Te Mahere o te Tau 2024 mō te Para ki ngā Moutere o Te Moana o Tīkapa / Te Moananui ā Toi

Hauraki Gulf Islands Waste Plan 2024

aucklandcouncil.govt.nz

verybody ceds a bosom for a pillow



Ananat



Te ihirangi / Contents

Te V	Vhakarāpopototanga / Executive summary	3
1.	Te whakataki / Introduction	5
2.	Te korahi o tēnei mahere / Scope of this plan	6
3. 4.	Te tukanga waihanga i tēnei mahere hukihuki / Process to create this draft plan Ngā take mātāmua a ngā rohe me ngā moutere o Tīkapa Moana / Te Moananui-ā-Toi / Regional and HGI priorities	
5.	Te utu o ngā ratonga para / Cost of waste services	
6.	Aotea / Great Barrier Island	
0.	6.1. Council infrastructure and services	
	6.2. Aotea waste profile	
	6.3. Opportunities and challenges	. 26
	6.4. Community waste minimisation initiatives	. 26
	6.5. Waste goals and actions for Aotea / Great Barrier	. 32
7.	Waiheke Island	. 35
	7.1. Council infrastructure and services	. 37
	7.2. Waiheke waste profile	. 39
	7.3. Opportunities and challenges	. 43
	7.4. Community waste minimisation initiatives	.44
	7.5. Waste goals and actions for Waiheke	. 50
8.	Rakino Island	. 54
	8.1. Council infrastructure and services	. 55
	8.2. Opportunities and challenges	. 56
	8.3. Waste goals and actions for Rakino	. 57
9.	Kawau Island	. 59
	9.1. Council infrastructure and services	. 60
	9.2. Opportunities and challenges	61
	9.3. Waste goals and actions for Kawau	. 62

Te āpitihanga 1: Ngā mahi whakapā hei āwhina ki te whakawhanake i tēnei mahere / Appendix 1: Engagement activities to help develop this plan	64
Te āpitihanga 2: Ngā tana o te para, o te hangarua me te rukenga otaota i Aotea / Appendix 2: Aotea refuse, recycling, green waste tonnages	65
Te āpitihanga 3: Ngā tana o te para, o te hangarua me te rukenga otaota i Waiheke / Appendix 3: Waiheke refuse, recycling, green waste tonnages	69
Te āpitihanga 4: Ngā Takuhe ā-Pūtea ki te Whakaitinga me te Auahatanga mō te Para / Appendix 4: Waste Minimisation and Innovation Fund Grants	73

Te Whakarāpopototanga / Executive summary

This draft plan charts a path towards Zero Waste for four islands in the Hauraki Gulf / Tīkapa Moana / Te Moananui-ā-Toi where Auckland Council provides waste services: Aotea / Great Barrier, Waiheke, Kawau and Rakino. The plan documents current activity, captures community aspirations, and identifies goals and actions to achieve Auckland's Zero Waste vision for each island over the next six years.

Communities across the islands tend to be self-sufficient and proactive in addressing the challenges of island life, and many island residents and organisations are leading the way in working towards Zero Waste. The issues, opportunities and actions in this plan have been identified with key stakeholders and are framed as actions which the community and the council will each take. This approach acknowledges the shared challenges as well as the distinctive characteristics, unique infrastructure, access and service needs of each island.

Waste goals and actions for each of the islands support the vision and strategic direction outlined in the Waste Minimisation and Management Plan 2024. This includes goals to maximise circularity of resources and products in accordance with the waste hierarchy, and to address the impacts of waste on the environment and communities. Priorities across the islands include diverting organics (food scraps and green waste) from landfill and retaining resources on-island as much as possible. A summary of the goals for each island is presented in Table 1 below.

Providing waste services to Aotea, Waiheke, Kawau and Rakino is more expensive than on the mainland due to the islands' isolation, limited on-island processing options, and the expense of shipping materials off-island for disposal or recycling. As the revenue collected from the waste targeted rates paid by island ratepayers does not cover the full cost of providing services to these islands, collection services are subsidised through region-wide waste targeted rates paid by all Aucklanders. Reducing the amount of waste generated, and diverting organics from landfill are key opportunities to reduce costs of waste to all Aucklanders as well as reducing our impact on the environment and supporting community outcomes such as employment and community connection.

Summary of goals for the four islands

A list of goals and actions has been created for each of the islands in this plan. Below is the full list of goals. Refer to the specific section of the plan for each island to see the actions for 2024-2030 to achieve these goals.

Table 1 - List of goals for the four islands

Aotea / Great Barrier	Waiheke
 All food scraps and green waste is used beneficially on-island. Reduce waste coming on to the island. The Community Recycling Centre (CRC) will continue providing and evolving a range of services to the community, minimise waste and emissions, generate income and create local jobs and training opportunities. Find innovative solutions to move to a circular economy and treat Aotea / Great Barrier waste on-island. Support creative iwi and community action, education and behaviour change. Improve the Aotea Transfer Station (ATS). Reduce commercial and construction and demolition (C&D) waste. Reduce visitor waste, including waste from visiting boat users. No recyclables or inorganics going into refuse. 	 Create a regenerative circular local organic waste economy, keeping all food scraps and green waste and biosolids on the island. Community engagement and behaviour change to reduce waste. Increase waste avoidance, with reuse and recycling of materials on Waiheke. Continue to develop the Community Resource Recovery Park to increase waste diversion and retention of resources on the island. Reduce waste coming on to the island. Reduce commercial and construction and demolition (C&D) waste to landfill. Enable greater reuse and recycling of cleanfill on-island. Reduce visitor waste, including waste from visiting boat users.
 Kawau Find a long-term solution for refuse and recycling services. Identify an approach to charge for refuse and recycling services. Support community-led food scraps and green waste processing, waste minimisation and community/visitor education on Kawau. Everybody managing their inorganic waste appropriately. 	 Rakino Everybody taking responsibility for their waste. Everybody diverting their food scraps and green waste. Divert recyclables from landfill and reduce contamination of recyclables. Work together to divert reusable inorganic materials from landfill and reduce illegal dumping. Community-led action and solutions to minimise waste.

1. Te whakataki / Introduction

This plan charts a path towards Zero Waste for four islands in the Hauraki Gulf: Aotea / Great Barrier, Waiheke, Kawau and Rakino. It is a separate plan to Auckland's Waste Minimisation and Management Plan (WMMP) 2024 as it reflects the unique waste challenges of the Hauraki Gulf Islands (HGI). However, the overarching vision, goals, targets and actions of the region-wide WMMP apply to the islands. This HGI plan focuses on documenting current activity, capturing community aspirations, and identifying goals and actions specific to each island.

Zero Waste involves redesigning products or processes to create minimal waste, with products and materials reused and kept in circulation. The aim is to operate from as high up the internationally recognised waste hierarchy as possible.

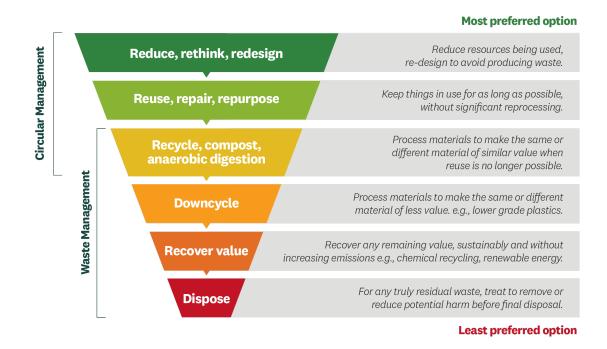


Figure 1: Waste hierarchy

Working towards this vision requires joint leadership by island communities and Auckland Council. The waste priorities in this plan have therefore been jointly identified, taking into consideration the challenges as well as the distinctive characteristics, unique infrastructure, access and servicing models of each island.

2.Te korahi o tēnei mahere / Scope of this plan

This plan focusses on the four islands within the Auckland region where the council provides waste services: Aotea / Great Barrier, Waiheke, Rakino and Kawau (see Figure 2 below).

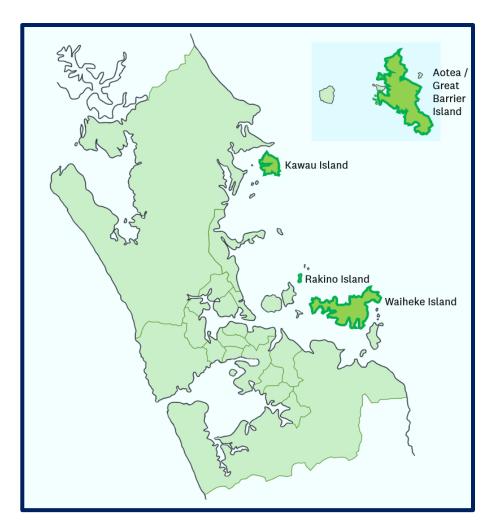


Figure 2: Islands within scope of this plan (highlighted)

The plan outlines the waste goals and actions specific to these four islands and identifies opportunities and issues relating to waste. It presents the approach in the short-to-medium-term regarding:

- refuse
- recycling
- food scraps and green waste, and other organic waste including biosolids
- inorganic material, such as building demolition material and household items

- loose litter collection and illegal dumping services
- waste facilities, such as transfer stations and community recycling centres
- waste minimisation education and behaviour change
- support for community action and innovation.

This plan does not cover:

- litter from boats across the Hauraki Gulf
- refuse or recycling services to boat users at other locations around the Hauraki Gulf
- emergency and pollution clean-ups, including response to storm events or rescue and recovery of adrift boats
- human effluent and other discharges from ferries and vessels
- untreated septic tank waste.

Auckland Council recognises the importance of protecting both the land and the marine environment from the harmful effects of waste. We are a member of the Hauraki Gulf Forum, established to promote and facilitate integrated management, protection and enhancement of the Hauraki Gulf. The forum's <u>State of Our Gulf 2023</u> report recognises the issue of microplastics and the threat they pose to the marine environment. The government's response to this report covers a work programme to reverse the decline of the gulf and coordinate action for restoration. We will continue to work through the forum and with other stakeholders to support the work programme. This includes our work towards Zero Waste and a circular economy and providing waste services including provisions for litter and illegal dumping, which address the problem of marine litter upstream. Refer to the WMMP for the region for more information on this issue and the council's response.

In writing this plan, we have also identified council closed landfills on Waiheke, Aotea, Rakino and Kawau, noting that actions covering all council closed landfills are included in the WMMP. The only closed landfill identified on these islands is at Tawaipareira Reserve on Waiheke. The Waiheke Local Board have been progressing a management committee with mana whenua that would have delegated powers and functions under the Reserve Act 1977. The Waiheke Local Board continue to work closely with mana whenua regarding the site and future options.

3.Te tukanga waihanga i tēnei mahere /

Process to create this plan

The process to create this plan reflects the aspirations of Hauraki Gulf Islanders for a community-driven approach to waste management. In creating this plan, Auckland Council sought to engage with mana whenua on the future direction for the islands. We recognise that mana whenua have a role and responsibility to exercise kaitiakitanga over land in their rohe to sustain the mauri of the natural environment for current and future generations. Participation in decision-making on waste management and minimisation initiatives is a key part of their role, including being able to design and deliver waste programmes that meet the aspirations of whanau and hapū.

We also sought to engage with mataawaka groups to ensure that waste goals and actions will support outcomes that are important to Māori. The strategic direction (Part one) of the regionwide WMMP reflects what we have learned. Engaging early with Māori in the development of initiatives and to respond to iwi aspirations is a priority for the council.

