



# Waste Assessment 2020

The following modest recommendations are consistent with a call from the public to establish a working, fit for purpose, operational capacity for the longer term that signals a whole of region response that residents and visitors can buy into: specifically these recommendations are about participation, inclusivity, and opportunity to be part of a common forward thinking waste management system



# Contents

- Executive Summary ..... 1**
- Marlborough District Council - Waste Assessment ..... 3**
- 1. Introduction.....3**
  - 1.1 Timeframe (planning context) ..... 3
  - 1.2 Link with Long Term Plan (LTP) ..... 3
  - 1.3 Medical Health Officer Consultation..... 3
  - 1.4 Working group..... 3
  - 1.5 Legislation ..... 4
- 2. The waste situation.....4**
  - 2.1 Current and future projected waste volumes ..... 6
  - 2.2 Composition of the waste..... 10
  - 2.3 Source and destination of waste..... 11
  - 2.4 Diverted materials ..... 13
- 3. Information about waste services and infrastructures.....14**
  - 3.1 Collection services ..... 14
  - 3.3 Recovery ..... 23
  - 3.4 Treatment..... 24
  - 3.5 Disposal ..... 25
- 4. Future demands for services, infrastructure and programmes.....27**
  - 4.1 General comments..... 27
- 5. Statement of options .....45**
  - 5.1 Summary of options considered ..... 46
- 6. Statement of proposals .....71**
  - 6.1 Council’s proposals for meeting the forecasted demands .....71**
  - 6.2 Statement on the protection of public health.....72**
  - 6.3 Statement on proposals to promote effective and efficient waste management and minimisation.....72**
  - 6.4 Statement regarding the outcome of the consultation with the Nelson and Marlborough District Health Board Medical Officer.....72**
- Appendix A - Waste Minimisation Act (WMA) (2008) Section 51 .....73**
- Appendix B - Key Legislation .....74**
- Appendix C - Marlborough Waste Infrastructure Locations .....75**
- Appendix D - Waste and Diverted Material Collection Methods.....76**
- Appendix E – Medical Officer of Health .....77**
- Appendix G – Waste Education Strategy .....82**
- Appendix H – Landfill Gas Feasibility Study .....83**
- Appendix I – Community Consultation Report .....101**

## Executive Summary

The Council is required to review the Waste Management and Minimisation Plan (WMMP) at least every six years. The current plan, adopted in 2015, is nearing the six-year point and is now due for review. The first stage in this review process is to carry out a waste assessment for the Marlborough region. The purpose of the waste assessment is to provide the necessary background information on waste and diverted materials that will enable a territorial authority to determine a logical set of priorities and activities. Section 51 of the Waste Minimisation Act (WMA) 2008 sets out the requirements of a waste assessment and is included in Appendix A - Waste Minimisation Act (WMA) (2008) Section 51.

Having conducted the assessment a total of 22 options have been identified to contribute towards the goal of minimising waste currently being sent to landfill for final disposal. The options, in no priority order, are summarised in the following table. Prioritisation and further refinement of the options will take place during the drafting of the subsequent waste management and minimisation plan (WMMP) 2021-27.

| Option | Description                                                                                                                                                                                                                       |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Ensure the next WMMP benefits from the principles of Te Tiriti O Waitangi.                                                                                                                                                        |
| 2      | Explore options for the beneficial use of landfill gas.                                                                                                                                                                           |
| 3a     | Explore opportunities for the beneficial future use of the Resource Recovery Centre and its outputs.                                                                                                                              |
| 3b     | Consider the impacts from any kerbside recycling collection methodology changes on the Resource Recovery Centre processing requirements, for example, equipment upgrades.                                                         |
| 4      | Develop a collection and repurposing service for unwanted goods and seek financial support through the waste minimisation fund for that service.                                                                                  |
| 5      | Rebrand the current regional transfer stations into resource transfer stations.                                                                                                                                                   |
| 6      | Tender the option of changing the kerbside rubbish collection from bags to wheelie bins and tender the expansion of the kerbside rubbish collection across the region.                                                            |
| 7      | Develop the Hazardous Waste and Repurposing Centres during the life of next WMMP (2021 – 2027).                                                                                                                                   |
| 8a     | Monitor and review the impact of the introduction of product stewardship schemes on kerbside recycling.                                                                                                                           |
| 8b     | Tender the option of changing the kerbside recycling collection from crates to wheelie bins and tender the expansion of the kerbside recycling collection across the region.                                                      |
| 9a     | Investigate the construction of an education space within the current Resource Recovery Centre site footprint to be operated by an appropriate community minded environmental group.                                              |
| 9b     | Review current waste and recycling messaging outputs and formats with a view to making them more accessible to the community; and by providing an interactive mechanism for the community to share pro-environmental information. |
| 10a    | Investigate a waste collection service for boat access and other remote areas across the Marlborough Sounds.                                                                                                                      |
| 10b    | Include the Marlborough Sounds road accessible areas in any future tendering of the expansion of kerbside collections.                                                                                                            |
| 11     | Ensure the next waste and recycling tender enables participation of private sector waste management companies and community service providers.                                                                                    |
| 12     | Investigate a regional solution for organic material including green, animal and food wastes.                                                                                                                                     |
| 13     | Review the rural community recycling service against the future impact of product stewardship approaches such as the introduction of a New Zealand container return scheme (CRS).                                                 |
| 14     | Develop a collection and repurposing service for unwanted goods and seek financial support through the waste minimisation fund for that service.                                                                                  |
| 15     | Review resourcing requirements in relation to working with businesses to reduce waste.                                                                                                                                            |
| 16     | Investigate the implementation of the Marlborough Litter Project recommendations across the life of the WMMP 2021 – 2027.                                                                                                         |
| 17     | Develop a waste cost calculator and invite the community to use it.                                                                                                                                                               |



| Option | Description                                                                                                                                                                                           |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18     | Investigate a waste contract communications platform.                                                                                                                                                 |
| 19     | Draft the WMMP 2021-2027 that addresses the waste needs of the whole district and provides appropriate information for the community and council to determine any change of waste management systems. |
| 20     | Continue to advocate to central Government for waste policy changes that support the needs of our community.                                                                                          |
| 21     | Set out a policy position regarding waste to energy as a waste management option in the next WMMP 2021-27.                                                                                            |
| 22     | Investigate options for reducing emissions from waste collection services.                                                                                                                            |
|        |                                                                                                                                                                                                       |

Having completed the waste assessment this information will now be used to formulate the draft WMMP ready for consultation with the Marlborough community through the 2021-2031 Long Term Plan process.

The following table summarises the contract position for Council in relation to waste management and minimisation services.

| Contract No | Name                                       | Start Date | Finish Date |
|-------------|--------------------------------------------|------------|-------------|
| 2011/06     | Landfill Operations                        | 1/7/11     | 30/6/22     |
| 2013/11     | Greenwaste Acceptance Facility Operation   | 1/1/16     | 14/11/23    |
| 2013/13     | Waste Management and Minimisation Services | 1/7/14     | 14/11/23    |
| 2013/18     | Tyre Collection Services                   | 1/7/13     | 30/6/21     |
| 2014/12     | Supply of Domestic Refuse Bags             | 1/7/14     | 30/6/21     |
| 2014/24     | Provision of Mechanism for Coinskips       | 1/7/14     | 30/6/24     |
| 2020/021    | Hazardous Waste Management Services        | 1/7/20     | 30/6/23     |
|             |                                            |            |             |

These waste contracts will all be retendering during the life of the next WMMP. Included in the WMMP will be a Section 17A service delivery review. The purpose of a Section 17A service delivery review is to determine whether the existing means for delivering a service remains the most efficient, effective and appropriate means of delivering that service. The Local Government Act 2002 (as amended in the Local Government Amendment Act 2014) requires that a service delivery review periodically assesses “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 Act specifies “triggers” that mandate a review of service delivery. In this case, a review has been triggered by the review of the WMMP.

# Marlborough District Council - Waste Assessment

---

## 1. Introduction

The Waste Minimisation Act 2008 (the Act) requires territorial authorities (TAs) to conduct a waste assessment and review their waste management and minimisation plans (WMMP) at least every six years. TA's are required to conduct this assessment before reviewing their WMMP and to have regard to it in the preparation of the plan.

The purpose of the waste assessment is to provide the necessary background information on waste and diverted materials that will enable a territorial authority to determine a logical set of priorities and activities. Section 51 of the Act sets out the requirement of a waste assessment and is included in Appendix A - Waste Minimisation Act (WMA) (2008) Section 51

The previous WMMP was adopted by the Council in 2015 and set out fifteen options to be considered over the next six-year period. A summary of actions taken against the previous WMMP options is included at Appendix F – WMMP 2015-2021 Summary of Actions.

The current plan, adopted in 2015, is nearing the six-year point and is now due for review.

### 1.1 Timeframe (planning context)

This review of the WMMP will conclude with a submission to the next Long Term Plan on or before February 2021. The WMMP would then be adopted, subject to community approval, by June 2021.

The field of waste management is however a longer-term commitment and any proposal and associated infrastructure development should look out over a much longer period than the six year cycle.

The current and proposed infrastructure will be looked at later in this assessment.

### 1.2 Link with Long Term Plan (LTP)

The current LTP covers the period 2018 to 2028 with reviews occurring on a three-yearly basis. The next review will be undertaken during 2021. This waste assessment and subsequent waste management and minimisation plan will be taken into consideration as part of that review.

### 1.3 Medical Health Officer Consultation

The collection, recycling and disposal of waste can present threats to public health if not managed in a controlled and regulated manner. The draft waste assessment has been sent to the Medical Health Officer at Nelson and Marlborough District Health Board for their comment on our proposals prior to submission to the Council. Their response will be included at Appendix E.

### 1.4 Working group

The waste assessment is designed to reflect the current and future situation within the Marlborough region. The following sectors will be involved in the assessment process:

- Public
- Private waste contractors
- Council contracted waste companies
- Commercial and industrial sectors
- Voluntary sector
- Councillors
- Council staff
- Ministry for the Environment staff.

## 1.5 Legislation

The waste management services operate under a range of legislative requirements. Some of these will impact on the actual infrastructure and operational activities whilst others will influence policy and its implementation going forward. The legislation considered during this waste assessment is listed in Appendix B - Key Legislation.

The WMA (2008) introduced a waste disposal levy to be collected by landfill operators and returned to central Government. This levy presently stands at \$10 per tonne and was added to the gate price at the landfill site for all customers. The Government have indicated that the levy will increase from July 2021. The current plan is to phase in the changes over four years as outlined in the following table.

| Landfill Class                             | 1-Jul-21 | 1-Jul-22 | 1-Jul-23 | 1-Jul-24 |
|--------------------------------------------|----------|----------|----------|----------|
| Municipal landfill (class 1)               | \$20     | \$30     | \$50     | \$60     |
| Construction and demolition fill (class 2) |          | \$20     | \$20     | \$30     |
| Managed fill (class 3)                     |          |          | \$10     | \$10     |
| Controlled fill (class 4)                  |          |          | \$10     | \$10     |
|                                            |          |          |          |          |

For clarity the Bluegums Landfill in Marlborough is a class 1 site and will see the levy increase as noted above. Other private sector operators operating class 3 and class 4 operations will also be impacted as noted above. At the time of writing there were no class 2 sites in the region.

Council has the systems in place to implement these levy changes without any additional infrastructure or cost. Some updating of the landfill weighbridge reporting function will be required.

The Climate Change Response Act 2002 was the primary legislation enabling the introduction of New Zealand's emission trading scheme. Supplementary legislation allowed the Council to apply for a number of Unique Emission Factors (UEFs). Council applied for and was granted 10 UEFs based on both waste composition and the destruction efficiency of the gas flare on site. This process now continues on an annual basis.

An annual monitoring plan remains in place to ensure that there is no material change at site which may affect the UEFs, for example, the content or make-up of the waste or the efficiency/utilisation of the gas flare. Waste audits occur twice annually to support this monitoring.

The Waste Minimisation Act 2008 allows for the introduction of priority products or waste streams by the Minister for the Environment. The Minister declared six priority products in July 2020 along with the requisite priority product guidelines. The six priority products declared were tyres, electrical and electronic products, agrichemicals (and their containers), refrigerants and other synthetic greenhouse gases, farm plastics and plastic packaging. Industry now has between 1 and 3 years to develop a product stewardship scheme that satisfies the requirements of the priority product guidelines. Council has the infrastructure and service provision in place to deal with any additional requirements for these waste streams over the life of the next WMMP.

## 2. The waste situation

Council provides a large proportion of the waste and diverted material services and infrastructure within the region. This includes a network of six transfer stations, waste sorting centre, central landfill, resource recovery centre, reuse centre, salvage yard, hazardous waste and repurposing centre, e-waste collection facility, greenwaste acceptance facility, rural community recycling containers, Picton Marina waste services and kerbside refuse and recycling collection in Blenheim and Picton all operated under contract to the Council.

The transfer stations and waste sorting centre provide the opportunity for source segregation of recyclables by the public. This service is paid for through a combination of general rates (73%) and

user pays gate fees (27%). The following table shows the funding split in terms of income for the various waste and recycling related services provided by Council.

| Activity             | Revenue             | User Pays           | Targeted Rates     | General Rates      | Waste Disposal Levy |
|----------------------|---------------------|---------------------|--------------------|--------------------|---------------------|
| Kerbside (refuse)    | \$993,016           | \$191,234           | \$801,782          | \$0                | \$0                 |
| Kerbside (recycling) | \$698,451           | \$1,863             | \$696,588          | \$0                | \$0                 |
| Transfer stations    | \$1,810,908         | \$1,321,428         | \$0                | \$489,480          | \$0                 |
| Landfills            | \$7,600,686         | \$7,496,731         | \$0                | \$103,955          | \$0                 |
| Waste projects       | \$2,041,904         | \$1,042,747         | \$0                | \$834,354          | \$164,803           |
| <b>Totals</b>        | <b>\$13,144,965</b> | <b>\$10,054,003</b> | <b>\$1,498,370</b> | <b>\$1,427,789</b> | <b>\$164,803</b>    |
| <b>Total %</b>       | <b>100%</b>         | <b>76%</b>          | <b>11%</b>         | <b>11%</b>         | <b>1%</b>           |

The following table shows the percentage split of revenue across the various Council services.

| Activity             | Revenue | User Pays | Targeted Rates | General Rates | Waste Disposal Levy |
|----------------------|---------|-----------|----------------|---------------|---------------------|
| Kerbside (refuse)    | 100%    | 19%       | 81%            | 0%            | 0%                  |
| Kerbside (recycling) | 100%    | 0%        | 100%           | 0%            | 0%                  |
| Transfer stations    | 100%    | 73%       | 0%             | 27%           | 0%                  |
| Landfills            | 100%    | 99%       | 0%             | 1%            | 0%                  |
| Waste projects       | 100%    | 51%       | 0%             | 41%           | 8%                  |
|                      |         |           |                |               |                     |

A number of private contractors operate cleanfills, under Resource Management Act (RMA) consent, across the region. A cleanfill is a facility that accepts materials such as brick, rubble and concrete along with uncontaminated soils. The resource consent will stipulate what materials are allowed into the site.

There are a number of scrap yards operating across the region under RMA consent.

Waste data is available through Council contract reporting and weighbridge reporting functions at the waste sorting centre and the Bluegums landfill. Waste data is also available by Council department as recorded at the sites with weighbridges. Non-weighbridge sites measure waste and recycling based on volume (m<sup>3</sup>). These volumes are then recorded into the Council Refuse Database.

The region does have some illegal or fly tipping activities. The Council Reserves Department track these reported instances and log their position through GPS technology.

The viticulture sector produces a material known as grape marc, which is essentially grape skins and liquid. This is currently either land spread under current permitted activity rules, fed to livestock (dairy) or used as basic compost. Council continue to encourage the industry to develop a long-

term sustainable plan for grape marc. In addition, this sector produces other organic wastes such as winery lees and sludges.

The Aquaculture sector produces by-products from their processing, for example mussels and their shells, occasional fish dieback, and other organic materials. These materials are currently sent to Bluegums landfill for disposal.

The region also generates noticeable amounts of contaminated soils. The soils originate from sites that have historically been contaminated with heavy metals associated with previous land use, for example, orchards, vineyards, demolition sites or other ex-industrial activities.

## 2.1 Current and future projected waste volumes

The Bluegums landfill is the only class 1 site in Marlborough and is operated by the Council under Contract No 2011/06. This contract started in July 2011 and ends on 30 June 2022. This disposal site has a weighbridge system (July 2011) and associated reporting software which records all residual waste inputs from the following sources:

- Transfer Stations operated under Contract No 2013/13
- Private Contractors
- Internal Council departments, for example, WorksOps
- Kerbside Refuse Collection operated under Contract No 2013/13
- Litter inputs (NZTA contract).
- Commercial inputs
- Industrial inputs
- Primary industry inputs

The input tonnage to the Bluegums landfill is shown in the following table:

| Product Id | Product Name                  | 2014/2015 Net T | 2015/2016 Net T | 2016/2017 Net T | 2017/2018 Net T | 2018/2019 Net T | 2019/2020 Net T |
|------------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| ASB        | Asbestos                      | 67.58           | 651.1           | 576.94          | 1786.84         | 415.14          | 136.9           |
| ASH        | Ash                           | 119.48          | 88.7            | 111.76          | 232.04          | 222.3           | 169.86          |
| BULK       | Bulk Polystyrene              | 2.5             | 29.84           | 8.04            | 3.14            | 3.8             | 20.24           |
| C Soil     | Contaminated Soil             | 4965.98         | 1069.38         | 2505.06         | 3820.4          | 1131.44         | 9571.52         |
| FW         | Fish Waste                    | 0               | 0               | 0               | 15.54           | 0               | 1.58            |
| GEN        | General Refuse                | 17499.57        | 18620.59        | 19136.29        | 17959.28        | 19721.46        | 22181.94        |
| GM         | Grape Marc                    | 5.48            | 9.14            | 52.4            | 141.82          | 37.88           | 5.06            |
| Grass      | Grass                         | 0               | 0               | 100.04          | 925.96          | 843.66          | 0               |
| GRASSC     | Commercial Grass Waste        | 0               | 0               | 0               | 0               | 91.94           | 124.62          |
| GRNWGR ASS | Green Waste/Grass             | 0               | 0               | 0               | 0               | 24.92           | 3785.28         |
| LTR        | Litter                        | 0               | 0               | 117.38          | 169             | 162.22          | 128.86          |
| LW         | Liquid Waste                  | 356.7           | 154.26          | 236.58          | 3295.7          | 2747.88         | 2220.88         |
| MDCASB     | MDC Asbestos                  | 0.2             | 0.2             | 0.22            | 0.1             | 0.14            | 0.46            |
| MDC-C      | MDC Cleanfill                 | 1508.74         | 5713.34         | 953.82          | 697.44          | 15.56           | 477.88          |
| MDC-G      | MDC General Refuse            | 3864.4          | 4102.46         | 4144.82         | 4103.6          | 3976.52         | 4685.46         |
| MDC-S      | MDC Special Waste             | 300.74          | 275.36          | 282.92          | 563.22          | 242.54          | 330.2           |
| MDCSDSL    | MDC Contaminated Sawdust/Soil | 0               | 0               | 0               | 1369.52         | 0               | 0               |

| Product Id    | Product Name                    | 2014/2015 Net T | 2015/2016 Net T | 2016/2017 Net T | 2017/2018 Net T | 2018/2019 Net T | 2019/2020 Net T |
|---------------|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| MSHELL        | Mussel Shells                   | 463.52          | 542.36          | 582.08          | 3837.02         | 5271.2          | 3385.74         |
| SAWD          | Sawdust                         | 1315.42         | 953.9           | 662.18          | 1282.28         | 1666.74         | 1174.82         |
| SLDG          | Sludges and Animal Wastes       | 3355.98         | 4318.14         | 5850.98         | 10668.58        | 9886.41         | 9920.83         |
| TInExt        | Timber In (External)            | 0               | 0               | 0               | 583.48          | 272.9           | 404.78          |
| TInWSC        | Timber In (ex WSC)              | 0               | 0               | 0               | 2304.17         | 590.6           | 12.92           |
| TomWaste      | Tomato Waste                    | 0               | 0               | 0               | 0               | 50.82           | 160.54          |
| TTS XFER      | Transfer Station Blenheim (TTS) | 0               | 0               | 0               | 0               | 1507.08         | 4579.82         |
| TW IN         | Timber Waste (Internal)         | 0               | 0               | 0               | 0               | 409.84          | 0               |
| WFM           | Winery filter media             | 4704.64         | 4799.84         | 5567.84         | 2885.26         | 4095.16         | 3733.7          |
| WSC Soil      | WSC soil/rubble                 | 0               | 0               | 0               | 1388.44         | 1121.32         | 1073.64         |
| WSCFines      | Fines from WSC                  | 0               | 0               | 0               | 158.88          | 55.48           | 0               |
| WSCRW         | WSC Residual Waste              | 0               | 0               | 0               | 5066.58         | 3108.96         | 0               |
| XFER          | Transfer Station Waste          | 6748.52         | 7279.84         | 8336.86         | 3261.86         | 3055.54         | 3118.38         |
| XFERB         | Transfer Station Bagged Waste   | 514.5           | 319.76          | 0               | 0               | 0               | 0               |
| <b>Totals</b> |                                 | <b>45793.95</b> | <b>48928.21</b> | <b>49226.21</b> | <b>66520.15</b> | <b>60729.45</b> | <b>71405.91</b> |

Table 1 Extract from Bluegums Weighbridge Reporting System

The increase in landfill tonnage is influenced by the following factors:

- Increase in economic activity
- Closure of compost sites
- Introduction of the Hazardous Activities and Industries List (HAIL)

The following figures 1 to 3 show the variation in some of the organic waste streams impacted by the compost site closures in 2017 and the impact of the HAIL on land development across the region.

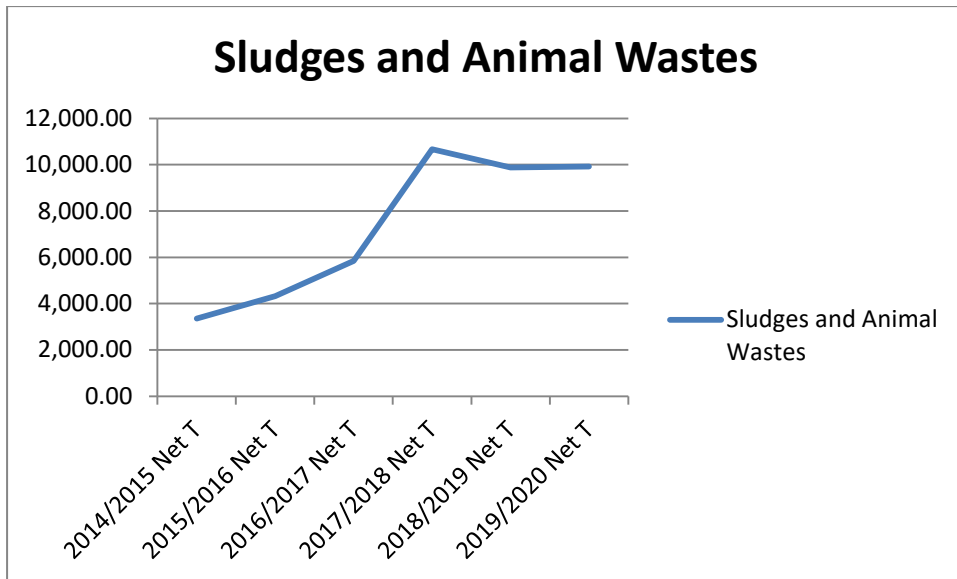


Figure 1 Sludges and animal waste 2014 to 2020

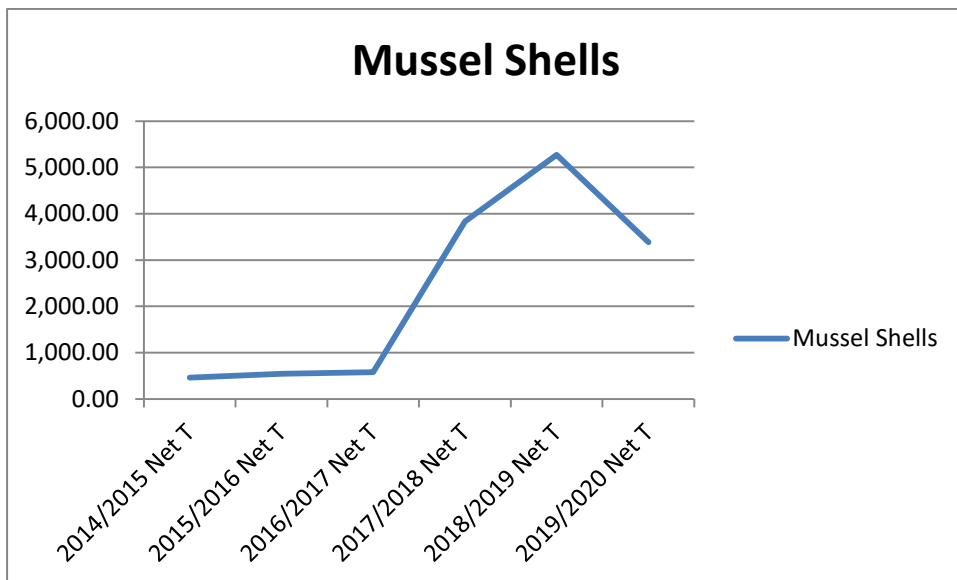


Figure 2 Mussel shells waste 2014 to 2020

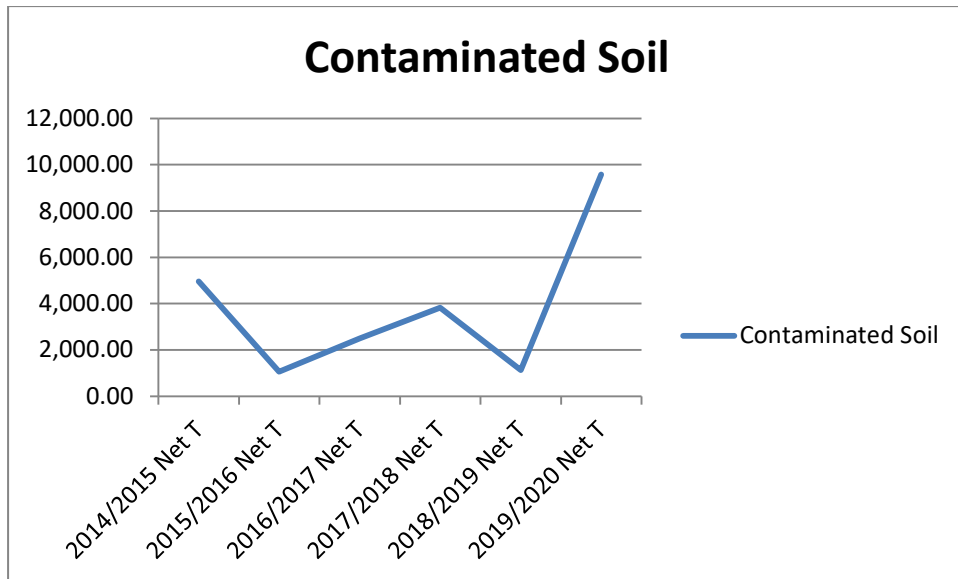


Figure 3 Contaminated soil waste 2014 to 2020

In terms of tonnages going forward a baseline of 1.45 tonnes per person has been used. This figure is derived from the 2019/20 actual tonnage inputs divided by the current population estimate of 49,200. This figure is influenced by the following:

- Regional waste composition and associated tonnage.
- Performance of the economy.
- The population size.

### **Heavy Waste Producers**

Marlborough has some particularly heavy waste producers. The following summarises these waste categories as a percentage of overall tonnage received at the landfill during 2019/20:

- Contaminated soil (13%)
- Mussel shells (5%)
- Sludges and animal wastes (14%)
- Winery filter material (5%)

These heavy waste producers account for 0.54 tonnes per person.

In relation to waste more directly related to the wider community the following summarises these waste categories as a percentage of overall tonnage received at the landfill during 2019/20:

- General waste (31%)
- MDC general (7%) – this waste category covers the MDC kerbside refuse collections
- Transfer station waste (11%)

The following table shows the projected tonnage for medium (0.28%) and high (0.8%) population growth using the 1.45 tonnes per person.



|                                  | Jun 20 (Actuals)    | Jun-21 | Jun-22 | Jun-23 | Jun-24 | Jun-25 |
|----------------------------------|---------------------|--------|--------|--------|--------|--------|
| Medium Population (0.28% growth) | 49,200 <sup>1</sup> | 49,338 | 49,476 | 49,614 | 49,753 | 49,893 |
| Medium Waste Tonnage Projection  | 71,406              | 71,606 | 71,806 | 72,007 | 72,209 | 72,411 |
| High Population (0.8% growth)    | 49,200              | 49,594 | 49,990 | 50,390 | 50,793 | 51,200 |
| High Waste Tonnage Projection    | 71,406              | 71,977 | 72,553 | 73,133 | 73,718 | 74,308 |

<sup>1</sup>Source of population <https://ecoprofile.infometrics.co.nz/Marlborough%2bRegion/Population>

## 2.2 Composition of the waste

The Council undertakes a Solid Waste Analysis Protocol, (SWAP), twice a year. This is basically an inspection and assessment of the incoming waste streams to the landfill site over a working week. The most recent reported SWAP (June 2020) revealed the following information on waste composition.

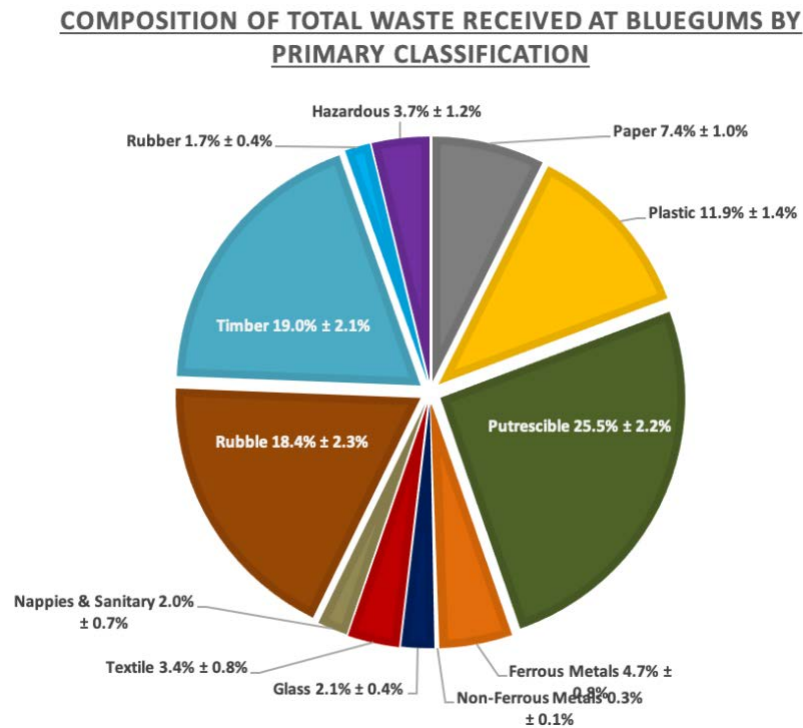


Chart 1 – Composition of waste - source was the June 2020 SWAP

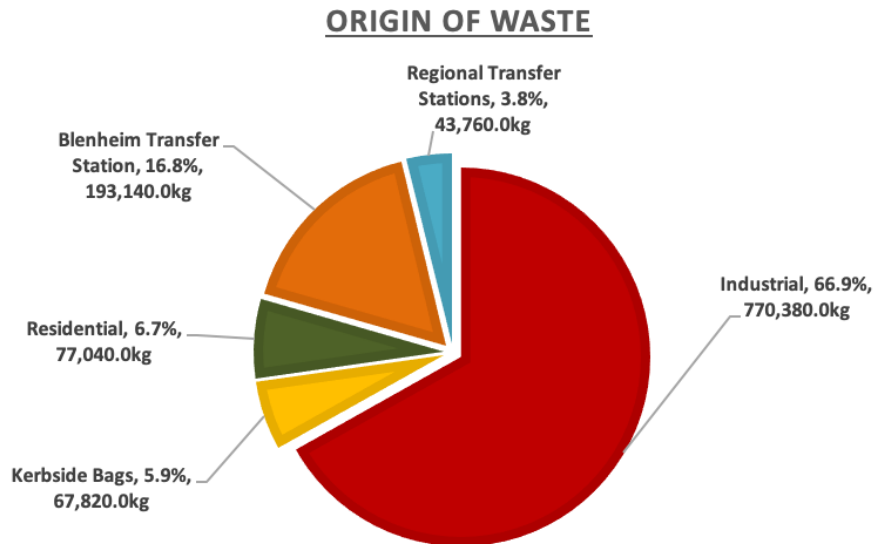


Chart 2 – Origin of waste - source was the June 2020 SWAP

## 2.3 Source and destination of waste

Blenheim, Picton and Whatamango households are serviced by a weekly kerbside refuse collection service, operated by Council under contract no 2013/13. Householders in these areas pay a targeted rate (2019/20 - \$69 for refuse and \$46 for recycling) and receive a voucher for 52 refuse bags on an annual basis. Additional refuse bags can be purchased from the Council if required. The following table indicates the kerbside refuse tonnage and bag count over the past three years.

| Tonnage Sent to Landfill |         |         | Bags Collected |         |         |
|--------------------------|---------|---------|----------------|---------|---------|
| 2017/18                  | 2018/19 | 2019/20 | 2017/18        | 2018/19 | 2019/20 |
| 4,033                    | 3,975   | 4,503   | 736,432        | 617,817 | 657,090 |

For the rest of the region householders can deliver their refuse to the transfer stations where they are charged by volume with the exception of the transfer station at Ward. Private contractors also supply a collection service to these areas in the form of non-Council refuse sacks, wheelie bins, skips and larger containers as required. The following table indicates the transfer station tonnage sent to landfill over the past three years.

|               | Tonnage Sent to Landfill |              |              | Percentage of Total |             |             |
|---------------|--------------------------|--------------|--------------|---------------------|-------------|-------------|
|               | 2017/18                  | 2018/19      | 2019/20      | 2017/18             | 2018/19     | 2019/20     |
| Blenheim      | 6,054                    | 4,857        | 4,589        | 66%                 | 62%         | 60%         |
| Havelock      | 847                      | 811          | 729          | 9%                  | 10%         | 10%         |
| Picton        | 1,631                    | 1,686        | 1,778        | 18%                 | 21%         | 23%         |
| Rai Valley    | 235                      | 205          | 255          | 3%                  | 3%          | 3%          |
| Seddon        | 180                      | 153          | 130          | 2%                  | 2%          | 2%          |
| Wairau        | 96                       | 77           | 73           | 1%                  | 1%          | 1%          |
| Ward          | 81                       | 77           | 63           | 1%                  | 1%          | 1%          |
| <b>Totals</b> | <b>9,123</b>             | <b>7,866</b> | <b>7,616</b> | <b>100%</b>         | <b>100%</b> | <b>100%</b> |

The Blenheim Waste Sorting Centre throughput was disrupted across 2019/20 due to a fire at the facility. During the reinstatement period the Blenheim community were diverted to a temporary transfer station. The 2019/20 tonnages to landfill from the Blenheim temporary transfer station includes grass and greenwaste (45%).

The CBD in Blenheim is serviced daily by a bagged kerbside collection service via Council contract 2013/13. This service is paid for through general rates (2019/20 - \$69). Each business receives a voucher for 52 bags and may purchase additional bags as required. No recycling service is provided to the commercial sector by Council.

Private companies also service the CBD commercial sector with a range of services including bags, wheelie bins and skips. They also provide a limited recycling service (mainly cardboard collection).

The Marlborough Sounds are serviced by four coin-operated skips and transfer stations at Rai Valley, Havelock and Picton. The waste from these coin skips and transfer stations is disposed of at the regional landfill site. In addition, Council provide waste bins (1100 Litre Euro-carts) at the public jetties in the Picton Marina for people returning to shore who have no land-based transport.

The table below summarises the source and destination of waste produced in the region.

| Source of Waste                   | Destination       | Council Contract or Private |
|-----------------------------------|-------------------|-----------------------------|
| Kerbside Refuse Collection        | Bluegums Landfill | Council Contract 2013/13    |
| Transfer Station                  | Bluegums Landfill | Council Contract 2013/13    |
| Picton Marina                     | Bluegums Landfill | Council Contract 2017/022   |
| Industrial/Commercial/Residential | Bluegums Landfill | Private Contractors         |
| Kerbside Refuse Collection        | Bluegums Landfill | Private Contractors         |
|                                   |                   |                             |

Hazardous waste materials, such as oils, paints, solvents, and batteries, are collected at each transfer station and then transported to the Hazardous Waste Centre in Blenheim. Collected materials are then packaged and bulked up where appropriate before onward transportation to a suitable reuse, recovery, recycling or disposal operator. This storage facility is operated under contract 2020/021 and is located on Wither Road, Blenheim, opposite the Resource Recovery Centre.

The Reserves Department and the Department of Conservation have also been recording instances of illegal waste dumping across the region. The types of material being illegally dumped are:

- Green waste
- General waste
- Offal – pig carcasses
- Abandoned vehicles

Litter is collected from 341 litter bins, road verges and other public spaces across the region. The following table summarises the inputs of collected litter to the landfill site in tonnes over the past three years.

| Waste  | 2017/2018 Net T | 2018/2019 Net T | 2019/2020 Net T |
|--------|-----------------|-----------------|-----------------|
| Litter | 169             | 162             | 129             |

During the period 2017 to 2018 a trial public place recycling scheme (PPRS) was conducted in the region. During the period 2018 to 2020 the region took part in the national litter less recycle more (LLRM) project. The LLRM project involved the use of 'smart' bins that used technology to signal when bins were approaching full. The following table summarises the inputs of collected litter from these trials to the landfill site in tonnes over the past three years.

| Waste  | 2017/2018 Net T | 2018/2019 Net T | 2019/2020 Net T |
|--------|-----------------|-----------------|-----------------|
| Litter | 18              | 15              | 11              |

The trial ended in June 2020 and the smart bins were withdrawn from service on the grounds of excessive collection costs.

