and disposal of general waste) 	• Urban/rural	General rate User charges	Council under contract
Recycle	Council	<ul style="list-style-type: none"> Supply and service of rural recycling drop off facilities: <ul style="list-style-type: none"> Wakatipu – weekly recycling collection service in rural areas from one collection point at Gibbston Valley Wanaka - twice weekly collection service in rural areas from three collection points (Off peak in Hawea is twice a week, Dublin and Maungawera are once per week. In peak times Hawea is 7 days a week, and at least twice per week for Dublin and Maungawera). 	• Rural	General rate	Council under contract
Recycle	Council	<ul style="list-style-type: none"> Wakatipu Recycling Centre - Material Recovery Facility operated under contract by Smart Environmental <ul style="list-style-type: none"> Accepts kerbside-collected recyclables from council collections Co-mingled recyclables are sorted using a combination of mechanical equipment and manual sorting Accepts recyclable material from private recycling services for both the residential and commercial sectors Accepts kerbside-collected recyclables from council collections in the Central Otago District 	• Urban	General rate User charges	Council under contract
	Non Council	<ul style="list-style-type: none"> Consolidates separated recyclables and arranges transport to processing facilities in New Zealand and overseas. 	Urban/rural	User charges	Commercial

Waste hierarchy position	Council provided	Bin/bag sizes/infrastructure/frequency	Urban/rural	Funding	Provider
Recycle	Non-Council	<ul style="list-style-type: none"> Private collection services for refuse and recycling for residential and commercial customers, including wheelie bins, bags, cages. Skip bin services for construction and demolition waste. 	Urban/rural	User charges	Commercial e.g. Wanaka Waste busters and Smart Environmental
Recovery	Council	<ul style="list-style-type: none"> Promotion of home composting Rural greenwaste drop off points in Glenorchy, Kingston, Luggate, Hawea and Makorara 	Urban	User charges General rate Levy	Council under contract
Recovery	Non-Council	<ul style="list-style-type: none"> Drop off greenwaste acceptance for composting. 	Urban	User charges	Commercial e.g. Wanaka Green Waste Depot
Treatment/ disposal	Council and Non-Council	<ul style="list-style-type: none"> Hazardous waste drop off services for residential quantities of hazardous waste at the Wakatipu and Wanaka transfer stations prior to transportation for treatment and/or disposal Council support for promotion of commercial sector hazardous waste initiatives Commercial providers collect large quantities of hazardous waste for treatment and/or disposal 	Urban/rural	General rate User charges	<ul style="list-style-type: none"> Council under contract Commercial e.g. Waste Management, 3R, AgRecovery
Treatment/ disposal	Council	<ul style="list-style-type: none"> Biosolids disposal / processing <ul style="list-style-type: none"> Council progressing a vermicomposting trial at the Victoria Flats landfill 	Urban	General rate	Commercial
	Council	<ul style="list-style-type: none"> Inorganic collections - Annual inorganic collection in Glenorchy, Biannual in Makarora, Twice yearly in Kingston 			

Waste hierarchy position	Council provided	Bin/bag sizes/infrastructure/frequency	Urban/rural	Funding	Provider
Disposal	Council	<ul style="list-style-type: none"> • 30L and 60L council approved refuse bag, and 120L and 240L wheelie bins • Weekly kerbside collection <ul style="list-style-type: none"> – service provided to Queenstown, Glenorchy, Arrowtown, Lake Hayes, Kingston, Wanaka, Gibbston, Albert-Town, Hawea, Makarora and Luggate – twice daily collection of refuse in the Queenstown CBD – daily collection refuse from the Wanaka CBD • Rural refuse collection points <ul style="list-style-type: none"> – weekly collection of waste in rural areas from four collection points at Gibbston, Hawea, Dublin Bay and Maungawera • Refuse collected is taken to Victoria Flats Landfill for disposal 	Urban/rural	User charges	Council under contract
Disposal	Council	<ul style="list-style-type: none"> • Provision and servicing of litter bins and removal of illegal dumping 	Urban/rural	Targeted Rate General Rate	Council under contract
Disposal	Non-Council	<ul style="list-style-type: none"> • Wheelie bins, gantry bins, truck loads etc. • Kerbside/on -property services for non-eligible properties • Collection and transportation of waste for disposal to Wakatipu and Wanaka Transfer Stations and Victoria Flats landfill • Collection (from Central Otago District) and transportation of waste for disposal to Victoria Flats landfill 	Urban/rural	User charges	Commercial
Disposal	Council	<ul style="list-style-type: none"> • Victoria Flats landfill – owned by Queenstown Lakes District Council, operated by SCOPE under Build Own Operate and Transfer contract. Accepts waste from the Queenstown Lakes and Central Otago Districts. • Consented to 2029 	Urban/rural	User charges	Privately operated /Council under contract
Disposal	Non-Council	<ul style="list-style-type: none"> • Clean fills 	Urban/rural	User charges	Commercial

Waste hierarchy position	Council provided	Bin/bag sizes/infrastructure/frequency	Urban/rural	Funding	Provider
Disposal	Council	<ul style="list-style-type: none"> • Monitoring and maintenance of nine closed landfills <ul style="list-style-type: none"> – Tucker Beach, Wanaka, Glenorchy, Hawea, Kingston, Makarora, Luggate, Albert Town and Warren Park. • Closed landfills require resource consent environmental monitoring and aftercare • Otago Regional Council discharge permits are in place for these. 	Urban	General rate	Council under contract