We sought input from community groups, waste stakeholders and local boards. A summary of key opportunities and challenges identified through engagement is included for each island, and a summary of how island groups were engaged is captured in Appendix 1.

4. Ngā take mātāmua a ngā rohe me ngā moutere o Tīkapa Moana / Te Moananui-ā-Toi / Regional and HGI priorities

Auckland Council's WMMP 2024 for the region maps the next six years on the path to achieving Zero Waste to landfill for Auckland by 2040. The vision and a summary of regional key priorities are shown below.

Te matawhānui / Vision

Tāmaki Makaurau / Auckland aspires to be Zero Waste by 2040 by:

- working towards a circular economy
- using resources for their best and highest value for as long as possible
- taking care of people and the environment

PRIORITIES **ADVOCACY** PARTNERSHIP ACTION 8. Support Aucklanders to use their kerbside 3. Construction and bins effectively + shift 6. Actions to move up demolition waste to rates-funded refuse 1. Strengthen ways of the waste hierarchy working with mana including source whenua and deliver on 9. Shift to fortnightly 4. Target organics, reduction, reuse and Māori outcomes refuse collections plastics, packaging, right to repair subject to a trial and textiles and biosolids further consultation 2. Continue expanding 7. Implement the and strengthening the 5. Strengthen our Container Return 10. Accelerate efforts to Resource Recovery disaster preparedness Scheme and other reduce council's Network and its and climate change mandatory product operational waste services mitigation, adaptation stewardship schemes and resilience 11. Address litter and illegal dumping 12. Work in partnership with others to achieve our Zero Waste vision

Summary of key priorities of the WMMP 2024

While the WMMP sets the strategic direction for waste management and minimisation across all of Auckland, including the HGI, this HGI Waste Plan outlines the actions that will be taken over the next six years by the council and communities specific to Aotea, Waiheke, Rakino and Kawau.

Current HGI priorities reflected in this plan are to:

- divert organics (food scraps and green waste) from landfill, and
- recover waste material on-island as much as possible.

Reducing food scraps and green waste has been an enduring focus of community action across the islands, especially on Aotea and Waiheke. This includes actions to reduce food waste and to use organic materials beneficially on the islands, rather than sending them to landfill in refuse bins or via the transfer station. Reducing and recovering waste on the islands means fewer wasted resources, including the embodied carbon and energy they represent in production, storage and transport; greater opportunities for local employment and community connection; and fewer pathways for plant and animal pests to make their way to the islands.

Case study one: Food rescue on Waiheke and Aotea

Food rescue refers to efforts aimed at recovering surplus, edible food that would otherwise go to waste and redistributing it to those in need. This not only minimises food waste but also addresses food insecurity, promoting a more sustainable and equitable food system.

Kai Conscious Waiheke

Waiheke Resources Trust (WRT), with support from Auckland Council, has been working to reduce food waste under the Kai Conscious Waiheke umbrella since 2013.

Kai Conscious seeks to bridge the gap between food waste and hunger. It partners with local restaurants, growers and businesses including Countdown, to rescue food otherwise destined for landfill six days a week.

The rescued food is offered free to the community through a redistribution network of social services, hubs, the WRT community fridge and pantry, and the Friday Kai Conscious Café community lunch.



Aotea food pantries

Several food pantries are strategically placed across Aotea to handle surplus food that remains too valuable to be composted. These pantries serve as accessible drop-off and pick-up points for both residents and visitors, offering a free and sustainable way to share resources.

Each pantry is looked after by the local community and often includes seeds as well as food items. There are food pantries at Okiwi School and Mulberry Grove School (both installed by Anamata with funding from Auckland Council's Waste Minimisation and Innovation Fund), Anamata and Medlands Community Gardens. There is also a designated space at Claris Airport for people to leave behind unused non-perishable food items as they finish their stay on the island.

Community pantries are not only a great way of sharing excess food and preventing food waste but also fostering a spirit of caring and sharing within communities.



Case study two: Diverting organics from landfill across the islands

Composting food scraps is a simple step that many people across the HGI take to minimise waste. Discarding food scraps to landfill is a missed opportunity to harness valuable nutrients that can revitalise and enrich our soil. In the case of the HGI, disposing of food scraps as 'waste' increases transportation costs and emissions in getting the waste to the mainland, and then to landfill, where those valuable nutrients are lost. Using compost on-island also reduces the need to bring compost from elsewhere to the island, in turn reducing chances of new pathogens making their way to precious island habitats.

Many HGI residents have already embraced the benefits of composting, either at home or as a community. As well as reducing waste, the benefits include reducing the need for chemical fertilisers or imported compost, and improving soil structure.

By providing opportunities for visitors to compost food scraps before leaving the islands, responsible disposal of waste becomes part of their island experience and promotes awareness of protecting the environment they have come to enjoy.

Keeping food scraps out of landfill is also a priority for Auckland Council. Through the local boards and the Waste Minimisation and Innovation Fund (WMIF), we have provided funding for many of the home and community composting initiatives on the islands.

Home composting

Worm farms are a popular choice for permanent residents, as they yield two highly valuable garden resources; worm tea, a rich, golden-brown liquid teeming with micro and macro nutrients; and worm castings, another nutrient-dense byproduct which can be incorporated into potting mix or compost.

For a low maintenance composting solution, especially useful for holiday or rental homes, there are self-contained food waste digesters on the market that, once set up in the garden, need very little work. Around 20 of these digesters have been successfully trialled on Aotea / Great Barrier through Anamata which offers them for purchase at a subsidised rate.



On Rakino and Kawau Islands, many residents and their guests use home-composting to minimise their waste. When holiday-makers leave, they turn off their fridges or look to throw perishable food away. Sharing food among neighbours is another way to ensure this valuable resource is not wasted, with composting being another option much better than landfilling.

Education

On Waiheke, the Waiheke Resources Trust (WRT) is the local branch of the Compost Collective, a project born out of partnership between Kaipātiki Project, Ecomatters and Auckland Council to reduce organic waste to landfill by education on home-composting and enabling workshop participants to purchase a subsidised home-composting system. WRT run approximately 15 free workshops a year, teaching around 200 participants to compost at home.

On Aotea, free home composting workshops are held by the AoteaOra Trust at a variety of locations across the island depending on local needs and cover a variety of composting and worm farming options. Participants are encouraged to build their own systems from materials they already have at home, or that can be repurposed from elsewhere on the island. This is supplemented by the self-contained food waste digesters available from Anamata.



Community composting

Residents who are unable to compost at home or who would like to be more involved at a community level can engage with community composting hubs across Waiheke and Aotea / Great Barrier.

On Aotea, you can find community composts at Anamata, Oruawharo Community Garden in Medlands, Okiwi School and Mulberry Grove School. On Waiheke these are located at community gardens (such as Blackpool Garden, Surfdale Food Forest and Ostend Garden), the Waiheke Sustainability Centre and Waiheke High School.

The compost generated by the community facilities is often used to feed community gardens, fostering a sustainable, circular approach to the use of resources and enhancing food resilience on each island. These community gardens are supported by the Home Grown Waiheke Trust on Waiheke Island, and the local board on Aotea / Great Barrier Island.

Residents and visitors to both islands can also use the ShareWaste app to connect and engage with local composters. This provides a great opportunity for visitors to actively participate in composting their food scraps during their stay.

Composting of food scraps from commercial activities

The Compost Co. was born out of the Home Grown Waiheke Trust, Food to Soil Surfdale composting pilot project (supported by funding from Auckland Council's Waste Management and Innovation Fund). The project runs in partnership with Te Motu vineyard where the composting facility is situated. Local businesses contract the Compost Co. to collect food scraps which are then turned into nutrient-rich compost for the community.

Through the Compost Co., the Waiheke Resources Trust currently recycles 30 tonnes of food scraps per year, expanding to 60 tonnes in 2023, from Waiheke businesses into nutritious compost for the community as well as providing expert support for the local community composting hubs.



5. Te utu o ngā ratonga para / Cost of waste services

Auckland Council provides waste collection, haulage and disposal services and supports community-led waste minimisation actions, education and solutions through contracts with local suppliers. The council also offers support for community action and innovation to minimise waste through the Waste Minimisation and Innovation Fund¹ (WMIF). This plan can also inform applications to that fund.

Providing waste services to Aotea / Great Barrier, Waiheke, Kawau and Rakino is more expensive than on the mainland due to the islands' isolation and the expense of shipping materials off-island for disposal or recycling. Large numbers of visitors to these destinations likely also contribute to waste volumes that need to be shipped off the island.

Since 2010, each eligible rateable property on Aotea, Waiheke and Rakino has been charged a targeted rate for waste services annually. Kawau rateable properties are not currently charged for their waste services, which consist of a drop-off enclosure and collection from Sandspit Wharf for household refuse and recycling.

As the revenue collected from the waste targeted rates paid by island ratepayers and the gate fees collected at the council facilities does not cover the full cost of providing services to these islands, collection services are subsidised through region-wide waste targeted rates paid by all Aucklanders.

The costs of delivering council waste and resource recovery services to the four islands for financial year 2022/2023 are shown in Table 2 below. All numbers include GST.

Cost - FY2022/2023 (average)	Waiheke Island	Aotea / Great Barrier Island	Rakino Island	Kawau Island
Eligible rateable properties (no.)	5858	816	123	288
Total cost to deliver services	\$3,960,008	\$1,855,584	\$164,697	\$44,928
Cost per property to deliver services	\$676	\$2274	\$1339	\$156
Amount paid by island ratepayers (Targeted Rate) per island rateable property	\$328	\$328	\$328	None

Table 2: Cost of waste and resource recovery services per eligible property in the HGI for FY2022/2023 (inclusive of GST)²

¹ See the <u>Auckland Council website for Waste Minimisation and Innovation Fund (WMIF)</u> for information on this fund.

² Based on operational costs of services to the island, but excluding costs that are not funded through waste rates specifically such as most loose litter collections and transport and processing of refuse and recycling on the mainland.

Subsidy received per island rateable property from Auckland region ratepayers (HGI Subsidy)	\$348	\$1946	\$1011	\$156	
--	-------	--------	--------	-------	--

Since 2018/2019, the cost of this subsidy across the islands has risen by 55 per cent. This rise is due to a range of factors including the opening and expansion of community recycling centres on Waiheke and Aotea / Great Barrier, inflationary costs (especially on shipping and labour), rises in the costs of landfilling and closure of the Claris Landfill, and increased volumes of waste.

Some of these costs, such as the expansion of the community recycling centres, are providing ongoing benefits to the community, environment and in counteracting the growth of waste from population increases. In providing resource consolidation and processing, these centres provide locations and expertise to foster further on-island solutions. They also play a role in resilience for communities by creating employment opportunities, strengthening partnerships and connections with the council and other operators, and leveraging funding from other sources.

While recognising these benefits of investing in on-island community recycling centres, it is important to seek opportunities to reduce waste costs to ratepayers while incentivising further waste minimisation.

Outlined in Section 9 are details on how we are working with mana whenua and local residents and ratepayers of Kawau to look at options for waste services and charging.

6. Aotea / Great Barrier Island



Aotea / Great Barrier is known as a place where people come for a unique way of life, close to nature. The island is about 100 kms northeast of downtown Auckland, and most people travel there via a 30-minute flight or a five-hour ferry ride from the city. Residents live an off-the-grid and self-sustainable lifestyle, with local power, water, septic and drainage systems.