## 2.4 Diverted materials

The Council has constructed a Resource Recovery Centre (RRC) based in Blenheim. This facility is fed with source segregated diverted materials from the waste sorting centre, transfer stations, the kerbside recycling contract, private waste contractors and the public through direct delivery. The RRC processes cardboard, paper, plastic, ferrous and non-ferrous metal, glass, and newspaper.

The contractor operating the regional transfer stations (Contract No 2013/13) continues to divert rubble to cleanfill instead of sending to the regional landfill site.

The transfer stations also receive cardboard, paper, plastic, ferrous and non-ferrous metal, glass, and newspaper from the public which are sent to the Resource Recovery Centre for processing and onward sale.

In Blenheim the transfer station has been redeveloped into a Waste Sorting Centre (WSC). The WSC combines the acceptance of Greenwaste and General waste into one overall site location. The incoming waste is weighed in and out and tonnages recorded via the weighbridge reporting system. Greenwaste is shredded and then processed into a compost onsite or at a nominated off-site facility. The general waste received from the community is then put through a hand and mechanical sorting process to extract, where possible, material that has an end-market or resale demand through the adjacent reuse shop or salvage yard.

Adjacent to the WSC is the Hazardous Waste Centre (HWC) accessed via Wither Road. The HWC is effectively a drive through transfer station and caters for the full range of domestic and commercial hazardous wastes generated in the region. The HWC is also the main processing centre for various collection schemes available to the community including, small batteries, unwanted but reusable paints, and oil filters.

Adjacent to the HWC is a Repurposing Centre which is the main triage point for assessing unwanted white goods. Some white goods are stripped for spare parts other items are tested, repaired and certified by suitably qualified trades for reuse and/or resale.

Council also participate in product stewardship schemes such as Agrecovery for the return of agrichemical empty containers and unwanted agrichemicals, and Paintwise, for the return of non-reusable paints.

An E-waste collection facility is operated in Blenheim (Contract 2013/13) and receives electronic equipment from the public and commercial sectors. This is processed and sold on to appropriate recycling outlets, for example, metal reprocessor. Items that cannot be recycled, for example, lead glass from older televisions, are currently landfilled.

A Salvage Yard is operated in Blenheim (Contract 2013/13) and receives unwanted building materials and household items from the public and commercial sectors direct or via the WSC. The items are then resold to the community.

A Reuse Centre is operated in Blenheim (Contract 2013/13) and at each transfer station excluding Ward. These sites receive donations from the public and commercial sectors. The items are then resold to the community.

Various charity outlets operate across the region. These organisations receive donations from the public and commercial sectors. The items are then resold to the community. Council assists this sector through the reuse centre and through the provision of official Council refuse bags for the disposal of items not suitable for resale. In addition, council contributes to the uplift costs associated with bulkier waste removal from these sites.

Remote recycling containers are also provided by Council for the collection of glass, plastics, cans, cardboard and paper from communities who do not have direct access to a recycling service. At present these containers are available at 10 sites across the region including: Grovetown, Spring Creek, Awatere Valley Road, Rapaura, Tua Marina, Waihopai, Seddon, Port Underwood, Ohingaroa Quarry and Okiwi Bay.

### 3. Information about waste services and infrastructures

#### 3.1 Collection services

##### 3.1.1 Kerbside recyclables collection

The Council provides a 55 litre open topped plastic container per household for the weekly uplift of recyclable material, (paper, cardboard, plastic, glass, cans, newspaper and glossies), from the kerbside in Blenheim and Picton. This service is provided under contract no 2013/13. The collection system source segregates the uplifted material at the kerb and delivers it to the RRC for processing and onward sale. This service is paid for through a targeted rate (2019/20 \$46).

The following table shows the estimated tonnage collected and the breakdown by material:

| Kerbside Recycling Collection Blenheim and Picton |        |       |         |      |         |         |         |
|---------------------------------------------------|--------|-------|---------|------|---------|---------|---------|
| Diverted Material                                 |        | Paper | Plastic | Cans | Glass C | Glass B | Glass G |
| Period                                            | Tonnes |       |         |      |         |         |         |
| 2017/18                                           | 1,404  | 31%   | 11%     | 9%   | 6%      | 13%     | 29%     |
| 2018/19                                           | 1,668  | 29%   | 10%     | 9%   | 6%      | 20%     | 27%     |
| 2019/20                                           | 1,478  | 28%   | 9%      | 6%   | 6%      | 12%     | 39%     |
|                                                   |        |       |         |      |         |         |         |

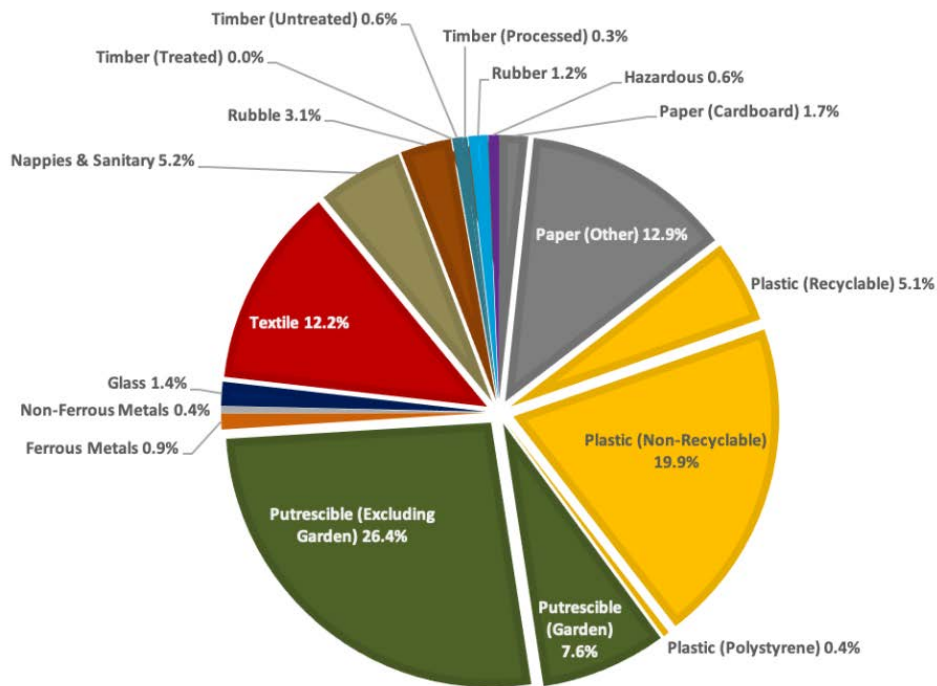
##### 3.1.2 Kerbside refuse collection

The Council supplies 52 refuse bags annually to the residents of Blenheim, Picton and Whatamango for the weekly collection of their household waste from the kerbside. This service is provided under contract no 2013/13. The Blenheim CBD is serviced daily with the Picton CBD serviced weekly. The collected waste is taken to Bluegums landfill for disposal. This service is paid for through a targeted rate (2019/20 - \$69). Additional bags are subject to a user pays charge.

| Kerbside Refuse Collection Blenheim and Picton |               |                  |                          |
|------------------------------------------------|---------------|------------------|--------------------------|
|                                                | Tonnes        | Bags             | Average Bag Weight (kgs) |
| 2017/18                                        | 4,033         | 736,432          | 5.476                    |
| 2018/19                                        | 3,975         | 671,817          | 5.917                    |
| 2019/20                                        | 4,503         | 657,090          | 6.853                    |
| <b>Total</b>                                   | <b>12,511</b> | <b>2,065,339</b> | <b>6.058</b>             |

The 2020 SWAP analysis of the waste provided the following breakdown of the bag contents.

### COMPOSITION OF KERBSIDE BAG WASTE



Putrescible material accounts for up to 34% of bag contents.

### 3.1.3 Regional Transfer Stations (RTS)

The Council provides a collection service on an as required basis from the seven RTS for the uplift of waste and diverted materials. The RTS are located in Blenheim, Havelock, Picton, Rai Valley, Seddon, Wairau Valley and Ward. This service is provided under contract no 2013/13. These sites have various sized hook lift containers where the public are allowed to deposit general waste and recyclable materials.

This service is paid for through a combination of user pays gate fees and general rates. The user pays element is charged based on either the weight (tonnes) or the volume (cubic metres - m<sup>3</sup>) of waste delivered. These charges are reviewed each October and any amendments implemented in January each year.

RTS waste is taken direct to Bluegums landfill and diverted materials to the Resource Recovery Centre in Blenheim.

Council departments will use the RTS to deposit waste. They are charged the user pays gate fee.

The Blenheim transfer station site is referred to as the Waste Sorting Centre and opened in November 2016. The Waste Sorting Centre (WSC) receives waste from the community. The facility allows the community to divert material from landfill when an alternative market or demand exists.

The facility is constructed on two levels on the site of the original Blenheim transfer station. The upper level receives waste from the community and provides options to separate out wood, metal, brick, soil, e-waste and hazardous waste into various bays and containers.

There are also three Safety Refuse Tipping (SRT) machines that allow the community to unload their waste and have it transferred into the sorting shed. Waste received inside the shed is then put through a mechanical and hand sort to extract materials which have an existing end market.

A breakdown of the WSC outputs is shown in the following table.

| Product Id    | Product Name               | Docket Count | Net Weight       | %           |
|---------------|----------------------------|--------------|------------------|-------------|
| OUT Grass GW  | Greenwaste Grass Out       | 789          | -3756.136        | 38%         |
| OUT_RESG12    | Residual Waste Out G1 & G2 | 1253         | -4588.54         | 47%         |
| OUT-BARK      | Bark Sales                 | 55           | 13.77            | 0%          |
| OUT-CARD      | Cardboard Out              | 55           | -21.65           | 0%          |
| OUT-COMP      | Compost Sales              | 129          | 92.1             | -1%         |
| OUT-ESCRAP    | Escrap Out                 | 2            | -0.62            | 0%          |
| OUT-GMIX      | Garden Mix Sales           | 114          | -66.59           | 1%          |
| OUT-METAL     | Metals Out                 | 13           | -326.43          | 3%          |
| OUT-RUB       | Rubble Out                 | 110          | -1073.64         | 11%         |
| OUT-SHOP      | Out Shop                   | 39           | -6.634           | 0%          |
| OUT-TWOOD     | Treated Wood Out           | 4            | -12.92           | 0%          |
| OUT-TYRES     | Tyres Out                  | 9            | -14.995          | 0%          |
| <b>Totals</b> |                            | <b>2572</b>  | <b>-9762.285</b> | <b>100%</b> |

A breakdown, by location, of the annual WSC and RTS tonnage throughput is shown in the following table.

|               | Tonnage Sent to Landfill |              |              | Percentage of Total |             |             |
|---------------|--------------------------|--------------|--------------|---------------------|-------------|-------------|
|               | 2017/18                  | 2018/19      | 2019/20      | 2017/18             | 2018/19     | 2019/20     |
| Blenheim      | 6,054                    | 4,857        | 4,589        | 66%                 | 62%         | 60%         |
| Havelock      | 847                      | 811          | 729          | 9%                  | 10%         | 10%         |
| Picton        | 1,631                    | 1,686        | 1,778        | 18%                 | 21%         | 23%         |
| Rai Valley    | 235                      | 205          | 255          | 3%                  | 3%          | 3%          |
| Seddon        | 180                      | 153          | 130          | 2%                  | 2%          | 2%          |
| Wairau        | 96                       | 77           | 73           | 1%                  | 1%          | 1%          |
| Ward          | 81                       | 77           | 63           | 1%                  | 1%          | 1%          |
| <b>Totals</b> | <b>9,123</b>             | <b>7,866</b> | <b>7,616</b> | <b>100%</b>         | <b>100%</b> | <b>100%</b> |

The transfer stations also accept Council refuse bags that have been purchased by residents but not placed on the kerbside for collection. The following table summarises the transfer station bag count.

|               | MDC Refuse Bag Count |               |               |
|---------------|----------------------|---------------|---------------|
|               | 2017/18              | 2018/19       | 2019/20       |
| Blenheim      | 39,340               | 41,599        | 45,221        |
| Havelock      | 5,482                | 4,908         | 5,224         |
| Picton        | 12,437               | 12,998        | 11,906        |
| Rai Valley    | 611                  | 484           | 543           |
| Seddon        | 2,240                | 2,324         | 2,583         |
| Wairau        | 4,288                | 4,478         | 4,159         |
| <b>Totals</b> | <b>64,398</b>        | <b>66,791</b> | <b>69,636</b> |

### 3.1.4 Private waste contractors

The region has a number of private contractors who provide collection services for the following container types:

- Wheelie bins
- Refuse sacks
- Skips
- Hook lift
- Front end loader
- Tippers

The contractors deliver their waste collections to the RTS at Rai Valley, Seddon, Picton and Havelock or direct to the Bluegums landfill site. The diverted materials are taken to the RRC in Blenheim.

### 3.1.5 Marlborough Sounds waste collections

The Council provides a collection service with coin operated skips at four locations in the Marlborough Sounds: Ohingaroa, the Grove, Portage and Rai Valley TS. These 30 m<sup>3</sup> containers are fully enclosed, holding a smaller skip inside. The skips are serviced by the Council under Contract No 2013/13. This service is part funded (20%) by the coin charge to operate the locking mechanism. The remainder of the cost is funded through general rates.

The following table shows the annual volume of material collected at each site.

| Site          | Coin Skip Volumes (m <sup>3</sup> ) |              |                 |
|---------------|-------------------------------------|--------------|-----------------|
|               | 2017/18                             | 2018/19      | 2019/20         |
| Grove         | 110.0                               | 121.0        | 165.0           |
| Portage       | 120.5                               | 84.5         | 126.0           |
| Quarry        | 128.5                               | 151.0        | 197.0           |
| Rai Valley    | 550.5                               | 483.9        | 679.05          |
| <b>Totals</b> | <b>909.5</b>                        | <b>840.4</b> | <b>1,167.05</b> |

Council provide a waste collection service at the public jetties in the Picton Marina. This service is aimed at residents and visitors returning to shore with waste who do not have land transport and are therefore not able to access the Picton transfer station.

Council also contribute towards the annual cost of the waste collection service provided by Ports Marlborough at both Picton and Havelock Marinas.



### **3.1.6 Cleanfill sites**

There are a number of cleanfill sites operated by private contractors across the region. These activities are subject to consent via the RMA. Deliveries to cleanfill sites are normally via tipper lorry, skip or hook lift containers. None of these sites operate weighbridges so inputs are recorded based on volumes and truck counts.

### **3.1.7 Hazardous waste collection**

The Council provides, under contract 2020/021, a collection service for hazardous waste materials. Each of the RTS has a container which receives small quantities of hazardous materials from the public. The containers at Havelock and Picton have the contents collected fortnightly with an on-call collection service available to all locations. This service is funded through general rates.

In addition, the contractor will organise the collection of hazardous materials from small businesses and the primary industry sector. This service is funded through a user pays charge levied on the business.

In 2020 Council opened a new Hazardous Waste Centre (HWC) in Blenheim. This 'drive through' facility allows the community to drop off unwanted hazardous materials. The facility also acts as the processing hub for small batteries, oil filters and paints. The facility processes in the region of 75 tonnes of hazardous material each year

### **3.1.8 Waste education programme**

The Council has an education strategy that supports the waste management and minimisation plan; refer to Appendix G - Waste Minimisation Act (WMA) (2008) Section 51. A part time Education Officer delivers this to the community via the following programmes:

- Environmental Education
- EnviroSchools
- Kids' Edible Gardens
- Sustainable Living Programme.

This service is funded from general rates.

## **3.2 Recycling services**

### **3.2.1 Resource Recovery Centre (RRC)**

The Council operates this enclosed facility under contract no 2013/13. Diverted materials are delivered to the site by the following groups:

- Public
- Transfer stations
- Kerbside recyclable collection
- Commercial sector
- Private contractors

The facility has a baling press and sort line for the processing of paper, cardboard, plastic, newspaper, and glossies. Containers are also provided for the collection of glass, steel, and aluminium cans. The public are encouraged to segregate their diverted materials through a series of wall slots that feed to separate containers within the building.

The RRC site also has a Reuse Centre, a Salvage Yard, and E-waste collection facility.

Processed materials are onward shipped to suitable end markets. The preference for end market placement of products is onshore reprocessor, then offshore reprocessor, then commodity market sale.

This site has the capacity to increase its throughput volume however the incoming deliveries will have to be predominantly segregated due to the current sort line set up.

Outputs from the RRC are currently in the region of 5,000 tonnes per annum. Significant reduction in volumes occurred during the 2019/20 period due to the impacts of COVID19. A breakdown of this throughput tonnage over the previous three years is shown in the following table:

| <b>Resource Recovery Centre Outputs</b> |                |                |                |
|-----------------------------------------|----------------|----------------|----------------|
| <b>Material</b>                         | <b>2017/18</b> | <b>2018/19</b> | <b>2019/20</b> |
| Cardboard                               | 1,540          | 1,422          | 1,151          |
| Mixed paper                             | 1,271          | 1,056          | 777            |
| 442 Plastic                             | 311            | 288            | 104            |
| No 1 plastic                            | 0              | 1              | 3              |
| Mixed plastic                           | 6              | 9              | 71             |
| Milk containers                         | 0              | 2              | 2              |
| Misc plastic                            | 106            | 2              | 13             |
| Alloy                                   | 30             | 34             | 29             |
| Steel                                   | 82             | 80             | 69             |
| Glass                                   | 2,035          | 2,559          | 2,149          |
| <b>Total</b>                            | <b>5,381</b>   | <b>5,453</b>   | <b>4,367</b>   |

The following table summarises the visitor numbers and revenue earnings (GST inclusive) from the Council Reuse Centres located in Blenheim, Havelock, Picton, Rai Valley, Seddon and Wairau Valley.

| <b>Reuse Centres</b> |                  |                 |                      |
|----------------------|------------------|-----------------|----------------------|
| <b>Period</b>        | <b>Revenue</b>   | <b>Visitors</b> | <b>Average Spend</b> |
| 2017/18              | \$256,586        | 37,009          | \$6.45               |
| 2018/19              | \$205,950        | 34,260          | \$6.01               |
| 2019/20              | \$232,450        | 39,540          | \$5.88               |
| <b>Total</b>         | <b>\$650,791</b> | <b>106,742</b>  | <b>\$6.10</b>        |

The E-waste collection facility receives materials from the transfer stations, and via direct delivery.

The Salvage Yard is now incorporated into the Reuse Centre. Inputs to the Salvage Yard are from the Waste Sorting Centre, transfer stations and wider community. These inputs are then resold where possible.

### 3.2.2 Regional Transfer Stations (RTS)

All the RTS are operated on closed landfill sites that are the responsibility of the Council. Each location is subject to a specific Resource Management Act (RMA) consent relating to the activities taking place on site. In general terms, the sites are open to the public and private contractors for the receipt of waste and diverted materials. The sites are operated by the Council under Contract No 2013/13.

The following table summarises the materials that are diverted and collected at each RTS

| <b>RTS</b> | <b>Card-board</b> | <b>News paper</b> | <b>Plastic</b> | <b>Glass</b> | <b>Cans</b> | <b>Oil</b> | <b>Metal</b> | <b>White-ware</b> |
|------------|-------------------|-------------------|----------------|--------------|-------------|------------|--------------|-------------------|
| Havelock   | ✓                 | ✓                 | ✓              | ✓            | ✓           | ✓          | ✓            | ✓                 |
| Picton     | ✓                 | ✓                 | ✓              | ✓            | ✓           | ✓          | ✓            | ✓                 |
| Seddon     | ✓                 | ✓                 | ✓              | ✓            | ✓           | ✓          | ✓            | ✓                 |
| Rai Valley | ✓                 | ✓                 | ✓              | ✓            | ✓           | ✓          | ✓            | ✓                 |

| RTS           | Card-board | News paper | Plastic | Glass | Cans | Oil | Metal | White-ware |
|---------------|------------|------------|---------|-------|------|-----|-------|------------|
| Wairau Valley | ✓          | ✓          | ✓       | ✓     | ✓    | ✓   | ✓     | ✓          |
| Ward          | ✓          | ✓          | ✓       | ✓     | ✓    | X   | X     | X          |

The Blenheim transfer station site was converted into a Waste Sorting Centre in 2016. The diversion from this site is determined by the availability of end markets. The following table summarises the exports from this site across the 2017 to 2020 period.

| Product Name               | 2017/2018 Net T | 2018/2019 Net T | 2019/2020 Net T |
|----------------------------|-----------------|-----------------|-----------------|
| Greenwaste Grass Out       | 0               | 30              | 3,756           |
| Residual Waste Out G1 & G2 | 2,532           | 3,312           | 4,589           |
| Bark Sales                 | 0               | 0               | 14              |
| Cardboard Out              | 250             | 157             | 22              |
| Compost Sales              | 0               | 0               | 92              |
| Escrap Out                 | 14              | 4               | 1               |
| Fines Out                  | 186             | 59              | 0               |
| GIB Out                    | 129             | 76              | 0               |
| Glass Out                  | 0               | 0               | 0               |
| Garden Mix Sales           | 0               | 0               | 67              |
| Metals Out                 | 569             | 516             | 326             |
| Mixed Paper Out            | 107             | 62              | 0               |
| Plastics Out               | 2               | 0               | 0               |
| Residual Waste Out         | 522             | 0               | 0               |
| Residual Waste Out WSC     | 3,000           | 1,515           | 0               |
| Rubble Out                 | 1,547           | 1,192           | 1,074           |
| Out Shop                   | 17              | 6               | 7               |
| Treated Wood Out           | 1,053           | 660             | 13              |
| Tyres Out                  | 38              | 31              | 15              |
| Untreated Wood Out         | 114             | 9               | 0               |
| Whiteware Out              | 105             | 28              | 0               |
| <b>Totals</b>              | <b>10,184</b>   | <b>7,657</b>    | <b>9,974</b>    |

The following table summarises the recycling throughput volumes in relation to cardboard, paper, cans, plastics, and glass at the other regional transfer stations.

| Transfer Stations Total Recycling Volume m <sup>3</sup> |         |         |         |
|---------------------------------------------------------|---------|---------|---------|
|                                                         | 2017/18 | 2018/19 | 2019/20 |
| Havelock                                                | 3,340   | 3,365   | 3,184   |
| Picton                                                  | 4,757   | 5,250   | 5,509   |
| Rai Valley                                              | 707     | 473     | 407     |
| Seddon                                                  | 1,073   | 1,197   | 899     |

| Transfer Stations Total Recycling Volume m <sup>3</sup> |               |               |               |
|---------------------------------------------------------|---------------|---------------|---------------|
|                                                         | 2017/18       | 2018/19       | 2019/20       |
| Wairau                                                  | 578           | 531           | 582           |
| Ward                                                    | 792           | 757           | 721           |
| <b>Totals</b>                                           | <b>11,246</b> | <b>11,571</b> | <b>11,302</b> |

The following table summarises the recycling throughput volumes in relation to whiteware at the other regional transfer stations.

| Transfer Stations Whiteware Recycling Volume |              |                |               |
|----------------------------------------------|--------------|----------------|---------------|
|                                              | 2017/18      | 2018/19        | 2019/20       |
| Havelock                                     | 162          | 259            | 171           |
| Picton                                       | 510.6        | 556.97         | 593.95        |
| Rai Valley                                   | 90           | 39             | 22.5          |
| Seddon                                       | 25.5         | 111            | 51            |
| Wairau                                       | 41.1         | 72             | 28.5          |
| Ward                                         | 0            | 0              | 0             |
| <b>Totals</b>                                | <b>829.2</b> | <b>1037.97</b> | <b>866.95</b> |

The following table summarises the recycling throughput volumes in relation to tyres at the transfer stations.

| Transfer Station Tyre Recycling Volume |           |            |            |
|----------------------------------------|-----------|------------|------------|
|                                        | 2017/18   | 2018/19    | 2019/20    |
| Havelock                               | 19        | 32         | 61         |
| Picton                                 | 29        | 45         | 44         |
| Rai Valley                             | 0         | 0          | 0          |
| Seddon                                 | 0         | 2          | 6          |
| Wairau                                 | 8         | 23         | 10         |
| Ward                                   | 0         | 0          | 0          |
| <b>Totals</b>                          | <b>56</b> | <b>102</b> | <b>121</b> |

The following table summarises the recycling throughput tonnage in relation to tyres at the Blenheim waste sorting centre.

| Product Name | 2017/2018 Net T | 2018/2019 Net T | 2019/2020 Net T |
|--------------|-----------------|-----------------|-----------------|
| Tyres Out    | 38              | 31              | 15              |

The following table summarises the recycling throughput volumes in relation to greenwaste at the Picton transfer station.

| Picton Transfer Station Greenwaste Recycling Volume |         |         |         |
|-----------------------------------------------------|---------|---------|---------|
|                                                     | 2017/18 | 2018/19 | 2019/20 |
| Greenwaste                                          | 384     | 396     | 608     |

### 3.2.3 Rural Community Recycling (RCR)

Council provide several Rural Community Recycling (RCR) bins across the region. These bins allow the community to segregate at source by providing separate compartments for cardboard and paper, plastics and cans, green glass, brown glass, and clear glass. The containers are collected, and the contents taken for processing at the Resource Recovery Centre in Blenheim. The following table summarises the amount of material collected in tonnes.

| Sites          | RCR Tonnages |            |            |
|----------------|--------------|------------|------------|
|                | 2017/18      | 2018/19    | 2019/20    |
| Awatere        | 3            | 10         | 8          |
| Clarence       | 6            | 52         | 52         |
| Grovetown      | 42           | 16         | 23         |
| Okiwi Bay      | 3            | 5          | 11         |
| Port Underwood | 0            | 22         | 37         |
| Quarry         | 0            | 28         | 67         |
| Rapaura        | 21           | 14         | 60         |
| Renwick        | 220          | 255        | 140        |
| Spring Creek   | 47           | 50         | 56         |
| Tua Marina     | 72           | 91         | 103        |
| Waihopai       | 14           | 20         | 26         |
| <b>Total</b>   | <b>427</b>   | <b>563</b> | <b>584</b> |

### 3.2.4 Private contractors

There are a limited number of private contractors within the region who operate collection services for recyclable material (paper, glass, and cardboard). In general terms these involve source segregation by the customer, collection, and onward delivery to the RRC.

### 3.2.5 NGO and Charities

The following table lists the various charity organisations located in the region and what services they provide.

| Non-Government Organisations and Charities |          |         |       |
|--------------------------------------------|----------|---------|-------|
| Name                                       | Location | Recycle | Reuse |
| Blue Door                                  | Blenheim | ✓       | ✓     |
| Salvation Army                             | Blenheim | ✓       | ✓     |
| PAMS                                       | Blenheim |         | ✓     |
| Marl Hospice                               | Blenheim |         | ✓     |
| St Vincent de Paul                         | Blenheim |         | ✓     |
| Red Cross                                  | Blenheim |         | ✓     |
|                                            |          |         |       |

Council acknowledges the organisations that provide a reuse service to the community by supplying an allocation of official Council refuse bags for any unwanted items. In addition, Council contributes towards the rubbish bin costs for these sites, recognising that not all unwanted items are compatible with council bags. The Council Reuse Centre is the final drop off point for potential resale of items prior to disposal.

### **3.2.6 Second-hand shops and antique dealers**

The region has a number of businesses that deal in second-hand collection and resale including antiques, clothing, household goods etc.

### **3.2.7 Product stewardship**

Product stewardship is an environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimizing the product's environmental impact throughout all stages of the products' life cycle, including end of life management.

The region has access to the following product stewardship schemes:

- Plasback – for the recovery of used farm plastics.
- The Glass Packaging Forum's glass packaging product stewardship scheme.
- Agrecovery Rural Recycling Programme – triple rinsed empty chemical drums
- Refrigerant Recovery - scheme to collect and destruct unwanted synthetic refrigerants, chlorofluorocarbons (CFCs), hydro chlorofluorocarbons (HCFCs) and hydro fluorocarbons.
- Resene Paintwise - nationwide paint and paint packaging take back and recycling programme.

Council is active in the product stewardship scheme design space, including the development of a container return scheme for New Zealand (NZ CRS). The NZ CRS, subject to Cabinet approval, could be operating by 2023 and will significantly impact on how the community values and subsequently treats beverage containers. In general terms, if the NZ CRS is seen as accessible and easy to use by the community then Council could expect to see kerbside collection and transfer station volumes reduce significantly.

## **3.3 Recovery**

### **3.3.1 Composting**

The Waste Sorting Centre in Blenheim includes a Greenwaste Acceptance Facility (GAF). This facility is on Council land which forms part of the closed landfill site known as Taylor Pass. The GAF part of the site receives greenwaste materials from the following sources:

- Public
- Transfer stations
- Private contractors

The GAF operation involves the acceptance and shredding of greenwaste and the acceptance of grass clippings. The shredded greenwaste is then sent to various 'nominated facilities' for direct land spreading, mulching, or composting. Nominated facilities can include vineyards. Mulching and composting also takes place at the GAF. The end-product is sold back to the community.

The inputs to this site, measured in tonnes, are charged a gate fee.

The GAF currently processes in the region of 4,000 tonnes of greenwaste and 1,000 tonnes of grass each year.

The GAF operation is currently covered by contract 2013/11 and is likely to be merged with the waste management and minimisation services contract (2013/13) when retendered in 2023.

Rural communities outside of Blenheim, particularly those in the Marlborough Sounds, are being asked to change the way they manage greenwaste. Historically, these communities collected greenwaste in centralised piles, often on Reserve land and then burned off the material annually. The burning practice is now subject to resource consent leading to some communities to look to Council for a solution to the greenwaste situation now being experienced.

### **3.3.2 Regional Transfer Stations (RTS)**

The regional transfer stations provide a collection point for the recovery of unwanted items such as white goods, e-waste and tyres as well as domestic recycling. These collected materials are then transported to the main hub in Blenheim for processing. Additionally, the regional transfer stations act as a drop point for hazardous waste both commercial and domestic. The hazardous materials are then transported to the Hazardous Waste Centre in Blenheim for processing.

### **3.3.3 Hazardous Waste Centre (HWC)**

The HWC is based in Blenheim and acts as the regional processing centre and direct drop off point for hazardous materials. The HWC supports several collection systems including unwanted paints, small batteries and oil filters. The HWC processes in the region of 75 tonnes of hazardous materials per annum.

### **3.3.4 Repurposing Centre**

The Repurposing Centre is located at the rear of the HWC in Blenheim. This facility is currently exploring the repurposing of unwanted items such as white goods.

### **3.3.4 Waste to energy**

The viability of waste to energy systems will be considered during the life of the next waste management and minimisation plan (2021 to 2027). In particular, the focus will be on organic materials and fibre (cardboard and paper). The proposed Government increase to the waste disposal levy will form part of this consideration.

The use of biomass feedstock to fuel boilers has already been established in some primary industry sectors, for example, providing heat to commercial greenhouses by burning non-hazardous sawdust and providing heat to wineries by burning non-hazardous vine prunings.

The landfill does operate a flare for the removal and destruction of landfill emissions through burning. Work is currently underway to determine a more beneficial use for the landfill gas, refer to Appendix H – Landfill Gas Feasibility Study for the initial feasibility study.

### **3.3.5 Home composting**

The Council promotes home based solutions for putrescible composting such as worm farms and Bokashi bins by offering a \$15 discount to households that purchase one of these systems.

## **3.4 Treatment**

### **3.4.1 Landfill deposits**

The Landfill Management Plan (LMP) for the Bluegums site sets out several operational practices that are designed to reduce the environmental impacts of incoming waste streams. Specific measures are in place to deal with the deposit of hazardous materials such as asbestos or difficult materials such as winery wastes. The current LMP is accessible via the council website.

Liaison with landfill customers is also key to ensuring that a problematic waste is not simply passed from the customer's premises to the landfill without appropriate treatment, for example, ensuring the timely collection of materials that may be biodegrading and applying odour suppressants to wastes at the point of production as required.

### **3.4.2 Resource Recovery Centre (RRC) diverted materials**

The public are asked to wash out cans and bottles that are being sent for recycling. This reduces the impact on the workers operating the sort line and baling press within the RRC.

## 3.5 Disposal

### 3.5.1 Regional landfill

The Bluegums Landfill site, located to the south of Blenheim, is the only disposal site for commercial, industrial, residential and some hazardous waste within the region. The site has an estimated lifespan of 34 years based on the current inputs. This is an engineered containment facility operating under RMA resource consent U000950.

Landfills generate leachate from rainwater and other liquids that percolate through the waste and a gas which is a by-product of the waste biodegrading through time. The site lining system is designed to contain the leachate and allow it to be captured and gravity fed to the sewage treatment works to the east of Blenheim. Gas is extracted and flared or burned off using the onsite gas management system.

Once a particular area, phase or stage of the Landfill has reached its final permitted levels a capping layer is put in place. This capping layer is constructed using site available soils that are placed insitu to an engineering specification. The purpose of the cap is to seal the site preventing further ingress of water and increased leachate production and to contain the landfill gases being generated.

This site is operated by the Council under Contract No 2011/06 with technical support provided from a suitably qualified engineer or consultant.

The construction of stage 8 will occur during 2020/21 and is funded from the user pays gate fee and Council borrowing.

The following table summarises the tonnage inputs to the site.

| Product Id | Product Name                  | 2017/2018 Net T | 2018/2019 Net T | 2019/2020 Net T |
|------------|-------------------------------|-----------------|-----------------|-----------------|
| A/H FW     | After Hours Fish Waste        | 0               | 0               | 0               |
| ASB        | Asbestos                      | 1,787           | 415             | 137             |
| ASH        | Ash                           | 232             | 222             | 170             |
| BULK       | Bulk Polystyrene              | 3               | 4               | 20              |
| C Soil     | Contaminated Soil             | 3,820           | 1,131           | 9,572           |
| FW         | Fish Waste                    | 16              | 0               | 2               |
| GEN        | General Refuse                | 17,959          | 19,721          | 22,182          |
| GM         | Grape Marc                    | 142             | 38              | 5               |
| Grass      | Grass                         | 926             | 844             | 0               |
| GRASSC     | Commercial Grass Waste        | 0               | 92              | 125             |
| GRNWGRASS  | Green Waste/Grass             | 0               | 25              | 3,785           |
| LTR        | Litter                        | 169             | 162             | 129             |
| LW         | Liquid Waste                  | 3,296           | 2,748           | 2,221           |
| MDCASB     | MDC Asbestos                  | 0               | 0               | 0               |
| MDC-C      | MDC Cleanfill                 | 697             | 16              | 478             |
| MDC-G      | MDC General Refuse            | 4,104           | 3,977           | 4,685           |
| MDC-S      | MDC Special Waste             | 563             | 243             | 330             |
| MDCSDSL    | MDC Contaminated Sawdust/Soil | 1,370           | 0               | 0               |
| MSHELL     | Mussel Shells                 | 3,837           | 5,271           | 3,386           |
| PP-STInExt | Shredded Timber In (External) | 486             | 0               | 0               |



| Product Id    | Product Name                  | 2017/2018 Net T | 2018/2019 Net T | 2019/2020 Net T |
|---------------|-------------------------------|-----------------|-----------------|-----------------|
| PP-STInWSC    | Shredded Timber In (WSC)      | 2,108           | 0               | 0               |
| SAWD          | Sawdust                       | 1,282           | 1,667           | 1,175           |
| SLDG          | Sludges and Animal Wastes     | 10,669          | 9,886           | 9,921           |
| TAG           | Replacement Key Tag           | 0               | 0               | 0               |
| TInExt        | Timber In (External)          | 583             | 273             | 405             |
| TInWSC        | Timber In (ex WSC)            | 2,304           | 591             | 13              |
| TomWaste      | Tomatoe Waste                 | 0               | 51              | 161             |
| TTS XFER      | TransferStationBlenheim (TTS) | 0               | 1,507           | 4,580           |
| TW IN         | Timber Waste (Internal)       | 0               | 410             | 0               |
| WFM           | Winery filter media           | 2,885           | 4,095           | 3,734           |
| WSC Soil      | WSC soil/rubble               | 1,388           | 1,121           | 1,074           |
| WSCFines      | Fines from WSC                | 159             | 55              | 0               |
| WSCRW         | WSC Residual Waste            | 5,067           | 3,109           | 0               |
| XFER          | Transfer Station Waste        | 3,262           | 3,056           | 3,118           |
| <b>Totals</b> |                               | <b>69,114</b>   | <b>60,729</b>   | <b>71,406</b>   |

### 3.5.2 Closed landfill sites

There are a number of closed landfill sites within the region. The Council has a Closed Landfill Management Plan which sets out the monitoring requirements for each site. The sites are based in the following locations:

- Blenheim – Taylor Pass Road.
- Havelock – Queen Charlotte Drive, adjacent to Kaituna River on eastern bank.
- Kaituna – intersection of Northbank Road and State Highway 6.
- Picton – access road off Gravesend Place, northeast of Picton sewage treatment plant.
- Rai Valley – Ronga Road immediately south of the Ronga River Bridge.
- Seddon – right bank of Awatere River, upstream of State Highway 1 Bridge.
- Wairau Valley – on the right bank of the Wairau River, 1 km north of the Wairau settlement.
- Ward – on the true right bank of Tachalls Creek, Gulch Road, 3 km west of Ward settlement.
- Fox's Island - next to SPCA facility at Renwick.