Community motivation for sustainable living and doing things differently tends to be high, and initiatives driven by the community to drive waste reduction are widespread and well-supported.

The Aotea / Great Barrier Local Board sees a future where the island showcases Zero Waste and low carbon practices. The board promotes and supports continued innovation in 'reducing, reusing, and recycling waste for locals, visitors and boaties' to achieve the goal of Zero Waste to landfill by 2040.³

The following mana whenua groups claim customary and historical interests in the island: Ngāti Rehua Ngātiwai ki Aotea, Ngāti Manuhiri, Ngāti Maru, Ngai Tai ki Tāmaki, Ngaati Whanaunga, Ngāti Tamaterā and Ngāti Wai. Motairehe Marae and Kawa Marae – two marae of hapū of Ngāti Rehua Ngātiwai ki Aotea – lie in the north of Aotea. We want to strengthen our engagement with mana whenua so that our policies, projects and programmes support Māori outcomes and benefit from a Māori mātauranga and a te ao Māori approach. We also seek to support Māori initiatives in reducing waste, and recognise the importance of engaging early with mana whenua and mataawaka Māori on projects on the island.

³ Aotea / Great Barrier Local Board Plan 2023.

Population summary

A population summary of the Aotea community, and how this compares to the Auckland region, is presented below.⁴

Population

Aotea / Great Barrier		Auckland/Share	
Population (2021)	1,050	0.1%	
Population growth (2016-2021)	8.2%	5.6%	
Median Age (2021)	51.9	35.6	

Ethnicity

	Aotea / Great Barrier	Auckland
European	91%	54%
Māori	21%	12%
Pacific Peoples	3%	16%
Asian	2%	28%
Middle Eastern/Latin American/African	0%	2%
Other ethnicity	2%	1%

Employment, income and home ownership

	Aotea / Great Barrier	Auckland
Labour Force (2018 Census)	510	867,100
Labour Force participation (2018 Census)	54%	71%
Median household income	\$36,800	\$93,900
Proportion of individuals earning over \$70,000 per year	6%	20%
Home ownership (2018 Census)	54%	45%

Population projections indicate that the Aotea population could be 1150 by 2033. By contrast, the number of visitors to Aotea is projected to increase significantly in the coming years; from 12,300 visitors per annum in 2021 to an estimated 20,800 visitors in 2031 depending on whether accommodation and transport offerings keep pace.⁵ While the growth in visitor numbers has benefits for the local economy, it will also affect waste volumes and associated costs, especially in summer. This stresses the importance of on-island solutions for waste and a pack-in/pack-out approach where possible.

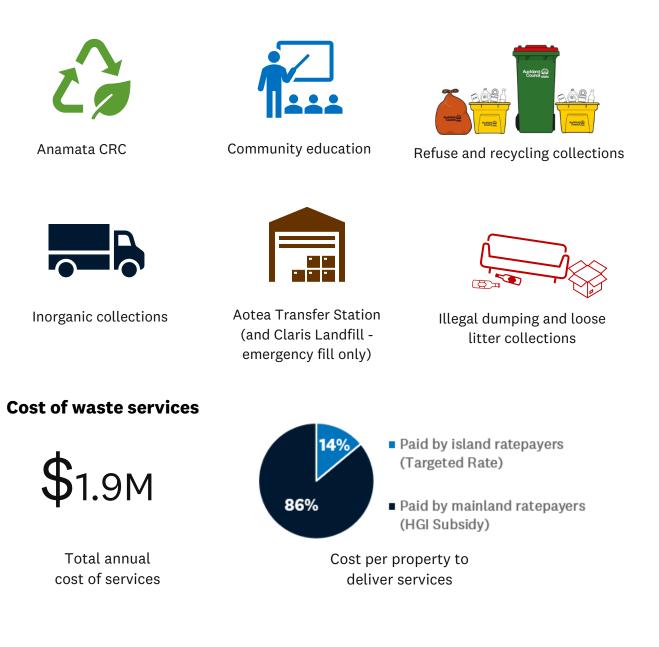
⁴ <u>Aotea / Great Barrier Local Economic Overview 2022.</u> Tātaki Auckland Unlimited Report

⁵ Aotea / Great Barrier Island Destination Management Plan 2023

Aotea / Great Barrier Island Destination Management Plan

The Aotea / Great Barrier Island Destination Management Plan sets a vision to manaaki manuhiri in partnership with Ngāti Rehua-Ngātiwai ki Aotea, community leaders and residents. The plan recognises opportunities to minimise waste and promote this vision. Working alongside those who implement this plan, including promoting waste minimisation with visitors, is an important opportunity to 'position Aotea / Great Barrier as an exemplar destination for renewables'.⁶

6.1. Council infrastructure and services



⁶ Aotea / Great Barrier Island Destination Management Plan 2023

Changes to Aotea waste infrastructure and services

Since the 2018 WMMP, there have been significant changes to waste infrastructure and services on Aotea to support better waste management and minimisation. Establishing the Aotea Community Recycling Centre (Anamata) in 2019 was a significant milestone, with the centre quickly becoming an environmental hub, showcasing sustainable living and social change (see Case study three below).

The development of Anamata has enabled greater opportunities for diverting recoverable resources from landfill. This is especially important because the Claris Landfill has little remaining capacity and refuse must be transported to the mainland for disposal. The landfill is available for emergency waste disposal only until the resource consent expires in 2027. We are investigating options for future use of the Claris Landfill site, such as extending the resource consent to allow for acceptance of emergency waste disposal after 2027, or to close the landfill completely. We are also reviewing options for septage (the waste from septic tanks) on the island, which is currently disposed of in a septage pit at the landfill site. On-island use of any biosolids from septage treatment is an important consideration in that process.

The Aotea Transfer Station at the Claris Landfill site remains open for residents and businesses to drop off refuse, mixed C&D waste, and hazardous waste. Gate fees for dropping off these materials reduce the cost burden to ratepayers and encourage commercial and residential users to minimise their waste disposal.

Removal of the public litter bins and drop-off points for refuse and recycling, following introduction of the roadside recycling collection in 2018 and a rates-funded refuse⁷ collection in 2019, has improved separation of these materials and reduced service costs. Illegal dumping, which is an additional cost to ratepayers, is now very rare at the former drop-off points. Port Fitzroy is the only former site that remains a problem, but with the removal of the waste structures, return of the roadside to parking, and an alternative consolidation point nearby for weekly refuse and recycling collections, illegal dumping has reduced.

⁷ The collection services also accept pre-paid bags from non-ratepayers including visitors.

6.2. Aotea waste profile

Total tonnages

Total tonnages of refuse and green waste coming through the Aotea Transfer Station and Anamata have remained relatively steady over time, while recycling tonnages are gradually trending upwards (refer Figure 3 below).

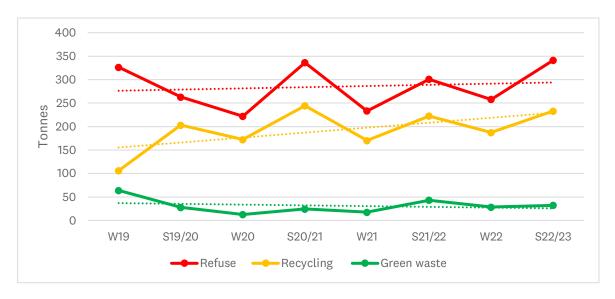


Figure 3: Total Aotea refuse, recycling, green waste tonnages by season, 2019-2023

Sources of waste

An audit and analysis of waste disposed of at the Aotea Transfer Station was done in October 2023, and a further audit done in February 2024. Auditing during both winter and summer months helps us understand seasonal changes in waste disposal.

The October 2023 and February 2024 audits found that:

- In winter, the main source of refuse is C&D activity, with council roadside refuse collections and residential refuse making up most of the remainder. A smaller portion comes from industrial, commercial and institutional sources and the remainder is residual refuse from the Anamata CRC (refer Figure 4 below).
- In summer, the main source of refuse is council roadside refuse collections, with C&D activity making up most of the remainder. A smaller portion comes from residual refuse from the Anamata CRC, residential refuse, and industrial, commercial and institutional sources (refer Figure 4 below).
- Note, a significant proportion of the difference between the winter and summer audit results was due to significantly more timber being diverted from C&D waste in February.

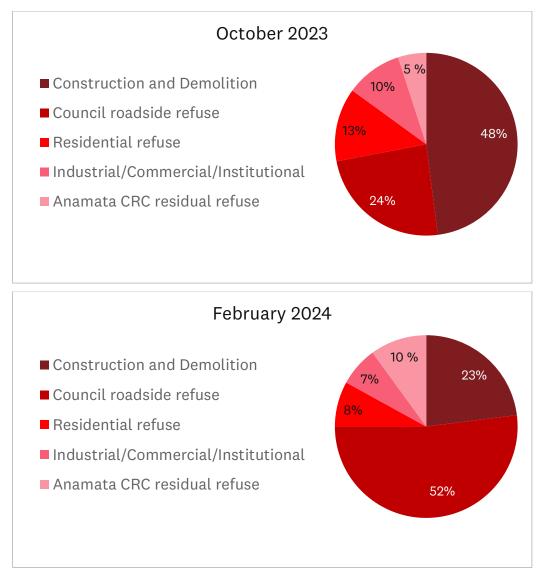


Figure 4: Sources of Aotea refuse, October 2023 and February 2024

Over 60 per cent of the material disposed of on Aotea could be diverted from landfill. This divertible material has been broken down by activity source in Table 3 below. The cells for the individual materials have been formatted from the lowest value (no shading) to the highest value (red shading).

Overall waste – Divertible materials - Average of October 2023 &	Anamata CRC	Construction & demolition	Industrial/ commercial/ institutional	Residential	Roadside rubbish
February 2024 surveys	(T/week)	(T/week)	(T/week)	(T/week)	(T/week)
Paper - Recyclable	0.0	0.0	0.0	0.0	0.2
Paper - Cardboard	0.2	0.1	0.1	0.0	0.0
Plastic - Recyclable	0.0	0.0	0.0	0.0	0.1
Ferrous metals	0.0	0.0	0.0	0.0	0.1
Non-ferrous metals	0.0	0.0	0.0	0.0	0.1
Glass - Recyclable	0.0	0.0	0.0	0.0	0.1
Textiles - Clothing	0.0	0.0	0.0	0.0	0.1
Rubble - Cleanfill	0.0	0.0	0.0	0.0	0.0
Timber - Reusable	0.0	0.1	0.0	0.0	0.0
Timber - All other	0.0	0.8	0.0	0.1	0.1
Organics - Food waste	0.0	0.0	0.1	0.0	1.1
Compostable green waste	0.0	0.0	0.0	0.0	0.1
New plasterboard	0.0	0.0	0.0	0.0	0.0
Timber Untreated/unpainted	0.0	0.1	0.0	0.0	0.0
TOTAL	0.4	1.1	0.3	0.3	2.0

Table 3: Breakdown of divertible material from overall waste (tonnes per week), October 2023and February 2024

Table 3 shows that:

- the largest tonnage of divertible material is food waste from roadside rubbish collections
- the next largest tonnage of divertible material is timber from C&D.

See charts in Appendix 2 for further trends of total tonnages and roadside tonnages per capita, as well as refuse and recycling tonnages by season.

Roadside recycling and refuse collections

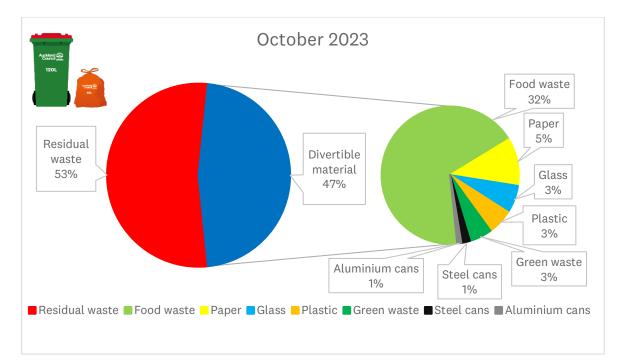
Roadside recycling is collected in crates, with paper and cardboard securely bundled and placed out next to crates for collection. Paper and cardboard need to be dry for recycling into other similar products; and there's a limit to the amount of wet paper/cardboard which can be composted at Anamata. Some wet paper and cardboard may still be sent to landfill where no other composting option can be found. Both the council and Anamata ask residents to wait for a dry day to put out their paper and cardboard which has been met with good success.

Overall, the tonnages of roadside recycling and refuse collected have been rising slightly from mid-2019 to mid-2023, as shown in Appendix 2.

An audit and analysis of Aotea roadside refuse bins and bags was done in October 2023, and a further audit done in February 2024. Auditing bins and bags during both winter and summer months helps us understand seasonal changes in the way households use their bins/bags, including when volumes of different materials such as green waste change, or whether behaviours change when there's an influx of visitors staying on the island.

The October 2023 and February 2024 audits found that:

- In winter, those using refuse bags put out on average about 5kg of material per refuse collection, and those using refuse bins put out on average over 8kg of material per refuse collection.
- In summer, those using refuse bags put out on average about 5kg of material per refuse collection, and those using refuse bins put out on average almost 7kg of material per refuse collection.
- About half of the material put out for refuse collection could be diverted from landfill.
- Most of the divertible material is food waste.
- There is an increase in glass put out as refuse in February compared to October (refer Figure 5 below).



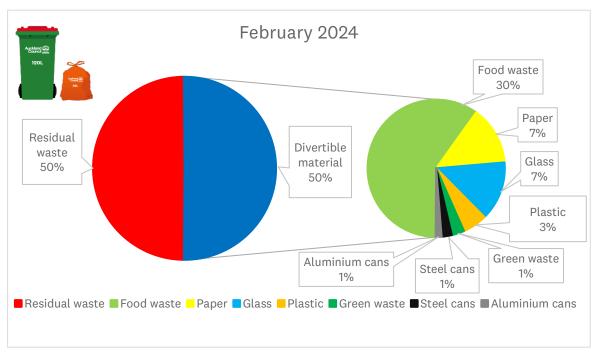


Figure 5: Proportion and breakdown of divertible material in Aotea roadside refuse, October 2023 and February 2024

See Appendix 2 for analysis of how Aotea roadside refuse bins/bags compare to Auckland mainland kerbside refuse bins.

Compared to an audit in September 2019, the results show:

- There has been an increase of between 1 and 2kg in the average amount of refuse put out for collection.
- The overall proportion of divertible material put out for refuse collection is about the same.
- The proportion of recyclable and compostable material in refuse bags is the same, but refuse bins now contain a greater proportion of compostable material compared to recyclable material.

6.3. Opportunities and challenges

Various workshops and a survey have been held with the local community about resource recovery and waste in the development of this plan (refer Appendix 1 for a list of engagement activities). Feedback supports maximising on-island handling of waste, with the goal of a self-sustaining system that deals with the majority of waste on-island.

Evidence from the waste audits also shows there is a lot of potential to improve waste diversion. Some of the key findings from community engagement and our research are shown below.



What we do well

• Driven community groups delivering for Zero Waste

• Widespread support for sustainable initiatives



Challenges

- High cost of transport
- Packaging waste
- Economies of scale lacking
- Getting visitor buy-in
- Invasive weeds (Caulerpa)



We'd like to see more

- Focus for reducing organic waste on-island
- On-island solutions especially for key waste streams, including C&D waste
- Alternative packaging solutions
- Leveraging community support

6.4. Community waste minimisation initiatives

Aotea has clear community leadership around waste, and residents are engaged and passionate about the island's environment and its future. As the case studies below show, there are many community initiatives that showcase waste minimisation locally. Food waste initiatives run by the community are outlined in Case studies one and two in Section 4.

We contract a local community partner to deliver Zero Waste education and behaviour change initiatives that support local residents to reduce their waste. The council also administers the WMIF which provides seed funding for new initiatives. Between 2018 and 2023 over \$115,000 from the WMIF was awarded to groups on Aotea for local waste initiatives (see Appendix 4).



Anamata (which refers to the future, ongoing life, visions for the future in Māori) has quickly become a thriving community resource recovery centre for Aotea since it was established in 2019 as part of Auckland's Resource Recovery Network.⁸ A team of dedicated people are employed at the centre, bringing new life to old objects. Staff include a welder/metal worker and artist, builders, sewer, and artists and crafts people. In addition to the contribution towards Zero Waste, Anamata is a social hub for staff and customers alike, providing opportunities to learn and share.

The centre accepts a wide range of materials for recycling and repurposing, including those collected at roadside, and other materials that can be dropped off including soft plastics, polystyrene, liquid paper board, waste cooking oil, tyres and waste oil. A new community compost facility onsite accepts food scraps and grass clippings.

With the help of funding from Auckland Council's Waste Minimisation and Innovation Fund (WMIF), Anamata has trialled low-maintenance food waste digesters that have been used successfully overseas for more than 20 years. In 2023, Anamata added a state-of-the-art solar power system to the centre. This system has paved the way for more initiatives, including a community charger for electric cars and bikes, and a dishwasher to support the move to reusable cups on Aotea.

⁸ The Resource Recovery Network (RRN) is a key council initiative for developing infrastructure to deliver a circular economy for Tāmaki Makaurau / Auckland. It encompasses a growing number of community recycling centres and resource recovery parks.

The Aotea / Great Barrier Island Local Board also funds a C&D waste advisor based at Anamata as part of the regional Construction Waste Leadership & Enforcement initiative, to engage with builders and minimise C&D waste on the island.

Anamata leads a Zero Waste steering group of interested community members, businesses and local board representatives that meet several times a year to share successes and discuss ideas to support or champion. Together, this passionate group has driven, supported and implemented many waste minimisation and sustainability initiatives that have enriched the wellbeing of the Aotea community.

Case study four: Refill revolution: Reducing single use bottles on Aotea

Aotea Brewing

When the Aotea Brewing Company established itself on the island in 2018, it was with a mindset to enhance the mauri of the local environment, strive for Zero Waste, and create maximum value out of every raw material used to produce their local beer.

Avoiding single-use packaging like cans and bottles was a no-brainer, achieved by a return to more traditional packaging methods through only supplying beer from kegs into refillable containers.

Excited about supporting this Zero Waste approach, and with the help of funding from the Auckland Council's WMIF, the Rocks Bottle Shop agreed to sell reusable flagons and trial a refilling station for customers.

Five years on, the flagons and the refilleries at The Rocks and Aotea Brewing have been well supported by locals and visitors alike, solidifying their commitment to a Zero Waste mentality and making refilling the norm again.



During this time, Aotea Brewing have been part of advocating for other breweries around the country to adopt the same approach to ditching single-use packaging, resulting in a growing network of refilleries across Aotearoa that share this waste free mindset. To ensure that these flagons are not just gathering dust when they leave the island, staff at both refilleries on Aotea provide information to visitors about where they can refill their flagon in their local area to continue their Zero Waste journey.

Through this commitment to eliminate single-use packaging, Aotea Brewing and The Rocks have directly avoided 25 tonnes of glass being produced to date. They are committed to continuing this journey towards re-establishing the 'old school' norm of drinking fresh beer from refillable vessels. With many of the flagons purchased having been taken by visitors off island, the ongoing use of these flagons will continue to make a mark in the reduction of waste.

Water refilling stations

As part of the drive on Aotea to eliminate single-use packaging, three drinking water refill stations have been introduced across the island since the end of 2020. These actively encourage residents and visitors to carry their reusable water bottles and choose eco-friendly refills over buying disposable bottled water which must be imported onto the island. Although it means less sales, the teams at the Claris and Stonewall stores adjacent to these refill stations fully support the initiative and play an active part in encouraging customers NOT to buy water from them and instead choose this waste free option.

Two of the water refilling stations have been installed outside the Claris Store and The Currach by the AoteaOra Trust with funding from Auckland Council's WMIF. A third station has been installed at the airport by Auckland Council. More are planned for the future, so watch this space!

Case study five: Single-use cup-free on Aotea

A new initiative launched in October 2023 may see Aotea as one of the first destinations in Aotearoa to eliminate the use of disposable cups. Key motivations driving this change are a common desire to do away with disposable cups littering Aotea's natural environment, an awareness of the high cost of taking waste off the island, and the waste of resources in manufacturing single-use items. Te Mahere o te Tau 2024 mō te Para ki ngā Moutere o Te Moana o Tīkapa / Te Moananui-ā-Toi 2024 Hauraki Gulf Islands Waste Plan 2024

Providing viable alternatives to singleuse cups was a practical step to support the success of this initiative. With three alternatives, residents and visitors alike will be getting their takeaway caffeine fix in a reusable cup either by:

- bringing their own cup to be refilled
- borrowing a mug from one of the mug libraries (made from materials recycled from Anamata Resource Recovery Centre), or
- paying a deposit for a stainless-steel cup from the island-wide 'borrow' scheme, which can be kept, or returned, to any participating outlet for a refund of the deposit.

Commercial transport providers to Aotea have embraced the promotion of reusable cup options on the island, which also serves as a reminder to visitors to cherish and preserve the environment they've come to enjoy.



Local cafes that have removed single-use cups have enjoyed positive feedback from customers:

- "The reception has been amazing from our customers. Our locals are right on board because they understand how difficult it is to get waste off the island. We've had a few people forget to bring their cup, but they either borrow a second-hand one for free or pay for one that can be returned later for a refund. Works well for visitors and locals alike." Rochelle from Pah Beach Café.
- "Most of our customers have been supportive with many asking why we didn't make the change sooner. Disposable takeaway cups are such a waste of money and were sometimes damaged before they were even used once. Anamata has provided us with lots of support to make the switch, including the mug library and washing station." Adrienne from Baked on Barrier.

"Customers have been very • supportive and single-use cups were down over 50 per cent even before the official launch date. It used to be amazing how many takeaway cups we would find in the bin straight outside the café. We discovered they are not as easily biodegradable as people may think, so it's great to know that by all committing to make the change together, we are able to remove single-use cups completely." Julie and Brett from My Fat Puku.

Though motivated by waste minimisation, since removing single-use cups all three cafés have noticed an increase in customers choosing to sit down, enjoy their coffee and chat to a friend or a stranger for a few minutes, adding to the social vibe of the café scene.

Thanks to the strong support of the local businesses, community and Anamata,



bringing this initiative to life has been a collaborative effort.

6.5. Waste goals and actions for Aotea / Great Barrier

The goals and actions below are based on the actions developed for the 2018 HGI Waste Plan. They draw on priorities identified through engagement and will be pursued with a view to supporting community-led solutions and initiatives and reducing waste costs.