The monitoring results for each closed landfill are assessed annually. The sites are physically walked over and checked twice annually.

The closed landfill sites sometimes import cleanfill materials which is used to maintain the capping layer across the site and prevent the exposure of old refuse.

### 3.5.3 Other disposal facilities

The region has several construction-based companies who operate cleanfills under RMA resource consent. These sites deposit and stockpile material dependant on its value, for example, soils may be stockpiled on a cleanfill pending onward movement to a construction project for landscaping.

# 4. Future demands for services, infrastructure and programmes

## 4.1 General comments

Community consultation was undertaken as part of the preparation of this waste assessment. The consultation report can be found in Appendix I – Community Consultation Report. The key findings from this community consultation have been used to inform this waste assessment.

Future increases in waste and diverted material production within the region are likely to come from a range of sectors including residential, commercial, and industrial. While households do have the capacity to divert more material the largest gains in sending less tonnage to landfill will come from providing a diversion solution to the commercial and industrial sectors, particularly related to Organic materials such as animal and food wastes

The introduction of product stewardship schemes is likely to be a significant disruptor during the life of the next WMMP (2021 to 2027). These schemes will fundamentally change the way we view products and their associated packaging. Product stewardship shifts responsibility from the ratepayer or taxpayer back to the producer, consumer, and associated supply chain. In short, those that benefit from a product or its associated packaging have a shared responsibility to minimise and pay for any environmental impact. The externalisation of cost from the private to the public sector is removed by a product stewardship approach by ensuring that the product and its associated packaging reflect the true-life cycle cost, including end of life treatment, in its purchase price.

The impact of product stewardship schemes and changes to the waste disposal levy will also impact on the region’s recycling behaviours.

### 4.1.1 Tangata Whenua

Our culture, sometimes referred to as the way we do things around here, is influenced heavily by the policy of the Government of the day. Council is a part of the governmental system. Culture also refers to belief systems and connection to place. Council has been reminded during this consultation process that tangata whenua must be invited to work with Council under the conditions of Te Tiriti O Waitangi. The next WMMP is an opportunity for us to work together as a community to consider, and where appropriate, bring about change.

Specific feedback from the community in relation to tangata whenua included:

Community consultation key learnings included:

- Council is encouraged to bear in mind that Te Tiriti o Waitangi establishes tangata whenua as partners in any consultation process; as such iwi and mana whenua should be asked to collaborate with Council for the next iteration of the Waste Management and Minimisation Plan.

|                  |                                                                                   |
|------------------|-----------------------------------------------------------------------------------|
| <b>OPTION 1:</b> | <b>Ensure the next WMMP benefits from the principles of Te Tiriti O Waitangi.</b> |
|------------------|-----------------------------------------------------------------------------------|

### 4.1.2 Landfill

The landfill has the capacity to cope with current and future demands in relation to waste inputs. Most of the waste growth in the region is likely to come from the commercial and industrial sectors including property development as opposed to from the residential sector.

Community consultation key learnings included:

- Growing environmental awareness compels respondents to favour recycling and oppose landfill.

The landfill is constructed in stages. The future stage developments of the Bluegums landfill site were reviewed in 2019. Landfill sites are normally only engineered, and liners placed in the summer months. It is important that the site sustains enough developed airspace to prevent any disruption to the service this site provides. The timing of the stages is shown in the following table.

| Stage   | Airspace (m3) | Operating Life (56,000m <sup>3</sup> /year) |        | Required by |
|---------|---------------|---------------------------------------------|--------|-------------|
|         |               | Years                                       | Months |             |
| 8       | 167,000       | 3                                           | 0      | Oct-21      |
| 9       | 397,000       | 7                                           | 1      | Oct-24      |
| 10      | 360,000       | 6                                           | 5      | Nov-31      |
| 11      | 325,000       | 5                                           | 10     | Apr-38      |
| 12      | 264,000       | 4                                           | 8      | Feb-44      |
| 13      | 321,000       | 5                                           | 9      | Oct-48      |
| Closure |               |                                             |        | Jul-54      |

Landfill gate fees will increase significantly during the life of the next waste management and minimisation plan. Two major contributing factors to this cost escalation will be carbon pricing and the waste disposal levy.

The landfill operation is not able to reduce the impacts of any waste disposal levy increase as this is a pass-through cost that can only be mitigated by avoidance of landfill in the first place. The impact of carbon pricing can however be mitigated by ensuring the landfill is maximising the landfill gas (LFG) collection and destruction efficiency, including the exploration of future beneficial uses of the LFG. This work is underway including a recent feasibility study which is attached at Appendix H – Landfill Gas Feasibility Study.

Ongoing monitoring of the existing disposal contract and its associated performance criteria will ensure the landfill site is operated and the airspace utilised to their maximum efficiency.

|                  |                                                                |
|------------------|----------------------------------------------------------------|
| <b>OPTION 2:</b> | <b>Explore options for the beneficial use of landfill gas.</b> |
|------------------|----------------------------------------------------------------|

#### 4.1.3 Resource recovery centre (RRC)

The RRC has the capacity to deal with current and future demands for the processing of suitable diverted materials. Any increase in volumes would require additional throughput. This could be achieved by increasing the number of processing days (currently 4) and/or considering the introduction of split shifts across an elongated operational day. This situation will be reviewed on an ongoing basis.

The current sorting plant and machinery within this facility are operating within their current lifespan and are subject to an ongoing preventative maintenance and inspection programme outlined in the contract no 2013/13. A new replacement baler for the RRC was installed and commissioned in 2020.

Specific feedback from the community in relation to the RRC included:

Community consultation key learnings included:

- The community are advocating for changes and expansions to the current kerbside recycling collections which will have an impact on the RRC processing requirements.

Whilst the operation of this facility is under contract there is no such arrangement for the outlets that purchase the recycled material. Due to the volatility of the international commodity recycling market it is unlikely that such an arrangement could be set up with offshore end markets. However, with the emphasis on a product stewardship approach to waste now dominating current Government policy there is an opportunity to focus on supporting onshore reprocessing capacity where it exists. The decoupling of recycling sales from volatile offshore commodity markets will present an opportunity to build onshore supply contracts and relationships. The key to ensuring that the material is continually accepted is to ensure that the products are, as far as practical, free from contaminants that may cause rejection of the processed material.

The RRC is capable of taking increased volumes of diverted materials. Any change to the operating hours would be treated as a variance to the contract. The monthly contractor report will allow the Council to monitor the levels of materials being diverted. The RRC could also be considered as a regional hub for future product stewardship schemes as it is the only large scale baling operation in the region. Any future expanded use of the RRC would be subject to agreement between Council, the Council contractor operating the RRC and the appropriate Product Stewardship Organisation (PSO).

|                   |                                                                                                                                                                                  |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 3a:</b> | <b>Explore opportunities for the beneficial future use of the Resource Recovery Centre and its outputs.</b>                                                                      |
| <b>OPTION 3b:</b> | <b>Consider the impacts from any kerbside recycling collection methodology changes on the Resource Recovery Centre processing requirements, for example, equipment upgrades.</b> |

#### 4.1.4 Reuse centre (RUC)

The Reuse Centre in Blenheim has been expanded to provide enough capacity to deal with current and future demands. The throughput experienced by reuse facilities across the region continues to strengthen both in terms of supply of and demand for unwanted goods. The Council reuse facility is designed to be the last drop point for items for resale prior to disposal.

Specific feedback from the community in relation to the RUC included:

Community consultation key learnings included:

- Respondents strongly advocate that reusing unwanted goods is preferable to unnecessary disposal however second-hand items are getting more expensive to purchase.

Specific feedback from the community during the waste consultation process has revealed that a large proportion of households are retaining unwanted goods for longer than 12 months. In relation to the type of unwanted goods respondents answered as follows

| <b>Answer Choices</b>                                                           | <b>Responses</b> |
|---------------------------------------------------------------------------------|------------------|
| Furniture                                                                       | 37.82%           |
| White goods (eg, fridge, freezers, washing machines, clothes dryers etc)        | 18.59%           |
| Other electronic goods (eg, TVs, DVD players, computers, fans and printers etc) | 48.40%           |
| Other household goods (eg, toys, books, crockery, general bric-a-brac etc)      | 86.86%           |

| Answer Choices         | Responses |
|------------------------|-----------|
| Other (please specify) | 16.35%    |

In relation to how long people have had these items sitting unused in their homes respondents answered as follows:

| Answer Choices         | Responses |
|------------------------|-----------|
| 0-3 months             | 5.77%     |
| 3-6 months             | 16.03%    |
| 6-9 months             | 8.33%     |
| 9-12 months            | 12.50%    |
| Greater than 12 months | 55.77%    |
| Other (please specify) | 1.60%     |

In relation to how would people normally get rid of these unwanted items respondents answered as follows:

| Answer Choices                                                | Responses |
|---------------------------------------------------------------|-----------|
| Sell or trade online (eg, Trade Me, Facebook marketplace etc) | 48.40%    |
| Charity shop/s                                                | 75.96%    |
| Council reuse shop (at the recycling centre)                  | 50.32%    |
| Transfer station                                              | 47.12%    |
| Private waste contractor                                      | 8.65%     |
| Illegally dump (just be honest - no comeback)                 | 0.32%     |

An opportunity exists to consider a collection and redistribution service for these unwanted items.

|                  |                                                                                                                                                         |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 4:</b> | <b>Develop a collection and repurposing service for unwanted goods and seek financial support through the waste minimisation fund for that service.</b> |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4.1.5 Regional transfer stations (RTS)

The RTS network has the capacity to deal with current and future demands from the local communities that utilise each of the sites. Improvements in the collection systems for diverted materials have increased the throughput capacity of each site.

Specific feedback from the community in relation to the RTS included:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Community consultation key learnings included:</p> <ul style="list-style-type: none"> <li>• Transfer stations are thought to be basic and in need of upgrading.</li> <li>• Transfer station opening hours are limited and do not meet the needs of local residents.</li> <li>• There is considerable doubt about parity of service across the region for both kerbside and transfer station waste management options.</li> <li>• Access to independent transport may not be available; similarly trailer ownership is reducing.</li> </ul> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The RTS network is unlikely to be expanded as additional kerbside collection or remote recycling containers would be more cost effective to increase material diversion rates.

The majority of the RTS are located on closed landfill sites so any significant change in layout or further development in response to product stewardship scheme participation would have to take this into account.

Any alteration in the landfill gate fee, for example, through increases to the waste disposal levy will have to be reflected in the RTS gate fee.

This contract is monitored on an ongoing basis with monthly reporting and a minimum of quarterly contract meetings.

The RTS network would benefit from a rebranding exercise that shifted the focus from rubbish transfer to resource transfer.

|                  |                                                                                        |
|------------------|----------------------------------------------------------------------------------------|
| <b>OPTION 5:</b> | <b>Rebrand the current regional transfer stations into resource transfer stations.</b> |
|------------------|----------------------------------------------------------------------------------------|

#### 4.1.6 Kerbside refuse collection

The current kerbside refuse collection system does have capacity to cope with future expansion or intensification of residential developments in the Blenheim and Picton areas. The economic sustainability of any increase in service levels across the region would be dependent on, but not limited to the number of new properties, travel distances, collection days and capacity within the existing collection vehicles. An expansion of the current Council kerbside refuse collection service across the region could introduce a number of additional benefits including:

- A feeling of connectivity by supplying a refuse service at the gate.
- A reduction in the reliance on transfer stations to deal with waste if you live outside of Blenheim or Picton.
- A reduction in illegal dumping across the district.
- An opportunity to collect litter across the region via the kerbside collection vehicles, contingent on a switch to wheelie bins for rubbish.

Specific feedback from the community in relation to the kerbside refuse collection included:

Community consultation key learnings included:

- The kerbside collection system as it currently stands suits a limited 'small household' demographic only.
- The kerbside collection system as it currently stands does not adequately meet the needs of 'growing' households.
- Growing environmental awareness compels respondents to reject the use of plastic refuse bags and suggest a biodegradable alternative.

The current contract 2013/13 expires in 2023. The retender process will commence in 2022. Consideration will be given for the inclusion of wheelie bins for existing kerbside refuse routes and for the expansion of the kerbside refuse routes to increase the coverage across the region.

|                  |                                                                                                                                                                               |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 6:</b> | <b>Tender the option of changing the kerbside rubbish collection from bags to wheelie bins and tender the expansion of the kerbside rubbish collection across the region.</b> |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4.1.7 Hazardous waste centre

The current contractual arrangements for the collection, processing, and onward transportation of hazardous waste for reuse, recycling or disposal does have the capacity to cope with current and future demands. Any volume growth in this area is likely to come from the commercial, industrial and primary industry sectors.

The hazardous waste centre, located next to the Blenheim transfer station, is the main processing point for this type of material. This facility was established in 2020 and provides the community with a drop point for hazardous materials. The HWC is operated under contract 2020-021. A repurposing centre has also been established under the same contract. This facility is used to assess unwanted goods including white goods and where appropriate arrange for their testing, repair and certification. Reuse options are considered for units that are beyond repair, for example, parts salvage, The HWC processes in the region of 75 tonnes per annum.

Specific feedback from the community in relation to hazardous waste included:

Community consultation key learnings included:

- No feedback on hazardous waste was received from the community.

Each transfer station (excluding Ward) has a container for hazardous waste and another for oil. The volume throughput per location is relatively small. These containers were upgraded across 2019 and 2020.

The service is funded through general rates and some subsidies from the Ministry for the Environment.

Any inputs from the non-residential sector to this facility are subject to charges dependant on the waste type and quantity.

**OPTION 7: Develop the Hazardous Waste and Repurposing Centres during the life of next WMMP (2021 – 2027).**

#### 4.1.8 Kerbside recyclables collection

The current kerbside recycling collection system does have capacity to cope with future expansion or intensification of residential developments in the Blenheim and Picton areas. The economic sustainability of any increase in service levels across the region would be dependent on, but not limited to, the number of new properties, travel distances, collection days and capacity within the existing collection vehicles. An expansion of the current Council kerbside recycling collection service across the region would have to take into account the following considerations:

- Long term acceptance of current collection methodology via low entry vehicles and sorting on the truck
- The future likely contents of any recycling post introduction of packaging and beverage container product stewardship schemes
- The type of recycling containers
- The separation of glass
- The impacts on the sorting requirements at the Resource Recovery Centre
- End market requirements

Specific feedback from the community in relation to the kerbside recycling collection included:

Community consultation key learnings included:

- Current kerbside recycling containers have limited capacity to hold the amount of recycling product households discard on a weekly basis.
- Excess recycling product is put in refuse bags and lost to landfill for ease of disposal.
- Extended bin routes as a result of ongoing housing development mean that recycling product sits in the streetscape for longer and may be exposed to wind and rain.
- Rain soaked paper and cardboard is lost to landfill; windblown recycling product becomes litter.
- Commercial recycling is being disposed of in rated household service provision.

The introduction of product stewardship schemes for packaging and beverage containers will promote a behaviour change across the community. In the case of beverage containers a New Zealand Container Return Scheme (NZ CRS) would see consumers pay a deposit on each beverage container purchased and then redeem this deposit when the container is returned through the NZ CRS. Containers left in kerbside recycling would see the consumer forfeit the deposit.

|                   |                                                                                                                                                                                     |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 8a:</b> | <b>Monitor and review the impact of the introduction of product stewardship schemes on kerbside recycling.</b>                                                                      |
| <b>OPTION 8b:</b> | <b>Tender the option of changing the kerbside recycling collection from crates to wheelie bins and tender the expansion of the kerbside recycling collection across the region.</b> |

#### 4.1.9 Education and community awareness

##### Schools

The current education plan is providing resources and information to the school network within the region. The education plan implementation is primarily funded through general rates with some contribution coming from the likes of Enviro Schools and other grant bodies. A copy of the education plan is attached at Appendix G – Waste Education Strategy.

Specific feedback from the community in relation to the education plan included:

Community consultation key learnings included:

- No feedback on the education plan was received from the community.

There is currently no education space to host school or other community groups. Ideally this facility could be located within the confines of the Resource Recovery Centre. The purpose of such a facility would be to raise awareness of environmental issues affecting the region and provide resources to empower the community to make changes in their locale. Funding for such a facility could be achieved through the waste minimisation fund and / or waste disposal levy.

##### Community (adults)

Council uses all forms of media to inform the community of waste and recycling related issues. To date this communication has been based on information conveyance. Examples include annual updates on waste volumes, media coverage of waste related stories, notifications to households related to public holiday arrangements for kerbside and sites, media coverage of Government policy changes and their impact potential on Marlborough. Council have also digitised information on multiple services including waste and recycling through the Council website, for example, smart maps.

Specific feedback from the community in relation to the community awareness included:



- Community consultation key learnings included:
- The community would like Council to encourage responsibility by involving all businesses to appraise their own waste management practices.
- The community would like a forward thinking and progressive approach to waste management and environmental stewardship.
- A platform for the community to share waste related knowledge, and signal where specific types of material or product such as medication, batteries, and plastic bread closure ties can be recycled, would be a welcome asset to prompt conscious recycling.
- Communication gaps are also identified in respect of assisting visitors to engage in responsible waste disposal practices when they visit. There is a distinct lack of waste management information for all travellers whether using self-contained vehicles or staying in independent rented accommodation.
- It is apparent that the community would like clear, consistent, unambiguous messaging that signals an expectation from Council that residents of and visitors to Marlborough can do the 'best with waste'.
- There is a clear sense that people want not only to be connected and included, but to be present within the discussion and feel as if they are being heard.
- A whole of region waste solution can be supported by establishing an interactive electronic communication system similar in style to the Camper mate application.
- Inviting inspirational speakers to hold public meetings on waste reduction may provoke changes to household habits.
- A consistent minority value self-management of waste and the 'user pays' methodology because they believe it encourages responsible waste related habits: there is concern that a rated system would encourage excess waste production.

Council will continue to develop its connection with the community during the life of the next WMMP.

|                   |                                                                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 9a:</b> | <b>Investigate the construction of an education space within the current Resource Recovery Centre site footprint to be operated by an appropriate community minded environmental group.</b>                                              |
| <b>OPTION 9b:</b> | <b>Review current waste and recycling messaging outputs and formats with a view to making them more accessible to the community; and by providing an interactive mechanism for the community to share pro-environmental information.</b> |

#### 4.1.10 The Marlborough Sounds

The provision of refuse collection and disposal services to this area has the capacity to cope with current and future demands from the road connected settlements. These areas experience major increases in population during the spring and summer months which is reflected in the number of uplifts of the waste containers. In recent times the permanent resident population in the area has increased resulting in larger volumes of waste being created in the winter months.

Specific feedback from the community in relation to the Marlborough Sounds included:

Community consultation key learnings included:

- Growing amounts of permanent and semi-permanent residents put an additional strain on waste and recycling services as they currently stand.
- A reconsideration of servicing schedules for refuse and recycling across peak holiday season would be greatly appreciated.
- Coin skips in the Marlborough Sounds are not consistently operational.
- Waste disposal capacity at Picton Foreshore is inadequate.
- The reintroduction of recycling provision at Picton Foreshore would be welcomed.
- Remote Marlborough Sounds communities request that Council work towards having an organised 'land to shore' collection service.
- Commercial boat taxi operators bring residents refuse to shore.
- Clear and consistent messaging from Council and the Department of Conservation is required to reduce incidences of littering on walking tracks.

The use of the RTS at Havelock, Rai Valley and Picton for the collection of waste and diverted materials, the supply of coin operated skips at the Grove, Ohingaroa, Portage and Rai Valley and the provision of a rural community recycling bin at Ohingaroa will continue to be operated by the Council under Contract No 2013/13.

|                    |                                                                                                                               |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 10a:</b> | <b>Investigate a waste collection service for boat access and other remote areas across the Marlborough Sounds.</b>           |
| <b>OPTION 10b:</b> | <b>Include the Marlborough Sounds road accessible areas in any future tendering of the expansion of kerbside collections.</b> |

#### 4.1.11 Working with private waste contractors and community service providers

The private waste contractors and community service providers continue to make a valuable contribution through the provision of waste collection and reuse services across the region. Early engagement with these organisations prior to future tendering is a key component in generating a competitive market response for Council waste and recycling contract work. With a significant expansion of collection services being considered across the life of the next WMMP, alongside responses to new product stewardship schemes, it is crucial that interested parties are not excluded or put off from participating in future tenders. Of particular interest is the ability of community groups such as the Zero Waste Network, Pare Kore or others bidding, to become part of the waste and recycling service provision within Marlborough.

Specific feedback from the community in relation to the contractors and community service providers included:

- Community consultation key learnings included:
- It may be cost effective to have more than one contractor provide services for the region; however, a commercial imperative will ultimately inform any future tendering process.
- Length of anticipated service provision which secures work for a longer term might encourage companies to look at economies of scale.
- People who do receive service provision through a Council rated system also pay for wheelie bins; there seems to be no incentive to reduce waste.
- Contract service providers say that there is inadequate provision of waste and recycling for special events and/or cruise ship visitors to Picton Foreshore.
- Encouraging best practice by providing infrastructure would see people separating and sorting wastes themselves into appropriate bins.
- Commercial boat taxi operators manage waste on behalf of Sounds residents and visitors; boat access visitors leave rubbish at the boat ramp in Picton.
- There needs to be greater capacity for people who bring waste to shore. The existing four wheelie bins fill up quickly, and the quayside can become untidy and hazardous. A more sustainable plan is required for peak season population increase.

|                   |                                                                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 11:</b> | <b>Ensure the next waste and recycling tender enables participation of private sector waste management companies and community service providers.</b> |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4.1.12 Organic material and composting

Several attempts have been undertaken over the years to establish regional compost operations. To date success has been limited and through time each attempt has succumbed to a combination of compliance issues and / or lack of market demand for the end-product be it mulch or compost. Market demand for the end-product is driven by a commercial imperative aligned to a quality comparison to agrichemical applications. Over the past two decades compost operators have failed to gain support from the primary industry through arrangements such as take back agreements for processed organic materials. Instead operators have been forced to 'meet the market' by settling for unsustainable sales prices for their products. At this time, it is clear that the sales price value of a mulch or compost is not providing long-term sustainability for operators and therefore the success of such operations must be tied to the initial gate fees instead. In the absence of such agreements the primary industry will continue to rely on agrichemicals and miss an opportunity to circulate organic, natural material back into the region's soils.

Specific feedback from the community in relation to organic materials and composting included:

Community consultation key learnings included:

- Council must signal to householders that organic waste should be separated from other waste going to landfill by encouraging people to have home composting systems; or by establishing a network of local area community composting facilities.
- A region-wide solution for green waste would be greatly appreciated.
- An ability to dispose of green waste within or adjacent to local communities is not consistently available across the region.
- Many respondent say they have to travel long distances to access a transfer station, and getting rid of green waste is expensive.
- Green waste is reported as being discarded in rivers, verges, empty neighbouring properties, over steep banks on rural roads, and into the ocean.
- The production of green waste is also inconsistent across the region.
- Sounds residents say that the weather conditions they experience work to increase the amount of vegetation they have to cope with all year round.
- Alongside looking after their individual gardens, additional community maintenance work is undertaken without Council assistance. Council assistance would now be appreciated.
- In the absence of a dedicated green waste facility, grass and green waste is currently taken to landfill. Separation of grass and green waste is possible should a green waste facility be available. Any increase to the waste disposal levy will lead to increased dump charges. Established contractors cannot absorb an additional cost and will have to pass it on to customers. There is a likelihood that non-established, part-time, transient grass cutters will offer a reduced job price and dump grass illegally.

|                   |                                                                                                      |
|-------------------|------------------------------------------------------------------------------------------------------|
| <b>OPTION 12:</b> | <b>Investigate a regional solution for organic material including green, animal and food wastes.</b> |
|-------------------|------------------------------------------------------------------------------------------------------|

#### 4.1.13 Rural community recycling containers

The Rural Community Recycling bins have proven to be suitable for small rural communities. This type of service is suited to lower volume locations but loses its efficiency as volumes increase. In the case of Renwick, the service experienced littering and illegal dumping from the outset. However, visibility of this behaviour was hidden from the community due to the site maintenance service provided by the Renwick school caretaking staff. Whilst the school received a financial compensation for site maintenance work a continuation of poor community habits placed an unacceptable burden on the school. Relocating the container to the Foxes Island site revealed the extent of these habits and the container was subsequently withdrawn. In the longer-term Renwick would benefit from the provision of a kerbside recycling service.

Specific feedback from the community in relation to the rural community recycling containers included:

Community consultation key learnings included:

- Rural community recycling containers are well used but would benefit from being adapted to hold one recycling type only.
- If rural community recycling containers cannot be adapted containers require to be serviced more frequently.
- Rural community recycling container sites do not experience consistent respectful use within local communities.

|                   |                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 13:</b> | <b>Review the rural community recycling service against the future impact of product stewardship approaches such as the introduction of a New Zealand container return scheme (CRS).</b> |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4.1.14 Voluntary sector and NGOs

There is a growing demand for second-hand goods across the region and recent survey work by Council has confirmed that there is a supply of unwanted items stored in households. As previously noted, feedback from consultation work suggests that there is a growing market for the purchase of second-hand goods: a frequent additional comment points to second-hand goods being expensive. The dichotomy here is that the second-hand charity shops are fund raising for their causes and therefore looking to maximise income. A space exists to explore increasing supply to meet demand without disadvantaging the charity sector.

Specific feedback from the community in relation to the voluntary sector and NGO's included:

Community consultation key learnings included:

- No feedback on the voluntary sector and NGO's was received from the community.

Accordingly, the following option applies to this sector as well as the Reuse Centre.

|                  |                                                                                                                                                         |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 4:</b> | <b>Develop a collection and repurposing service for unwanted goods and seek financial support through the waste minimisation fund for that service.</b> |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4.1.15 Specific industry waste streams

Waste materials such as organics including animal and food wastes, aquaculture, forestry, and viticulture waste streams, will continue to be a focus during the next WMMP. Commercial waste streams including packaging from the retail sector are also likely to encounter a change as product stewardship schemes emerge. It is important that Council maintains a facilitation role to ensure that solutions to these waste streams, including the prospect of any added value option, are encouraged. Outcomes in these areas will likely have an impact on the future service provision for greenwaste.

Likewise, where businesses in our region engage with external service providers it is important for Council to support them in achieving the best outcomes for their sector.

Specific feedback from the community in relation to specific industry waste streams included:

Community consultation key learnings included:

- Tyre retailers would value Council involvement in developing an accreditation system in order that those who are involved with tyre disposal are authorised as being responsible and accountable.
- Primary business sectors may at times need assistance with networking disposal or reuse solutions for industry specific waste.
- Council may choose to work with and encourage supermarkets to reduce food product going to landfill

|                   |                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------|
| <b>OPTION 15:</b> | <b>Review resourcing requirements in relation to working with businesses to reduce waste.</b> |
|-------------------|-----------------------------------------------------------------------------------------------|

#### 4.1.16 Litter

Council undertook the Marlborough Litter Project (MLP) across 2018 and 2019. This project, part funded by the waste minimisation fund, developed a series of recommendations in response to

litter challenges across the region. The findings from this project will be considered in the next waste management and minimisation plan. The full litter report can be viewed at <https://www.marlborough.govt.nz/services/refuse/marlborough-litter-project>.

| <b>Recommendations from Report</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Develop a strategic plan that resonates with the philosophies across all departments that bear responsibility for litter service provision.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Include a prerequisite within documentation for leasing public spaces that encourages the public, not only the organiser, to participate in appropriate litter disposal methods.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Seek community representatives to take part in focus or working group meetings to capitalise on good will: local people generally have access to knowledge of practical issues within communities.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Engage a person capable of working across business and community sectors in respect of raising awareness of litter responsibilities and litter reduction. Arguably of greater importance is that this person raises awareness within MDC of the types of circumstances in respect of littering issues that people experience across the region.                                                                                                                                                                                                                                                                                                          |
| Across the region, establish bulk recycling containers adjacent to supermarkets or other suitable sites. Excess recycling material can be brought from home, and containers can be available to visitors during peak season times.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Across the region, introduce MDC branded litter bags for general waste disposal, to include a collection service. While potentially unpopular at a time when public opinion appears to support a reduction in plastic bag use, extending the reach of MDC branded litter bags would establish a standardised method for permanent resident and visitors that includes disposal charge. Taking services into communities would signal an awareness of changing demographics, for example an ageing population, would go some way to bolstering community inclusion and wellbeing. This could potentially reduce the illegal dumping of household rubbish. |
| Lobby for compulsory product stewardship requirement for all manufacturers in order that the economic burden to the ratepayer is reduced.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Any potential for alternative solution making may be hampered by current ways of working- recalibrate internal systems by 'thinking differently' about litter across departments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Explore the possibility of similar litter service provision for towns and townships across the district, which could potentially extend to refuse and recycling collection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Critically reflect on the contribution of advertising, sales techniques and the offloading of supermarket waste into the domestic stream, for example promotional fliers and cardboard box displacement in lieu of single use plastic bag ban.                                                                                                                                                                                                                                                                                                                                                                                                           |
| Advertise and support community clean up events: actively recognise volunteer labour contribution. Consider providing administration resources for volunteers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Establish a 'litter centric' focus group to empower people to advocate for their communities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Consider employing an additional resource for the Solid Waste Department to work across stakeholder groups to inspire and coordinate litter reduction across the district.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Specific feedback from the community in relation to the litter included:

Community consultation key learnings included:

- The community would like Council to engage in greater enforcement measures to deter littering and illegal dumping.
- Communities would like Council to acknowledge the work they do in respect of 'tidy-up' work.

|                   |                                                                                                                                  |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 16:</b> | <b>Investigate the implementation of the Marlborough Litter Project recommendations across the life of the WMMP 2021 – 2027.</b> |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------|

#### **4.1.17 Community changes**

The community consultation gave an insight into the changing demographic and expectations across our community. Whether people are living in urban or rural locations their expectations for the process of managing waste are changing. Indications are that the community does not feel that there is equity of service provision across the district. An expectation that where you live determines the level of waste service you receive is being questioned. People acknowledge that cost plays an integral part in their thinking. Council is unable to make a comparison between costs associated with current household waste practices and any future proposals for changes to service delivery. Therefore, additional information regarding current waste related household expenditure is required.

Specific feedback from the community in relation to the community changes included:

Community consultation key learnings included:

- Household budgets are being stretched by additional, or private waste disposal costs.
- The community should be invited to complete an additional survey to calculate 'overall expenditure' related to waste management.
- Some communities, while formerly willing now feel they hold a burden of responsibility to maintain their local environment in the absence of Council assistance.
- The population is increasing, housebuilding extends across rural and urban sectors, and primary industry continues to grow.
- Demographic changes related to age and physical ability effect the ways in which people can engage with existing waste management services.
- House capacity is stretched as people use former family homes as multiple occupancy opportunities to reduce the burden of high rental costs.
- Recognised Seasonal Employment (RSE) workers live in residential settings and engage with rated service provision.
- Transient populations who come to the region for work may live in mobile accommodation or unrated buildings on existing properties and have limited knowledge of or access to waste management solutions.
- Decreasing section size limits the amount of waste and recycling that can be stored in a residential setting prior to collection.
- Seasonal climate changes make bin bags unpleasant to store and handle within a residential setting because of odour production in warm weather.
- Stockpiling refuse and recycling on rural sections prior to self-disposal can attract insects, vermin and animals.
- Rural practices of burning waste can also include the burning of plastic recycling product.
- A whole of region waste solution can be supported by understanding how much people already pay to manage waste.
- A strong sense that a Council kerbside service should be considered for the whole region is conveyed; nevertheless, there are concerns that the cost of such a service could be unaffordable for people with limited household income.
- Community focused initiatives from Council are appreciated but respondents would like greater advance notification of 'free' tipping events. Rural communities wonder if it might be feasible to have a regular community waste day in which domestic and farming waste can be disposed of at the same event.

|                   |                                                                            |
|-------------------|----------------------------------------------------------------------------|
| <b>OPTION 17:</b> | <b>Develop a waste cost calculator and invite the community to use it.</b> |
|-------------------|----------------------------------------------------------------------------|

#### 4.1.18 Contract performance

The community expressed an interest in having access to more information on contract specification and how this is being implemented. Contract performance is driven by several factors including but not limited to:

- The contract framework – what does the contract document prioritise, reward and potentially punish?
- The contractor's organisational culture – how does the contractor set out their response to deliver the contract and how do they interact with our community?
- The commercial imperative – is the pursuit of a profit in alignment with the best interest of the community?
- Equity – are we treating the contractor fairly as a community as we interact with the services provided?
- Compliance – is the contract being delivered within the current legislative framework, be that Health Safety, Environmental or other applicable rules?



- Continuous improvement – does the contract set out a pro-active approach and is the contractor delivering on this?

Specific feedback from the community in relation to contract performance included:

Community consultation key learnings included:

- The community would like Council to be open transparent and accountable to the public by sharing data and expenditure costs related to contracted services.
- The community would like to have knowledge of current contract tolerances.

|                   |                                                              |
|-------------------|--------------------------------------------------------------|
| <b>OPTION 18:</b> | <b>Investigate a waste contract communications platform.</b> |
|-------------------|--------------------------------------------------------------|

#### 4.1.19 System change

There is an appetite across the community to consider changes to the current waste management systems. In particular, the methodology associated with kerbside and the relevance of the current transfer station network is challenged. Communities are looking for more connectivity and equity of service provision possibly through the extension of the kerbside service across the region. However, the current methodology of crates and bags is not favoured. Similarly, the transfer station network and the reliance on self-delivery of waste to these sites are signalled as being problematic. The next WMMP will need to set out the choices for the community that provides them with an informed position in relation to the challenges and opportunities associated with any change to the waste management systems.

Specific feedback from the community in relation to system change included:

Community consultation key learnings included:

- The system of waste management as it currently stands has outlived its useful purpose.
- The system of waste management as it currently stands can be inconvenient and labour intensive to use.
- Growing environmental awareness compels respondents to ask Council to work towards removing organic product from the domestic waste stream.
- Special event management would benefit from being guided by a region wide 'zero waste' policy.
- There is consensus that going forward respondents would like a cost effective whole-of-region streamlined service that is easy for locals and visitors to engage with.
- Clear and simple to engage with communication networks would greatly assist with sharing waste related information within the region.
- A whole of region waste solution must be sympathetic to changes already happening in the 'waste space', specifically the anticipated introduction of a Container Return Scheme and an impending increase to the waste disposal levy.
- A suitable whole of region waste solution rests on reimagining current asset use by recalibrating transfer station operational capacity.
- Wheelie bins are suggested to be an ideal practical resolution for waste and recycling issues. If Council funds are limited, then a preference for wheelie bins to service recycling and/or green waste would be an acceptable compromise.
- Respondents convey a sense that discussion and cooperation within Council could be improved: they would like Council departments to work together to solve community issues. Departments cited for greater communication potential are the roads department and solid waste, the parks department and solid waste, environmental monitoring and solid waste.

|                   |                                                                                                                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 19:</b> | <b>Draft the WMMP 2021-2027 that addresses the waste needs of the whole district and provides appropriate information for the community and council to determine any change of waste management systems.</b> |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4.1.20 Advocating to government

Central Government policy benefits from an informed position that provides understanding of the current and future challenges our community faces in relation to waste. Advocating to central Government requires an appropriate feedback loop that connects community voice to the policy makers in Council and in Wellington. The community needs to be encouraged to pro-actively engage with Council. This waste assessment is the beginning of that journey as it consolidates the work to date that has been drawn from the community and advocates the positions that are important to them.

Current advocacy from Council to Government includes participation in several national working groups aimed at promoting a product stewardship approach to dealing with waste, contributing to policy framing by engaging with Government consultation processes, and actively participating in the waste minimisation fund that includes projects that will contribute to future policy development. The public are largely unaware of this work. Council must work towards embedding meaningful communication networks within and across communities in order that this work becomes known.

Specific feedback from the community in relation to the advocating to Government included:

Community consultation key learnings included:

- Interest is shown for innovation in respect of research and development and trial projects being initiated across the region.
- In terms of a broader intent, respondents advocate for Council to engage with Government to influence waste policy development, and push for the development of onshore plastic recycling facilities. Having onshore recycling availability would reduce unnecessary emissions and costs of long-haul transportation. This sort of engagement can also include working towards having a standardised system for recycling across New Zealand and discuss business involvement in product stewardship. The viability of soft plastic recycling should be reconsidered.

|                   |                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 20:</b> | <b>Continue to advocate to central Government for waste policy changes that support the needs of our community.</b> |
|-------------------|---------------------------------------------------------------------------------------------------------------------|

#### 4.1.21 Waste to energy

Waste to energy can be part of a considered waste management response. Those in favour cite the solution as an alternative to landfill and those opposed are concerned about the environmental impacts, for example, through emissions and the disruption to existing resource recovery systems. Resource recovery and waste to energy systems share a common goal; they both require a feedstock of material to sustain them. The challenge of supporting both systems at a regional level needs careful consideration.

Specific feedback from the community in relation to the waste to energy included:

Community consultation key learnings included:

- The next iteration of the Waste Management and Minimisation Plan should acknowledge that waste minimisation measures have to date, across the globe been ineffective: it may be time to explore the possibilities of a waste to energy solution for waste management.
- A suitable whole of region waste solution rests on reimagining the implications of future resource 'usefulness' as public commentary shifts towards favouring waste to energy as a way of reclaiming energy from waste.

|                   |                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>OPTION 21:</b> | <b>Set out a policy position regarding waste to energy as a waste management option in the next WMMP 2021-27.</b> |
|-------------------|-------------------------------------------------------------------------------------------------------------------|

#### 4.1.22 Climate change

Waste management systems contribute to climate change in several ways. Emissions are the primary driver, be they from vehicle movements associated with waste and recycling transportation or from the production and emission of landfill gas or other waste to energy gases. Vehicle emissions are impacted by service provision. In the absence of a council collection service, for example kerbside, the community are left to manage the waste at an individual level. The consequence of this individual response can be increased vehicle movements and therefore increased emissions, increased material sent to landfill and a possible increase in landfill gas production. The efficiency of any collection system therefore is a crucial consideration to emissions reduction.