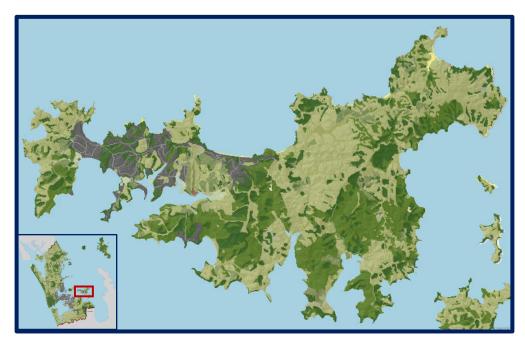
	Goals	Key actions		
		Community will	Auckland Council will	
1	All food scraps and green waste is used beneficially on-island.	 Keep food scraps and green waste out of refuse bins and bags. Increase home and community processing such as composting, mulching and chipping. 	 Continue to resource local community education, and behaviour change. Help develop organic waste processing systems and continue to find solutions for managing pest plants and seaweeds such as Caulerpa. 	
2	Reduce waste coming on to the island.	• Continue to promote options and develop local solutions to reduce packaging coming on to the island, including advocating for bulk buying, working with businesses on minimising packaging, and supporting projects such as the single-use-cup-free initiative.	• Support community efforts to reduce waste coming onto the island.	
		• Advocate for sustainable purchasing such as choosing products that are easy to repair, and reducing the amount of single-use, short-life products being purchased.		
3	The Community Recycling Centre (CRC) will continue providing and evolving a range of services to the community, minimise waste and emissions, generate income and create local jobs and training opportunities.	• This collaborative effort involves community input and council funding and support to grow and sustain services and education for local solutions to waste, including leveraging skills and connections to support community waste initiatives. An example is attending HGI, regional and national gatherings such as the Zero Waste Network hui.		

Te Mahere mō te Para i ngā Moutere o Tīkapa Moana / Te Moananui-ā-Toi 2024 Hauraki Gulf Islands Waste Plan 2024

	Goals	Key actions		
		Community will	Auckland Council will	
4	Find innovative solutions to move to a circular economy and treat Aotea waste on-island.	• Seek opportunities for circular solutions for waste materials including on-island processing options instead of shipping off-island.	 Support community-led solutions for on- island uses for diverted waste streams. Seek solutions to use biosolids beneficially on-island. 	
5	Support creative iwi and community action, education and behaviour change.	 Share inspiring local stories. Network with others across the HGI to share best practice, experiences and success. 	 Continue to resource community education, action and behaviour change and support iwi initiatives. Support connections between community partners, businesses and others working to reduce waste. 	
6	Improve the Aotea Transfer Station (ATS).	 Provide input on opportunities to improve the current and future ATS. 	 Continue to investigate and action transfer station site options before the existing consent expires. Consider opportunities to improve the current and future operation and assets at the ATS to drive better waste management and minimisation, and environmental outcomes. Keep gate fees for waste under continuous review to reflect fluctuations in costs and waste minimisation behaviours. 	
7	Reduce commercial and C&D waste.	 Continue to design out C&D waste from projects and separate waste at source. Continue to support options for further diversion of C&D waste from landfill. Keep food and recycling out of C&D waste. Minimise packaging, model Zero Waste practices. 	• Continue to work with local community and businesses to reduce C&D and commercial waste going to landfill.	

Te Mahere mō te Para i ngā Moutere o Tīkapa Moana / Te Moananui-ā-Toi 2024 Hauraki Gulf Islands Waste Plan 2024

	Goals	Key actions		
		Community will	Auckland Council will	
8	Reduce visitor waste, including waste from visiting boat users.	 Promote Aotea as an exemplar Zero Waste, sustainable community. Promote waste avoidance and good recycling behaviours with visitors, and a pack in/pack out approach for visiting boat users. 	 Continue to provide and communicate options for visitors, including visiting boat users. Continue to support waste avoidance and pack in/pack out messaging. 	
9	No recyclables or reusable inorganic items going into refuse.	 Recycle properly through roadside service or drop-off at CRC, including reusable inorganic items. Promote through education. 	 Support messaging to take other recyclables to the CRC. Continue to audit roadside collected materials and/or waste processed through the ATS where needed to support any proposed service changes or inform education campaigns. 	



7. Waiheke Island

Waste minimisation has been a long-standing feature of local activities and events on Waiheke, and community ownership of sustainability messaging remains strong today. The Waiheke Local Board promotes the move towards a Zero Waste future, 'support[ing] community-driven initiatives to reduce waste through education, the use of renewable resources, re-use of construction material and increased upcycling.'⁹

Waiheke Island is a 35-minute ferry ride from downtown Auckland. The Waiheke Local Board area includes Waiheke Island, Rakino Island and eight other small islands in the Hauraki Gulf Marine Park. Rakino has its own section in this plan and the other islands are either administered by the Department of Conservation or are privately owned, with no council waste services.

The following mana whenua groups claim customary and historical interests in the island: Ngāti Paoa, Ngāti Maru, Ngai Tai ki Tāmaki, Ngaati Whanaunga, Ngāti Tamaterā, Te Patukirikiri and Ngāti Te Ata Waiohua. Piritahi Marae – a community marae or nga hau e wha – promotes wellbeing of the whanau, hapū, iwi and wider Waiheke community. We want to strengthen our engagement with mana whenua so that our policies, projects and programmes support Māori outcomes and benefit from a Māori mātauranga and a te ao Māori approach. We also seek to support Māori initiatives in reducing waste, and recognise the

⁹ Waiheke Local Board Plan 2023

importance of engaging early with mana whenua and mataawaka Māori on projects on the island.

Waiheke Local Climate Action Plan 2021-2022

The Waiheke Local Climate Action Plan sets a path to reducing greenhouse gas emissions and adapting to climate change. It encompasses a wide range of actions to achieve these goals including actions related to encouraging a regenerative circular local economy using waste as a resource and composting 100 per cent of food scraps and green waste on-island by 2025 as a flagship project. A number of initiatives linked to food rescue and composting initiatives on Waiheke are highlighted in Section 4 above.

Population summary

A population summary of the Waiheke community, and how this compares to the Auckland region, is presented below¹⁰ noting that the Waiheke population is expected to continue growing.

Population

	Waiheke	Auckland/Share
Population (2021)	9790	0.6%
Population growth (2016-2021)	6.0%	5.6%
Median Age (2021)	47.7	35.6

Ethnicity

	Waiheke	Auckland
European	89%	54%
Māori	11%	12%
Pacific Peoples	4%	16%
Asian	4%	28%
Middle Eastern/Latin American/African	3%	2%
Other ethnicity	1%	1%

Employment, income and home ownership

	Waiheke	Auckland
Labour Force (2018 Census)	5100	983,800
Labour Force participation (2018 Census)	74%	71%
Median household income	\$69,600	\$93,900
Proportion of individuals earning over \$70,000 per	20%	20%
year		
Proportion of residents working on the island	70%	N/A
Home ownership (2018 Census)	59%	45%

¹⁰ Waiheke Local Economic Overview 2022

The proximity of Waiheke to downtown Auckland sees the population grow to more than 30,000 in the summer months with thousands more visitors arriving by ferry and private boat for short trips. It is estimated that Waiheke receives more than 500,000 visitors each year.¹¹

In 2021, Waiheke Island received international attention when it was rated the sixth best island in the world to visit by Travel and Leisure¹² and one of the best islands in the world in the Condé Nast Traveller's Best Destinations in the World: The Gold List 2022.¹³

7.1. Council infrastructure and services

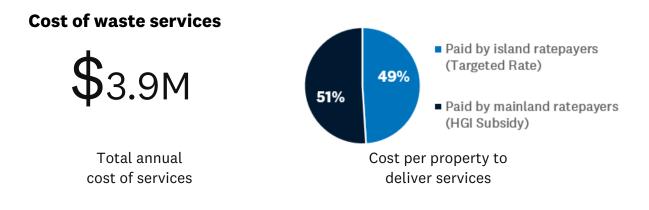


*Summer barge moored at Man O' War Bay from late December to early February for refuse and recycling from visiting boat users

¹¹ Waiheke Local Board Plan 2023

¹² Top 10 Islands in Australia, New Zealand and the South Pacific. Travel + Leisure, Sept 8, 2021.

¹³ <u>The Best Destinations in the World: The Gold List 2022</u>. Conde Nast Traveler, Dec 9, 2021.



Changes to Waiheke waste infrastructure and services

Since the 2018 HGI Waste Plan, there have been some important changes to waste infrastructure and services on Waiheke to improve waste management and minimisation. Developing the Waiheke Community Resource Recovery Park (CRRP) as part of Auckland's Resource Recovery Network has been a significant milestone. The CRRP enables diversion of recoverable resources from landfill, such as resale of reusable items through the Recovery Shop, and a focus on C&D waste (see case studies below).

Since 2020, gate fees for green waste drop-off at the CRRP have been introduced to support cost-recovery for processing this material. Gate fees also reduce the cost burden on ratepayers and encourage commercial and residential users to minimise their waste disposal.

7.2. Waiheke waste profile

Total tonnages

Total tonnages of refuse coming through the Waiheke CRRP have trended upwards over time, while recycling and green waste tonnages are relatively steady (refer Figure 6 below).

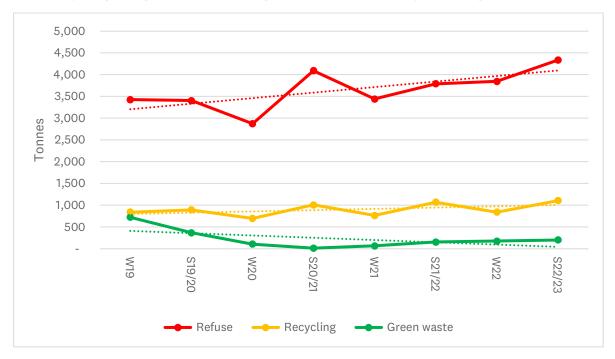


Figure 6: Total Waiheke refuse, recycling, green waste tonnages by season, 2019-2023

Sources of waste

An audit and analysis of waste disposed of at the Waiheke CRRP was done in September 2023, and a further audit done in February 2024. Auditing during both winter and summer months helps us understand seasonal changes in waste disposal.

The September 2023 and February 2024 audits found that:

- The main sources of refuse in winter are C&D activity and council roadside collections. Landscaping and earthworks represent the third largest source (refer Figure 7 below).
- The main sources of refuse in summer are council roadside collections and C&D activity. Residential refuse represents the third largest source (refer Figure 7 below).
- Note, the decrease in landscaping and earthworks refuse from winter to summer is likely associated with changes to green waste acceptance criteria at Waiheke CRRP, which were changed between the two surveys, resulting in more types of green waste being accepted at the lower disposal charge.