Specific feedback from the community in relation to the climate change included:

Community consultation key learnings included:

- Private waste companies operate on different days of the week: smaller communities observe that this increases traffic and vehicle emissions within their local area.

|                   |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|
| <b>OPTION 22:</b> | <b>Investigate options for reducing emissions from waste collection services.</b> |
|-------------------|-----------------------------------------------------------------------------------|

## 5. Statement of options

Having developed a list of options to meet the demands forecast in section 4 the waste assessment will now address the following minimum requirements:

- A summary of the reasonably practicable options has been considered?
- The economic, environmental, social, and cultural costs and benefits in relation to these options?
- How each option will contribute to the goals of the New Zealand Waste Strategy (NZWS)?
- How the options will affect the TA's goals or community outcomes (such as where there are goals/outcomes in a current WMMP or LTP)?
- How these options will affect future demand, such as issues of the capacity of the infrastructure?

These options will state the intended role of the Council in ensuring the delivery of these options, for example, contracted out, infrastructure investment, partnership schemes, etc.

## 5.1 Summary of options considered

The following options will be considered for inclusion in the Waste Management and Minimisation Plan (WMMP) including the intended role of the Council in its delivery.

### 5.1.1 Tangata whenua

|                                  |                                                                                                              |
|----------------------------------|--------------------------------------------------------------------------------------------------------------|
| 1                                | Ensure the next WMMP benefits from the principles of Te Tiriti O Waitangi.                                   |
| Comment                          | Working with Maori will lead to a more informed outcome for the WMMP.                                        |
| Area Affected                    | Tangata whenua                                                                                               |
| Cost and Benefits                |                                                                                                              |
| Economic                         | Opportunities for regional economic development.                                                             |
| Environmental                    | Protection of the environment.                                                                               |
| Social                           | Enhanced participation in waste diversion across the community.                                              |
| Cultural                         | Partnership approach to raising awareness of waste issues and changes to service provision.                  |
| Council's Involvement            |                                                                                                              |
| Contracted Out                   | Nil                                                                                                          |
| Partnership                      | The WMMP review process already reflects a partnership approach with tangata whenua and the wider community. |
| Internal                         | The WMMP will be drafted internally by staff and submitted to the 2021-31 LTP for community consideration.   |
| Infrastructure                   | Nil                                                                                                          |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                              |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                         |
| Effect on Future Demand          |                                                                                                              |
| Infrastructure                   | WMMP will set out the infrastructure requirements as appropriate.                                            |
| Capacity                         | WMMP will set out the capacity impacts as appropriate.                                                       |
| CAPEX                            | WMMP will set out the CAPEX requirements as appropriate.                                                     |

## 5.1.2 Landfill

|                                  |                                                                                                               |
|----------------------------------|---------------------------------------------------------------------------------------------------------------|
| 2.                               | Explore options for the beneficial use of landfill gas.                                                       |
| Comment                          | Feasibility study completed. Landfill gas can be used as a fuel. Discussions with DHB progressing.            |
| Area Affected                    | Landfill - DISPOSAL                                                                                           |
| <b>Cost and Benefits</b>         |                                                                                                               |
| Economic                         | Possible reduction in fuel costs to the hospital.                                                             |
| Environmental                    | Reduction in fossil fuel (coal) burning.                                                                      |
| Social                           | Reduced emissions from the hospital.                                                                          |
| Cultural                         | Some challenges being worked through associated with using gas associated with decay in a health environment. |
| <b>Council's Involvement</b>     |                                                                                                               |
| Contracted Out                   | Technical Advice including design, installation, and commissioning of a gas supply system.                    |
| Partnership                      | Working with the DHB.                                                                                         |
| Internal                         | Project management through existing staff.                                                                    |
| Infrastructure                   | 4.1km of pipeline, gas treatment plant, redundancy systems, and connections to existing systems.              |
| Contribution to NZWS             | Improve the efficiency of resource use.                                                                       |
| Effect on LTP Community Outcomes | Environmental sustainability                                                                                  |
| <b>Effect on Future Demand</b>   |                                                                                                               |
| Infrastructure                   | Nil                                                                                                           |
| Capacity                         | Nil                                                                                                           |
| CAPEX                            | \$2 million                                                                                                   |

### 5.1.3 Resource Recovery Centre (RRC) options

|                                  |                                                                                                                            |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 3a.                              | Explore opportunities for the beneficial future use of the Resource Recovery Centre and its outputs.                       |
| Comment                          | Product stewardship schemes will impact on the RRC throughput, for example, the introduction of a container return scheme. |
| Area Affected                    | RRC – WASTE MINIMISATION                                                                                                   |
| <b>Cost and Benefits</b>         |                                                                                                                            |
| Economic                         | Recycling is more expensive than disposal.                                                                                 |
| Environmental                    | Increasing material diversion is desirable if reduction is not possible.                                                   |
| Social                           | Sustaining the throughput will require community support.                                                                  |
| Cultural                         | Reduction in littering or illegal dumping impacts on the environment.                                                      |
| <b>Council's Involvement</b>     |                                                                                                                            |
| Contracted Out                   | Nil                                                                                                                        |
| Partnership                      | Working with the relevant Product Stewardship Organisations (PSO).                                                         |
| Internal                         | Future negotiations with Product Stewardship Organisations (PSO).                                                          |
| Infrastructure                   | Layout changes to the RRC.                                                                                                 |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                            |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                       |
| <b>Effect on Future Demand</b>   |                                                                                                                            |
| Infrastructure                   | RRC site segregation to separate a container return site from the existing facility.                                       |
| Capacity                         | Nil                                                                                                                        |
| CAPEX                            | Site delineation - \$500k funded from CRS income.                                                                          |

### Resource Recovery Centre (RRC) options (continued)

|                                         |                                                                                                                                                                           |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3b.                                     | Consider the impacts from any kerbside recycling collection methodology changes on the Resource Recovery Centre processing requirements, for example, equipment upgrades. |
| Comment                                 | Recycling markets will change during the life of the next WMMP. The processing methodology in the RRC may change during the next WMMP.                                    |
| Area Affected                           | RRC – WASTE MINIMISATION.                                                                                                                                                 |
| <b>Cost and Benefits</b>                |                                                                                                                                                                           |
| Economic                                | Recycling is more expensive than disposal.                                                                                                                                |
| Environmental                           | Increasing material diversion is desirable if reduction is not possible.                                                                                                  |
| Social                                  | Sustaining the throughput will require community support.                                                                                                                 |
| Cultural                                | Reduction in littering or illegal dumping impacts on the environment.                                                                                                     |
| <b>Council's Involvement</b>            |                                                                                                                                                                           |
| Contracted Out                          | Supply, installation, and commissioning of sorting equipment.                                                                                                             |
| Partnership                             | Nil.                                                                                                                                                                      |
| Internal                                | Project management through existing staff.                                                                                                                                |
| Infrastructure                          | Changes to processing equipment.                                                                                                                                          |
| <b>Contribution to NZWS</b>             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                           |
| <b>Effect on LTP Community Outcomes</b> | Environmental sustainability and essential services.                                                                                                                      |
| <b>Effect on Future Demand</b>          |                                                                                                                                                                           |
| Infrastructure                          | Upgraded sorting equipment.                                                                                                                                               |
| Capacity                                | RRC sorting methodology may require upgrade if collection volumes change in composition and/or amount.                                                                    |
| CAPEX                                   | Revised sorting plant - \$1.5 million.                                                                                                                                    |



#### 5.1.4 Reuse shop options

|                                  |                                                                                                                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.                               | Develop a collection and repurposing service for unwanted goods and seek financial support through the waste minimisation fund for that service. |
| Comment                          | Lack of second-hand goods particularly for rental sector. Lack of collection system for bulk items.                                              |
| Area Affected                    | Reuse Shop – WASTE MINIMISATION.                                                                                                                 |
| <b>Cost and Benefits</b>         |                                                                                                                                                  |
| Economic                         | Provision of second-hand goods.                                                                                                                  |
| Environmental                    | Reduced illegal dumping.                                                                                                                         |
| Social                           | Increased community cohesion.                                                                                                                    |
| Cultural                         | Nil.                                                                                                                                             |
| <b>Council's Involvement</b>     |                                                                                                                                                  |
| Contracted Out                   | Collection via contract 2020/021. Research on project outcomes via external provider.                                                            |
| Partnership                      | Community groups, social services, other Government agencies.                                                                                    |
| Internal                         | Project management through existing staff.                                                                                                       |
| Infrastructure                   | Utilise the existing repurposing centre.                                                                                                         |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                  |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                             |
| <b>Effect on Future Demand</b>   |                                                                                                                                                  |
| Infrastructure                   | Nil.                                                                                                                                             |
| Capacity                         | Collection vehicle via contractor.                                                                                                               |
| CAPEX                            | Nil.                                                                                                                                             |

### 5.1.5 Regional TS options

|                                  |                                                                                                        |
|----------------------------------|--------------------------------------------------------------------------------------------------------|
| 5.                               | Rebrand the current regional transfer stations into resource transfer stations.                        |
| Comment                          | The nature of the RTS will change if collection services and product stewardship schemes are expanded. |
| Area Affected                    | RTS – WASTE MINIMISATION AND DISPOSAL.                                                                 |
| <b>Cost and Benefits</b>         |                                                                                                        |
| Economic                         | Nil.                                                                                                   |
| Environmental                    | Reduced illegal dumping.                                                                               |
| Social                           | Improved connectivity and community cohesion.                                                          |
| Cultural                         | Nil.                                                                                                   |
| <b>Council's Involvement</b>     |                                                                                                        |
| Contracted Out                   | Retender of RTS operation contract due in 2023.                                                        |
| Partnership                      | Possible involvement of community or environmental groups, for example zero waste, para kore.          |
| Internal                         | Project management through existing staff.                                                             |
| Infrastructure                   | Sites are council owned.                                                                               |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                        |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                   |
| <b>Effect on Future Demand</b>   |                                                                                                        |
| Infrastructure                   | Possible site layout and security upgrades.                                                            |
| Capacity                         | Site footprints are sufficient in size.                                                                |
| CAPEX                            | \$300k across six sites.                                                                               |

### 5.1.6 Kerbside refuse collection

|                                  |                                                                                                                                                                        |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.                               | Tender the option of changing the kerbside rubbish collection from bags to wheelie bins and tender the expansion of the kerbside rubbish collection across the region. |
| Comment                          | An expanded kerbside refuse collection service would also support litter collection across the district.                                                               |
| Area Affected                    | Kerbside Refuse Collection – DISPOSAL.                                                                                                                                 |
| <b>Cost and Benefits</b>         |                                                                                                                                                                        |
| Economic                         | Reduced costs to community.                                                                                                                                            |
| Environmental                    | Reduce illegal dumping and littering.                                                                                                                                  |
| Social                           | Improved social cohesion.                                                                                                                                              |
| Cultural                         | Nil.                                                                                                                                                                   |
| <b>Council's Involvement</b>     |                                                                                                                                                                        |
| Contracted Out                   | Private collections contractors through tender. Private bin suppliers.                                                                                                 |
| Partnership                      | Nil.                                                                                                                                                                   |
| Internal                         | Pre-tender pricing, tender process, contract management.                                                                                                               |
| Infrastructure                   | Bin supply – circa 18,000 units. Change in collection methodology.                                                                                                     |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                        |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                   |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                        |
| Infrastructure                   | Nil.                                                                                                                                                                   |
| Capacity                         | Nil.                                                                                                                                                                   |
| CAPEX                            | \$1 million for bins.                                                                                                                                                  |

### 5.1.7 Hazardous waste storage facility options

|                                  |                                                                                                       |
|----------------------------------|-------------------------------------------------------------------------------------------------------|
| 7.                               | Develop the Hazardous Waste and Repurposing Centres during the life of next WMMP (2021 – 2027).       |
| Comment                          | This new facility now needs to increase its throughput by raising awareness across the community.     |
| Area Affected                    | HWC – HAZARDOUS WASTE.                                                                                |
| <b>Cost and Benefits</b>         |                                                                                                       |
| Economic                         | Consistent pricing for hazardous waste across the region.                                             |
| Environmental                    | Reduced amounts of inappropriate hazardous waste disposal.                                            |
| Social                           | User friendly drop off point for community leading to raised awareness of hazardous waste management. |
| Cultural                         | Nil.                                                                                                  |
| <b>Council's Involvement</b>     |                                                                                                       |
| Contracted Out                   | Contract 2020/021.                                                                                    |
| Partnership                      | Businesses for battery and oil filter collection, for example, retail outlets as collection points.   |
| Internal                         | Contract management.                                                                                  |
| Infrastructure                   | Utilise existing HWC.                                                                                 |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                       |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                  |
| <b>Effect on Future Demand</b>   |                                                                                                       |
| Infrastructure                   | Nil.                                                                                                  |
| Capacity                         | Nil.                                                                                                  |
| CAPEX                            | Nil.                                                                                                  |

### 5.1.8 Kerbside recycling collection options

|                                  |                                                                                                                     |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 8a.                              | Monitor and review the impact of the introduction of product stewardship schemes on kerbside recycling.             |
| Comment                          | The CRS will reduce the amount of kerbside recycling material for collection.                                       |
| Area Affected                    | Kerbside Recycling Collection – RECYCLING.                                                                          |
| <b>Cost and Benefits</b>         |                                                                                                                     |
| Economic                         | Reduced collection costs post re-tender. Reduced litter costs. Residual value from containers left in the kerbside. |
| Environmental                    | Reduce littering.                                                                                                   |
| Social                           | Nil.                                                                                                                |
| Cultural                         | Nil.                                                                                                                |
| <b>Council's Involvement</b>     |                                                                                                                     |
| Contracted Out                   | Collection contractor and bin supplier.                                                                             |
| Partnership                      | Tender to be inclusive to avoid freezing out the private market.                                                    |
| Internal                         | Pre-tender pricing, tender process, contract management.                                                            |
| Infrastructure                   | Possible changes to RRC sorting methodology.                                                                        |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                     |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                |
| <b>Effect on Future Demand</b>   |                                                                                                                     |
| Infrastructure                   | Nil.                                                                                                                |
| Capacity                         | Nil.                                                                                                                |
| CAPEX                            | Nil.                                                                                                                |

### Kerbside recycling collection options (continued)

|                                  |                                                                                                                                                                                                                     |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8b.                              | Tender the option of changing the kerbside recycling collection from crates to wheelie bins and tender the expansion of the kerbside recycling collection across the region.                                        |
| Comment                          | A market response through tender will provide an informed position.                                                                                                                                                 |
| Area Affected                    | Kerbside Recycling Collection – RECYCLING.                                                                                                                                                                          |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                                                     |
| Economic                         | Reduced costs to rural communities.                                                                                                                                                                                 |
| Environmental                    | Containerising the waste would have a positive environmental impact.                                                                                                                                                |
| Social                           | The introduction of wheelie bins would have a positive social impact by reducing the appearance and presence of waste on collection days. Expansion of the service across the region would improve social cohesion. |
| Cultural                         | Nil.                                                                                                                                                                                                                |
| <b>Council's Involvement</b>     |                                                                                                                                                                                                                     |
| Contracted Out                   | Collection service and bin supply.                                                                                                                                                                                  |
| Partnership                      | Nil.                                                                                                                                                                                                                |
| Internal                         | Pre-tender pricing, tender process, contract management.                                                                                                                                                            |
| Infrastructure                   | Bin supply – circa 18,000 units. Change in collection methodology.                                                                                                                                                  |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                                                     |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                                                                |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                                                     |
| Infrastructure                   | Nil.                                                                                                                                                                                                                |
| Capacity                         | Nil.                                                                                                                                                                                                                |
| CAPEX                            | \$1 million for bins.                                                                                                                                                                                               |

### 5.1.9 Education and awareness options

|                                  |                                                                                                                                                                                      |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9a.                              | Investigate the construction of an education space within the current Resource Recovery Centre site footprint to be operated by an appropriate community minded environmental group. |
| Comment                          | This dedicated space would be a focal point for raising community awareness across the community.                                                                                    |
| Area Affected                    | Education and Awareness – WASTE MINIMISATION.                                                                                                                                        |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                      |
| Economic                         | Reduction in waste costs by raising awareness of how to avoid creating waste in the first place.                                                                                     |
| Environmental                    | Waste reduction.                                                                                                                                                                     |
| Social                           | Improved social connection.                                                                                                                                                          |
| Cultural                         | Opportunity to weave Maori worldview on environment into the facility.                                                                                                               |
| <b>Council's Involvement</b>     |                                                                                                                                                                                      |
| Contracted Out                   | Building construction – could be from prefabricated containers.                                                                                                                      |
| Partnership                      | Local business – sponsorship / support.                                                                                                                                              |
| Internal                         | Facilitation and if required Pre-tender pricing, tender process, contract management.                                                                                                |
| Infrastructure                   | Site provision at the RRC.                                                                                                                                                           |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                      |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                                 |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                      |
| Infrastructure                   | Loss of parking at RRC – contractor staff could relocate to WSC.                                                                                                                     |
| Capacity                         | Nil.                                                                                                                                                                                 |
| CAPEX                            | Up to \$300k if a complete new build.                                                                                                                                                |

## Education and awareness options (continued)

|                                  |                                                                                                                                                                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9b.                              | Review current waste and recycling messaging outputs and formats with a view to making them more accessible to the community; and by providing an interactive mechanism for the community to share pro-environmental information. |
| Comment                          | Vision is an information sharing point that has a broad appeal to the community as opposed to a social media platform that attracts a narrower set of people.                                                                     |
| Area Affected                    | Communication – WASTE MINIMISATION.                                                                                                                                                                                               |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                                                                   |
| Economic                         | Reduction in household expense through information sharing and networking.                                                                                                                                                        |
| Environmental                    | Reduce illegal dumping.                                                                                                                                                                                                           |
| Social                           | Improved community cohesion and connectivity across the region.                                                                                                                                                                   |
| Cultural                         | Ako – the ability to share experience across the generations through a safe platform of information exchange.                                                                                                                     |
| <b>Council's Involvement</b>     |                                                                                                                                                                                                                                   |
| Contracted Out                   | Nil.                                                                                                                                                                                                                              |
| Partnership                      | With wider community groups.                                                                                                                                                                                                      |
| Internal                         | Provision of the IT platform that supports the communication network.                                                                                                                                                             |
| Infrastructure                   | IT hardware.                                                                                                                                                                                                                      |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                                                                   |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                                                                              |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                                                                   |
| Infrastructure                   | Nil.                                                                                                                                                                                                                              |
| Capacity                         | Nil.                                                                                                                                                                                                                              |
| CAPEX                            | Up to \$50k in IT hardware support, for example, dedicated memory/server or equivalent.                                                                                                                                           |



### 5.1.10 The Marlborough Sounds options

|                                                          |                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10a.                                                     | Investigate a waste collection service for boat access and other remote areas across the Marlborough Sounds.                                                                                                                                                                                                                                                |
| Comment                                                  | Vision is an organised collection for bulk items across the Marlborough Sounds boat access areas only – frequency initially twice annually. Also, to consider linking ordinary waste collection to the tax / barge service being fed back to shore – for example wheelie bins exchanges at each wharf then emptied centrally back Picton and / or Havelock. |
| Area Affected                                            | Kerbside Refuse Collection – DISPOSAL.                                                                                                                                                                                                                                                                                                                      |
| <b>Cost and Benefits</b>                                 |                                                                                                                                                                                                                                                                                                                                                             |
| Economic                                                 | Reduced costs to households by collectivising the service provision. Use of the waste cost calculator.                                                                                                                                                                                                                                                      |
| Environmental                                            | Reduced illegal dumping.                                                                                                                                                                                                                                                                                                                                    |
| Social                                                   | Improved connectivity.                                                                                                                                                                                                                                                                                                                                      |
| Cultural                                                 | Improved stewardship of the Marlborough Sounds – land and water.                                                                                                                                                                                                                                                                                            |
| <b>Council's Involvement</b>                             |                                                                                                                                                                                                                                                                                                                                                             |
| Contracted Out                                           | Boat companies, bin suppliers, waste collection contractors                                                                                                                                                                                                                                                                                                 |
| Partnership                                              | Boat companies and community associations.                                                                                                                                                                                                                                                                                                                  |
| Internal                                                 | Pre-tender pricing, tender process, contract management.                                                                                                                                                                                                                                                                                                    |
| Infrastructure                                           | Fit the bins system to the requirements of the boats / barges.                                                                                                                                                                                                                                                                                              |
| Pre-tender pricing, tender process, contract management. | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                                                                                                                                                                                             |
| Pre-tender pricing, tender process, contract management. | Environmental sustainability and essential services.                                                                                                                                                                                                                                                                                                        |
| <b>Effect on Future Demand</b>                           |                                                                                                                                                                                                                                                                                                                                                             |
| Infrastructure                                           | Possible onshore bin store - \$50k.                                                                                                                                                                                                                                                                                                                         |
| Capacity                                                 | Nil.                                                                                                                                                                                                                                                                                                                                                        |
| CAPEX                                                    | Bin system - \$100k.                                                                                                                                                                                                                                                                                                                                        |

## The Marlborough Sounds options (continued)

|                                  |                                                                                                                                                                                                                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10b.                             | Include the Marlborough Sounds road accessible areas in any future tendering of the expansion of kerbside collections.                                                                                                                                                                      |
| Comment                          | Vision is to provide the whole region with a kerbside service. This will require a rural Marlborough Sounds collection route which will be high mileage and low property count. Residents may have to transport containers to central access points that the collection vehicles can reach. |
| Area Affected                    | Kerbside collections – WASTE MINIMISATION.                                                                                                                                                                                                                                                  |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                                                                                                                             |
| Economic                         | Reduced waste cost to households. Use of waste calculator.                                                                                                                                                                                                                                  |
| Environmental                    | Reduced illegal dumping, reduced waste journeys, reduced vehicle emissions.                                                                                                                                                                                                                 |
| Social                           | Improved connectivity and social cohesion.                                                                                                                                                                                                                                                  |
| Cultural                         | Improved stewardship of the Marlborough Sounds – land and water.                                                                                                                                                                                                                            |
| <b>Council's Involvement</b>     |                                                                                                                                                                                                                                                                                             |
| Contracted Out                   | Collection contractor, bin supplier                                                                                                                                                                                                                                                         |
| Partnership                      | Community associations.                                                                                                                                                                                                                                                                     |
| Internal                         | Pre-tender pricing, tender process, contract management.                                                                                                                                                                                                                                    |
| Infrastructure                   | Bin supply, marshalling points for bins                                                                                                                                                                                                                                                     |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                                                                                                                             |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                                                                                                                                        |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                                                                                                                             |
| Infrastructure                   | Set down areas for bins – hard standing, signage and fencing – up to \$150k across 10 sites.                                                                                                                                                                                                |
| Capacity                         | Nil.                                                                                                                                                                                                                                                                                        |
| CAPEX                            | Bin supply included in kerbside options.                                                                                                                                                                                                                                                    |

Council's

### 5.1.11 Working with private waste contractors and community service providers composting options

|                                  |                                                                                                                                                                          |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.                              | Ensure the next waste and recycling tender enables participation of private sector waste management companies and community service providers.                           |
| Comment                          | The next tender will provide significant opportunities for participants, so the tender structure needs to enable participation from public and private sector operators. |
| Area Affected                    | Waste and Recycling Collection – DISPOSAL AND WASTE MINIMISATION.                                                                                                        |
| <b>Cost and Benefits</b>         |                                                                                                                                                                          |
| Economic                         | Contract opportunities to local and national service providers.<br>Reduced costs to households through contracted service provision.                                     |
| Environmental                    | Reduced illegal dumping. Reduced vehicle emissions. Interconnection of services – litter, kerbside, reserves, camp sites, lookouts, etc.                                 |
| Social                           | Improved social cohesion.                                                                                                                                                |
| Cultural                         | Improved stewardship across the region.                                                                                                                                  |
| <b>Council's Involvement</b>     |                                                                                                                                                                          |
| Contracted Out                   | Contract service provision, bin suppliers                                                                                                                                |
| Partnership                      | Local contractors and community groups as well as possible national service providers.                                                                                   |
| Internal                         | Pre-tender pricing, tender process, contract management.                                                                                                                 |
| Infrastructure                   | Possible IT upgrades for reporting systems.                                                                                                                              |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                          |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                     |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                          |
| Infrastructure                   | IT contract Reporting Platform up to \$50k.                                                                                                                              |
| Capacity                         | Nil.                                                                                                                                                                     |
| CAPEX                            | Bins – as per kerbside. Set down areas as per Marlborough Sounds.                                                                                                        |

### 5.1.12 Organic material and composting

|                                  |                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 12.                              | Investigate a regional solution for organic material including green, animal and food wastes.                     |
| Comment                          | Vision is to attract a commercial operator to the region that provides a solution for the various organic wastes. |
| Area Affected                    | Composting – ORGANIC MATERIALS.                                                                                   |
| <b>Cost and Benefits</b>         |                                                                                                                   |
| Economic                         | Reduction in disposal costs.                                                                                      |
| Environmental                    | Reduction in waste to landfill.                                                                                   |
| Social                           | Availability of organic compost.                                                                                  |
| Cultural                         | Nil.                                                                                                              |
| <b>Council's Involvement</b>     |                                                                                                                   |
| Contracted Out                   | Nil – Council may supply feedstock to a suitable Organic processing operation.                                    |
| Partnership                      | Council would provide a facilitation role.                                                                        |
| Internal                         | Facilitation.                                                                                                     |
| Infrastructure                   | Nil – this would be a commercial venture supplied by a suitably qualified commercial operator.                    |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                   |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                              |
| <b>Effect on Future Demand</b>   |                                                                                                                   |
| Infrastructure                   | Nil.                                                                                                              |
| Capacity                         | Nil.                                                                                                              |
| CAPEX                            | Nil.                                                                                                              |

### 5.1.13 Rural community recycling containers

|                                  |                                                                                                                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13.                              | Review the rural community recycling service against the future impact of product stewardship approaches such as the introduction of a New Zealand container return scheme (CRS). |
| Comment                          | The containers may require reconfiguration if beverage containers are removed from the recycling.                                                                                 |
| Area Affected                    | Recycling collection – WASTE MINIMISATION.                                                                                                                                        |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                   |
| Economic                         | Reduced collection costs.                                                                                                                                                         |
| Environmental                    | Reduced litter from caps.                                                                                                                                                         |
| Social                           | Nil.                                                                                                                                                                              |
| Cultural                         | Nil.                                                                                                                                                                              |
| <b>Council's Involvement</b>     |                                                                                                                                                                                   |
| Contracted Out                   | Container reconfiguration.                                                                                                                                                        |
| Partnership                      | Nil.                                                                                                                                                                              |
| Internal                         | Contract management – request for pricing and information.                                                                                                                        |
| Infrastructure                   | Nil.                                                                                                                                                                              |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                   |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                              |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                   |
| Infrastructure                   | Nil.                                                                                                                                                                              |
| Capacity                         | Nil.                                                                                                                                                                              |
| CAPEX                            | Container refurb and painting - \$55k (11 containers).                                                                                                                            |

### 5.1.14 Voluntary Sector and NGOs

|                                  |                                                                                                                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 14. – same as option 4.          | Develop a collection and repurposing service for unwanted goods and seek financial support through the waste minimisation fund for that service. |
| Comment                          | Lack of second-hand goods particularly for rental sector. Lack of collection system for bulk items.                                              |
| Area Affected                    | Reuse Shop – WASTE MINIMISATION.                                                                                                                 |
| <b>Cost and Benefits</b>         |                                                                                                                                                  |
| Economic                         | Provision of second-hand goods.                                                                                                                  |
| Environmental                    | Reduced illegal dumping.                                                                                                                         |
| Social                           | Increased community cohesion.                                                                                                                    |
| Cultural                         | Nil.                                                                                                                                             |
| <b>Council's Involvement</b>     |                                                                                                                                                  |
| Contracted Out                   | Collection via contract 2020/021. Research on project outcomes via external provider.                                                            |
| Partnership                      | Community groups, social services, other Government agencies.                                                                                    |
| Internal                         | Project management through existing staff.                                                                                                       |
| Infrastructure                   | Utilise the existing repurposing centre.                                                                                                         |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                  |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                             |
| <b>Effect on Future Demand</b>   |                                                                                                                                                  |
| Infrastructure                   | Nil.                                                                                                                                             |
| Capacity                         | Collection vehicle via contractor.                                                                                                               |
| CAPEX                            | Nil.                                                                                                                                             |

### 5.1.15 Specific Industry Waste Streams

|                                  |                                                                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15.                              | Review resourcing requirements in relation working with businesses to reduce waste.                                                                                                |
| Comment                          | Vision is to work with businesses and the wider community to promote waste and litter reduction. This resource will also support the implementation of the Litter recommendations. |
| Area Affected                    | Human Resources – WASTE MINIMISATION.                                                                                                                                              |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                    |
| Economic                         | Reduced waste related costs across the region.                                                                                                                                     |
| Environmental                    | Reduced littering and illegal dumping and waste to landfill.                                                                                                                       |
| Social                           | Improved community connectedness.                                                                                                                                                  |
| Cultural                         | Nil.                                                                                                                                                                               |
| <b>Council's Involvement</b>     |                                                                                                                                                                                    |
| Contracted Out                   | Nil.                                                                                                                                                                               |
| Partnership                      | Nil.                                                                                                                                                                               |
| Internal                         | Additional resource – full time litter reduction facilitator / business waste auditor.                                                                                             |
| Infrastructure                   | Nil.                                                                                                                                                                               |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                    |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                               |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                    |
| Infrastructure                   | Nil.                                                                                                                                                                               |
| Capacity                         | Additional resourcing – 0.5 FTE salary TBC                                                                                                                                         |
| CAPEX                            | Nil.                                                                                                                                                                               |

### 5.1.16 Litter

|                                  |                                                                                                                                                                                                                                                                        |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>16.</b>                       | Investigate the implementation of the Marlborough Litter Project recommendations across the life of the WMMP 2021 – 2027.                                                                                                                                              |
| <b>Comment</b>                   | This links to the specific industry wastes. The vision is to have a dedicated resource that can implement the findings of the litter project. The principle would be to track, trace and mitigate the sources of litter be they from the public, business or visitors. |
| <b>Area Affected</b>             | Litter – WASTE MINIMISATION, EDUCATION, DISPOSAL.                                                                                                                                                                                                                      |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                                                                                                        |
| Economic                         | Reduced clean-up costs.                                                                                                                                                                                                                                                |
| Environmental                    | Reduced litter and reduced waste overall.                                                                                                                                                                                                                              |
| Social                           | Improved community cohesion through raise awareness.                                                                                                                                                                                                                   |
| Cultural                         | Improved stewardship.                                                                                                                                                                                                                                                  |
| <b>Council's Involvement</b>     |                                                                                                                                                                                                                                                                        |
| Contracted Out                   | Nil.                                                                                                                                                                                                                                                                   |
| Partnership                      | Local communities, business, Government and Council departments.                                                                                                                                                                                                       |
| Internal                         | Additional resource – full time litter reduction facilitator / business waste auditor.                                                                                                                                                                                 |
| Infrastructure                   | Nil.                                                                                                                                                                                                                                                                   |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                                                                                                        |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                                                                                                                   |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                                                                                                        |
| Infrastructure                   | Nil.                                                                                                                                                                                                                                                                   |
| Capacity                         | Additional resourcing – 0.5 FTE salary TBC.                                                                                                                                                                                                                            |
| CAPEX                            | Nil.                                                                                                                                                                                                                                                                   |



### 5.1.17 Community changes

|                                  |                                                                                                                                                             |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17.                              | Develop a waste cost calculator and invite the community to use it.                                                                                         |
| Comment                          | To inform the community what they actually spend dealing with waste. This will then allow a factual comparison to any proposed changes in level of service. |
| Area Affected                    | Levels of Service – WASTE COSTS.                                                                                                                            |
| <b>Cost and Benefits</b>         |                                                                                                                                                             |
| Economic                         | Raise awareness of waste related costs.                                                                                                                     |
| Environmental                    | Nil.                                                                                                                                                        |
| Social                           | Nil.                                                                                                                                                        |
| Cultural                         | Nil.                                                                                                                                                        |
| <b>Council's Involvement</b>     |                                                                                                                                                             |
| Contracted Out                   | Nil.                                                                                                                                                        |
| Partnership                      | Nil.                                                                                                                                                        |
| Internal                         | IT platform and survey required.                                                                                                                            |
| Infrastructure                   | Nil.                                                                                                                                                        |
| Contribution to NZWS             | Nil – but raises awareness across the community and supports the consideration of any proposed change.                                                      |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                        |
| <b>Effect on Future Demand</b>   |                                                                                                                                                             |
| Infrastructure                   | Nil.                                                                                                                                                        |
| Capacity                         | Nil.                                                                                                                                                        |
| CAPEX                            | Nil.                                                                                                                                                        |

### 5.1.18 Contract performance

|                                  |                                                                                                                                 |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 18.                              | Investigate a waste contract communications platform.                                                                           |
| Comment                          | Vision would be an interactive dashboard or equivalent that signalled to the community how the waste contracts were performing. |
| Area Affected                    | Contract performance – AWARENESS.                                                                                               |
| <b>Cost and Benefits</b>         |                                                                                                                                 |
| Economic                         | Nil.                                                                                                                            |
| Environmental                    | Raised awareness.                                                                                                               |
| Social                           | Improved community engagement.                                                                                                  |
| Cultural                         | Nil.                                                                                                                            |
| <b>Council's Involvement</b>     |                                                                                                                                 |
| Contracted Out                   | Nil.                                                                                                                            |
| Partnership                      | Nil.                                                                                                                            |
| Internal                         | IT platform and survey required.                                                                                                |
| Infrastructure                   | Nil.                                                                                                                            |
| Contribution to NZWS             | Nil – but raises awareness across the community and supports the consideration of any proposed change.                          |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                            |
| <b>Effect on Future Demand</b>   |                                                                                                                                 |
| Infrastructure                   | Nil.                                                                                                                            |
| Capacity                         | Nil.                                                                                                                            |
| CAPEX                            | Nil.                                                                                                                            |

### 5.1.19 System change

|                                  |                                                                                                                                                                                                       |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 19.                              | Draft the WMMP 2021-2027 that addresses the waste needs of the whole district and provides appropriate information for the community and council to determine any change of waste management systems. |
| Comment                          | This WMMP needs to focus on the possibility of system change across the region.                                                                                                                       |
| Area Affected                    | System change – WASTE MINIMISATION.                                                                                                                                                                   |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                                       |
| Economic                         | Reduced costs to households.                                                                                                                                                                          |
| Environmental                    | Reduce littering, illegal dumping and waste to landfill.                                                                                                                                              |
| Social                           | Improved community cohesion and connection.                                                                                                                                                           |
| Cultural                         | Improved stewardship of the region.                                                                                                                                                                   |
| <b>Council's Involvement</b>     |                                                                                                                                                                                                       |
| Contracted Out                   | Some research support via contract 2019/190.                                                                                                                                                          |
| Partnership                      | Community engagement through the review process – via contract 2019/190.                                                                                                                              |
| Internal                         | WMMP will be drafted internally with support through contract 2019/190.                                                                                                                               |
| Infrastructure                   | Nil.                                                                                                                                                                                                  |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                                       |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                                                  |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                                       |
| Infrastructure                   | Nil for drafting the WMMP.                                                                                                                                                                            |
| Capacity                         | Nil for drafting the WMMP.                                                                                                                                                                            |
| CAPEX                            | Nil for drafting the WMMP.                                                                                                                                                                            |

### 5.1.20 Advocating to Government

|                                  |                                                                                                                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20.                              | Continue to advocate to central Government for waste policy changes that support the needs of our community.                                                                                                            |
| Comment                          | Participation across the waste community of practice is essential to ensure that the region and its challenges are represented to Central Government and their agencies, for example, the Ministry for the Environment. |
| Area Affected                    | Levels of service – WASTE POLICY DEVELOPMENT.                                                                                                                                                                           |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                                                         |
| Economic                         | Balanced costs to communities in return for improved environmental performance.                                                                                                                                         |
| Environmental                    | Reduction in the adverse impacts from waste.                                                                                                                                                                            |
| Social                           | Improved social cohesion through community connection and sense of a common goal to look after the environment.                                                                                                         |
| Cultural                         | Improved stewardship of the region.                                                                                                                                                                                     |
| <b>Council's Involvement</b>     |                                                                                                                                                                                                                         |
| Contracted Out                   | Nil.                                                                                                                                                                                                                    |
| Partnership                      | Community involvement in advocating to Government for change.                                                                                                                                                           |
| Internal                         | Staff will draft submissions and attend waste community of practice meetings as required.                                                                                                                               |
| Infrastructure                   | Nil.                                                                                                                                                                                                                    |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                                                         |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                                                                    |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                                                         |
| Infrastructure                   | Nil.                                                                                                                                                                                                                    |
| Capacity                         | Nil.                                                                                                                                                                                                                    |
| CAPEX                            | Nil.                                                                                                                                                                                                                    |

### 5.1.21 Waste to energy

|                                  |                                                                                                                            |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 21.                              | Set out a policy position regarding waste to energy as a waste management option in the next WMMP 2021-27.                 |
| Comment                          | Vision is to research WTE solutions and raise awareness of their challenges and opportunities to inform our community.     |
| Area Affected                    | Waste to energy – DISPOSAL, RESOURCE EFFICIENCY.                                                                           |
| <b>Cost and Benefits</b>         |                                                                                                                            |
| Economic                         | Cost effective alternative to landfill.                                                                                    |
| Environmental                    | Improved environmental outcomes – no legacy stockpiles.                                                                    |
| Social                           | Improved regional resilience.                                                                                              |
| Cultural                         | Improved stewardship.                                                                                                      |
| <b>Council's Involvement</b>     |                                                                                                                            |
| Contracted Out                   | Technical advice, equipment suppliers, contract service providers.                                                         |
| Partnership                      | Work with community particularly in relation to any proposed WTE solution and location.                                    |
| Internal                         | Project Management                                                                                                         |
| Infrastructure                   | TBC.                                                                                                                       |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                            |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                       |
| <b>Effect on Future Demand</b>   |                                                                                                                            |
| Infrastructure                   | TBC.                                                                                                                       |
| Capacity                         | TBC – aiming for a modular solution approach for specific waste streams that do not currently have a sustainable solution. |
| CAPEX                            | TBC.                                                                                                                       |

## 5.1.22 Climate change

|                                  |                                                                                                                                                                                                                       |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22.                              | Investigate options for reducing emissions from waste collection services.                                                                                                                                            |
| Comment                          | Vision is to reduce emissions associated with waste collection. Switch from multiple individual journeys to planned collection routes. Where possible make the collection vehicles as emission friendly as practical. |
| Area Affected                    | Waste collection services – EMISSIONS.                                                                                                                                                                                |
| <b>Cost and Benefits</b>         |                                                                                                                                                                                                                       |
| Economic                         | Reduce cost at a household level.                                                                                                                                                                                     |
| Environmental                    | Reduced emissions.                                                                                                                                                                                                    |
| Social                           | Reduced emissions.                                                                                                                                                                                                    |
| Cultural                         | Improved stewardship.                                                                                                                                                                                                 |
| <b>Council's Involvement</b>     |                                                                                                                                                                                                                       |
| Contracted Out                   | Contract service providers.                                                                                                                                                                                           |
| Partnership                      | Community support through raised awareness.                                                                                                                                                                           |
| Internal                         | Pre-tender pricing, tender process, contract management.                                                                                                                                                              |
| Infrastructure                   | TBC.                                                                                                                                                                                                                  |
| Contribution to NZWS             | Reduce the harmful effects of waste and improve the efficiency of resource use.                                                                                                                                       |
| Effect on LTP Community Outcomes | Environmental sustainability and essential services.                                                                                                                                                                  |
| <b>Effect on Future Demand</b>   |                                                                                                                                                                                                                       |
| Infrastructure                   | Possible set down areas for remote bin servicing as previously noted.                                                                                                                                                 |
| Capacity                         | Nil.                                                                                                                                                                                                                  |
| CAPEX                            | Vehicles would be contract supplied. Wheelie bins would be a CAPEX item as previously noted.                                                                                                                          |

## 6. Statement of proposals

### 6.1 Council's proposals for meeting the forecasted demands

The Council will consider all options highlighted by the waste assessment. The Council will meet the forecasted demands highlighted in section 4 through a combination of:

- Variances to existing contracts where possible.