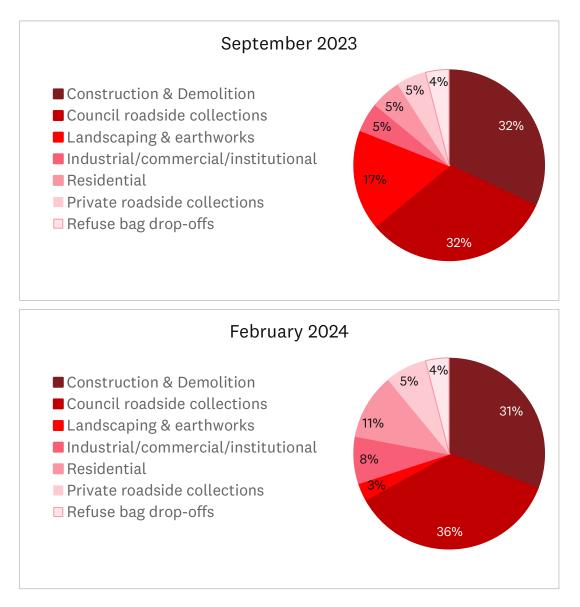


Figure 7: Sources of Waiheke refuse, September 2023 and February 2024

Over 60 per cent of the material disposed of as refuse at the CRRP could be diverted from landfill. This divertible material has been broken down by activity source in Table 4 below. The cells for the individual materials have been formatted from the lowest value (no shading) to the highest value (red shading).

Table 4: Breakdown of divertible material in Waiheke CRRP refuse (tonnes per week), September 2023 and February 2024

Waiheke CRRP waste - Divertible materials - By activity source - Sept-23 and	Construction & demolition	Industrial/ commercial/ institutional	Landscaping & earthworks	Residential	Roadside rubbish
Feb-24 surveys combined	(T/week)	(T/week)	(T/week)	(T/week)	(T/week)
Paper - Recyclable	0.1	0.2	0.0	0.1	1.6
Paper - Cardboard	0.8	0.6	0.0	0.5	0.2
Plastic - Recyclable	0.0	0.0	0.0	0.0	0.7
Ferrous metals	0.9	0.3	0.0	0.5	1.0
Non-ferrous metals	0.1	0.0	0.0	0.0	0.5
Glass - Recyclable	0.0	0.0	0.0	0.0	0.8
Textiles - Clothing	0.0	0.2	0.0	0.4	1.6
Rubble - Cleanfill	4.3	0.1	1.0	0.0	0.0
Timber - Reusable	0.7	0.0	0.0	0.0	0.0
Timber - Untreated/unpainted	1.2	0.1	0.0	0.5	0.0
Timber - Other timber	12.2	1.1	0.2	2.2	1.3
Organics - Food waste	0.0	0.2	0.0	0.2	13.7
Organics - Compostable green waste	0.6	0.1	4.2	0.3	9.0
Organics - Other green waste	0.1	0.0	4.8	0.1	1.0
TOTAL	21.1	2.8	10.3	4.8	31.4

Table 4 shows that:

- the largest tonnage of divertible material is food waste from roadside rubbish collections
- the next largest tonnage of divertible material is timber from C&D.

See charts in Appendix 3 for further trends of total tonnages and roadside tonnages per capita, as well as refuse and recycling tonnages by season.

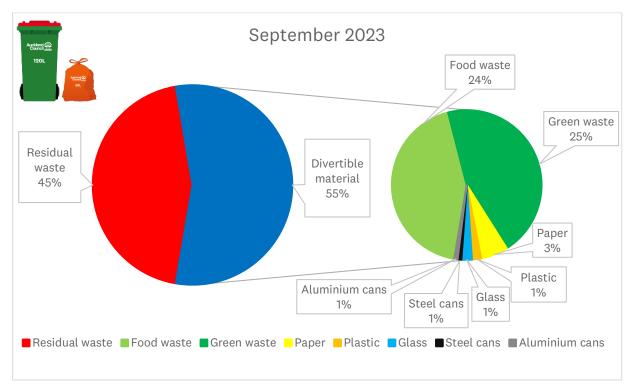
Roadside recycling and refuse collections

Overall, the tonnages of roadside recycling and refuse collected in mid-2020 are about the same as those collected in mid-2023, as shown in Appendix 3.

An audit and analysis of Waiheke roadside refuse bags and bins was undertaken in September 2023, and a further audit done in February 2024. Auditing both bins and bags during winter and summer helps us understand seasonal changes in the way households use their bins/bags, including when volumes of different materials such as green waste change, or whether behaviours change when there's an influx of visitors staying on the island.

The September 2023 and February 2024 audits found that:

- In winter, those using refuse bags put out on average about 7kg of material per refuse collection, and those using refuse bins put out on average over 9kg of material per refuse collection.
- In summer, those using refuse bags put out on average almost 6kg of material per refuse collection, and those using refuse bins put out on average almost 8kg of material per refuse collection.
- More than half of the material put out for refuse collection could be diverted from landfill.
- Most of the divertible material is food waste and green waste (refer Figure 8 below). Note that it was found refuse bags contain twice as much green waste as refuse bins.



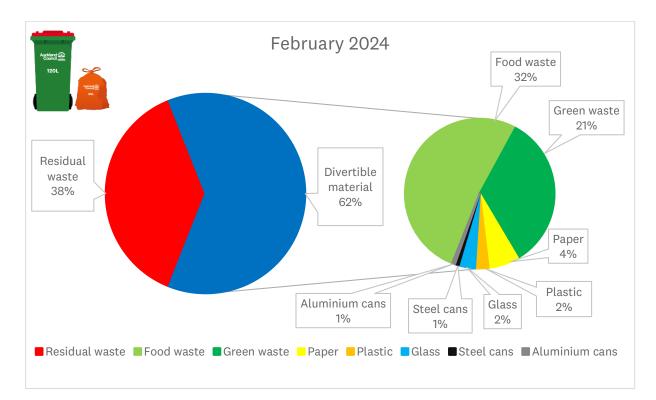


Figure 8: Proportion and breakdown of divertible material in Waiheke roadside refuse, September 2023 and February 2024

See Appendix 3 for analysis of how Waiheke roadside refuse bins/bags compare to Auckland mainland kerbside refuse bins.

7.3. Opportunities and challenges

Various workshops have been held with local stakeholders about resource recovery and waste in the development of this plan (refer Appendix 1 for a list of engagement activities). Feedback supported a focus on reducing and dealing with food and green waste on the island, and the importance of building awareness and behaviour change.

Evidence from the waste audits indicates there is a lot of potential to improve waste diversion. Some of the key findings from community engagement and our research are:



What we do well

• Passionate groups seeking Zero Waste outcomes



Challenges

- Household waste not reducing
- Cost of transport to support on-island solutions
- Effective solutions for local and visitor boat-user waste



We'd like to see more

- Community management
- Local focus on reducing organic waste on-island
- Local circular systems, such as a container return scheme for local beverage companies

Boat users produce significant amounts of refuse and recycling each year, as well as fish waste. Boat users that use the summer barge anchored at Man O' War Bay over the peak summer period do not contribute directly toward the cost of the service which is funded through a rates subsidy. Further work is needed to explore alternatives to the summer barge that better incentivise waste minimisation and provide a way for boat users to contribute toward the costs. When looking at alternatives, consideration would be given to ensure that changes to the service don't result in dumping, including to the marine environment.

The heavy nature of spoil from excavation and high shipping costs means that finding ways to reduce and re-use excavated spoil on-island is another important opportunity. Auckland Transport is working collaboratively with maintenance contractors, for example, to increase the amount of recycled aggregate that is used on the island.

Alongside reducing shipping costs and emissions, reusing material locally means less material is extracted from Papatūānuku, and there is less material filling the limited cleanfill space on the island. Working collaboratively with communities and businesses to ensure soil, spoil, green organic waste, biosolids and materials used in construction and demolition from council and commercial activities are used on-island is an important priority for reducing waste.

7.4. Community waste minimisation initiatives

Waiheke Island has a history of proactive leadership regarding waste, being one of the first communities in Auckland to do comprehensive community recycling. The community continues to be passionate and vocal, sharing Auckland's commitment to Zero Waste by 2040 and spearheading local initiatives to achieve that goal, as shown in the case studies below. Food waste initiatives run by the community are outlined in Case studies one and two in Section 4.

We contract Island Waste Collective and Waiheke Resources Trust (WRT), to deliver Zero Waste education and behaviour change initiatives that support local residents to reduce their waste. In 2023 the council also funded a WRT initiative to create a HGI network to explore existing waste initiatives and identify opportunities for improvement of waste management processes through knowledge and resource sharing.

We also administer the Waste Minimisation and Innovation Fund (WMIF) which provides seed funding for new initiatives. Between 2018 and 2023, over \$217,000 from the council's WMIF has been awarded to groups on Waiheke for local waste initiatives. See Appendix 4 for a list of groups that have received funding.

Case study six: Ostend Market - Zero Waste

Ostend Market has been running on Waiheke Island every Saturday since 1975 and was one of Aotearoa's first Zero Waste markets. Zero Waste stations peopled by friendly locals help visitors sort their waste into recyclables, compostables, food scraps or, as a last resort, landfill.

This Zero Waste approach was developed with assistance and advice from the Waiheke Resources Trust, Home Grown Waiheke Trust and Auckland Council.



'Good to Go' is a new initiative at Ostend Market that makes it easier for stallholders and customers to minimise waste by providing reusable serviceware and a wash service. Good to Go was developed and implemented into the Ostend Market in 2020 with support from the Waiheke Resources Trust Zero Waste team and local waste champions.

The goal of the market is to be completely single-use free within the next few years. Since many of Waiheke Island's businesses operate at the Ostend Market, the Zero Waste message has a ripple effect out into local businesses and the wider community.

The Ostend Market is a social enterprise, with proceeds from stall holders' fees going to the Waiheke Community Childcare Centre. The Bokashi waste collected on market day is dug into the Ostend Community Garden.



Case study seven: Zero waste events Waiheke

Waiheke Resources Trust (WRT) has been working collaboratively with local event organisers for events large and small to reduce their waste to landfill for over 12 years. Through support from Auckland Council as part of their Zero Waste Events programme, WRT can promote Zero Waste practices at events by assisting event organisers in selecting the most ecofriendly serviceware options and offering evidence-based guidance. WRT encourages reusable serviceware where feasible with compostable packaging considered as a last resort.

At events, WRT operates Zero Waste Stations led by a waste station coordinator and a team of volunteer waste educators. The waste educators are upskilled to share best practices with event attendees covering topics like composting, recycling and what must go to landfill. This engaging and interactive approach aims to educate the public in a fun way, while reframing people's perceptions about waste separation.

WRT has worked with countless events on Waiheke to increase rates of waste diverted from landfill to over 80 per cent. This includes some of the island's largest events such as Onetangi Beach Races, Sculpture on the Gulf and Flamingo Pier Music Festival, with thousands of attendees at each event.



Case study eight: Recovering C&D resources on Waiheke

The Recovery Yard at the Community Resource Recovery Park on Waiheke Island has achieved a substantial reduction in construction and demolition (C&D) waste to landfill by recovering materials such as wood, steel, fittings (like taps), electrical wires, and more. While the ultimate objective is to reuse materials on Waiheke wherever possible, material that cannot be resold locally is taken to reprocessing facilities on the mainland. C&D is estimated to make up half of Auckland's total commercial waste. In just a three-month period in 2023, the Recovery Yard diverted over 13 tonnes of material for reuse on the island and a further 200 tonnes of wood waste away from landfill. The amount of wood reused on Waiheke has increased by around 400 per cent since the initiative began, saving both costs in transportation to the mainland and disposal or processing costs. Demand is so strong that a dedicated staff member has been hired for timber recovery.

Expanding the Recovery Yard has enabled a range of highquality recovered materials to be sorted and stored, with plans to broaden the range even further. For volunteer organisations carrying out community projects, many of these reclaimed materials are available for free.