- Through targeted rates if required.
- Through working with the private sector.
- Waste levy funding where appropriate.

## **6.2 Statement on the protection of public health**

The Council, together with providers from the private sector, currently supply a range of waste collection, disposal and diverted material services to the region that ensure that public health is adequately protected. The Long Term Plan (LTP) allows for the provision of waste management and minimisation services and these contribute to a healthy environment.

The Marlborough region has an extensive network of collection, transfer, reuse, recycling and disposal infrastructure. The region has at least 34 years access to the Bluegums Landfill site, which is an engineered containment facility to the south of Blenheim. The landfill along with all the transfer and recovery facilities are operated under a Resource Management Act (RMA) consent process which ensures the impacts on the environment and public amenity are reduced to a minimum level.

## **6.3 Statement on proposals to promote effective and efficient waste management and minimisation**

The Council is committed to minimising the volume of material that is sent to the Bluegums Regional Landfill site for disposal. The investment in infrastructure and subsequent letting of various waste management contracts have put the region in a strong position to sustain and develop additional reduction, recycling, reuse and recovery programmes.

A partnership approach with the public, industrial and private waste contracting sectors in the region will be required to deliver this waste management and minimisation plan.

## **6.4 Statement regarding the outcome of the consultation with the Nelson and Marlborough District Health Board Medical Officer**

The NMDHB Medical Officer was sent a draft version of the Waste Assessment during October 2020. A copy of any response will be attached at Appendix E.

## **Appendix A - Waste Minimisation Act (WMA) (2008) Section 51**

---

The WMA(s 51) states:

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.*
2. *An assessment is not required to contain any assessment in relation to individual properties.*
3. *Information is required for an assessment to the extent that the territorial authority considers appropriate, having regard to –*
  - (a) *the significance of the information; and*
  - (b) *the costs of, and difficulty in, obtaining the information; and*
  - (c) *the extent of the territorial authority's resources; and*
  - (d) *the possibility that the territorial authority may be directed under the Health Act 1956 to provide the services referred to in that Act.*
4. *However, an assessment must indicate whether and, if so, to what extent, the matters referred to in subsection (3)(b) and (c) have impacted materially on the completeness of the assessment.*
5. *In making an assessment, the territorial authority must –*
  - (a) *use its best endeavours to make a full and balanced assessment; and*
  - (b) *consult the Medical Officer of Health.*



## **Appendix B - Key Legislation**

---

- New Zealand Waste Strategy 2010
- Climate Change Response Act 2002
- Waste Minimisation Act 2008
- Resource Management Act 1991
- The Health Act 1956
- The Litter Act 1979
- The Hazardous Substances and New Organisms Act 1996 (HSNO Act)
- The Health and Safety at Work Act 2015

## Appendix C - Marlborough Waste Infrastructure Locations

| Location      | Facility                 | Waste/Materials                                                                        | Operator                           |
|---------------|--------------------------|----------------------------------------------------------------------------------------|------------------------------------|
| Blenheim      | Waste Sorting Centre     | General, Greenwaste, Recyclable                                                        | Council under Contract No 2013/13  |
| Blenheim      | Resource Recovery Centre | Recyclable                                                                             | Council under Contract No 2013/13  |
| Blenheim      | Reuse Centre             | Unwanted goods – furniture, white goods, other electronic goods, other household goods | Council under Contract No 2013/13  |
| Blenheim      | Landfill                 | General, Special and Hazardous                                                         | Council under Contract No 2011/06  |
| Blenheim      | Hazardous Waste Centre   | Hazardous waste (domestic and commercial)                                              | Council under Contract No 2020-021 |
| Blenheim      | Repurposing Centre       | Unwanted goods – furniture, white goods, other electronic goods, other household goods | Council under Contract No 2020-021 |
| Picton        | Transfer Station         | General, Recyclable and Hazardous                                                      | Council under Contract No 2013/13  |
| Havelock      | Transfer Station         | General, Recyclable and Hazardous                                                      | Council under Contract No 2013/13  |
| Rai Valley    | Transfer Station         | General, Recyclable and Hazardous                                                      | Council under Contract No 2013/13  |
| Seddon        | Transfer Station         | General, Recyclable and Hazardous                                                      | Council under Contract No 2013/13  |
| Wairau Valley | Transfer Station         | General, Recyclable and Hazardous                                                      | Council under Contract No 2013/13  |
| Ward          | Transfer Station         | General and Hazardous                                                                  | Council under Contract No 2013/13  |
| Blenheim      | Various Scrapyards       | Scrap Metal                                                                            | Private Contractors                |
| Various       | Cleanfill                | Non-contaminated Soils, Brick and Rubble                                               | Private Contractors                |
|               |                          |                                                                                        |                                    |

## Appendix D - Waste and Diverted Material Collection Methods

| Location           | Collection Method                            | Waste/Materials                                                                                    | Contractor                                |
|--------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------|
| Blenheim           | Kerbside Bagged Refuse                       | Household including putrescible                                                                    | Council under Contract No 2013/13         |
| Blenheim           | Kerbside Recyclables via 55 litre bin        | Cardboard, Glass, Paper, Plastic, Newspapers, Glossies, Steel Cans, and Aluminium Cans             | Council under Contract No 2013/13         |
| Blenheim           | Resource Recovery Centre (RRC) – Recyclables | Cardboard, Glass, Paper, Plastic, Newspapers, Glossies, Steel Cans, Polystyrene and Aluminium Cans | Direct Delivery to RRC by Public          |
| Blenheim           | Bagged Refuse                                | Household including putrescible                                                                    | Direct Delivery to Blenheim WSC by Public |
| Blenheim           | Transfer Station                             | General, Metal, Cardboard, Hazardous Waste                                                         | Council under Contract No 2013/13         |
| Picton             | Transfer Station                             | General, Recyclable, Hazardous Waste                                                               | Council under Contract No 2013/13         |
| Picton             | Kerbside Recyclables via 55 litre bin        | Cardboard, Glass, Paper, Plastic, Newspapers, Glossies, Steel Cans, Aluminium Cans                 | Council under Contract No 2013/13         |
| Picton             | Kerbside Bagged Refuse                       | Household including putrescible                                                                    | Council under Contract No 2013/13         |
| Picton             | Bagged Refuse                                | Household including putrescible                                                                    | Direct Delivery to Picton TS by Public    |
| Havelock           | Transfer Station                             | General, Recyclable, Hazardous Waste                                                               | Council under Contract No 2013/13         |
| Rai Valley         | Transfer Station                             | General, Recyclable, Hazardous Waste                                                               | Council under Contract No 2013/13         |
| Seddon             | Transfer Station                             | General, Recyclable, Hazardous Waste                                                               | Council under Contract No 2013/13         |
| Wairau Valley      | Transfer Station                             | General, Recyclable, Hazardous Waste                                                               | Council under Contract No 2013/13         |
| Ward               | Transfer Station                             | General, Hazardous Waste                                                                           | Council under Contract No 2013/13         |
| Marlborough Sounds | Coin Skips – Refuse                          | General                                                                                            | Council under Contract No 2013/13         |
| Marlborough Region | Rural Community Recycling Bins               | Cardboard, Glass, Paper, Plastic, Newspapers, Glossies, Steel Cans, and Aluminium Cans             | Council under Contract No 2013/13         |
| Marlborough Region | Bags, Wheelie Bins, Skips                    | General Waste                                                                                      | Private Contractors                       |
| Marlborough Region | Skips                                        | Cardboard, paper, Glass, Plastic                                                                   | Private Contractors                       |
|                    |                                              |                                                                                                    |                                           |

**Appendix E – Medical Officer of Health**

---

**P O Box 647, Nelson**

Ph (03) 548 1537

**P O Box 46, Blenheim**

Ph (03) 520 9914

30th October 2020

Alec McNeil  
Solid Waste Manager  
PO Box 443  
**BLenheim 7240**

Dear Alec

### **Marlborough District Council Draft Waste Management and Minimisation Assessment 2020**

Thank you for the opportunity to comment on the Marlborough District Council (MDC) Draft Waste Assessment 2020, which I received earlier this month. MDC is commended on the Assessments comprehensiveness and readability.

The vital work MDC has been doing as part of its current Waste Management and Minimisation Plan implementation is also commended. For example the opening of MDC's new Hazardous Waste Centre (page 18), and its leadership for NZ on container return schemes. It is crucial for public health that this good work is built on.

#### Waste Minimisation and Management and Public Health

The minimisation and management of waste can protect public health in various ways such as the;

- Prevention of disease- from the side-effects of pollution of land, water and air from hazardous substances in waste;
- Prevention of infectious disease from animal vectors, such as rodents and flies, attracted to waste;
- Prevention of infectious diseases from blood, for instance through contaminated needles;
- Prevention of injuries, for instance in children playing with abandoned whiteware or from fires;
- Prevention of mental distress, through odours or the visual effect of dumped/littered rubbish;
- Prevention of climate change, which is one of the most significant public health challenges of the twenty-first century
- Enabling our future generations to have the resources they need for healthy lives.

#### Support of Options

The range of options proposed for the 2021-27 Waste Management and Minimisation plan are supported. In particular;

- Upstream interventions such as greater product stewardship to minimise waste production; and advocacy to central Government to improve legislation and in particular a producer pays approach (Option 20);
- Improving service access in rural areas of kerbside recycling services to reduce inequalities of access and reduce environmental impact of transporting waste (Option 10a and b);

- Supporting the collection and re-use of unwanted goods (Option 4).
- Development of the Hazardous Waste Centre (Option 7);
- Regional solutions for organic material to reduce domestic and rural burning of organic waste and their associated health effects (Option 12);
- Partnership and participation with, and protection of Maori, and to gain the benefit of approaches such as kaitiakitanga (Option 1);
- Reduction of emissions from waste collection services to reduce impact on climate change (Option 22);
- Using landfill gas for beneficial purposes, (Option 2).

Other areas for Consideration

The following are put forward for consideration;

- Work with the Ministry of Social Development (MSD), District Health Board (DHB), charities, and commercial food premises such as supermarkets to divert unsold food to support the less well-off (a specific action within Option 15), rather than send it to waste;
- Minimise the financial effects of increased waste levies on those who are economically disadvantaged;
- MDC to include waste minimisation and management in assessing all contracts it lets;
- Further work with all sectors (public, private and voluntary) to support them in measuring their waste, developing and auditing their plans, and incentives for good performance, e.g. recognition awards, "scores on the doors" type schemes etc. It is noted that there has been an over 50% increase of waste to landfill, despite the plan (Table 1), and two-thirds of waste has an industrial source (Chart 2);
- Assess health impact in all waste minimisation and management policy options, including health inequalities;
- Access to hazardous waste material collection services for people that do not have their own vehicles (p 18) – noting children have died when swallowing discarded batteries;
- Extend the current education strategy (Appendix G) to include further opportunities for adult learning working in partnership with NMIT, Institute of Directors, and Chamber of Commerce;
- Ensure those who use compost or home compost are aware of the risk and prevention of legionellosis, through including this objective in the education strategy (Pg. 24);
- Ensure the blood-borne virus transmission risk from unregulated businesses, such as home tattooists, is safely managed;
- Improve education on where waste medication (in collaboration with health services) and hazardous materials (such as batteries) can be recycled (as an objective within Option 9).

Yours sincerely



Dr Stephen Bridgman  
**MEDICAL OFFICER OF HEALTH**

| Options                                     |                                                                                                                                                                     | Update                                                                                                                                                                                                     |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Landfill</b>                             |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 1                                           | Develop a cost model that links the diversion at the CIF to the revenue income at the landfill site to ensure that gate fees are adequately set at both facilities. | Completed                                                                                                                                                                                                  |
| <b>Resource Recovery Centre</b>             |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 2                                           | Review the throughput of materials at the Resource Centre.                                                                                                          | Completed                                                                                                                                                                                                  |
| <b>Re-use Shop</b>                          |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 3                                           | Grow the revenue income at the reuse centre (including the salvage yard and e-waste facility).                                                                      | Completed                                                                                                                                                                                                  |
| <b>Regional Transfer Stations</b>           |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 4                                           | Convert the Blenheim transfer station into a commercial industrial sorting facility (CIF) by 2016.                                                                  | Completed – opened November 2016                                                                                                                                                                           |
| <b>Kerbside Refuse Collection</b>           |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 5                                           | Review the use of wheelie bins as a method of refuse collection.                                                                                                    | Completed review in 2017<br>The introduction of wheelie bins did not progress                                                                                                                              |
| <b>Hazardous Waste Storage Facilities</b>   |                                                                                                                                                                     |                                                                                                                                                                                                            |
| Nil                                         |                                                                                                                                                                     |                                                                                                                                                                                                            |
| <b>Kerbside/Direct Recycling Collection</b> |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 6                                           | Review the expansion of kerbside versus the use of remote recycling containers including PPRS.                                                                      | Completed review in 2017<br>Expansion of kerbside did not progress                                                                                                                                         |
| 7                                           | Review the impact of switching to co-mingled recycling.                                                                                                             | Completed review in 2017<br>Existing recycling crate system was retained                                                                                                                                   |
| <b>Education and Awareness</b>              |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 8                                           | Consider additional waste levy funding applications for public waste awareness projects eg; reduction of putrescible waste.                                         | Completed<br>Funding projects granted included:<br>Construction of the Waste Sorting Centre (formerly referred to as the CIF)<br>Marlborough Litter Project<br>Hazardous Waste Centre<br>Grape Repurposing |
| <b>Marlborough Sounds</b>                   |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 9                                           | Review material diversion options for the Marlborough Sounds.                                                                                                       | Completed<br>Additional Rural Community Recycling services introduced to Okiwi Bay, Ohingaroa Quarry and Port Underwood                                                                                    |
| 10                                          | Review the collection of waste and diverted materials from boat only access areas of the Marlborough Sounds.                                                        | Completed<br>New waste collection service in place at the Picton Public jetties                                                                                                                            |
| <b>Working with Private Contractors</b>     |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 11                                          | Work with the private sector to maximise the throughput and diversion levels at the CIF.                                                                            | Completed                                                                                                                                                                                                  |
| <b>Composting</b>                           |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 12                                          | Review the operation and future capacity of the Blenheim compost site.                                                                                              | Completed                                                                                                                                                                                                  |
| <b>General Public</b>                       |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 13                                          | Review existing methods of communication with the community.                                                                                                        | Completed                                                                                                                                                                                                  |
| <b>Voluntary sectors and NGO's</b>          |                                                                                                                                                                     |                                                                                                                                                                                                            |
| 14                                          | Continue to work with the NGO sector on waste related issues.                                                                                                       | Completed<br>Additional support provided in relation to                                                                                                                                                    |

| Options |                                                                                                                                         | Update                                                                                                                                                                                                    |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         |                                                                                                                                         | waste disposal of illegally dumped materials or item that can't be sold                                                                                                                                   |
|         | <b>Industry</b>                                                                                                                         |                                                                                                                                                                                                           |
| 15      | Continue to work with industry sectors on the development of sustainable solutions for forest skid sites, mussel shells and grape marc. | Completed<br>Grape Marc repurposing research completed and presented to industry for consideration.<br>Wider discussions on anaerobic digestion of grape marc and other organic waste streams are ongoing |
|         |                                                                                                                                         |                                                                                                                                                                                                           |



# Appendix G – Waste Education Strategy

## Marlborough District Council Education Strategy

**Vision:** Marlborough is a globally-connected district of smart, progressive, high-value enterprises, known for our economic efficiency, quality lifestyle and wellbeing, caring community, desirable location and healthy natural environment and actions that lead to positive environmental change

**Education Goal:** Behaviors and actions lead to positive environmental change

**Learn and practise new skills** to identify and help solve environmental challenges  
**Te Taha Tinana**

**Grow knowledge and understanding** of different perspectives on the environment and apply new thinking to environmental challenges  
**Te Taha Hinengaro**

**Develop values and attitudes** of concern for the environment, while experiencing outdoor learning in the environment  
**Te Taha Wairua**

**Participate in active sharing and collaboration** with others to share and celebrate learning, actions and success  
**Te Taha Whānau**

**What informs our work:** Marlborough District Council Long Term Plan, Waste Strategy, National Strategy Environmental Education for Sustainability; New Zealand Curriculum, Treaty of Waitangi; Enviroschools Guiding Principles

## What we do:

**Working with Schools**

- Provide educational resources, teacher support and experiential learning opportunities
- Professional development for teachers
- Connect with MDC staff, conservation groups, iwi, and government agencies

**Support Enviroschools**

- Provide coordination and facilitation of the Enviroschools programme
- Continue to grow and deepen the Enviroschools process
- Support school led community projects

**Providing Opportunities**

- Deliver and support opportunities to develop student agency and leadership for the environment.
- Support youth council related plans and actions
- Encourage local volunteering opportunities.

**Engaging with Community**

- Promote and deliver Sustainable Living programme
- Collaborate and connect with other relevant organizations working in the EEfS \*area
- Be an active participant in NZAEE\*

\*EEfS – Environmental Education for Sustainability. \*NZAEE – New Zealand Association for Environmental Education

## 2019-2021 Strategic Priorities

- Delivery of an education programme that aligns with MDC’s strategic priorities and adds value
- Facilitate opportunities for young people to build knowledge and participate as active citizens
- Build the internal capacity and capability at MDC to more effectively engage with young people
- Continued timely and relevant response to enquiries and requests from education communities.



## Bluegums Regional Landfill

### Review of landfill gas destruction options

Prepared for  
Marlborough District Council

Prepared by  
Tonkin & Taylor Ltd

Date  
July 2020

Job Number  
85158.7010.v3



**Exceptional thinking together**

[www.tonkintaylor.co.nz](http://www.tonkintaylor.co.nz)

## Document control

| Title: Bluegums Regional Landfill – Review of landfill gas destruction options |         |                                 |                                       |                        |                |
|--------------------------------------------------------------------------------|---------|---------------------------------|---------------------------------------|------------------------|----------------|
| Date                                                                           | Version | Description                     | Prepared by:                          | Reviewed by:           | Authorised by: |
| Jun. 2020                                                                      | 1       | Draft for client review         | J. Ferry<br>A. Safran<br>A. de Guzman | S. Peng<br>S. Eldridge |                |
| Jul. 2020                                                                      | 2       | Updated draft for client review | J. Ferry<br>A. Safran<br>A. de Guzman | S. Eldridge            |                |
| Jul. 2020                                                                      | 3       | Final following client review   | J. Ferry<br>A. Safran<br>A. de Guzman | S. Eldridge            | S. Eldridge    |
|                                                                                |         |                                 |                                       |                        |                |
|                                                                                |         |                                 |                                       |                        |                |
|                                                                                |         |                                 |                                       |                        |                |

### Distribution:

Marlborough District Council  
Tonkin & Taylor Ltd (FILE)

1 PDF copy  
1 electronic copy

## Table of contents

|          |                                                                           |           |
|----------|---------------------------------------------------------------------------|-----------|
| <b>1</b> | <b>Introduction</b>                                                       | <b>1</b>  |
| 1.1      | Background                                                                | 1         |
| 1.2      | Project objective                                                         | 1         |
| 1.3      | Scope of work                                                             | 2         |
| <b>2</b> | <b>Current landfill situation</b>                                         | <b>2</b>  |
| <b>3</b> | <b>Update of landfill gas generation modelling</b>                        | <b>2</b>  |
| 3.1      | Modelling of landfill gas generation from existing waste                  | 2         |
| 3.2      | Modelling of landfill gas generation for future waste                     | 3         |
| 3.3      | Model output                                                              | 3         |
| 3.4      | Landfill gas collection efficiency                                        | 3         |
| <b>4</b> | <b>Landfill gas destruction options identification and assessment</b>     | <b>4</b>  |
| 4.1      | Options description                                                       | 4         |
| 4.1.1    | Option 1 - Installation of a secondary flare                              | 5         |
| 4.1.2    | Option 2 - Installation of a landfill gas to energy electricity generator | 5         |
| 4.1.3    | Option 3 - Landfill gas supply to Wairau Hospital                         | 6         |
| 4.1.4    | Option 4 – Other beneficial uses                                          | 8         |
| 4.2      | Options assessment                                                        | 8         |
| 4.3      | Procurement options                                                       | 10        |
| <b>5</b> | <b>Conclusion</b>                                                         | <b>11</b> |
| <b>6</b> | <b>Applicability</b>                                                      | <b>13</b> |

## 1 Introduction

Marlborough District Council (MDC) has engaged Tonkin & Taylor Ltd (T+T) to carry out an assessment of landfill gas destruction options for the Bluegums Regional Landfill (the landfill). This work has been carried out in accordance with our proposal dated 16 April 2020.

### 1.1 Background

Landfill gas collected at the landfill is currently directed to an enclosed flare for destruction. We understand that as a result of recent issues with the operation of the flare, and in order to meet the requirements of the National Environmental Standard for Air Quality (NES Air)<sup>1</sup>, MDC is seeking options for an additional destruction mechanism for the site.

MDC has requested that the following options for additional landfill gas destruction at the site be considered:

- 1 Installation of a secondary flare
  - A secondary flare would provide destruction capacity when the current flare is down.
- 2 Installation of waste to energy heat exchanger or electricity generator
  - An electricity generator could destroy the landfill gas while creating a source of electricity and/or heat.
- 3 Landfill gas supply to the Wairau Hospital.
  - Landfill gas could be piped to the hospital for use as a fuel for their boilers.
- 4 Any other beneficial uses of the landfill gas
  - Other beneficial uses may include fuel for other industries in the vicinity of the site or conversion to CNG as a fuel source for vehicles.

We understand that MDC is aiming to have the second landfill gas destruction option in place by the end of 2021.

T+T has carried out a high-level desktop assessment of these options to assist MDC in their decision making process, and our scope of work is set out below.

### 1.2 Project objective

The objective of this project is to assess potential options for destroying landfill gas and provide advice on the suitability of each option to the site. We understand that MDC's drivers for the destruction of landfill gas are:

- Control of odour issues at the site.
- Destruction of methane to reduce greenhouse gas emissions from the site.
- Compliance with regulatory requirements and management of ETS obligations.

We also understand that MDC is interested in achieving a beneficial use of the landfill gas, if practicable. This objective has also been built into the assessment.

---

<sup>1</sup> Resource Management (National Environmental Standards for Air Quality) Regulations 2004.

### 1.3 Scope of work

The following work has been carried out to meet the project objective:

- Update of landfill gas generation modelling for the site using future filling forecasts provided by MDC, and site specific information regarding waste composition and generation potential.
  - This has been used to estimate the expected landfill gas generation and collection rates going forward, and to determine the viability of different landfill gas destruction options.
- Landfill gas destruction options assessment has been completed including:
  - A high level assessment of five potential options which considers the following factors:
    - o Potential current and future viability based on projected landfill gas collection rates for the site
    - o ETS and environmental management implications
    - o Infrastructure requirements
    - o High level capital costs for installation
    - o Potential ongoing management requirements and costs
    - o Potential financial benefits to MDC
    - o Potential constraints or limitations
    - o Overall consideration of the viability of each option.
- Preparation of this report.

## 2 Current landfill situation

The landfill is located approximately 5 km south of Blenheim's town centre on Taylor Pass Road. The landfill was opened in 1996 and receives municipal and commercial/industrial waste from within the Marlborough District.

At the end of 2019, the site had accepted approximately 1.1 M tonnes of waste, with filling staged over 7 cells. The site has a total capacity of approximately 3 M tonnes with 13 cells proposed in total. This capacity is expected to provide for waste disposal within the Marlborough District until 2054. The site is currently consented to accept waste until November 2030 however it is understood that MDC intends to seek new consents to allow the site to continue operating until the site reaches capacity.

A landfill gas collection system currently operates at the site comprising of a series of vertical gas extraction wells connected to an enclosed flare. The vertical extraction wells are constructed within the cells while filling is occurring and are extended vertically as the waste is placed up to the design height. As filling expands into new stages, additional vertical wells are installed. Horizontal gas extraction wells have also been installed in some of the cells. The flare has a capacity of 1,000 m<sup>3</sup>/hr.

## 3 Update of landfill gas generation modelling

### 3.1 Modelling of landfill gas generation from existing waste

Landfill gas generation modelling is carried out each year for the site as part of meeting MDC's obligations under the NZ Emissions Trading Scheme. This modelling covers all waste that has been placed at the site since it was opened in 1996.

Landfill gas generation is estimated using the Scholl Canyon gas generation model. The input parameters are calculated using waste composition data from waste composition (SWAP) surveys,

and tonnage data recorded at the weighbridge. As such, the modelling provides a relatively good representation of landfill gas generation for waste that has been placed at the site.

### 3.2 Modelling of landfill gas generation for future waste

To estimate the peak landfill gas generation rate for the site, a separate model has been prepared to calculate expected landfill gas generation from waste that is yet to be placed. The future and peak landfill gas collection rates will assist in determining the size and useful life of destruction/utilisation options.

Future waste tonnages have been based on the 2019 T+T development plan<sup>2</sup> for the site, which estimates an annual waste tonnage of 65,000 tonnes. The model assumes that the landfill will continue operating until 2054, in line with the capacity of the site.

The organic content of future waste has been estimated at approximately 75 %, based on recent site specific waste composition information.

### 3.3 Model output

The total landfill gas generation for the site has been calculated by combining the output from the modelling of waste that has already been placed, with the output from the model of future waste. The overall landfill generation curve is presented in Figure 3.1. It shows that landfill gas generation peaks one year post closure of the site in 2055, at approximately 813 m<sup>3</sup>/hr.

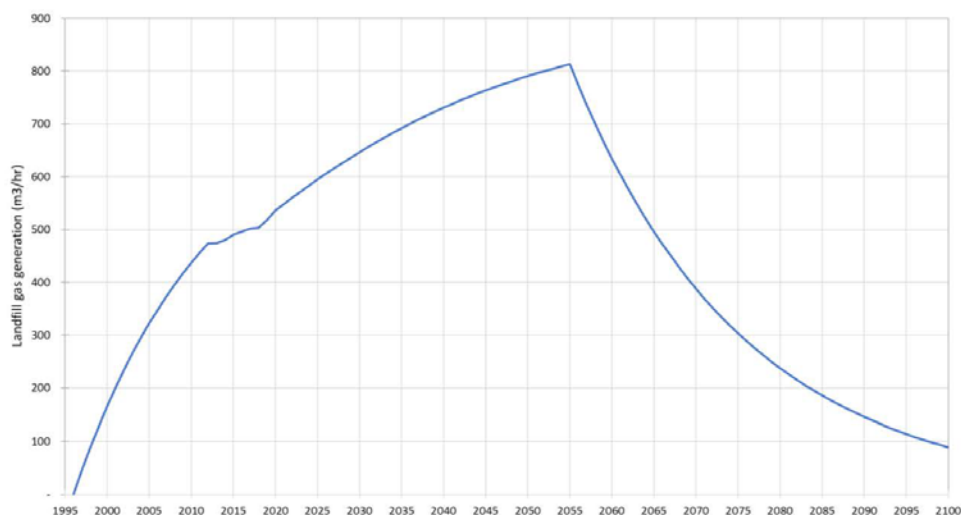


Figure 3.1: Landfill gas generation curve

### 3.4 Landfill gas collection efficiency

The estimated efficiency of the landfill gas collection system has ranged from 34 to 62 % in recent years, as the well field has been expanded, and older cells capped off. The collection efficiency has also been influenced by the lack of redundancy in the current system. Recent issues with the

<sup>2</sup> Tonkin + Taylor, 2019. Bluegums Landfill Development Plan 2019. Prepared for Marlborough District Council.



operation of the flare have significantly reduced the overall collection efficiency. We understand that MDC is progressing other actions to improve the operation of the flare to reduce this impact.

Landfill gas collection efficiency is expected to increase with the expansion of the well field, improvements to the operation of the landfill gas collection system, and closure of the site with the construction of a low permeability cap. The US EPA estimates that the collection efficiency for a typical comprehensive landfill gas collection system ranges from 60 to 85 %. We have assumed that the site could ultimately achieve at least a collection efficiency of 75 % following closure and completion of the final cap.

The estimated landfill gas collection efficiency is presented in Figure 3.2. This has been estimated based on a collection efficiency of 60 % until closure, and a collection efficiency of 75 % following site closure. Based on these estimates, the peak landfill gas collection rate would be approximately 610 m<sup>3</sup>/hr.

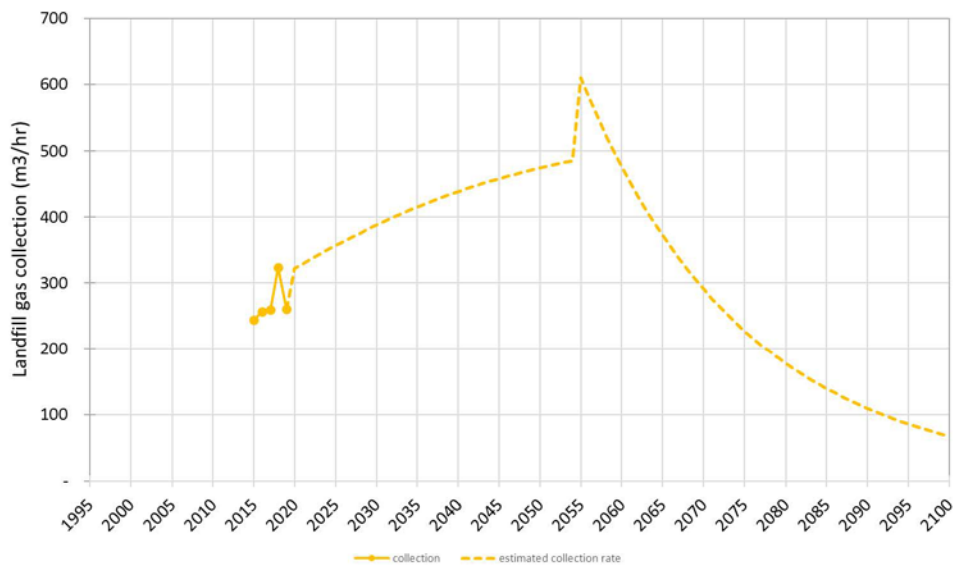


Figure 3.2: Estimated landfill gas collection curve. (Solid line represents measured average annual collection rates. Dashed line indicates 60 % efficiency during landfill operation increasing to 75% efficiency on closure in 2054).

## 4 Landfill gas destruction options identification and assessment

### 4.1 Options description

The landfill gas destruction options that have been considered include:

- 1 Installation of a secondary flare
- 2 Installation of a landfill gas to energy heat exchanger or electricity generator
- 3 Landfill gas supply to Wairau Hospital
- 4 Other beneficial uses
  - 4a Landfill gas supply to a private business
  - 4b Conversion to compressed natural gas (CNG) for use as a vehicle fuel source



Each of these options is described below, with a comparative assessment of the options presented in Section 4.2.

#### **4.1.1 Option 1 - Installation of a secondary flare**

Similar to the current landfill gas destruction system, a secondary flare could be installed for use when the current flare is not operational. Regulation 27(3) of the NES Air Quality outlines the minimum requirements for a backup flare. Of particular note, a back up flare does not need to meet the flue retention time and minimum temperature requirements for a principal flare. Therefore, a candlestick flare can be used. However, due to concerns around fire risks previously raised for the site we consider a shrouded candlestick flare is more appropriate. As an enclosed system, this type of flare will have a non-visible flame, resulting in a lower fire risk than a traditional candlestick flare. The adjustable air flow allows for low and controlled flame temperatures. The stand-alone flare would need to be installed on a new concrete pad within a fenced compound which could be an extension to the existing flare compound footprint. Minimal pipework would need to be installed to connect the new flare to the existing gas main.

Preparations for the installation of a secondary flare have already commenced and the infrastructure could be installed with limited lead in time. This technology is commonly used at landfills in New Zealand and involves similar technology to the current flare. Therefore, ongoing management of the infrastructure will be similar to existing requirements. Installation of an additional flare is not expected to require any changes to the existing air discharge consent for the site.

A candlestick flare has a lower destruction efficiency (50 %) compared to the principal enclosed flare (90 % destruction efficiency), therefore in terms of the NZ ETS requirements, and given it could only be operated when the existing flare is not, it would not completely address the reduction in destruction during times when the current system is not operating or has limited capacity.

The shrouded candlestick flare is a relatively low-cost option at a capital cost of approx. \$400,000 with approximately \$20,000 per year in operational costs.

#### **4.1.2 Option 2 - Installation of a landfill gas to energy electricity generator**

The utilisation of landfill gas for electricity generation is a common method for the destruction and utilisation of landfill gas. However, traditional reciprocating gas engines require a high landfill gas flow rate (typically 600 m<sup>3</sup>/hr per MW of electricity generated), and consistent high quality landfill gas (i.e. methane concentration of > 50 %) to be viable. Based on the landfill gas generation modelling for the site (presented in Section 3), the flow rates required to support a traditional landfill gas to energy plant are unlikely to be achieved.

An alternative option for electricity generation is the use of microturbines. These units can be designed to operate at much lower flow rates and methane concentrations (in the order of 40%) than traditional gas engines. The methane destruction efficiency and the overall quality of emissions from a microturbine is likely to be better than that of a traditional engine or flare.

Microturbines can be purchased as modular units and are likely to require servicing from specialist personnel. Microturbines are not commonly used in New Zealand at present, however sales and servicing agents are available in New Zealand for some brands of turbines.

However, for a landfill gas to energy plant to run efficiently, the extraction system needs to be operated to maximise the methane concentration of the extracted landfill gas. Depending on the layout of the field this can result in a lower vacuum being applied to the wellfield to minimise the risk of air intrusion. As a result, there is a higher risk of fugitive landfill gas emissions than a system which is primarily being operated for environmental control objectives. Consequently, odour issues and a lower collection and destruction efficiency may result.

In addition, if the destruction capacity of the landfill gas to energy plant is less than the generation capacity of the waste mass, a flare may still be required to operate in parallel with the landfill gas to energy plant to destroy the excess landfill gas.

If installed, the landfill gas to energy plant would become the primary means of landfill gas destruction at the site, with the existing flare providing overflow capacity and redundancy when the generator is not operational. This will require the operating systems for the flare and generator to be compatible in order to maximum landfill gas extraction. The interface between the two systems is potentially problematic given the differences in how the two destruction mechanisms operate. In addition, enclosed flares are designed to be operating continuously, therefore long periods of non-operation may increase flare maintenance costs.

The electricity that is generated could be utilised onsite to allow the site to become self sufficient in terms of energy usage. The existing 3 phase power infrastructure is compatible with the electricity generators.

Alternatively (or in addition to onsite use), the electricity could be supplied directly into the national grid. Selling electricity into the grid requires additional infrastructure onsite and, depending on the capacity of the existing connection, upgrades to the existing infrastructure may be required. Discussions with the local lines company (in this case Marlborough Lines) would be required to determine these requirements. It is possible that the distributor would charge for this assessment to be carried out.