The Recovery Yard also delivers a valuable advisory programme, as part of the local board funded Waiheke Construction Waste Leadership Programme, which includes visiting builders and developers across the island. An expert advisor provides on-site advice on waste separation and opportunities to divert waste at construction sites, enabling builders to reduce disposal costs and improve the quality of recovered materials.

This initiative operates through a partnership with Auckland



Council, Waiheke Local Board and Island Waste Collective Ltd.

Case study nine: Recovery Shop on Waiheke

Shoppers at Island Waste Collective's Recovery Shop, part of the Community Resource Recovery Park on Waiheke Island, are contributing to waste minimisation by giving items a second life, reducing the amount of waste removed from the island and reducing demand for new production, while enjoying a good bargain. The Recovery Shop successfully diverted over 80 tonnes of furniture, clothes and other items from landfill between June 2022 and June 2023 and is always on the lookout for how to divert even more, with an average monthly increase compared to last year of 20-35 per cent since June 2023.

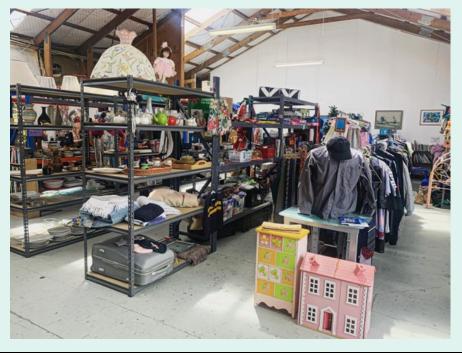
Many promotions run throughout the year, to encourage community awareness and education about the benefits of reusing and repurposing pre-loved items. These include free items for mums on Mother's Day and for everyone on Boxing Day. Some essentials like local school uniforms are available for free all year round.



The Recovery Shop works together with not-for-profit organisations on Waiheke to provide goods to those most in need and with schools to provide waste diversion education through school tours and after school educational workshops.

A recent focus has been finding alternative opportunities to reuse textiles so that none goes to waste. This has led to creative solutions like repurposing clothing that cannot be resold as filling for yoga bolsters.

For those items that need a little more TLC, the Recovery Shop runs regular mending and home crafting workshops for the community. The shop is also instrumental in organising and supplying materials for the annual Junk 2 Funk event funded and presented by IWC, a wearable arts fashion show celebrating creative reuse on Waiheke Island.



7.5. Waste goals and actions for Waiheke

The goals and actions below are based on the actions developed for the 2018 HGI Waste Plan. They draw on priorities identified through engagement and will be pursued with a view to supporting community-led solutions and initiatives and reducing waste costs. The goals include keeping all food scraps and green waste on island in alignment with the Local Climate Action Plan 2021-2022. However, the 2025 timeframe in the Climate Plan has not been replicated here as further work is needed to consider options including funding implications of any solutions.

	Goals	Key actions		
		Community will	Auckland Council will	
1	Create a regenerative circular local organic waste economy, keeping all food scraps and green waste and biosolids on island.	 Work together with the council and mana whenua on a process to design an on-island solution for domestic food waste. Support kai rescue and redistribution. Continue education to reduce household food waste. Keep food scraps and green waste out of refuse bags and bins. Increase home and community processing such as composting, mulching and chipping. Continue to support community-led campaigns to support businesses to divert food waste and compostables from landfill. Continue to manage biosolids from the treatment of septic waste on-island currently disposed of at a private site (Greenacres). 	 Work on options and a solution for food scraps depending on progress for an on- island community-led solution. This takes into account central government's proposal for mandatory council-provided collection. Continue to resource local community education, initiatives, organics processing and behaviour change. Continue to audit waste from roadside collected materials and/or processed through the CRRP where needed to inform education campaigns or support proposed service changes e.g. for domestic food waste. 	

	Goals	Key actions		
		Community will	Auckland Council will	
2	Community engagement and behaviour change to reduce waste.	• Engage and educate the wider community to ensure it has a clear vision for waste on the island which encourages community waste management and embraces a Zero Waste and circular economy philosophy.	 Continue to provide funding and resources for community waste engagement and education on the island. Support community to present waste cost information clearly to Waiheke islanders. Continue to involve community waste stakeholders in planning and implementation of this plan. 	
3	Increase waste avoidance, with reuse and recycling of materials on Waiheke.	 Support local collaboration and initiatives to reuse and recycle, such as op shops and reusable serve-ware projects such as 'Good to Go'. Encourage and celebrate the 'gifting' culture on Waiheke for reuse and recycling items. Keep recyclables out of refuse bags and bins and recycle properly in roadside recycling bins and at drop-off points. 	 Continue to support community initiatives to improve waste avoidance, reuse and recycling on Waiheke and across the HGI. Continue to provide clear information on what can be recycled at the CRRP and how to dispose of unwanted items responsibly. 	
		 Seek to understand what motivates people to recycle, and what doesn't. Continue to work with food vendors and event 		
		organisers to deliver zero waste events on Waiheke and explore solutions for single-use serve-ware through a reusables system and wash station set up.		
		• Seek to establish a network of community groups across the HGI to share resources and knowledge and identify opportunities for		

	Goals	Key ac	tions
		Community will	Auckland Council will
		improvement of waste management processes.	
4	Continue to develop the Community Resource Recovery Park to increase waste diversion and retention of resources on the island.	A collaborative effort involving both community input and council funding and support to g and sustain services and education for local solutions to waste, including leveraging skills connections to support community waste initiatives.	
5	Reduce waste coming on to the island.	 Look for opportunities to reduce packaging, such as communal ordering and bulk buying, and negotiating with big suppliers to minimise packaging. 	 Support community efforts including connecting community groups and suppliers to reduce waste coming on to the island.
6	Reduce commercial and construction and demolition (C&D) waste to landfill.	 Work with local businesses to reduce, reuse and recycle and engage with product stewardship including options to reduce packaging and one-time use products. Assess on-island community engagement strategies to see what is most effective and opportunities to improve. Explore options for keeping C&D waste out of landfill including options and feasibility to reuse more materials. 	 Support on-island reuse of paper, glass and other material. Continue to support local community and businesses to reduce building C&D material going to landfill. Provide data on volumes and trends for C&D material on Waiheke through the CRRP audit. Continue to provide free public drop-off for hand-sorted recycling at the CRRP. Work across the council and with contractors and the waste sector to support greater diversion of council C&D/deconstruction waste and spoil.

	Goals	Key actions		
		Community will	Auckland Council will	
7	Enable greater reuse and recycling of cleanfill on-island.	• Continue to collaborate on opportunities to divert cleanfill from landfill.	• Support innovative solutions to recycle more cleanfill on-island.	
8	Reduce visitor waste, including waste from visiting boat users.	 Promote Waiheke as a circular economy and Zero Waste community. Promote a pack in / pack out policy for visitors. 	 Support waste avoidance and pack in/pack out messaging. Explore alternatives to provision of the summer barge for visiting boat user waste. 	

8. Rakino Island



Rakino Island is a small island within the Waiheke Local Board area, lying north-east of Motutapu Island. Rakino is largely privately-owned, with around 120 dwellings and 20 people who are usually resident, though this number varies. Most Rakino property owners live on the Auckland mainland or elsewhere and have baches on the island.

There are no shops or grid electricity on Rakino. Households generate their own power (mostly solar), and have their own water, septic and drainage systems. The island has a ferry service to downtown Auckland with a passenger wharf in Sandy Bay and a freight wharf providing barge access in the adjacent Home Bay. The Rakino Ratepayers Association was set up to conserve, promote and advance the interests and welfare of the community and represent their views. Refer to the <u>association's website</u>¹⁴ for more information.

Rakino is free of animal pests such as rats, which makes effective handling of waste critical to ensure the island remains pest-free.

¹⁴ Rakino Ratepayers Association

The following mana whenua groups claim customary and historical interests in the island: Ngāti Paoa, Ngāti Whanaunga, Ngāti Tamaterā, Ngāti Whātua Ōrākei, Ngai Tai ki Tāmaki, Ngāti te Ata, Te Rūnanga o Ngāti Whātua, Te Kawerau ā Maki, Ngāti Tamaoho. The council seeks to strengthen our engagement with mana whenua so that our policies, projects and programmes support Māori outcomes and benefit from a Māori mātauranga and a te ao Māori approach. We also seek to support Māori initiatives in reducing waste, and recognise the importance of engaging early with mana whenua and mataawaka Māori on projects on the island.

8.1. Council infrastructure and services



Bin stations for refuse and recycling drop-off



Inorganic collections



Illegal dumping and loose litter collections



Abandoned vehicle removal

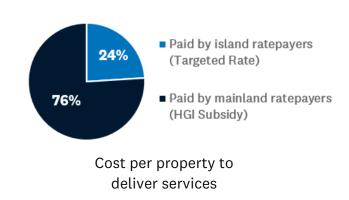


Community education

Cost of waste services



Total annual cost of services



8.2. Opportunities and challenges

Some of the key findings from community and stakeholder engagement in the development of this plan are:



Refer to Appendix 1 for a list of engagement activities.

Abandoned vehicles continue to be a challenge on Rakino with owners not taking responsibility for these at the end of life. Anecdotal evidence indicates that C&D waste is an issue along with residents and visitors using communal bins meant for day-to-day household use for other purposes including commercial and inorganic items.

In 2023 the council-contracted community partner on Waiheke Island – Waiheke Resources Trust – initiated a project to create a HGI network to explore existing waste initiatives and identify opportunities for improvement of waste management processes through knowledge and resource sharing. Rakino Island is included in the scope of this project.

8.3. Waste goals and actions for Rakino

The goals and actions below are based on the actions developed for the 2018 HGI Waste Plan. They draw on priorities identified through engagement and will be pursued with a view to supporting community-led solutions and initiatives and reducing waste costs.

Goals		Key act	tions
		Community will	Auckland Council will
1	Everybody taking responsibility for their waste.	 Support greater re-use and repair of items. Support pack-in / pack-out approach to boat user waste. Encourage households, visitors, businesses and those engaged in construction and demolition and building repairs to reduce waste and to manage residual waste appropriately. 	 Support community education, awareness, and initiatives including on-island use of waste. Support signage and communications.
2	Everybody diverting their food scraps and green waste.	 Keep food and green waste out of refuse bins. Increase home and community processing such as composting, mulching and chipping. 	• Support local community education, processing and behaviour change initiatives.
3	Divert recyclables from landfill and reduce contamination of recyclables.	 Put refuse and recycling in correct bins/location at drop off points. Promote recycling through community education. 	 Continue to provide refuse and recycling collection services. Provide support as required including information on volumes as requested.
4	Work together to divert reusable inorganic materials from landfill and reduce illegal dumping.	• Keep reusable inorganic material out of landfill.	• Work with the Rakino community to divert more inorganic material from landfill and reduce volumes on the island.

	Goals	Key act	ions
		 Take responsibility for their own waste, seeking to minimise illegal dumping, including not leaving abandoned cars on the island. 	 Continue to provide inorganic collection services. Work across the Auckland Council Group to investigate illegal dumping and abandoned vehicles and to help keep the island pest-free.
5	Community-led action and solutions to minimise waste.	 Advise the council of any support needed for community action and solutions to minimise waste, including education. Work with others across the HGI to share ideas and learnings to reduce waste. 	• Provide support as required.