Subject to their specific cap, the electricity could be sold to Marlborough Lines. Alternatively, it would need to be sold to Transpower. The wholesale rates paid by either Marlborough Lines or Transpower tend to be very location specific and therefore enquiries with both companies would be required to assess the financial benefits of this option. At this point we have not approached Marlborough Lines or Transpower.

Landfill gas could also be used as a fuel in an onsite boiler to generate heat, or directly as a fuel source to evaporate leachate, reducing the reliance on the discharge of leachate to the sewer system. This option would involve a significant investment in infrastructure at the site, and typically requires large landfill gas flows to be viable. This option would only be worth considering if leachate could no longer be discharged to the sewer system, or if the cost of doing so became prohibitive. If a microturbine were installed for the generation of electricity, heat generated during the destruction process could also be captured for use onsite.

A more detailed financial analysis of this option would be required to understand potential revenue from selling electrical to the national grid, savings from electricity used by the site, and potential savings from disposal of leachate as trade waste.

Given the expected landfill gas collection rates (ranging from the current 300 m<sup>3</sup>/hr to a maximum of 610 m<sup>3</sup>/hr LFG), a number of microturbine modules would be required. Information from one supplier indicates that the cost of the turbines to meet this demand would be in the order of \$1.5 to \$2 M. This includes power generation equipment as well as indicative shipping, installation and commissioning costs. At an approximate methane concentration of 40 %, suppliers estimate that 400 to 800 kW could be generated from the site.

Ongoing operational costs will be higher than with a flare, with the gas engine requiring regular maintenance, and additional field balancing required to optimise power generation.

#### **4.1.3 Option 3 - Landfill gas supply to Wairau Hospital**

Wairau Hospital is located approximately 4.1 km north of the landfill. Heating within the Hospital is currently provided by coal fired boilers. We understand that Nelson Marlborough Health (NMH) is

considering installation of a cogeneration plant to utilise landfill gas for generation of electricity and the waste heat for process heating on site.

This option would require the installation of infrastructure at the landfill including a de-watering and cleaning plant (to remove siloxanes and/or sulphur subject to the boiler requirements), a blower, and a control centre with flow and quality monitoring equipment. MDC would also need to install approximately 4.1 km long underground pipeline to deliver the landfill gas to the hospital site. NMH would be responsible for the equipment at the hospital required to utilise/destroy the landfill gas, and for the resource consents associated with the equipment.

A cogeneration plant has the same destruction efficiency as the current enclosed flare (90 %) under the NZ ETS and can be operated as the primary means of landfill gas destruction. The enclosed flare could be maintained as a backup, in the event that supply to the hospital is interrupted.

Construction of an underground pipeline between the two facilities would require resource consents to be obtained. The route runs through residential neighbourhoods therefore construction of the pipe would require consultation with the roading team of MDC as well as other network utility operators with underground services in the area. A section of the route could be aligned to the east of the Wither Hills subdivision which would avoid the built up area, which is likely to make construction more cost effective. Further work would be required to determine an appropriate alignment, and to design the pipeline.

This option would ensure the beneficial use of the landfill gas, with NMH also benefiting in terms of their ETS obligations as a result of burning less coal. It is also likely to be a viable long term solution for utilising the landfill gas.

A contract would be required with NMH for the purchase of landfill gas from MDC, and to ensure that responsibilities under the ETS for the destruction of the landfill gas are clear. NMH would also need to maintain a secondary fuel source in the event of any interruption to the supply of landfill gas, or if the landfill gas cannot meet their full energy demands.

The supply of landfill gas to the hospital would become the primary means of landfill gas destruction at the site, with the existing flare providing overflow capacity, and redundancy if a problem occurs with the supply. The two systems are likely to work well together, however enclosed flares are designed to be operating continuously, therefore long periods of non-operation may increase flare maintenance costs.

The supply of landfill gas for an offsite use should also be considered from a cultural perspective. Landfill gas is derived from waste. Removing the landfill gas from the site, and reuse of the gas may be considered to be inappropriate given the provenance of the gas from waste.

Capital costs for implementation of this option are estimated to be \$1 to \$1.5M. Estimating costs for this option is difficult because the works will involve multiple technical areas and works beyond the boundary of the landfill. Key things to consider for capital costs include the level of treatment that is required by the Hospital destruction infrastructure, the gradient between the site and the hospital and how condensate will be managed along the pipe, ground conditions and the presence of other services along the route, resource consent and land owner agreement requirements. Additional work is needed to establish a more accurate cost estimate for the design and implementation of this option.

Operational costs are expected to be similar to a secondary flare, with ongoing maintenance expected to be able to be carried out by the current flare maintenance contractor.

#### **4.1.4 Option 4 – Other beneficial uses**

##### **4.1.4.1 Option 4a – Landfill gas supply to a private business**

Landfill gas could be supplied to a private business in the vicinity of the site, either for use in a boiler, or for direct heating. This could include an industrial business, winery or greenhouse facility which requires a significant fuel supply for their operations. A business in close proximity to the landfill would be preferable to one that is more distant, requiring a long pipeline for supply.

No suitable businesses are currently present in the vicinity of the landfill however this model could be considered if a new business with a high fuel/heat demand were interested in locating close to the site.

The benefits and constraints with supplying landfill gas to a private business are similar to those for supplying the gas to the hospital, as discussed in Section 4.1.3. However, there are additional risks with supplying to a private business where the business needs are less certain and potentially impacted by market demands. Whereas with the hospital, the long-term operation and need for this facility lends for a more secure long-term option. The business is also likely to need to have redundancy in the event that supply of landfill gas is disrupted. This may reduce the viability of using landfill gas.

Supplying landfill gas to a private business is not considered to be a viable option for the site at present and has not been progressed further.

##### **4.1.4.2 Option 4b – Conversion to CNG for use as a vehicle fuel source**

Landfill gas can be upgraded to compressed natural gas (CNG). CNG is a methane rich fuel that can be used in vehicles. This option would require the installation of infrastructure at the site to remove carbon dioxide, siloxanes and other impurities as well as a compressor to create CNG. Given the low flow rates that are expected, and the low methane concentration compared with a natural gas source, this is unlikely to be financially viable. CNG conversion systems typically involve stable, high gas flows, with methane concentrations above 60 %, and low nitrogen and oxygen impurities. In addition, there is low demand for CNG in New Zealand, therefore this option is unlikely to be viable unless a local market for the gas can be found.

This option has not considered to be viable for the site and has not been progressed further.

## **4.2 Options assessment**

A comparative assessment of the options that are considered to be viable for the site is presented in Table 4.1. All options presented are considered to be technically viable based on the modelled landfill gas generation for the site and would provide sufficient capacity to accommodate the assumed landfill gas collection efficiency of 75 %.

Table 4.1: Options assessment

|                                                                          | Plant and infrastructure requirements                                                                                                                                                                                                                                    | Beneficial use of landfill gas                                                                                                                  | NES/ETS implications                                                                                                                                                                                                                                                                                         | Serviceability of equipment                                                                                                                                                                                                   | High level approximate capital costs <sup>1</sup>                                                                          | Potential operational costs and contractual requirements                                                                                                                                                                                                                                                         | Resource consent requirements/ implications                                                                                                                                 | Overall assessment                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1. Installation of a secondary flare</b>                              | Shrouded candlestick flare<br>Pipe work to connect into existing landfill gas main                                                                                                                                                                                       | No beneficial use                                                                                                                               | Candlestick flares have a lower destruction efficiency (0.5) therefore lower return than an enclosed flare or generator/boiler.<br>Can only be operated when principal flare not operating.                                                                                                                  | Equipment is similar to existing flare but will have less servicing requirements.                                                                                                                                             | Approx. \$400,000 including plant and installation costs.                                                                  | Low operational costs in addition to current flare operational costs.<br>No additional ongoing contractual requirements.                                                                                                                                                                                         | No additional consents required.                                                                                                                                            | Viable long term solution for redundancy to complement existing system. Likely to be the most cost effective solution but will not enable beneficial use of the landfill gas.                                                                                                                                                      |
| <b>2. Installation of a landfill gas to energy electricity generator</b> | Modular microturbine unit which includes all necessary gas treatment and destruction plant.<br>Pipe work to connect into existing landfill gas main.<br>Potential requirement for additional power lines and infrastructure to discharge electricity into National Grid. | Generation of electricity which can be used on-site and/or put back into the national grid.<br>Estimated 400 to 800 kW production. <sup>2</sup> | Expected to have a greater destruction efficiency than the current enclosed flare (approx.0.99). <sup>3</sup><br>System would be used as the principal means of gas destruction.<br>Collection efficiency may not be maximised due to system having less flexibility in terms of flow rates and gas quality. | Microturbine design life approximately 40,000-80,000 hours before major overhaul is required. <sup>4</sup><br>Specialist maintenance personnel may be required annually. This is expected to be available within New Zealand. | Approx. \$1.5 to \$2M for the microturbine units, shipping, installation and commissioning costs indicative <sup>5</sup> . | High ongoing operational costs for maintaining equipment as well as balancing well field to supply good quality gas to the turbine.<br>Contract required with electricity distributor/retailer.<br>Financial return will be dependent on performance of the turbine, as well as on wholesale electricity prices. | No additional consents expected to be required for microturbines.<br>Potential consents required for construction of infrastructure to connect back into the national grid. | Microturbines are a feasible option which will enable the beneficial use of the landfill gas.<br>This option will introduce complexity for managing the gas system.<br>The financial benefits of this system would need to be reviewed. Significant return on the required infrastructure investment is considered to be unlikely. |
| <b>3. Landfill gas supply to Wairau Hospital</b>                         | Scrubber to de-watering the landfill gas.<br>4.1 km of underground pipeline from site to the Hospital.                                                                                                                                                                   | Landfill gas utilised as fuel by hospital. Also offsets the current use of coal at the hospital.                                                | Same destruction efficiency as the current enclosed flare (0.9).<br>System could be used as the principal means of landfill gas destruction.                                                                                                                                                                 | Servicing requirements expected to be manageable by local contractors.                                                                                                                                                        | Approx. \$1 to \$1.5M including plant at the landfill and installation of the pipeline to the hospital site.               | Low ongoing operation costs.<br>Contract to supply gas required with NMH. This could provide a long-term income stream for MDC.                                                                                                                                                                                  | Resource consents will be required for construction of the pipeline to the hospital                                                                                         | Viable long-term option for landfill gas destruction which enables the beneficial use of the gas and an income stream for MDC. Installation costs should be considered within the context of the long term, low maintenance nature of the option.                                                                                  |

**Notes:**

1. Capital costs are indicative only and should not be used for budgeting purposes.
2. Estimate based on assumed typical landfill gas composition. Sourced from correspondence with Pressure Worx on 8 May 2020.
3. Sourced from Optimal Group information pack 'Give the Green Light to Landfill Gas'
4. Correspondence with Pressure Worx on 8 May 2020.
5. Estimate from correspondence with Pressure Worx and Optimal Solutions on 26 June 2020.

### 4.3 Procurement options

Procurement options and contractual arrangements will differ depending on the option that MDC chooses to pursue. Some key considerations for procurement of each of the viable options presented in Table 4.1 are discussed below.

- 1 Installation of a secondary flare:
  - A supply, installation and commissioning contract is recommended. This should include training on the operation and maintenance of the equipment for MDC staff and contractors.
  - A specialist contractor is required therefore a selected tender process would be preferable. An open tender process could be used however evidence of previous experience would need to be provided and evaluated as part of the tender process.
  - The control systems for the new flare will need to be compatible with the existing flare control systems, and MDC's SCADA system. MDC should ensure that this compatibility is demonstrated in the tenders, and forms part of the commissioning requirements in the contract.
  - MDC would need to install the concrete pad for the flare and provide a connection to the gas network and power supply for the unit that meets the contractor's requirements.
  - Ongoing monitoring and maintenance of the flare would need to be incorporated into the current contractor's responsibilities.
- 2 Installation of a landfill gas to energy electricity generator
  - There are a limited number of companies that are likely to be interested in setting up a landfill gas to energy plant at the site. It is recommended that, if this option was to be pursued, that these companies are identified and approached separately to discuss MDC's requirements. Each company is likely to have their own preferences around contractual arrangement which would need careful consideration by MDC to ensure that their objectives will be met.
  - Ongoing operation and maintenance of the plant will form part of the contract. This is expected to be the responsibility of the operator and may be separate from the operation of the flare.
  - Management of the gas field would need to be negotiated as part of the contract. Some companies may prefer to manage the system themselves, while others may leave the responsibility of supplying acceptable quality gas to the site operator.
- 3 Supply of landfill gas to Wairau Hospital
 

Two separate contracts are likely to be required for implementation of this option:

  - Dewatering plant at discharge point from the landfill:
    - o A supply, installation and commissioning contract is recommended for the dewatering plant, blower and other equipment required to discharge the landfill gas from the site. The contract should include training on the operation and maintenance of the equipment at the discharge point from the landfill.
    - o A specialist contractor is required therefore a selected tender process would be preferable. An open tender process could be used however evidence of previous experience would need to be provided and evaluated as part of the tender process.
    - o The control systems for the discharge equipment will need to be compatible with the existing flare control systems, and MDC's SCADA system. MDC should ensure

- o that this compatibility is demonstrated in the tenders, and forms part of the commissioning requirements in the contract.
- o MDC would need to install the concrete pad for the plant at the landfill, and provide a connection to the gas network and power supply that meets the contractors requirements.
- Gas pipeline installation:
  - o A separate contract for installation of the pipeline is recommended.
  - o MDC would need to carry out detailed design for the pipeline and seek resource consents and landowner agreements for the installation.
- Ongoing monitoring and maintenance of the system would need to be incorporated into the current contractor's responsibilities.

## 5 Conclusion

An additional landfill gas destruction mechanism is required at the Bluegums Regional Landfill to meet regulatory requirements, and to provide redundancy with the current enclosed flare. This report presents an assessment of five additional destruction options. Three of the five options assessed are considered to be technically viable for the site. However, each of these options has different requirements and constraints, including their ability to meet MDC's objective of achieving a beneficial use from the landfill gas.

A summary of the three technically viable options is as follows:

- Installation of a secondary flare:
  - This option is expected to be the most cost effective option for providing redundancy to the existing landfill gas destruction system. It can be installed quickly and has similar serviceability requirements to the current flare.
  - This option would be the simplest to implement and is expected to be the simplest to manage over the lifetime of the landfill gas management system.
  - This option meets the regulatory requirements, in terms of providing redundancy, but is less efficient at destroying landfill gas, and cannot be used as a replacement for the current flare. Despite these short comings, it will be an improvement on the current system, providing full redundancy when the existing flare is non-operational.
  - With a secondary flare there would be no beneficial use of the landfill gas and the lower destruction efficiency may result in less destruction of methane than the other options being considered.
- Installation of landfill gas energy electricity generator:
  - The use of microturbines for electricity generation is a technically viable option for the site. However, this technology is not common place in New Zealand at present, therefore it carries additional technical risks.
  - This option provides a beneficial use for the landfill gas, as well as a potential revenue stream for MDC, although the economic viability of this has not been assessed. It also meets the regulatory requirements with the same, or higher destruction efficiency than the current flare.
  - The use of landfill gas for electricity generation will introduce challenges from a landfill gas extraction perspective as the system will not be tuned to maximise landfill gas extraction. This could potentially result in increased odour issues, and a lower landfill gas collection and destruction efficiency.

- Additional contractual challenges will also be introduced in relation to the ongoing operation and management of the electricity generation equipment.
- Further work is required to develop the costs and understand the infrastructure requirements for this option, and to understand the potential revenue that could be generated although it is unlikely to be cost neutral.
- Supply of landfill gas to Wairau Hospital:
  - Supply of the landfill to Wairau Hospital is a technically viable option for destruction of landfill gas. The use of the landfill gas by the hospital will ensure a beneficial use, as well as offsetting the current burning of coal at the site.
  - Setting up this option will require the construction of a 4.1 km pipeline and installation of additional infrastructure at the landfill. Implementation costs are expected to be significantly higher than costs for installation of a secondary flare. Additional work is required to confirm actual costs. Once this infrastructure is installed, the system is expected to be relatively simple to manage and maintain.
  - This option will meet the regulatory requirements for landfill gas destruction, with the same destruction efficiency as the current flare. It would also potentially provide a revenue stream for MDC which would at least partially offset the cost of supplying the landfill gas.
  - Further work is required to develop the costs and understand the infrastructure requirements for this option, and to understand the potential revenue that could be generated although it is unlikely to be cost neutral.



## 6 Applicability

This report has been prepared for the exclusive use of our client Marlborough District Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Ltd

Report prepared by:



Jo Ferry

Principal Environmental Consultant

Report reviewed by:



Sze-Fei Peng

Principal Environmental Engineer

Authorised for Tonkin & Taylor Ltd by:

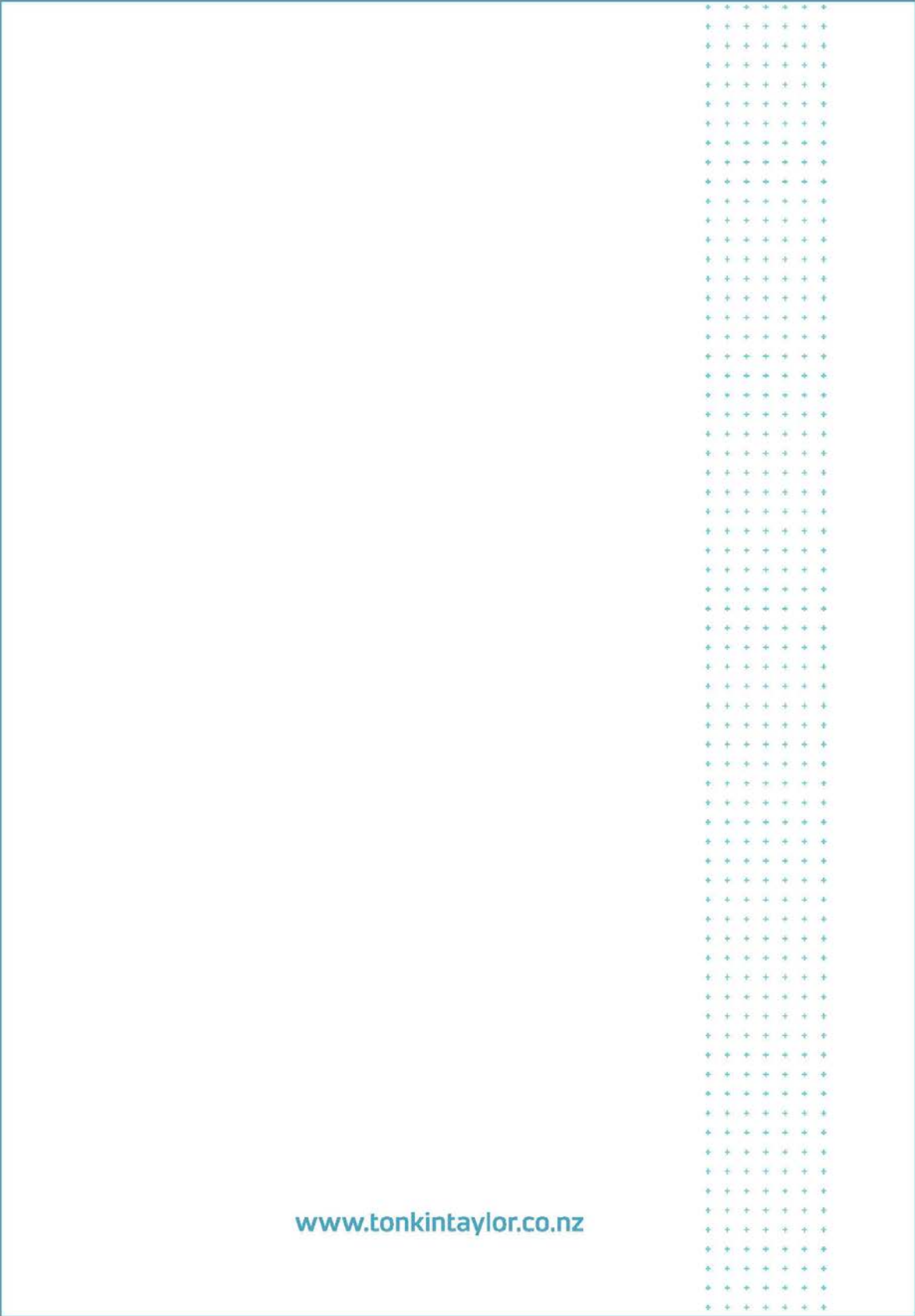


Simonne Eldridge

Project Director

JMC





# **Appendix I – Community Consultation Report**

---



**Waste Management and Minimisation Plan (2021-27)**

**Community Consultation Summary Report**

**September 2020**

**Prepared for Marlborough District Council**

**By**

**Christine McNeil**



## Contents

|                                                      |    |
|------------------------------------------------------|----|
| Introduction .....                                   | 4  |
| Context and methodology.....                         | 5  |
| How to read this report.....                         | 8  |
| Section 1.....                                       | 9  |
| Key Findings .....                                   | 9  |
| Waste disposal .....                                 | 9  |
| Recycling .....                                      | 10 |
| Marlborough Sounds.....                              | 10 |
| Pro-environmental outlook.....                       | 10 |
| Asking for help .....                                | 11 |
| Across the region .....                              | 11 |
| Renewed expectations.....                            | 12 |
| Going forward .....                                  | 12 |
| Section 2.....                                       | 13 |
| Broad Topic Summary .....                            | 13 |
| Kerbside Waste Collection - General.....             | 13 |
| Kerbside Waste Collection - Refuse.....              | 13 |
| Kerbside Waste Collection - Recycling.....           | 13 |
| The Marlborough Sounds - General .....               | 14 |
| The Marlborough Sounds – Coins Skips for refuse..... | 15 |
| Rural community recycling containers .....           | 15 |
| Transfer stations .....                              | 16 |
| Lack of service provision .....                      | 16 |
| Household expenditure and limited funds.....         | 17 |
| Grass .....                                          | 17 |
| Green Waste .....                                    | 18 |
| Organic Waste.....                                   | 18 |
| Waste Management Companies .....                     | 19 |
| Tyres.....                                           | 20 |
| Aquaculture.....                                     | 21 |
| Viticulture.....                                     | 21 |



|                                                          |    |
|----------------------------------------------------------|----|
| Port Marlborough.....                                    | 22 |
| Communication .....                                      | 22 |
| Community Changes .....                                  | 24 |
| Community expectations .....                             | 25 |
| Tangata Whenua .....                                     | 26 |
| Formalisation .....                                      | 26 |
| Going forward .....                                      | 26 |
| Section 3.....                                           | 28 |
| The Changing Narrative of Waste Disposal .....           | 28 |
| Section 4.....                                           | 32 |
| Discussion.....                                          | 32 |
| Section 5.....                                           | 36 |
| Recommendations .....                                    | 36 |
| Section 6.....                                           | 38 |
| Underpinning Legislation for Waste Plan Development..... | 38 |
| The New Zealand Waste Strategy 2010.....                 | 38 |
| The Waste Minimisation Act (WMMA) 2008.....              | 38 |
| The Local Government Act (LGA) 2002.....                 | 39 |
| The Resource Management Act (RMA) 1991 .....             | 39 |
| New Zealand Emissions Trading Scheme (NZETS) .....       | 39 |
| Climate Change Response Act 2002 .....                   | 40 |
| The Litter Act 1979 .....                                | 40 |
| The Health Act 1956.....                                 | 40 |
| Section 7.....                                           | 41 |
| Survey Response Narrative .....                          | 41 |
| Blenheim .....                                           | 42 |
| Renwick.....                                             | 46 |
| Marlborough Sounds.....                                  | 48 |
| Picton and Waikawa Bay .....                             | 51 |
| Rarangi .....                                            | 54 |
| Tua Marina .....                                         | 56 |
| Spring Creek .....                                       | 57 |



|                                                                  |    |
|------------------------------------------------------------------|----|
| Havelock.....                                                    | 59 |
| Rai Valley.....                                                  | 60 |
| Seddon .....                                                     | 62 |
| Ward .....                                                       | 63 |
| Waihopai Valley .....                                            | 64 |
| Wairau Valley .....                                              | 65 |
| Section 8.....                                                   | 66 |
| Table 1: Number and location of online survey responses.....     | 66 |
| Table 2: Public meetings held.....                               | 67 |
| Table 3: Participating Industry Sector and Community Groups..... | 68 |
| Appendix 9 .....                                                 | 69 |
| Survey Preamble .....                                            | 69 |
| Survey Sample Questions .....                                    | 69 |





## Introduction

---

A significant part of the work undertaken by local government is to consult with communities. The purpose of community consultation is twofold: to demonstrate that governance is an active process, and to recognise a capacity within communities to offer feedback that will help Council to develop strategies to guide future decision making and service delivery (Local Government Act 2002). Particular aspects of consultation are guided by legislation; central government expects that people will have an opportunity to comment on waste management service provision (Waste Minimisation Act 2008).

A Waste Management and Minimisation Plan (WMMP) is a working document. A WMMP must be revised every six years. In the same way that consultation is underpinned by legislation, the construction of the WMMP itself is informed and underpinned by legislation. The legislation directs local authorities to consider public safety and wellbeing; reduce and divert waste from landfill; monitor the effects of waste product and waste by-product on the environment; and encourage a sense of public responsibility for pro-environmental habits (Waste Minimisation Act 2008).

Over time, Marlborough District Council has typically sought feedback from the community on waste management matters in retrospect. Decision making for future waste related matters has largely taken place within the realm of expertise of the Solid Waste Management Department. While there has been opportunity to comment on proposed changes to the WMMP, the community has not, to date, been part of the core decision making process. This preparatory work for the next WMMP seeks to involve the Marlborough public by asking people to talk about their concerns and aspirations for waste management services across the region.

---

## Context and methodology

---

Several strategies were initiated both to publicise the consultation process and to encourage the public to participate. Information about the consultation was made available in both print and virtual media settings, and on local radio. An online survey was established and made available on the Council website. A series of daytime public meetings were held. Some evening meetings were held or attended. All Resident Associations across the region were contacted and asked to share details of the survey and the public meetings. Industry and small business sector groups were invited to participate.


The consultation process was designed to give people an opportunity to provide commentary about waste service provision as they experience it. A series of open-ended questions was developed to encourage participants to give narrative answers. Open-ended questions encourage people to explain circumstances within the context of 'what they know'; people can choose what kinds of information they want to share. To ensure that Council gained a broad understanding of what service provision 'looks like' across the region it was important to establish a format that enabled that opportunity; therefore, whether people chose to participate by answering an online survey, or by attending a public meeting, the questions put to the public were the same.

The questions that the public were asked to consider mirror the questions that Central Government expects local government to answer when considering what needs to be included in the WMMP. By sharing the expectations of Central Government, the ways in which local government is anticipated to work is made visible to the public.

Those questions from Central Government are:

- Where are we now?
- Where do we want to get to?
- How are we going to get there?

While seemingly straightforward in nature, the questions above ask any Solid Waste Department to have knowledge of the types of waste and supporting systems and infrastructures within communities to handle waste; critically appraise systems and infrastructures to attain the best outcomes for communities; and pro-actively move forward to develop and enhance future service opportunity on behalf of communities.



Situating consultation as the primary focus for this iteration of the Waste Management and Minimisation Plan, Marlborough District Council asks the public to say how waste management systems work in practice. While not statistically representative of the Marlborough population, the content of this report includes sufficient feedback to be representative of the 'kinds of experiences' that people encounter while using waste services. The content may be familiar to the types of commentary known to the Solid Waste Department already. Commentary in response to common questioning, analysed and aggregated across the region shows consistency and continuity in customer experience. The community has given a powerful commentary as their requests for change become known within the context of everyday living.



## Criticisms about the process

---

As can be common with events that take place within the public realm that encourage people to share experiences; people openly convey concerns. Negative feedbacks about the consultation process speak to matters of accessibility, inclusion, perceived disadvantage, and 'business as usual'. A brief explanation follows:

- While chosen to be sited in a neutral venue during day time hours, feedback clearly conveyed that meetings held in the Council building in Blenheim and the library in Picton were unsuitable if optimum attendance across a community was to be achieved because people who worked during the day would be unable to attend.
- The wording and sequencing of the questionnaire was challenged because the questions were thought to be too complex: feedback suggested that respondents would be unable to answer as the questions were not specific, and asked people to carry forward ideas from previous questions.
- Distant communities were vocal regarding a perceived disadvantage of being unable to attend a meeting in person.
- There was concern whether any learnings from a community consultation process would be taken into account because of a perception that Council would engage in business as usual despite having community feedback to inform thinking for future service provision.



## How to read this report

---

**Section 1** discusses the Key Findings of the consultation process. This section gives a concise overview of the main areas for consideration and as such represents community feedback 'in a nutshell'. Reading this section alone will suffice to give those short on time enough information to have a sound grasp of the ways in which respondents experience waste service provision as it currently stands.

**Section 2** explores the content of feedback in greater detail in the broad topic summary.

**Section 3** offers an insight into the changing narrative and context of waste management over time, specifically narratives that become useful to changing household and personal habits. Such narratives reach fruition by persuading the public that it 'makes sense' to adopt 'the new normal' of waste management strategy recalibration.

**Section 4** presents a discussion related to the feedback.

**Section 5** makes recommendations in reference to the feedback.

**Section 6** provides an explanation of the legislation associated with waste management and minimisation planning.

**Section 7** contains the narrative responses from communities across the region.

**Section 8** shows, in table format, community participation by location and industry group.

**Section 9** shows a sample survey for the purpose of calculating household costs associated with waste and recycling.

---

# Section 1

---

## Key Findings

This section of the report summarises the key findings from the consultation process. For a more comprehensive discussion readers are encouraged to engage with the report in full. Nevertheless, this section alone will suffice to convey community feedback 'in a nutshell': it is to be read as a de facto executive summary which condenses the main points for ease of use. The statements that follow are in bullet point format and deliberately brief and to the point.

## Waste disposal

- The system of waste management as it currently stands has outlived its useful purpose.
- The system of waste management as it currently stands can be inconvenient and labour intensive to use.
- Transfer stations are thought to be basic and in need of upgrading.
- Transfer station opening hours are limited and do not meet the needs of local residents.
- The kerbside collection system as it currently stands suits a limited 'small household' demographic only.
- The kerbside collection system as it currently stands does not adequately meet the needs of 'growing' households.
- Decreasing section size limits the amount of waste and recycling that can be stored in a residential setting prior to collection.
- Seasonal climate changes make bin bags unpleasant to store and handle within a residential setting because of odour production in warm weather.
- Stockpiling refuse and recycling on rural sections prior to self-disposal can attract insects, vermin and animals.
- Rural practices of burning waste can also include the burning of plastic recycling product.
- There is considerable doubt about parity of service across the region for both kerbside and transfer station waste management options.
- Household budgets are being stretched by additional, or private waste disposal costs.





## Recycling


- Current kerbside recycling containers have limited capacity to hold the amount of recycling product households discard on a weekly basis.
- Excess recycling product is put in refuse bags and lost to landfill for ease of disposal.
- Extended bin routes as a result of ongoing housing development mean that recycling product sits in the streetscape for longer and may be exposed to wind and rain.
- Rain soaked paper and cardboard is lost to landfill; windblown recycling product becomes litter.
- Rural community recycling containers are well used but would benefit from being adapted to hold one recycling type only.
- If rural community recycling containers cannot be adapted containers require to be serviced more frequently.
- Rural community recycling container sites do not experience consistent respectful use within local communities.

## Marlborough Sounds

- Growing amounts of permanent and semi-permanent residents put an additional strain on waste and recycling services as they currently stand.
- A reconsideration of servicing schedules for refuse and recycling across peak holiday season would be greatly appreciated.
- Coin skips in the Marlborough Sounds are not consistently operational.
- Waste disposal capacity at Picton Foreshore is inadequate.
- The reintroduction of recycling provision at Picton Foreshore would be welcomed.
- Remote Marlborough Sounds communities request that Council work towards having an organised 'land to shore' collection service.
- Commercial boat taxi operators bring residents refuse to shore.
- Clear and consistent messaging from Council and the Department of Conservation is required to reduce incidences of littering on walking tracks.

## Pro-environmental outlook

- Growing environmental awareness compels respondents to favour recycling and oppose landfill.
- Growing environmental awareness compels respondents to reject the use of plastic refuse bags and suggest a biodegradable alternative.

- 
- Growing environmental awareness compels respondents to ask Council to work towards removing organic product from the domestic waste stream.
  - Council may choose to work with and encourage supermarkets to reduce food product going to landfill.
  - Interest is shown for innovation in respect of research and development and trial projects being initiated across the region.
  - A region-wide solution for green waste would be greatly appreciated.
  - Special event management would benefit from being guided by a region wide 'zero waste' policy.


### **Asking for help**

- Some communities, while formerly willing now feel they hold a burden of responsibility to maintain their local environment in the absence of Council assistance.
- Communities would like Council to acknowledge the work they do in respect of 'tidy-up' work.
- There is consensus that going forward respondents would like a whole-of-region streamlined service that is easy for locals and visitors to engage with.
- Tyre retailers would value Council involvement in developing an accreditation system in order that those who are involved with tyre disposal are authorised as being responsible and accountable.
- Primary business sectors may at times need assistance with networking disposal or reuse solutions for industry specific waste.
- Inviting inspirational speakers to hold public meetings on waste reduction may provoke changes to household habits.
- Clear and simple to engage with communication networks would greatly assist with sharing waste related information within the region.

### **Across the region**

- The population is increasing, housebuilding extends across rural and urban sectors, and primary industry continues to grow.
- Demographic changes related to age and physical ability effect the ways in which people can engage with existing waste management services.
- House capacity is stretched as people use former family homes as multiple occupancy opportunities to reduce the burden of high rental costs.
- Recognised Seasonal Employment (RSE) workers live in residential settings and engage with rated service provision.
- Commercial recycling is being disposed of in rated household service provision.



- 
- Access to independent transport may not be available; similarly trailer ownership is reducing.
  - Transient populations who come to the region for work may live in mobile accommodation or unrated buildings on existing properties and have limited knowledge of or access to waste management solutions.

### **Renewed expectations**

- The community would like Council to be open transparent and accountable to the public by sharing data and expenditure costs related to contracted services.
- The community would like to have knowledge of current contract tolerances.
- The community would like Council to engage in greater enforcement measures to deter littering and illegal dumping.
- The community broadly agrees that a cost effective, streamlined, easy to use, service across the region would benefit residents and visitors.
- The community would like Council to encourage responsibility by involving all businesses to appraise their own waste management practices.
- The community would like a forward thinking and progressive approach to waste management and environmental stewardship.
- The next iteration of the Waste Management and Minimisation Plan should acknowledge that waste minimisation measures have to date, across the globe been ineffective: it may be time to explore the possibilities of a waste to energy solution for waste management.

### **Going forward**

- A whole of region waste solution can be supported by establishing an interactive electronic communication system similar in style to the Campermate application.
- A whole of region waste solution can be supported by understanding how much people already pay to manage waste.
- The community should be invited to complete an additional survey to calculate 'overall expenditure' related to waste management.
- A whole of region waste solution must be sympathetic to changes already happening in the 'waste space', specifically the anticipated introduction of a Container Return Scheme and an impending increase to the waste disposal levy.
- A suitable whole of region waste solution rests on reimagining current asset use by recalibrating transfer station operational capacity.
- A suitable whole of region waste solution rests on reimagining the implications of future resource 'usefulness' as public commentary shifts towards favouring waste to energy as a way of reclaiming energy from waste.

---

## Section 2

---

### **Broad Topic Summary**

The narrative that follows highlights the topics that were raised during the consultation process. Public experience of Council service provision has recurring themes. Qualitative research allows participants to 'tell their story'. Across the region, the story of waste service user experience is remarkably similar. People are engaged with the concept of waste management: they offer observations, highlight concerns, and make recommendations. The content below conveys the feedback from respondents as they were given. A discussion about the content follows.

### **Kerbside Waste Collection - General**

There is broad consensus that the waste management system currently in use across the region is no longer fit for purpose. The waste management system is perceived to be out of date and suited to a modest one or two person household demographic only; specifically, those households that produce low volumes of waste and recycling. As family size increases the bin bag and recycling crate system do not meet household needs.


People who have less difficulty using the service are more likely to make positive comments about contractors and interaction with other Council departments (the waste transfer station, and the Council call centre staff). These participants self-identified a being either a single or part of a two person household.

### **Kerbside Waste Collection - Refuse**

Refuse bags are not robust enough for the volume of waste that people discard. Refuse bags are suggested to be harmful to public health and wellbeing because they do not contain odour and attract insects in warm weather; there is seasonal variation in the practical use of plastic bin bags. In line with recent Government legislation that banned single use plastic bags, there is a sense that plastic bin bags should also be phased out of use. A proposed alternative could be double skinned paper bags that would degrade in landfill.

### **Kerbside Waste Collection - Recycling**

Respondents say that Marlborough has an 'old fashioned' recycling system. Their experience is that the majority of household waste is recycling. The capacity of the crate is limited, therefore recycling potential is limited. Nevertheless, people do try to recycle as much as possible and overcapacity crates create manual handling difficulties.



Recycling left beside the container is not removed by the contractor. People without access to transport cannot take excess product to the recycling centre. A potential solution could be to have more public place recycling availability across the town. Having public place recycling may also diminish the occurrence of people putting cardboard pizza boxes in litter bins at the Taylor River reserve.

Recycling cannot be adequately contained within the crate therefore usable recycling product is impacted by wind and rain. Recycling becomes litter when blown out of the crate and wet paper and cardboard cannot be recycled, consequently these items have to be landfilled.

Wheelie bins are suggested to be an ideal practical resolution for waste and recycling issues. If Council funds are limited then a preference for wheelie bins to service recycling and/or green waste would be an acceptable compromise.

Attention to vehicle maintenance would prevent crushed glass from being left on the road when the recycling truck inverts to compact recycling product.

### **The Marlborough Sounds - General**


In a similar way to people who have little difficulty with waste disposal using the kerbside collection system, positive comments from people who live in the Marlborough Sounds, hold that household capacity is generally limited, any waste produced is minimal and the recycling containers where available are used to capacity. The system as it currently stands suits a limited demographic.

Broadly speaking there is consensus that Council provision no longer meets the needs of Sounds communities. Some respondents say that commercial boat taxi companies bring their refuse and recycling to shore: others note that refuse and recycling is left at jetties prior to being collected. The loss of the recycling container at Picton Foreshore is keenly felt, particularly for boat-to-shore residents who have an additional cost and distance to reach the Picton transfer station.

Areas of the Sounds that would benefit from improvement are suggested to be

- Whatamango where the reinstatement of a mesh cage could mean the return of a refuse bag collection.
- Additional recycling containers for Haka Haka Bay, Te Mahia and the Onahau Saddle, and Portage.

Increased publicity of the walking tracks in the Sounds has attracted more visitors: unfortunately with increased walker activity there is now visible littering on the Queen



Charlotte track and Kenepuru track. A reinforcement of the 'pack in pack out' message is required by the Department of Conservation and Council to address litter prevention.

### **The Marlborough Sounds – Coins Skips for refuse**

The coins skips are not consistently functional. Permanent resident who want to avoid the inconvenience of non-operational skips say they purchase Council refuse bags and dispose of their rubbish at Havelock transfer Station. There is a tendency for visitors to leave bagged rubbish beside the skips; this is attributed to people not carrying small change. A possible solution is to use technology for coin skip operation; alternatively, introduce free access open topped skips known as 'the Italian System'. Bagged rubbish is also left outside transfer stations and put in community litter bins.

Seasonal increase in visitor numbers between November and March means that the capacity of coin skips is inadequate. Greater attention needs to be given to servicing requirements during these months; the coin skips need emptied more frequently.

### **Rural community recycling containers**

While well used, there is consensus from across the region that rural community recycling containers need to be serviced more frequently. The section within the container that holds paper and cardboard, and plastics and cans fill up quickly. A possible solution would be to have separate containers for each waste stream.

Some respondents say that changing the location of containers within the community can impact the ways in which people engage with recycling. Remote, edge of community locations limits container use by people who do not have their own transport. Product that could be recycled is being lost to general waste for ease of disposal.

Marlborough Sounds communities experience similar difficulties: skips are not serviced often enough, and the distance and additional costs for outer Sounds communities to travel to use a recycling container can prevent people being responsible with recycling.

Maintaining a recycling container site can be problematic. Respondents observe that their communities do not seem to have a 'common sense of responsibility' to keep the site clean, or indeed have respect for other community members who tidy up after them.

Clarification is sought on whether co-mingled recycling from the container is indeed separated into product type, or whether is taken to landfill.





## **Transfer stations**

Positive comments about transfer stations are limited to saying they are basic and meet current needs. Transfer stations would greatly benefit from upgrading for any ongoing long-term use.

A consistent minority value self-management of waste and the 'user pays' methodology because they believe it encourages responsible waste related habits: there is concern that a rated system would encourage excess waste production.

Transfer Station opening hours would benefit from being revisited. Household needs are changing. A requirement to meet current transfer station opening hours place additional pressures on families to dispose of waste and recycling within pre-determined times. This circumstance leads respondents to conclude that the current Transfer Station system is not customer focused or user friendly. Using a Transfer Station is thought to be time consuming.

There is concern that service opportunity for product disposal is not the same across all transfer stations, particularly for the farming sector.


## **Lack of service provision**

Lack of service is expressed in two ways: the perception that service provision does not exist; or the experience that service provision has been removed in the absence of consultation.

Many respondents who use transfer stations or rural community recycling containers do not perceive that self-managing waste and taking product to a designated location can be described as having 'service provision'. Service provision is understood to be having another entity remove refuse and recycling at the level of the household. Consequently, a distinction exists within the concept of 'service' in respect of self-management versus Council provision: transfer stations do not provide a service; people go to transfer stations to use a service.

Communities that formerly had waste or recycling service provision keenly expressed their disappointment and frustration at losing local services.

Self-management of waste also raises concerns for rural communities, both in terms of storage and disposal. Keeping waste within a property boundary can attract insects, vermin and animals. In communities where the burning of waste is still common, the smell and taste of plastics being burned is clearly identifiable within those communities.



Engaging a private contractor is commonplace, but adds an additional cost for households to accommodate within finite budgets. Private waste companies operate on different days of the week: smaller communities observe that this increases traffic and vehicle emissions within their local area. A strong sense that a Council kerbside service should be considered for the whole region is conveyed; nevertheless there are concerns that the cost of such a service could be unaffordable for people with limited household income.

### **Household expenditure and limited funds**


A need to carefully manage household expenditure recurs throughout the community narrative. Household waste management is described as being ‘expensive’, or as ‘costing us extra’, or by making statements that some product disposal should be ‘free’. For example, engaging a private contractor to remove waste and recycling is convenient but expensive; it costs extra money for fuel to take additional recycling material to the Recycling Centre; or people put product that could be recycled in general waste to save money. People say that green waste can be made into compost for Council to sell therefore green waste disposal should be free.

Underpinning such statements is a sense that Council should prioritise core waste service provision with no additional burden to household rates, particularly, respondents say if rates for households outside of but adjacent to Blenheim are equivalent to the rates in Blenheim. Marlborough Sounds communities express a similar sentiment; they say that they pay high rates but receive no service provision. If a kerbside collection is to be introduced respondents ask that the cost is kept as low as possible in order that households can accommodate any additional cost to rates.

Free community tipping events were very well received and very much appreciated. Respondents strongly advocate that reusing unwanted goods is preferable to unnecessary disposal however second hand items are getting more expensive to purchase.

### **Grass**

Grass contractors say that grass can only be taken to landfill therefore grass should not be classed as green waste. Any potential that chemical residue is contained within grass means that it cannot be composted: the chemical residue would contaminate compost. The chemical composition of grass spray is known to affect weeds by seeping into the plant system. Sprays used in fruit growing, for example, is topical (applied to the surface) and known to break down in UV light. Research and development may allow for a similar topical type product for grass in the future. Grass contractors are unable to leave grass clippings with the client. Domestic clients do not have the space



on usually small sections to store large volumes of clippings and commercial customers want their premises to be well presented so want the clippings removed.

The current disposal arrangement with Council is satisfactory. In the absence of a dedicated green waste facility, grass and green waste is currently taken to landfill. Separation of grass and green waste is possible should a green waste facility be available. Any increase to the waste disposal levy will lead to increased dump charges. Established contractors cannot absorb an additional cost and will have to pass it on to customers. There is a likelihood that non-established, part-time, transient grass cutters will offer a reduced job price and dump grass illegally. This practice happens now, but it may increase. The Opāoa River is a favoured dumping site for grass.

### **Green Waste**

An ability to dispose of green waste within or adjacent to local communities is not consistently available across the region. Many respondent say they have to travel long distances to access a transfer station, and getting rid of green waste is expensive. Green waste is reported as being discarded in rivers, verges, empty neighbouring properties, over steep banks on rural roads, and into the ocean.


The production of green waste is also inconsistent across the region. Sounds residents say that the weather conditions they experience work to increase the amount of vegetation they have to cope with all year round. Alongside looking after their individual gardens, additional community maintenance work is undertaken without Council assistance. Council assistance would now be appreciated.

The recently completed Environment Plan has caused some anxiety for residents of Elaine Bay. The implementation of the Environment Plan has disrupted historical green waste disposal practices; people from Elaine Bay cannot now manage and burn green waste as a community.

Green waste disposal would be welcomed at Havelock, Picton and Seddon transfer stations. A suggestion has been made that a north Blenheim green waste site would be convenient for residents of Spring Creek, Rarangi and Tua Marina.

### **Organic Waste**

Council must signal to householders that organic waste should be separated from other waste going to landfill by encouraging people to have home composting systems; or by establishing a network of local area community composting facilities. Large volumes of local supermarket food waste are taken to landfill; respondents wonder whether Council is able to get involved with the supermarket chains to mitigate this practice. Food waste from supermarkets not only includes product that



has passed a recommended sell by date, but also foodstuffs that have been cleared from shelves to accommodate other product lines. Commercial food waste should be diverted from landfill.

Commercial food outlets in Picton have the food waste collected by a local pig farmer. Other areas in the country have organised food collection systems, for example Nelson Christchurch, and Wellington. Kaicycler is a company that promotes food and green waste collection by people using bicycles: the product is taken to a central composting facility. Is it possible to trial a food waste collection similar to 'Kaicycler' in Blenheim?

Council should consider the merits of introducing a commercial composting site.

### **Waste Management Companies**


Contract service providers say that there is inadequate provision of waste and recycling for special events and/or cruise ship visitors to Picton Foreshore. Encouraging best practice by providing infrastructure would see people separating and sorting wastes themselves into appropriate bins. Commercial boat taxi operators manage waste on behalf of Sounds residents and visitors; boat access visitors leave rubbish at the boat ramp in Picton. There needs to be greater capacity for people who bring waste to shore. The existing four wheelie bins fill up quickly, and the quayside can become untidy and hazardous. A more sustainable plan is required for peak season population increase.

Contract service providers also say that public litter provision gets used by local businesses and households, for example at Collins Reserve at Koromiko. Recycling can affect business profit margin because of high disposal costs.

Private contractors operate well within the same space; there is enough business to go round. Private companies have to compete with Council pricing to offer a competitive recycling service. However, people who do receive service provision through a Council rated system also pay for wheelie bins. There seems to be no incentive to reduce waste.

There are efficiencies that could be worked into contract management across other departments, particularly when two contractors operate within the same location. The road and park departments engage one contractor to empty bins, while another company attends to litter, grass and garden plot maintenance; these activities could be undertaken by one contractor. Another example of not capitalising on potential contract efficiencies is through litter collection in Council reserve areas. Council knowingly pays twice; once for the collection service and again for the tip fees which the contractor has included in the contract price.





The Waste Sorting Centre is yet to be operational so material is taken to a local clean fill site. It is cheaper to dump at the clean fill site than to take skips to Blue Gums landfill.

No preference was declared for future waste management tendering possibilities however it was suggested that Council move away from using refuse bags and recycling crates. In terms of tender document weighting on company attributes versus price of contract, Council should consider what kind of company they want working on behalf of the community and design the tender document accordingly. It may be cost effective to have more than one contractor provide services for the region; however a commercial imperative will ultimately inform any future tendering process. Length of anticipated service provision which secures work for a longer term might encourage companies to look at economies of scale. If a company can gain capacity through spread of service possibilities it will allow them to have additional resource in terms of equipment and staff, which in turn means they have capacity to make accommodations to meet client need. It is also a good idea to reduce the amount of service trucks in operation across the region.


Council can also support companies to advocate on their own behalf to reduce waste. Customers are increasingly going back to suppliers and asking them to be part of waste minimisation and reduction practices. Some suppliers do not want to take products back but it is important to have the conversation.

## **Tyres**

The main concern voiced by tyre retailers is having an appropriate and reliable tyre disposal mechanism. A recognised tyre collection operator comes to Blenheim every two weeks. There is a charge for tyre disposal; that charge is paid by the customer when they purchase new tyres. The money collected by the tyre retailer is passed on to the person who collects used tyres. The system works well and the person who collects the used tyres is reputable and responsible.

From time to time, a different operator comes to Blenheim and offers to take tyres at a reduced price. This operator specifically targets smaller outlets and workshops where reducing business costs may take priority over responsible disposal practices. There is a concern that unreputable business practices reflects poorly on the whole tyre sector. Some smaller outlets may engage in less robust business practices to reduce costs.

Tyres that are disposed of incorrectly can be retraced to the outlet where they were sold: that retailer may be charged again for appropriate disposal. There are limited opportunities for tyre reuse; practices such as using tyres in landscaping require



consent. Nelson landfill accepts shredded tyres to landfill. Equipment for shredding tyres is expensive. Used tyres are sent off-shore to be processed.

Greater accountability is sought within the tyre collection market. Tyre retailers wonder whether Council can become involved in establishing a regulated accreditation system. Licensing systems have been in use overseas for many years: New Zealand lags behind other jurisdictions by twenty years. Accreditation could guarantee the authenticity of any operator by compiling a register of 'suitably qualified persons'; issue a licence to operate and embed reputable and sustainable practice. Such a system would go some way to informing the public about responsible tyre disposal. Alternatively, a national scheme could see disposal charges included in the cost of the tyre before it reaches the retailer. If the disposal charge was added at that stage, local operators would not have to enforce the charge. Customers often do not want to pay an additional cost for tyre disposal. Some customers do not appreciate that tyres need to be disposed of responsibly: tyres end up in rivers skips and bonfires otherwise.

### **Aquaculture**

Compliance requirements inform the practice of the aquaculture industry.


Sanford says that industry structure sees both local and national involvement in waste management and minimisation practices. Established processes work to separate on-shore and off-shore waste from across the business. Waste streams are typically sent to landfill, composted, or recycled. While the company works hard to achieve waste reduction, mussel shells persist as being a difficult waste stream to find a solution for.

Innovative networking for the disposal of large items across the business looks to advertise materials that can be used by other groups; for example wood from dismantled buildings.

Difficulties however can be experienced when trying to find a solution for industrial plastics, such as mussel bags as suppliers are reluctant to see product returned to them.

### **Viticulture**

The wine industry is focused on sustainability and sustainable practice across all aspects of the winemaking process. Sustainable Winemaking New Zealand (SWNZ) has established an accreditation system to support vineyards and wineries to engage in self-sustaining practice. Companies who join must review and adjust internal systems to achieve accreditation markers. Initial preparatory work sees companies engage with a full year of auditing to gain an understanding of the types of processes that happen within their businesses. This work also identifies waste streams they encounter across



the year. SWNZ is working toward being 'zero waste' for all solid and material waste. Supply chain waste reduction is a key focus to meeting that goal. SWNZ are involved by sharing information, working to a shared philosophy, and offering help and advice. SWNZ is an influential body that wants to lead the conversation; individual companies remain responsible for steering their sustainability journey.

Research and development has been undertaken locally by Wineworks who have used uncontaminated soft plastics to make 'slip sheets', a form of palletisation for wine packaging. Wineworks also collects polystyrene which is retrieved by Expol.

A national supplier is working to find a solution for contaminated plastics. Other suppliers are being encouraged to address their own supply chain to change packaging. Recycling across product range is encouraged wherever possible. AgRecovery takes some chemical containers.

While waste rationalisation and reduction support the zero waste goal, some material from the winemaking process are disposed of in landfill. Grape marc, wooden pallets, vineyard netting, and CCA treated posts persist as waste streams that require additional thought.

SWNZ say that it could be helpful to collaborate with other businesses and industry sectors to find waste stream solutions.

### **Port Marlborough**


Port Marlborough is bound by compliance: the Annual Plan describes the ways in which the port manages vessel waste. General waste is removed to Blue Gums landfill by a local contractor. Bio-security waste is quarantined in specialist bins and transported to Dunedin for destruction. The port experiences minimal amounts of aquaculture waste.

Recycling bins are available at all marinas. International yachts often work towards being 'zero waste'.

The practice of fumigating logs with methyl bromide at Shakespeare Bay ceased some years ago. Fumigation now takes within the vessel while at sea. Tree bark which remains onshore is separated: Port Marlborough has established disposal mechanisms for all grades of bark.

### **Communication**

The topic of communication runs through all aspects of the waste management narrative. There is a clear sense that people want not only to be connected and included, but to be present within the discussion and feel as if they are being heard.



There is a sense that respondents want to know more, but do not know how, or where to access information. Where communication comes from Council, it should be proactive and given in a timely manner.

A platform for the community to share waste related knowledge, and signal where specific types of material or product such as medication, batteries, and plastic bread closure ties can be recycled, would be a welcome asset to prompt conscious recycling.

Communication gaps are also identified in respect of assisting visitors to engage in responsible waste disposal practices when they visit. There is a distinct lack of waste management information for all travellers whether using self-contained vehicles, or staying in independent rented accommodation.

It is apparent that the community would like clear, consistent, unambiguous messaging that signals an expectation from Council that residents of and visitors to Marlborough can do the 'best with waste'.

Where Transfer Stations are sited away from main thoroughfares, communities would appreciate signage to direct visitors to that location. In the absence of information the experience of rural communities is that by default they tidy up after visitors.


Community focused initiatives from Council are appreciated but respondents would like greater advance notification of 'free' tipping events. Rural communities wonder if it might be feasible to have a regular community waste day in which domestic and farming waste can be disposed of at the same event.

Communication within communities can be difficult. Information flows can be limited by group membership; affected by experience, frequency and purpose of meeting; and be location specific even within communities; for example one geographical location can organise group membership according to a water scheme, or be divided by a State Highway. There is often a relaxed outlook to establishing communication, namely that if lack of engagement is taken as a signal that 'things are OK'.

To establish greater community consultation potential, an idea exists that it may be advantageous for Council to partner with business and other public bodies to share information.

Communication and education are seen as means of changing individual, household, and business habits. Council could start topic specific discussions that focus on aspects of waste reduction to encourage public buy-in. Speakers who talk about waste minimisation can be invited to hold public seminars to inspire people to change things at home: food outlets could allow people to bring their own containers to put food in.





Volunteer enlistment potential can be enhanced by advertising for and asking people to help clean up our communities: beaches, waterways, reserves and road verges are particularly affected by litter and general rubbish. It might be possible to establish 'environmental care' groups that have a dedicated core of people to help communities with clean-up activities.

The aquaculture, viticulture, and forestry sectors have established channels of communication within Council.

### **Community Changes**


The population of Marlborough has increased. House building across the region sees rural sections being developed, urban sub-divisions being established and progressing and town sections being subdivided. Rural residents and Marlborough Sounds residents describe a process of 'gentrification', and incoming residents as 'weekenders' as wealthy people move into their communities to build lifestyle properties. Land development also encompasses the viticulture and forestry industries.

In the Marlborough Sounds former holiday homes are now being used as permanent homes as people retire. Some areas of the Sounds have very few permanent residents: their narrative conveys a need for support with waste management matters. Visitors, whether in mobile accommodation or fixed dwellings are no longer limited to peak summer season; they visit all year round. As a result of poorly serviced or non-functioning infrastructure plus a requirement to travel long distances to transfer stations, recycling is put in with general waste for ease of disposal. Respondents say that illegal dumping of household and green waste is rife.

In urban situations, existing housing formerly occupied by families now have multiple tenants to make renting more affordable. Population intensification, alongside a reduction in available outdoor amenity means that there is less space on small sections to store waste and recycling. In other towns anecdotal information points to people living in temporary or unrated accommodation on existing sections; in garages or sleep outs. Respondents describe having temporary or transient residents in their towns.

The population across the region increases during vintage as people come to the area for work. While recognised seasonal worker (RSE) accommodation exists within Marlborough, there is commentary from communities that these vineyard workers also live in local housing within towns and townships. Alternative accommodation solutions find non - RSE vintage workers living in small self-contained campervans.

In Blenheim, there is greater pressure on the existing kerbside collection service: waste is in the street environment longer before being picked up increasing a potential for



litter. As people pack shopping in cardboard boxes at the supermarket commercial recycling is now being disposed of in domestic recycling. Comments refer to products being excessively packaged and being disproportionate in size to the goods that the packaging contains.

Demographic changes are also noted; there is population diversity in terms of a younger age group and people of different ethnicities. Family size is increasing. Respondents note changes to physical ability because of age or disease process which makes manual handling difficult. Having access to a vehicle may not be possible; there is a decrease in trailer ownership.

Beliefs about, attitudes to, and habits related to waste management are also changing. Increasing the availability of drinking water stations would help to minimise the purchase of plastic water bottles. Respondents keenly champion recycling and would like Council to avoid the use of landfill wherever possible.


### **Community expectations**

The community would like Council to take account of feedback and provide a waste management service to accommodate the changes they identify. They would also like to have access to data and costs for existing services in order that there is transparency and accountability to the public. If data is available about the amount of waste and recycling discarded on each bin route then households could use that information to try to decrease what they put out for collection. A similar system could be introduced for CBD businesses and schools.

Information about current waste contract tolerances should be publicly available. Comments also point to the need of Council to increase enforcement measures for the contractor and the public for non-compliance with expectations or non-adherence to waste related by-laws.

A frequently expressed sentiment is that people are generally more informed about the composition of waste: they want to separate waste streams but would prefer a simple, easy to use, streamlined service. Wheelie bins are preferred. The community is keen to see the reopening of the Waste Sorting Centre. Businesses can also be encouraged to be responsible with all aspects of waste management.

New residents coming into an area can have different expectations of what a waste service could deliver. Comparisons are then made with other areas within New Zealand, particularly if people have formerly used wheelie bins, or know of other 'niche' topic specific systems such as food waste collections or community composting opportunities.



Respondents convey a sense that discussion and cooperation within Council could be improved: they would like Council departments to work together to solve community issues. Departments cited for greater communication potential are the roads department and solid waste, the parks department and solid waste, environmental monitoring and solid waste.

Remote and boat access Sounds communities would appreciate an organised and coordinated waste service to transport waste to shore.

### **Tangata Whenua**

Council is encouraged to bear in mind that Te Tiriti o Waitangi establishes tangata whenua as partners in any consultation process; as such iwi and mana whenua should be asked to collaborate with Council for the next iteration of the Waste Management and Minimisation Plan.

### **Formalisation**

Council as the governing entity must establish a clear plan that outlines public expectation of and for environmental stewardship, across the region to demonstrate a strong resolve from the public, that Marlborough can have a forward thinking and progressive approach to waste management.


In terms of a broader intent, respondents advocate for Council to engage with Government to influence waste policy development; and push for the development of on-shore plastic recycling facilities. Having on-shore recycling availability would reduce unnecessary emissions and costs of long-haul transportation. This sort of engagement can also include working towards having a standardised system for recycling across New Zealand, and discuss business involvement in product stewardship. The viability of soft plastic recycling should be reconsidered.

### **Going forward**

There is a resounding call for a cost-effective, practical, easy to use service.

Respondents would like to see Marlborough District Council move towards providing a wheelie bin service. Interest is also shown in having a 'bulk' item collection service for unwanted household goods and white goods.

People would like to be recognised and rewarded for engaging in pro-environmental habits, and participating in community tidy-up events. Public event management would be enhanced by Council developing a blanket policy in line with a 'zero waste' philosophy irrespective of the size of event.



There is anxiety that an increase to the waste disposal levy will inadvertently increase the incidences of illegal dumping. Locations cited as being vulnerable to illegal dumping are

- Queen Charlotte Drive
- Victoria Domain
- Port Underwood Road
- The Marlborough Sounds
- Rai Valley to Okiwi Bay and beyond
- The road to Whites Bay
- Wairau Diversion

Respondents question whether Council is doing enough to highlight waste prevention and waste minimisation. Council can help people participate by establishing robust systems across the region. Litter is an ongoing problem: litter is largely dealt with by local people in the absence of Council input.

Thought can also be given to undertaking research and development and waste related trial projects – Picton is advanced as being an ideal location to host trial projects.

A growing minority propose that landfill use for waste disposal is no longer practical, sustainable, or best practice. A preference that a waste-to-energy solution is considered for the next iteration of the Marlborough waste journey is clearly expressed.



---

## Section 3

---

### **The Changing Narrative of Waste Disposal**


Prior to any legislative framework that sought to regulate what we do with rubbish, common knowledge tells us that the disposal of waste material was largely addressed by taking waste to a designated area on the outskirts of a community. The communal dump was typically a large hole in the ground, or an indentation by the banks of a river or waterway. People recognised that waste could cause harm so they removed it from their immediate surroundings. Many dump sites were open air so it was not possible to contain odour that could attract vermin, flies, animals or birds.

While memory reminds us that uncontained rubbish was once buried in unregulated sites, where harmful substances might seep into surrounding land and waterways, legislation now expects that waste will be handled in a different way. Engineered and lined landfills now seek to reduce possible adverse effects to the environment. Waste by-product such as gas and leachate are monitored and regulated. Modern landfill management practices work to minimise the adverse effects of degrading waste.

Waste management practices have experienced a shift over time because the public have been encouraged to think about waste in a different way. The ways in which people were encouraged to participate in this new venture begins with a realisation that landfill space is becoming limited. A further narrative tells the public that an expectation now exists that waste should not go to landfill if the product has any potential residual reuse opportunity or reuse value. A mechanism that formalises the confluence of the two information flows is a proposition to 'reduce, reuse, and recycle' waste. The removal of non-degradable product from domestic waste streams begins in earnest in the 1980s in Europe and the 1990s in Aotearoa New Zealand. Waste management is successfully pulled into the economic sphere.

Waste is now used as an opportunity for job creation, and becomes a vital addition to the economy. Separation of materials such as glass, plastics, cans, paper and cardboard takes place on-shore. Processing of all separated recyclable materials cannot be accommodated on-shore however. In a similar way to other jurisdictions, Aotearoa New Zealand transports material overseas for processing, typically to developing countries who have also been persuaded that waste processing can contribute to their economies.

During this period of intensification of waste stream segregation through the introduction of the term 'recycling', a corresponding narrative of 'reducing




wastefulness’ has developed. An overarching premise that changes can be made by engaging in self-appraisal and self-auditing habits informs ‘sustainability in practice’. A persuasive sustainability narrative is underpinned by promoting waste reduction and encouraging reuse wherever possible. Advanced as a way to minimise virgin resource use, efforts to enact change through ‘sustainability in practice’ now anticipate that businesses will be responsible and transparent responsibility in the ways that they operate.

Behaviour change models aimed at the general public focus on changing habits at the level of the individual or household. When legislation was initially established it was written into law that Keep New Zealand Beautiful would champion litter reduction. Still enduring, Keep New Zealand Beautiful now shares the same ‘behaviour modification’ space with other pro-environmental groups. A diverse selection of groups and organisations have been established to promote aspects of favourable personal engagement and to address ‘bad habits’: they gain increasing publicity through advertising and advocacy work.

Alongside public messaging that draws attention to a need for change in personal habits for the good of the environment, an intensification of consumer activity has taken place. Yet, producers of waste have largely been left to carry on working in the absence of substantive intervention. If producer responsibility is mooted at all by Government, businesses are by and large invited to voluntarily make changes to their processes to assist with waste reduction.

In its purest sense product stewardship was a concept developed to indicate a readiness from producers to take responsibility for and address lifecycle impacts of the things they make. Responsibility fundamentally rests solely with producers for the duration of the working life of the apparatus, and for end of life disposal. Over time, the product stewardship narrative has changed: what was meant to be producer responsibility is now broadly advanced as ‘everyone’s responsibility’, as responsibility becomes known as another tool to draw everyone from producer to end user into the narrative of waste mitigation. Legislation to date has not had a primary focus on producer responsibility. A fitting example to cite to show this type of change in practice is the public policy that cemented the banning of single use plastic bags. Legislative changes advanced as being good for the environment that resulted in a removal of plastic bags on behalf of producers, now see a transfer of cost to the public purse with commercial packaging now being discarded in domestic refuse as consumers are ‘offered’ an opportunity to use cardboard boxes to pack shopping.



Sitting alongside the sustainability narrative, occupying the same space that product stewardship was once imagined to hold, there is a suggestion that a 'circular' approach to economic activity will be able to address potential adverse impacts to the environment. Advanced in a similar way to sustainable practice, the circular economy encourages a gradual whole of system appraisal to maintain economic activity, while offering feedback on how to improve systems over time. A circular economy relies on technology and research and development to find solutions for reducing waste and pollution. Critical of the ways in which natural resources are currently resourced, used and discarded, the circular economy narrative proposes that technological advances can maintain lifestyles by 'engineering out' possible harms to the environment through systems appraisal as economic activity continues.

Once the story of waste manufacture and disposal is known within the context of the narrative that has been created to 'manage' waste management over time, it becomes clear that a paradox exists. International markets that formerly supported recycling no longer exist, as developing countries refuse to take waste into their jurisdictions, yet people still want to recycle. Organisations within the 'behaviour management' sphere now compete to tell the same sorts of messages about the same sorts of things, yet substantive tangible change is yet to be achieved. A call to find solutions for waste mitigation within an existing economy, circular or not, is thwarted by increasing business and consumer activity, yet there remains an absence of appropriate legislation that supports environmental stewardship proper.

That said work is being undertaken at the level of Government to inform aspects of waste management to which the Marlborough public speak. A working group has been established to define and standardise types of recycling that are understood to be 'preferable' for on-shore processing. A work in progress currently, the system when developed is anticipated to 'assist' consumers to assess packaging in-store prior to purchase to check packaging 'recycle potential'. It should be noted that consumers will be asked and encouraged to monitor their own purchasing behaviour: it would be advantageous to address producer activity at the same time.

Marlborough District Council along with Auckland Council is currently involved in a Ministry for the Environment funded project to design a Container Return Scheme (CRS) for beverage containers. Considerable work is being undertaken to establish a bespoke system suitable to the New Zealand context. Once established consumers will be able to return cans and bottles from a range of drinks products, and receive money back for doing so. While the finer details of the scheme are yet to be established it should be anticipated that the CRS once implemented will affect operational recycling systems as they currently stand.



It is within this context that the next iteration of the Waste Management and Minimisation Plan must find a way forward.

---

## Section 4

---

### **Discussion**

The work undertaken during consultation process to inform the next iteration of the Waste Management and Minimisation Plan reveals that people across the region have similar aspirations. While people aspire for Marlborough to engage in 'best practice' waste management endeavour, there is a resounding call for a more modest outcome: to have a streamlined, uncomplicated, user friendly service available to both residents and visitors. People also have similar concerns: they want to know that they are being treated fairly and can have access to the same sorts of services irrespective of where they live. There is considerable doubt that parity of service provision or opportunity exists across the region.


A question was posed during the initial stages of the consultation process. An exasperated member of the public asked; how can we get people interested in waste? This document which draws together feedback from across the region demonstrates that people are indeed interested in waste. The ways in which that interest is expressed and communicated may vary. Public commentary should not be viewed as criticisms; rather feedback for the purposes of this work is to be taken as a mechanism for recalibrating current systems for future needs.

People deal with waste every day. By sharing what they know and experience respondents have been generous with their time: they have also been generous on behalf of the wider region, as information given from an individual or community perspective works to enable change within institutions of power. People know the communities in which they live. They know the difficulties they encounter, and they know the kinds of changes, if implemented, that would make a significant difference to the way they currently manage and experience waste.

Broadly speaking under current kerbside collection contract parameters, household waste management systems are experiencing difficulties. The use of open topped recycling crates and plastic bin bags are no longer considered to be effective ways of containing household waste prior to disposal. The types of operational difficulties people encounter have been cited already in this report; suffice to say the public over time have been encouraged to reimagine the composition of waste. That reimagining now has implications for waste management services.

Consistent public messaging on behalf of government, because pro-environmental organisations and regulatory bodies typically receive government funding to support






the work they do, works in this context to encourage people 'do the right thing'. Being 'responsible' and diverting materials away from landfill, for example by separating waste streams at the level of the household now works in practice to define disposal methods for those waste streams. While the evidence from the consultations process signals that this type of messaging is effective, Councils frequently do not receive sufficient funding to be able to carry forward any effects of public messaging into wholesale service delivery proper. Consequently, public expectations of possible service availabilities are raised and may not be able to be met at a local level. A proposal from central Government to increase the waste disposal levy signals an intention that we should not be burying waste.

Public feedback also signals that packaging, now called 'recycling' tends to make up the majority of product that people say they put out for their weekly kerbside collection. There is a corresponding imbalance in respect of recycling crate capacity versus anticipated recycling volume disposal by household: unless recycling is contained within the recycling crate excess material is not collected despite people wanting to do the right thing.

Waste and recycling provision across the rest of the region is supported by transfer stations, rural recycling containers, and coin skips which are used for refuse containment in the Marlborough Sounds. Operational difficulties cited by people who use these infrastructures has also been relayed earlier in the report: in a similar way that kerbside collection service is appraised in light of customer experience, people say that these systems now need to be refreshed, particularly for remote and boat access Sounds communities.

Distance, for respondents is relative to the circumstances, and locations in which they live. Mainly expressed it in measures of time and kilometres required to travel to get to waste and recycling destinations, distance to disposal points also includes effort. Effort, for respondents is expressed in phrases such as 'it takes extra time', 'making additional trips', 'dealing with waste is time consuming'. However, distance is also expressed in situations where people do not have access to transport, or when services have been removed. Distance in this context defeats a willingness to work within current service availability and could be perceived as construing a lack of effort on the part of Council to help people 'do the right thing'.

Sitting alongside the concepts of distance, effort, and time, many respondents talk about cost. They say that self-managing waste can be expensive. Integral to this argument is the cost of disposal at transfer stations; the cost of transporting additional packaging and containers to the recycling centre; the cost of engaging a private



contractor; the cost of travel to find an under capacity rural recycling container. People comment that the cost of purchasing second hand goods is increasing. For respondents, reducing impacts to the environment can be closely linked with a desire not to increase household budgets.


The consultation process has revealed that people want to be involved with aspects of waste management but are struggling to establish how best to access information or become involved. There is an appetite for sharing knowledge. Smaller communities say they are willing to develop support networks to encourage responsible waste related activity for visitors and people new to their communities. There is a suggestion that Council may choose to gain access to other large employers to share information.

However communication is to be achieved, effective and consistent public waste management networks are yet to be established. While the public calls for Council to become involved in strategy and lobbying work at the level of central government, there is scant awareness that this type of work is already taking place. It can be taken from this feedback that usual delivery methods of Council communication, such as print and virtual media, are failing to resonate. Communication is enabled by interaction; by situations in which contribution is welcomed and discussion is part of a process that works to find a solution. Should Council wish to enable this type of communication it would be greatly welcomed.

Individuals and businesses are increasingly focused on the concept of sustainability. Industry sectors seem well established in this respect within their own networks. Community feedback confirms that people like to think of themselves as being well informed and pro-environmental in outlook. They ask that Council take note of community efforts that support 'tidy-up events'. There is a consistent call throughout the feedback from respondents who champion greater reuse opportunity such as having a collection system for the redistribution of large household items like furniture or white ware.

The experience of enjoying 'free' tipping opportunities last year has prompted a suggestion that some services should not be charged to service users. A familiar argument advanced in support of free green waste tipping conflates two ideas: that Council receives green waste which they make into compost, and that Council sells the compost therefore green waste disposal should not incur a charge. Missing in the argument is any acknowledgement that Council will incur business costs for making the compost.

Rated service provision has been questioned during the consultation. People who feel they warrant having a kerbside service are critical of what they perceive to be an unfair



system. A common statement in this respect relates to the cost of household rates in one location being similar or equal to those in Blenheim yet not having a kerbside collection. Domestic rates include charges for fixed assets and targeted services. In the context of waste management, an example of a fixed asset is the transfer station system. All ratepayers make a contribution towards the transfer station system. People who live in Blenheim and Picton pay an additional charge for receiving the ‘targeted service’ of kerbside refuse and recycling collection. While private contractors fill a gap in service provision, many households who do receive a rated kerbside collection from Council are also choosing to engage a private contractor to supply a wheelie bin.

Returning to the initial call for a streamlined uncomplicated user friendly service available to both residents and visitors, it may be time for Council to consider broadening the reach of kerbside collection. It is evident that Council is caught between budgetary parameters and a clear call from the public not to increase rates. There is commentary enough however to justify an exploratory additional survey that asks households to quantify the time, money and effort they expend to manage domestic waste. Bearing in mind that any implementation of a CRS will impact on recycling collections, such a survey might go some way to making visible the actual costs that households currently incur. This survey will be useful to households and Council as an additional tool to assess any possibility of extending kerbside reach while drawing comparisons with typical existing household expenditure. A suggested survey format can be found at Appendix 9.



---

## Section 5

---

### **Recommendations**

The following modest recommendations are consistent with a call from the public to establish a working, fit for purpose, operational capacity for the longer term that signals a whole of region response that residents and visitors can buy into: specifically these recommendations are about participation, inclusivity, and opportunity to be part of a common forward thinking waste management system.

Possibilities for operational kerbside expansion can be assisted by asking the public to engage with a further survey. The survey asks people to calculate the 'weekly cost' of managing household waste. The purpose of the survey is twofold: to allow people to see how much they already spend and compare that cost to an estimated cost for Council kerbside service provision aggregated across the region which will be added to rates, and to provide governors with an additional source of information to assist with decision making for future waste management service provision.

Communication can be greatly enhanced by the development of an interactive application similar in nature to that of the 'Campermate' application. Feedback clearly indicates that people have waste related information that they want to share, currently they do not know how best to facilitate the sharing of information or the development of pro-environmental ideas. Details about Council involvement in policy and lobbying work with central Government should be prominent within the application. Whilst partnering with other large employer organisations to share information was mooted, an independent, freely accessible to all application would hold with a sentiment that any anticipated benefits of sharing information is for the public good, rather than a specific audience. Shared information holds an opportunity for individual and community empowerment.

The development of a revised whole of region framework that takes account of the feedback can recalibrate both operational systems, and user experience well into the future. The current waste management contract expires in 2023. Systemic change at the level of Government anticipated to be introduced prior to that date will have an impact on the type of services that Marlborough District Council decides to offer the public. The cost of disposal to landfill will increase, and the way we currently recycle will be altered with the introduction of a CRS. This may provide an opportunity for transfer stations to be 'reimagined': to maintain and upgrade these assets to provide a different type of function, perhaps as green waste facilities across the region. A preference for domestic wheelie bins initially championed by respondents could still



be a possibility; to avoid landfill the narrative of waste may yet change again to position waste as source of energy. Marlborough District Council may wish to explore the development of a waste to energy facility.

---

## Section 6

---

### **Underpinning Legislation for Waste Plan Development**

The following pieces of legislation provide a framework for waste practitioners to draft a waste plan.

#### **The New Zealand Waste Strategy 2010**

The New Zealand Waste Strategy aims to

- reduce the harmful effects of waste
- improve the efficiency of resource use

Focused on the aspiration of delivering ‘environmental, social, and economic benefits to all New Zealanders’, the strategy is flexible and can be adapted to meet the needs of local communities. The strategy works on a ‘user-pays’ mechanism – those who produce waste must pay to dispose of waste. Charges for waste disposal are collected and redistributed via Government; a percentage of monies collected are given back to communities. Government retains a further percentage of the money for the waste Minimisation Fund. Applications can be made to the Waste Minimisation Fund for local waste minimisation related projects. Practical applications of the strategy point to increasing access for recycling opportunities; purposefully reducing unauthorised disposal facilities that may cause harm to the environment; and embedding robust regulation practices that focus on charging for taking waste to landfill.

#### **The Waste Minimisation Act (WMMA) 2008**

The WMA 2008 aims to ‘provide economic, social and cultural benefits for New Zealand’. The purpose of the WMA 2008 is threefold: to reduce the amount of waste that is produced; to decrease the amount of waste that goes to landfill; and to reduce any potential harmful effects of waste.

To meet the anticipated outcomes Government will

- charge a tax for waste disposal at landfill – the waste disposal levy
- acknowledge responsible business for taking part in product stewardship schemes, especially those products that pose an undue risk to the environment
- establish regulatory processes for particular kinds of waste product to reduce harm
- establish ways of collecting waste related data
- set out expectations for waste minimisation for Councils

- provide for suitably qualified persons to provide feedback to Government

### **The Local Government Act (LGA) 2002**

The Local Government Act 2002 requires that all territorial authorities establish and enact a 'long-term council community plan. Councils must play a broad role in the 'social, economic, environmental, and cultural well-being of their communities'. The plan must

- show what Councils aim to do over time
- have a long term vision which the public can contribute to
- show financial accountability and make processes transparent
- make space for public contribution and commentary every three years

The LGA 2002 expects that Councils must play a broad role in the 'social, economic, environmental, and cultural well-being of their communities'. The Act clarifies that elected officials will participate in decision making either with, or on behalf of the community.

### **The Resource Management Act (RMA) 1991**


The Resource Management Act 1991 outlines the ways in which the environment is to be managed over time. The RMA primarily focuses on the regulation of activity. The RMA is underpinned by an expectation that natural resource and environmental management is best served by using sustainable practice. Within a 'sustainable philosophy' framework, communities should also be able to have a say in what happens within their own area. Any ability of communities to be involved in local decision making may be hampered by consenting processes.

### **New Zealand Emissions Trading Scheme (NZETS)**

The New Zealand Emissions Trading Scheme is a mechanism for heavy industry, waste related activity, and farming to reduce the harmful effects of atmospheric pollutants. The two main objectives of the NZETS are to

- minimise the production of carbon dioxide
- incentivise and reward the planting of trees

People who own land can plant trees and accumulate carbon credits. A carbon credit is an agreed representation of carbon dioxide. Carbon credits can be sold. Businesses can chose to buy carbon credits to offset the production of carbon related emissions. The waste sector is included because landfill use creates gasses that may be harmful to the environment.



People who do not agree with the scheme say that it does not meet the primary objective of reducing carbon dioxide. This is because the scheme does not adequately address the way that businesses approach environmental stewardship from within their own industry sector.

### **Climate Change Response Act 2002**

An addendum to the New Zealand Emissions Trading Scheme, the Climate Change Response Act 2002 seeks to position New Zealand in a favourable position in relation to international climate obligation expectations. More robust measures for data collection for industrial emissions work to formalise industry liability obligations. The Minister of Finance holds responsibility for calculating the amount of carbon outputs across industry groups to meet international standard expectations.

### **The Litter Act 1979**

The Litter Act 1979 formalises the expectation of government that local authorities will hold responsibility for the mitigation and management of litter within their jurisdiction. Under the Act, powers and responsibilities are granted to councils to establish by-laws, appoint litter control officers and choose the location and number of litter bins available for public use. At the time of enactment, Keep New Zealand Beautiful Incorporated was named as the organisation that would hold responsibility for nation-wide litter prevention education.

### **The Health Act 1956**

Primarily concerned with public safety – relevant to waste disposal, The Health Act 1956 ensures that local authorities work to manage waste in a way that does not cause a public nuisance, or adversely affect public health.



## Section 7

---

### **Survey Response Narrative**

This section of the report conveys the aggregated narrative response from online respondents and community engagement activities. Respondents were asked to identify where they lived in order that their experiences would be location specific. Commentary about service provision can then be understood within the context of known Council service parameters.

Responses from towns, townships, and broader geographical areas across the region now follow. As the narrative data was analysed it becomes apparent that common themes exist; therefore, some repetition is apparent in the within the text. Repetition of experience is included with purposeful intention for the following reasons: it galvanises a common experience or thought process; it shows that questions about service provision extends across the region; it provides a means for the people of Marlborough to understand what others experience; and it demonstrates to Council that a 'strength in numbers' approach emphasises a desire for aggregated public feedback to be useful within the context of change management.

The following narrative comprises the 'waste experience' from across the region as told by those who took part in the consultation process. Responses have been aggregated with minimal editing to allow the public to 'speak' to Council, in a similar way that they engaged with the consultation process. The third person is used within the text, in 'we' statements in a similar way to the verbatim written responses to the online survey to emphasise collective thought on behalf of a community.



---

## **Blenheim**

### **What are your experiences with current service provision?**

#### **Satisfaction with current waste service provision**

Satisfaction with current kerbside collection provision is attributed to size of household, compliance with Council expectations of service use, and being able to fit recycling product into the recycling crate.

Respondents who say that they live in a one or two person household do not have logistical or management problems with using plastic bin bags or open topped recycling crates. The reason given was that smaller households, often with an older demographic produce less waste. Bin bags may be used infrequently and all other waste comprises recycling product which is put out for collection on a weekly basis. Waste and recycling is put out on the morning of collection.

A refund for unused Council bags would be appreciated. The refuse workers are hard-working and provide a good service. The cost of disposal at the transfer station is manageable. Any communication with Council staff is prompt and customer focused.

#### **Dissatisfaction with current waste service provision**


Problems with Council kerbside collection are attributed to functional or operational difficulties.

Current waste service provision is poor or basic in comparison to other regions in New Zealand. Household rates are expensive but there are no changes in terms of improvement to waste service provision.

In terms of recycling potential, recycling crates are too small. Recycling in households exceeds the amount of rubbish produced; for this reason excess recycling is put in refuse bags. Full recycling crates are difficult to lift. Excess recycling is left by the contractor beside the crate; the recycling centre in town is too far away to use because people do not have their own transport.

It would be helpful to have more locally available public place recycling opportunities, for example at the Taylor River. Pizza boxes are an ongoing issue. Is it possible to have a pizza box return scheme?

The recycling crate does not have a lid. North westerly winds blow recycling out of the crates, which then becomes litter. Recycling crates get lost. A wheelie bin service would be preferable to the system currently in place; then the recycling crate could be



used for glass only. If a wheelie bin can only be provided for one waste stream the preference is for recycling; or green waste.

Refuse bags can be ripped open by cats. Refuse bags attract flies in summer and smell. Given the recent Government ban of single use plastic bags, it is no longer appropriate to be using plastic bin bags. Biodegradable, heavy duty paper bags could instead be used to contain rubbish.

**Additional comments**

Crushed glass is left on the road when the recycling truck tips up to compact.

Council should look to provide and promote best practice in waste management: focus on diversion from landfill, waste stream separation, and promote all opportunities for recycling and waste minimisation. Waste streams that could be diverted are going to landfill.

**In what ways is your community changing?**


The population is increasing: more houses are being built, and town sections are being subdivided. There are more people living in shared housing situations to keep costs down. The length of time taken to complete the bin round is increasing so recycling is being left out in all weather conditions: wet paper and cardboard cannot be recycled, and there is more potential for litter from product that has not been contained within the crate. The town is busier.

The demographic of Blenheim is changing both in terms of diversity; language, culture, younger age group; and in terms of wellbeing, as people experience difficulties related to advancing age, infirmity or disability. There may be associated manual handling difficulties with bin bags and recycling crates. As family size increases the recycling system is not fit for purpose because households deal with more recycling than refuse. Trailer ownership is decreasing. We want a simple, easy to use service. It is not possible to store large amounts of waste or recycling on a small town section.

The public are becoming more environmentally aware. People want to recycle as much as possible. At the same time however we are part of a consumer throw away culture so the public have to deal with increased amounts of rubbish, recycling, packaging and plastics.

Council should be at the forefront of good environmental practice. Council can do this by supporting positive actions; encourage retailers to stock compostable or biodegradable packaging, and encourage businesses to think about what they can do





about waste minimisation. Pro-active households that deal consciously with waste could have their rates reduced because of their low impact on services.

**What do those changes mean for service provision?**

The waste service needs to suit the needs of the population; we want an easy, clean simple, economical solution. Accept that the size of the recycling crate is too small, and is difficult to move. If Council wants to increase the capacity for household recycling opportunities then we should have a wheelie bin. The current service is stretched: the truck round is getting longer and there is more refuse and recycling to pick up. There are some areas of town that look really dirty and untidy. If recycling is not collected from home then it costs our family extra money to dispose of it. Consumerism means that there is more waste.

Council must promote environmental consciousness and be at the forefront of helping the community to do the right thing. That means promoting best practice and avoiding landfill. We need to be able to do more recycling. Second hand goods are getting more expensive.


The public would like access to facts and figures (data and costs) to know what Council is doing with waste. The public have high expectations therefore Council has to be transparent and accountable.

**How does Council Service Provision need to adapt to the changes you mention?**

We need a wheelie bin service for all waste streams that protect public health, sorts out manual handling difficulties, and has a capacity that suits the needs of growing families. At the very least a wheelie bin should be available for recycling, or the current crates should have a lid, and a trolley. A green waste wheelie bin would be helpful, and a commercial composting and green waste facility. Council must encourage home composting of food scraps.

Put in place a system that is easy to use for local people and for visitors, and increase the coverage of waste or recycling disposal in the community. Focus on reuse and recycling to avoid disposal. Have effective communication systems that share information on types of recycling and disposal, for example medication disposal. Having local refuse and recycling areas would be helpful for people who do not have cars, or have smaller local transfer stations. Increase the amount of drinking water stations to minimise plastic water bottle purchasing.

Make the public aware what the tolerances are in the current waste management contract, and put in additional services for seasonal variance. Implement or increase



enforcement measures for the contractor and the public if they do not comply with expectations. Tell the public whether all materials able to be recycled are in fact being recycled.

A whole-of-region solution to waste management is preferable; encourage business to come on board. Partner with other public bodies, such as the Health Board to share information. Develop informative yet concise public information systems. Seek government funding to support local projects and innovation.

Think about reducing emissions with the use of electric trucks. Consider the possible benefits of waste by using landfill gas. A waste to energy plant should be explored as an alternative to landfill. If a suitable location was found waste from several Councils could be accommodated; waste could be transported by rail and/or barge. Household waste disposal and green waste disposal should be free to minimise illegal dumping.

A focus on waste minimisation is a must: encourage reduction and reuse of all materials where possible. Engage with Government regarding waste policy development; suggest to Government that on shore plastics recycling plants would be an advantage to New Zealand. Communicate with the public on a regular basis. Acknowledge public response to surveys. Establish waste reduction education programmes for the public and for business. Protect the environment and waterways from litter; fit drain covers to urban drains. Engage with manufacturers to recycle polystyrene. Prioritise the reopening of the Waste Sorting Centre.

---

## **Renwick**

### **What are your experiences with current waste service provision?**

Renwick does not have a kerbside service provided by Council; given the proximity to Blenheim, the size of the town, and the equivalent rates to Blenheim this is unacceptable. The removal of the recycling container in the absence of public consultation was a poor decision.

People can choose to pay a private contractor to uplift refuse and recycling but we would prefer to have a Council service. It is expensive for a household to manage waste in Renwick.

The recycling container was better placed by the school. When the recycling container changed location to Fox's Island we did not use it; the recycling went into the bin bag to save money. The recycling container needed to be emptied more often.

### **Additional comments**

Renwick needs a cost effective, practical, local service. An organics and green waste service would be welcome.

### **In what ways is your community changing?**

The population of Renwick is increasing; this is particularly noticeable during vintage. We seem to be having more freedom campers, and more rubbish. People are getting older and may find the manual handling of waste a problem. There are more people using mobility scooters. There is a new housing subdivision.


Rates are increasing but still Renwick does not have a Council service. Council needs to prioritise spending to core service provision.

There are many keen recyclers in Renwick: environmental awareness is increasing. The level of community expectation in this regard is not being met. Renwick wants a green waste solution.

The people of Renwick do not have a voice. Council should promote best environmental practice by providing easy, convenient, and simple to use services.

### **What do those changes mean for service provision?**

The people of Renwick cannot now recycle in their own community. Renwick needs local waste management options, preferably a rated kerbside system. The recycling container should be returned with greater capacity or a more frequent emptying



schedule. If Council continues with no service provision then it will encourage illegal dumping and recycling will go into the refuse stream. There is an increasing demand for waste services from the public and from business but nowhere to take waste locally. Renwick needs a transfer station.

**How does council services need to adapt to the changes you mention?**

Reinstate the community recycling container in a place where there is high visibility to prevent misuse. Provide Renwick with a transfer station. Promote best practice and lead the way with recycling opportunities.

Introduce a rated kerbside service for refuse and recycling; kerbside recycling only; but no brown crates. Introduce a green waste service with commercial composting.

Think ahead to anticipate community needs: some people do not have their own transport so a convenient local solution would be best.

---

## **Marlborough Sounds**

### **What are your experiences with current service provision?**

#### **Satisfaction with current waste service provision**

The current service provision meets our needs: we use the coin skips and the bulk recycling stations. We produce minimal waste. The recycling skip at Linkwater works well.

Rai Valley transfer station works well but it could do with some investment to make it 'future proofed'.

Havelock transfer station works well but we could do with better opening hours.

#### **Dissatisfaction with current service provision**

The outer Sounds have no service provision: issues such as cost to dispose of waste, distance to communities, access to shore in Picton and Havelock, and an ageing demographic means that we need some help. Cougar Line deals with our waste. The removal of recycling at Picton Foreshore was a bad idea. Our rates are high enough so we would like free rubbish dumping.


The current options for remote communities are poor. Rai Valley transfer station opening hours do not meet our needs. It is expensive to get rid of green waste at Havelock transfer station.

We would like easy, convenient, user friendly services. If a steel mesh cage was considered for Whatamango we could have a bin bag collection point again. We would like recycling for Haka Haka Bay. Another recycling skip is needed at the Te Mahia and the Onahau saddle. Keep recycling at Kenepuru and add an additional one at Portage.

The current service opportunities do not meet the demands of seasonal variation: campervans leave rubbish beside the coin skips from November till March. The coin skip at Kenepuru does not work so we buy Council bags and use the transfer station at Havelock. Ohingaroa recycling skip needs to be more closely monitored. The Linkwater refuse skip does not work. The recycling skip at Moetapu Bay requires better servicing over summer; an additional skip would help.

There is a lack of information for people who walk the Queen Charlotte Track; walkers are leaving rubbish behind. Council should liaise with DOC because not everyone follows 'pack in pack out' at Kenepuru. Information flows for visitor waste management options could be improved. Visitors in campervans dump their rubbish in public bins.





We would like a green waste facility. The green waste solution we had in Elaine Bay has been adversely affected by the Environment Plan: can the Solid Waste and Regulation departments work together to find a solution? People within the community dump green waste on DOC land or empty adjacent properties. The weather conditions in the Sounds means that we have a lot of vegetation growth: we cut back vegetation on common land and tidy up our communities but get no help from Council.

**Additional comments**

Can we have more notice for free tipping days: people need to organise help and transport to get to the transfer stations. Silage wrap is visible on farm land on SH6 between Havelock and Blenheim.

**In what ways is your community changing?**

Okiwi bay is not getting any bigger. Tennyson Inlet has limited permanent residents. Endeavour Inlet has 50 properties but only 6 full time households.

**Visitors**

There are more campervans and freedom campers visiting all year. There is an increase in the permanent residential population. There is an increase in the older generation because retirees are moving in permanently to former holiday homes.


Lifestyle property development means that some areas are becoming gentrified with 'weekenders'. There is an increase in the number of holiday homes being built; and Airbnb accommodation. There a greater number of occupancies spread over the year; the length of stay in a property is increasing. If there are more people then there will be more rubbish.

Tour operators are promoting walking tracks so there is an increase in foot traffic in Endeavour Inlet and the Queen Charlotte track.

Bins have been removed from Havelock Marina. There is illegal dumping on the Port Underwood Road. Travel distance to Blenheim and Picton prevents people developing better habits. Illegal dumping of green waste and general rubbish happens throughout the sounds. Recycling from baches is going to landfill.

People are becoming more environmentally aware and have a greater sense of responsibility. There is less tolerance of limited service provision.

**What do those changes mean for service provision?**



There is litter on the walking tracks. Litter is stockpiled at jetties. Tourists have poor waste management practices. If there are more people there will be more waste. People will get lazy and put waste and recycling in one bin bag.

The current level of service is insufficient. Coin skip maintenance should be a priority. People do not carry cash; introduce electronic payment options. There is waste on the roadsides and in campsites: there is illegal dumping and unauthorised burning. White ware is dumped in the sea. There is a lack of personal responsibility.

People want to do the right thing but cannot dispose of waste or recycle locally; examples given are at Waitaria Bay; and Te Mahia Resort and Portage. The boat taxi deals with residents waste. The options for waste and recycling at Picton wharf are poor. Boat access only people have an additional cost for waste disposal and they are unwilling to continue to pay.

**How does council service provision need to adapt to the changes you mention?**

Council can help people to do the right thing by providing more recycling points and being clear with messaging. Council can provide a free service that benefits the majority. A Council refuse and recycling service would be welcome. We would like a green waste solution.

Remote communities would appreciate an effective, all year service: this means providing additional services where indicated, and attending to operational problems with existing infrastructure. Boat access only communities would like an organised and coordinated waste service to transport items to shore.

The use of technology would assist with skip servicing: the public could have a swipe card for skip access.

Waste minimisation across all sectors has to be the first priority: include suppliers, supermarkets and consumers. Focus on public messaging to encourage visitors to have a sense of responsibility; and a sense of place. In addition, increase monitoring, regulation and fines.

Think of waste as a resource and consider waste to energy.



## **Picton and Waikawa Bay**

### **What are your experiences with current service provision?**

#### **Satisfaction with current service provision**

The service works well. A town with well supported waste and recycling provision gives a good impression to local and visitor populations.

#### **Dissatisfaction with current service provision**

The service is not efficient or fit for purpose.

The recycling crates are too small. Since the crates are open topped recycling material gets wet when it rains and blows out when it is windy. Recycling is often left behind. Waikawa Road looks terrible on bin days. Small items get into the waterways. Having a wheelie bin for recycling would prevent these issues.

If cats rip open the bin bags they are not taken by the contractor. Plastic bags should not be used for refuse; an alternative would be double skinned paper bags. Remove organics from the landfill waste stream. Commercial food waste from town centre cafes is collected by a local person to feed pigs.

Can you provide more free tip days, and give us more time to prepare for it. Green waste disposal should be free. Any increase to the landfill tax may worsen illegal dumping; there are illegal dumps on Queen Charlotte Drive, Victoria Domain, Port Underwood Road, and in the Marlborough Sounds.

Sounds residents can find it difficult to use services because of the cost of waste disposal and the distance they have to travel to a transfer station.

#### **Additional comments**


Is it possible to have a 'large item' pick-up day for furniture and white ware?

Picton is an ideal size for 'waste prevention and minimisation' related trial projects. Picton hosts lots of events; it would be a good idea to develop a standard waste management policy for stall holders and vent management teams.

#### **In what ways is your community changing?**

People are getting older and may not be as able to use services in the same ways as they once did. There are more people living here. People may be living in unrated accommodation on existing properties: they will not have access to Council refuse bags.





There are more visitors; and part-time residents. Airbnb accommodation does not have to meet the same types of standards as other holiday accommodation. Holiday makers do not know what our bin round schedule is but they leave their waste anyway. Visitors expect the same sort of service they have at home. There is a lack of motivation to be environmentally friendly when they are away from home. A transient population does not have a sense of responsibility. Neighbours tidy up after them.

Freedom campers need closer regulation and monitoring: there is human waste and toilet paper visible on Victoria Domain.

We live in a consumer society so there is more waste. Local people are more environmentally aware and they want to recycle.

The younger demographic may not have access to trailers.

**What do those changes mean for service provision?**

People want to know what the contractor is supposed to do; what are the tolerances in the current contract? The contractor should remove all waste and recycling; there will be environmental harm from rubbish blown out of crates.

We need proactive messaging from Council to help visitors to do the right thing. Event management has to be 'zero waste'; Council has to establish a region-wide policy that confirms ground rules for public events. Takeaway food containers have to be made of home compostable material.

**How does council service provision need to adapt to the changes you mention?**


**Picton/Waikawa**

We want a convenient user friendly service that focuses on recycle and reuse and prevents disposal. Public messaging that gives clarity on what can be recycled; and what is being recycled. Establish a standardised recycling system across New Zealand and give shared data to support public confidence.

Stop using plastic bags for waste. Increase the capacity for recycling at home and in the community. Provide a lid for the recycling crate.

We would like a wheelie bin service that includes garden waste. Free tip days for general rubbish. Stop charging for green waste disposal. Free E-waste collection.

If overseas markets for recycling no longer exist we should process in New Zealand. A greater emphasis should be placed on waste diversion and reuse of household goods.



Think about building a waste to energy facility.

Public messaging to inform visitors that New Zealand water is safe to drink. Public messaging and educational engagement to change public waste related behaviour.

Question whether the 'pack in pack out' message is effective.

Picton is an ideal place to 'trial' new initiatives, such as organic composting.

Council should acknowledge the waste management efforts of volunteers at community events, and increase their visibility in the community.



## **Rarangi**

### **What are your experiences with current service provision?**

We do not have a Council kerbside service in Rarangi. We engage a private waste contractor. The recycling container at Tua Marina School works well. People in our community are conscious recyclers.

We do not need a Council service. Self-management of waste is best: if we have a rated system it may just encourage more waste. Having public litter bins may encourage adverse behaviour.

A green waste site for North Blenheim would limit the need to travel into town: Rarangi, Spring Creek and Tua Marina people could use it.

There is fly tipping on Whites Bay Road; bin bags, animal carcasses and building waste. People doing beach tidy ups find most litter at the Diversion – there is a lot of fishing line.

### **In what ways is your community changing?**

The population has increased slightly. There is limited opportunity for section development.

There is an increasing younger demographic. The recycling container is well used. There is an increase in littering and illegal dumping. Young people throw energy drink cans and fast food wrappers out of care windows.

### **What do those changes mean for service provision?**

More people are using the recycling container. The recycling container needs to be serviced more regularly.

Expensive tip fees encourage illegal dumping.

### **How does council service provision need to adapt to the changes you mention?**

## **Rarangi**

Focus on communication within Council and keep the public informed. Provide an easy to use, efficient service. Promote existing and introduce more recycling and reuse opportunities. Restart soft plastic recycling.

Lower tip fees to encourage responsible behaviour. Increase the number of transfer stations.



Include business and industry in effective waste management.

Have more composting toilets.



## **Tua Marina**

### **What are your experiences with current service provision?**

We use the recycling container and take our rubbish to the dump. We use a private contractor but it is expensive. The free dump days were great. The recycling container is well used and fills up quickly: it would benefit from more frequent servicing. Is it possible to have separate containers for the recycling streams? Things work well as they are so there is no need for a rated scheme.

### **In what ways is your community changing?**

There is a slight increase in population as sections are developed. There is an increased in consumerism and convenience purchases. Not all members of the community have a sense of responsibility.

Community relationships are aligned to water schemes. Communication depends on how frequently groups can get together and what needs to be discussed.

There are more freedom campers at the Diversion and increasing amounts of rubbish and litter left behind them.

The recycling container is visible to SH1 so visitors use it in summer.

People leave recycling at the container when it is full. Can the recycling container be adapted to hold rubbish?

### **What do those changes mean for service provision?**

The recycling container needs to be emptied more frequently. A Council kerbside service could be feasible.

### **How does council service provision need to adapt to the changes you mention?**

Keep the user pays system. Self-sufficient communities help themselves and find their own solutions.

A Council service could be introduced for Rarangi, Tua Marina and Kaituna. Council should focus on Product Stewardship. Promote and increase awareness of recycling. Promote good practice and diversion from landfill. Can Council promote compostable dog poo bags?



## **Spring Creek**

### **What are your experiences with current service provision?**

The current services are poor. We use the recycling container. The community needs to work together to keep the container site clean. There does not seem to be a common sense of responsibility. Can Council say what happens to the contents of the community recycling container when the contents are comingled at the collection point?

The free dump day was good, can we have more notice?

You can smell people burning plastic in open fires and home fires. Organic waste is thrown in a ditch or the river.

Most people use a wheelie bin service but engage a different contractor; that means a lot of traffic and exhaust fumes.

Communication from Council to the public could be better.

### **In what ways is your community changing?**

The population is increasing. We need a Council kerbside service. The community recycling container is very popular but it needs regular servicing.

Recreational river users leave litter. We need a green waste solution.

Spring Creek people do not generally engage unless there is something to respond to.

### **What do those changes mean for service provision?**

We need a bigger recycling container, or more regular servicing, or separate containers for each recycling stream. People stock pile rubbish before taking it to town so it smells and attracts animals.

Green waste is dumped in the river. Locals have to tidy up after visitors.

### **How does council service provision need to adapt to the changes you mention?**

We need to have the same services across the whole region. Focus on recycling and reuse. Provide greater capacity or separate containers for recycling streams in rural communities.

Council departments like waste and parks should work together. Provide a green waste solution.



Start a refuse and recycling kerbside collection. Having a Council service would mean a reduction in trucks and emissions.

Encourage business to be part of the solution. Council needs to decide on what role it plays; enforcer or educator.



## **Havelock**

### **What are your experiences with current service provision?**

We do not have Council services.

Getting rid of rubbish at the transfer station is expensive and time consuming. It costs a lot to recycle metal.

I am not sure if all recyclable material is being recycled. Staff at the transfer station could be more helpful.

### **In what ways is your community changing?**

There are more residents. People are more aware of waste streams and recycling.

### **What do those changes mean for service provision?**

We would like to recycle E-waste. Council should promote reuse and upcycling.

### **How does council service provision need to adapt to the changes you mention?**

Start a Council kerbside collection. We want a service suitable for boat residents. We want a quick, easy efficient service. Think 'big picture' to save time, money, and resources.





## **Rai Valley**

### **What are your experiences with current service provision?**

#### **Satisfaction with current service provision**

We use what is available at the transfer station and manage well. The free dumping days were great but we need more notice.

#### **Dissatisfaction with current service provision**

Can you change and extend the opening hours of the transfer station; earlier opening on week days and extend weekend opening hours to meet community needs. The coin skips do not work. People do not carry cash anyway; can technology be used more effectively?

There is no information or rubbish bins for freedom campers. People travelling through have no idea where the transfer station is. Can we have signage to let people know where our transfer station is? People who live elsewhere do not have a sense of responsibility so locals have to tidy up after visitors.

Plastic bags should not be going to landfill. A wheelie bins are better for containment.

The rural recycling container is time consuming and awkward to use. The recycling systems seem to be different across the district. We do not have AgRecovery at Rai and Havelock, yet that service is provided at Blenheim and Seddon. Silage wrap is difficult to transport and will blow out of trailers.

Can you provide assurance that recycling is being recycled? Recycling goes into the refuse skips at the transfer station when the recycling container is full so the container needs more frequent servicing. Can you provide more opportunities for recycling? Council should encourage and reward those who use recyclable products. Glass and cans can be separated for fund raising. Can we have some guidelines or information that allows communities to inform visitors what types of materials can be recycled?

We have litter everywhere in Rai: in the verges, on the road, by the fire station, in the river. Council is not tidying up the culverts: the school does this work on tidy up days.

We need a green waste solution; could the green waste solution be free? Farmers are having problems getting rid of plastic farm wrap and may resort to burning or burying – can Council help?

There is poor road visibility at the transfer station.



We would pay for a weekly Council kerbside service.

It would be better to have refuse and recycling services available 24/7; what about the 'Italian System' which uses open skips that locals and visitors can use.

**Additional comments**

Is it possible to have a large item collection for furniture and white ware? Second Hand Sunday is a good idea but might need some rethinking for rural areas. Is it possible to have a 'community day' where domestic waste and farm waste can be disposed of at the same time? We want to do the right thing but it is expensive to get rid of rubbish.

**In what ways is your community changing?**

The demographic is changing – people moving in have different expectations of service provision. We want an easy, user friendly service. There are more tourists and freedom campers.

People have a greater environmental awareness.

Farmers leave plastic bale wrapping on their land and it is washed away when it rains.

**What do those changes mean for service provision?**

Newcomers will not accept old fashioned services. The transfer station opening hours are not suitable for everyone who needs to use it. Locals have to clean up after tourists.

We are more aware of the impacts of poor environmental stewardship People are more environmentally aware. We want more opportunities to recycle. Farmers want to do the right thing but they need help.

**How does council service provision need to adapt to the changes you mention?**

Have a service that meets rural needs. Make the refuse skips operational. Put rubbish bins in the township.

Increase the focus on recycling. Have a small reuse shop at the transfer station. Have signage to show tourists where the dump is. Discourage putting recycling in refuse skips. Promote responsible farm waste management.



## **Seddon**

### **What are your experiences with current service provision?**

There is no service provision; we only have a transfer station.

The transfer station meets our needs. The opening hours are fine but it is expensive to use it .Can the transfer station be improved and upgraded?

User pays works but people without transport want a kerbside service. Our community is mainly low decile and would be unable to afford the increase to rates. We would not want the recycling crates because the recycling blows out. The town recycling container is well used but it needs to be upgraded.

Private contractors are expensive: it costs \$13 per uplift.

People dump animal carcasses in the river. Grass cuttings are dumped in the river all year round.

We need a green waste solution: we are not supposed to dispose of green waste at the transfer station. Can we have a soft plastics and polystyrene solution?

Local businesses and the community do community clean ups: it would be nice for Council to acknowledge that. Starborough Creek is always littered. People passing through do litter but the littering in Seddon is fairly localised.

### **In what ways is your community changing?**

There are more people therefore a greater demand for housing. Many houses are occupied by RSE workers.

There is more understanding and awareness of waste and waste streams.

### **What do those changes mean for service provision?**

There is more litter. We need improved services.

### **How does council service provision need to adapt to the changes you mention?**

Introduce kerbside recycling. Encourage more recycling. Provide litter bins on the Domain. Acknowledge the work that the local community does to keep Seddon clean.

Focus on waste minimisation: go back to the producers and retailers to encourage product stewardship. Reopen the Waste Sorting Centre. Increase regulation and fines.



## **Ward**

### **What are your experiences with current service provision?**

The transfer station works well. Local residents are responsible and respectful. Outside users are not responsible or respectful. Locals have to maintain the site and tidy up after them.

The recycling container is poorly designed and is difficult to use because of the chain link fence.

### **In what ways is your community changing?**

There are some new properties. There are more types of waste streams.

### **What do those changes mean for service provision?**

The recycling container needs adapted. The community tidies up after outsiders.

### **How does council service provision need to adapt to the changes you mention?**

The recycling container needs to be quick, easy, and efficient to use. Increase the options and availability of recycling.



## **Waihopai Valley**

### **What are your experiences with current service provision?**

We do not have Council services. The community recycling bin is well used.

The removal of the recycling bin in Renwick was a poor decision. People will put recyclable material in the bin now because we have nowhere to store it and it is not practical or cost effective to travel to Blenheim.

### **In what ways is your community changing?**

There is increased forestry work. More lifestyle blocks are being developed. We had our local recycling bin removed from Renwick.

### **What do those changes mean for service provision?**

Recycling is going in general waste. More people generate more waste. Our recycling container needs to be serviced more regularly.

### **How does council service provision need to adapt to the changes you mention?**

Return the recycling container to Renwick. Focus on waste minimisation. People want to recycle more. Work with business and industry to encourage responsible practice. Promote and encourage product stewardship.



## **Wairau Valley**

### **What are your experiences with current service provision?**

The transfer station meets our needs but the opening hours could be extended, and it could do with being upgraded. Promote bag free rubbish disposal.

It is expensive to travel to Blenheim to recycle since the container was removed from Renwick. Reopen the recycling container in Renwick. Can Council provide information on what can be recycled, and say what is happening to recycling? That sort of information would be helpful for new people in the community. New Zealand could have a standardised recycling system for the whole country.

User pays is fine; do not increase rates. Can we have a green waste solution?

### **In what ways is your community changing?**

The population is increasing. Sections are being developed.

Our productive land has been turned into vineyards. There are huge negative environmental impacts. There are more CCA posts.

If the landfill tax increases people may dump general and green waste.

### **What do those changes mean for service provision?**

The whole region should have the same services. The recycling container fills up very quickly and needs more frequent emptying.

Our community now has increased negative environmental impacts. There is more industrial waste from vineyards and house building.

### **How does council service provision need to adapt to the changes you mention?**

Cater to the needs of the community. Increase recycling and reuse opportunities. Provide waste management education. Increase monitoring and enforcement of poor practice. Incentivise good waste management practice.

Encourage industry to have responsible waste management practices. Discuss product stewardship with industry. Have pyrolysis for CCA treated timber.

Think about waste to energy: waste minimisation is not working and we should not be sending our material off shore. Get the Waste Sorting Centre operational again.

## Section 8

---

**Table 1: Number and location of online survey responses**

| Location                        | NUMBER     |
|---------------------------------|------------|
| Blenheim                        | 100        |
| Blenheim adjacent (no kerbside) | 5          |
| Marlborough Sounds              | 74         |
| Renwick                         | 53         |
| Ward                            | 2          |
| Seddon                          | 2          |
| Havelock                        | 2          |
| Wairau Valley                   | 4          |
| Waihopai Valley                 | 3          |
| Rai Valley                      | 7          |
| Spring Creek                    | 3          |
| Tua Marina                      | 2          |
| Rarangi                         | 4          |
| Picton                          | 6          |
| Waikawa Bay                     | 3          |
| <b>Total</b>                    | <b>270</b> |



**Table 2: Public meetings held**

| COMMUNITY     |
|---------------|
| Blenheim      |
| Spring Creek  |
| Tua Marina    |
| Rarangi       |
| Picton        |
| Waikawa       |
| Renwick       |
| Havelock      |
| Rai Valley    |
| Wairau Valley |
| Seddon        |





**Table 3: Participating Industry Sector and Community Groups**

| INDUSTRY SECTOR               | COMMUNITY GROUPS     |
|-------------------------------|----------------------|
| Waste Contractors             | Youth Climate Action |
| Grass Contractors             | Charity Sector       |
| Tyre Sector                   |                      |
| Aquaculture Sector            |                      |
| Wine Sector                   |                      |
| Forestry Sector               |                      |
| Ports Marlborough             |                      |
| Blenheim Business Association |                      |

---

## Section 9

---

### Survey Preamble

You have told Council that managing rubbish and recycling is expensive.

You have also told Council that managing rubbish and recycling can be time consuming and inconvenient.

Use this online tool to understand how much you actually spend on managing your waste.

An algorithm will make a dollar calculation based on the information you enter. The calculation will:


- Convert time to an hourly rate
- Take account of vehicle wear and tear
- Work out fuel consumption for an 'each way' distance you travel to deal with rubbish and recycling


This information will help Council to make effective decisions about waste management services for the whole region.

### Survey Sample Questions

These questions and the anticipated calculations can be developed into a survey monkey format or similar in conjunction with Council IT Department. Ideally the calculations derived from respondents will be available to both council and the person completing the survey. While rudimentary in format at present these questions take the respondent through a sequential line of enquiry in order that all aspects of their household waste and recycling journey can be quantified.

1. Where do you live?
2. Do you currently receive a rated kerbside collection service?
3. If you receive a rated kerbside collection service do you also pay for a wheelie bin from a private company?
  - a. How much does that cost?
4. If you receive a rated kerbside collection and you pay for a wheelie bin from a private company do you also use Council waste facilities in Blenheim or Picton?

- 
- a. Do you use the refuse service?
  - b. Do you use the recycling service?
  - c. How far do you travel to get there?
  - d. How often do you go?
5. If you have a rated kerbside collection service do you also use the Resource Recovery Centre in Blenheim to recycle?
    - a. How far do you travel to get there?
    - b. How often do you go?
    - c. How much time does it take you carry out your task and complete the visit?
  6. If you have a rated kerbside collection service do you also use the transfer station in Picton?
    - a. How far do you travel to get there?
    - b. How often do you go?
    - c. How much time does it take you to carry out your task and complete the visit?
  7. If you use a Rural Recycling Container how far do you have to travel to reach your local bin?
    - a. How often do you use it?
    - b. How much time does it take you to carry out the task and complete the visit?
  8. If you use a Rural Recycling Container how far will you travel to reach another container if your local one is full?
    - a. How often do you make that journey?
    - b. How much time does it take you to carry out the task and complete the visit?
  9. If you do not have access to a Rural Recycling Container how far do you travel to reach another recycling location (eg, transfer station or the Resource Recovery Centre in Blenheim)?
    - a. How often do you make that journey?
    - b. How much time does it take you to carry out the task and complete the visit?

- 
10. If you do not have access to any local waste services how far do you travel to reach a waste disposal location (eg, transfer station or the Waste Sorting Centre in Blenheim)?
- a. How often do you make that journey?
  - b. How much time does it take you to carry out the task and complete the visit?