9. Kawau Island



Kawau is located south of the Tāwharanui Peninsula, 8km by sea from Sandspit Wharf and is part of the Rodney Local Board area. At the 2018 Census, 81 people usually reside on Kawau, with 51 occupied and 303 unoccupied dwellings. The island is predominantly privatelyowned, with around 10 per cent owned by the Department of Conservation and two councilowned wharf areas. Life on the island is very different to the mainland, with few roads and a fragile electricity network.

There is a strong ethos of self-determination and community spirit in the Rodney Local Board area, including Kawau. The Kawau Island Residents and Ratepayers Association (KIRRA) highlight that Kawau Islanders take pride in relying on their own resources and valuing neighbours and are proud of their deep ecological commitment.¹⁵

¹⁵ Kawau Residents and Ratepayers Association (KIRRA) website

The following mana whenua groups claim customary and historical interests in the island: Ngāti Paoa, Ngāti Maru, Ngāti Whanaunga, Ngai Tai ki Tāmaki, Ngāti te Ata, Ngāti Manuhiri, Ngāti Whātua o Kaipara, Ngāti Whātua Ōrākei, Te Rūnanga o Ngāti Whātua, Te Kawerau ā Maki, Ngāti Wai. The council seeks to strengthen our engagement with mana whenua so that our policies, projects and programmes support Māori outcomes and benefit from a Māori mātauranga and a te ao Māori approach. We also seek to support Māori initiatives in reducing waste, and recognise the importance of engaging early with mana whenua and mataawaka Māori on projects on the island.

9.1. Council infrastructure and services



Changes to Kawau waste infrastructure and services

The waste enclosure at Sandspit Wharf was installed in 2021 as a medium-term (3-5 year) solution to replace the three Molok bins in the vicinity which were widely misused, attracting illegal dumping and waste from non-residents and commercial operators. The enclosure was designed as a medium-term solution while other solutions that might better protect the important values of the area are under investigation.

The enclosure is secured with a coded lock to deter dumping, and while waste volumes still naturally increase over summer due to the influx of Kawau visitors using the facility, there is less inorganic material being dumped than before the enclosure was installed. In addition, placement of the bins within an enclosure means that overflowing refuse is usually contained within one space.

A review of the enclosure in 2023, as part of the council's commitment to move towards a permanent solution, indicates there is still some misuse.

9.2. Opportunities and challenges

Some of the key findings from community engagement in the development of this plan are:



Refer to Appendix 1 for a list of engagement activities.

9.3. Waste goals and actions for Kawau

The goals and actions below are based on the actions developed for the 2018 HGI Waste Plan. They draw on priorities identified through engagement and will be pursued with a view to supporting community-led solutions and initiatives and reducing waste costs.

	Goals	Key act	tions
		Community will	Auckland Council will
1	Find a long-term solution for refuse and recycling services.	• Work with the council and mana whenua to consider options to replace the medium-term enclosure at Sandspit Wharf.	• Work with mana whenua, the Kawau and Sandspit communities and other stakeholders to find and implement a long- term solution for refuse and recycling services.
2	Identify an approach to charge for refuse and recycling services.	 Work with the council to identify options for charging for refuse and recycling services. 	• Work with the Kawau community to identify issues and options for recovering costs of services.
3	Support community-led food scraps and green waste processing, waste minimisation and community/visitor education on Kawau.	 Keep food scraps and green waste out of the refuse. Increase home and community processing such as composting, mulching and chipping. Generate local action and solutions for waste. Recycle right in separating refuse and recycling. Encourage visitors to reduce waste and follow waste separation behaviours. 	 Work with the local community to develop and support on-island solutions for organic and green waste. Support local community / visitor education, organic processing and behaviour change including pack-in / pack- out messaging.

4	Everybody managing their inorganic waste appropriately.	• Ensure inorganic waste is diverted where possible or disposed of appropriately, for example through working together to cover transport charges or making use of the local community recycling centre on the mainland.	• Support the community to connect with organisations that divert inorganic waste.
---	--	--	--

Te āpitihanga 1: Ngā mahi whakapā hei āwhina ki te whakawhanake i tēnei mahere / Appendix 1: Engagement activities to help develop this plan

The table below summarises the engagement to help develop this plan.

Entity / Island	Engagement processes			
Mana whenua	 Presentation and ongoing discussion with Auckland Council's Infrastructure and Environmental Services Mana Whenua Advisory Group and iwi representatives on the regionwide WMMP 2024. 			
	• Mana whenua invited to engage separately on this plan.			
Aotea / Great Barrier	 Workshop with community and commercial waste stakeholders. 			
	• Workshops with the Aotea / Great Barrier Local Board.			
	 Online survey of cross-section of the community on Zero Waste actions and waste plan review. 			
	 Discussion with local community waste educator (Envirokiwi Community Enterprise). 			
	 Discussions with Tātaki Auckland Unlimited. 			
	 Invitations to Kawa and Motairehe marae. 			
Waiheke	Workshop with community and commercial waste stakeholders.			
	 Workshops with the Waiheke Local Board. 			
	Invitations to Piritahi Marae.			
Rakino	 Discussions with the Rakino Ratepayers Association chairperson. 			
	 Discussions with commercial waste stakeholders. 			
	 Workshops with the Waiheke Local Board. 			
Kawau	 Discussions with the Kawau Island Residents and Ratepayers Association and chairperson. 			
	 Discussions with Sandspit Yacht Club and commercial waste collector. 			
	 Workshops with the Rodney Local Board. 			
	 Information from the Department of Conservation. 			

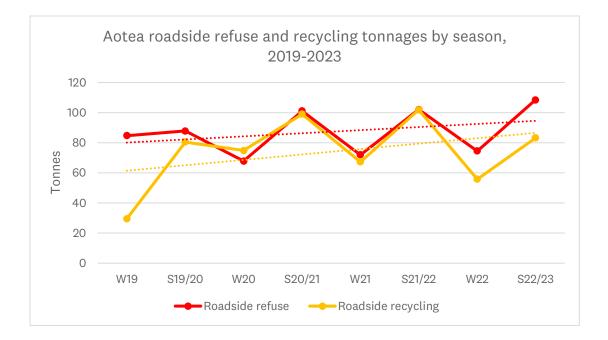
Te āpitihanga 2: Ngā tana o te para, o te hangarua me te rukenga otaota i Aotea / Appendix 2: Aotea refuse, recycling, green waste tonnages

The graphs and charts below reflect the tonnages of refuse, recycling and green waste that go through the Aotea Refuse Transfer Station (ATS) and Anamata.

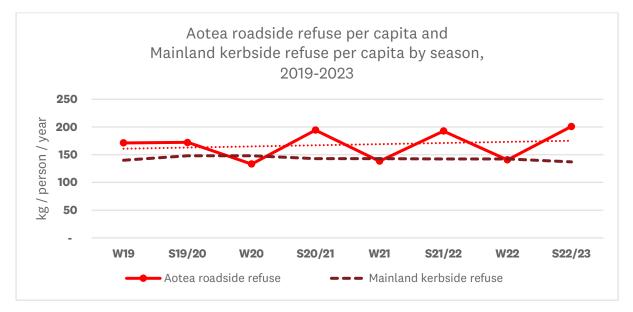
Note that the graphs below display data from summer (S) and winter (W) as there can be a lot of variation in waste tonnages depending on number of visitors to each island and seasonality of certain waste streams like green waste. Summer data covers November-April (inclusive) and winter data covers May-October (inclusive).

Roadside Tonnages

The graph below shows roadside refuse and recycling tonnages from mid-2019 to mid-2023, with both roadside refuse and recycling tonnages trending slightly up over this period. The Aotea population increases over summer and holiday periods with visitors and marine and boat users, with consequent increases in waste tonnages.

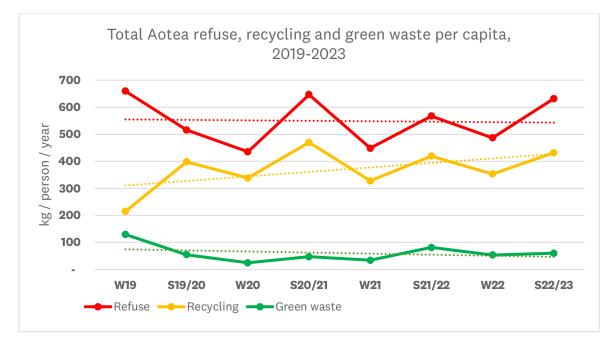


The graph below shows roadside refuse tonnages divided by population and converted to kilograms to give per capita values for Aotea from mid-2019 to mid-2023. The same is done for refuse tonnages for the Auckland mainland from mid-2019 to mid-2023. The Aotea per capita value for roadside refuse is typically higher than the mainland average in the summer months, but dips just below the mainland average in the winter months.



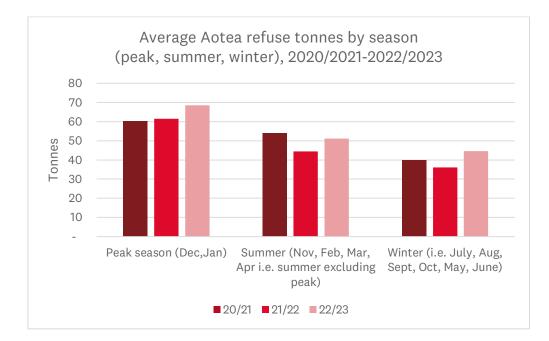
Total tonnages

The graph below shows total refuse, recycling and green waste tonnages divided by population and converted to kilograms to give per capita values for Aotea from mid-2019 to mid-2023.

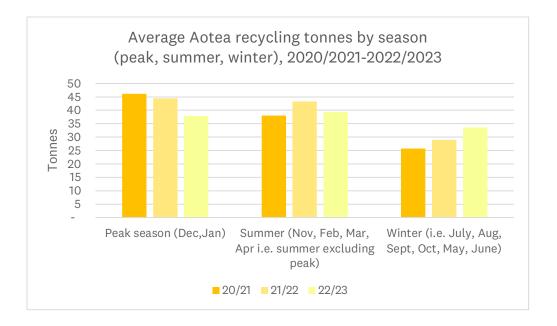


Total tonnages: seasonal trends

The chart below shows that more refuse is disposed of in the peak season than in summer and winter. Average refuse tonnages increased slightly in the peak season across the period 2020/2021-2022/2023.



The chart below shows that in 2020/2021 and 2021/2022 more recycling was disposed of in December and January than in the remaining summer season, or the winter season. Average recycling tonnages in the winter season increased from 2020/2021 to 2022/2023.



Roadside refuse audit results, October 2023 and February 2024

Aotea refuse bins and bags audited in October 2023 and February 2024 were compared with Auckland mainland bins from central Auckland and Manukau which were analysed in March 2023. The results are presented in the table below and show that Aotea bins and bags contained an overall lower proportion of divertible material, a lower proportion of compostable material but a higher proportion of recyclable material than central Auckland and Manukau bins.

Comparison of divertible materials in Aotea/Great Barrier, Auckland Central, and Manukau roadside rubbish - Kg per household set out - Figures of an indicative nature only	Aotea/Great Barrier 120-litre rubbish bins and bags combined	Auckland Central 120- litre rubbish bins	Manukau 120- litre rubbish bins			
Date of SWAP audit	October 2023 and February 2024 combined	March 2023	March 2023			
Total average household set out	6.31 kg	9.00 kg	9.03 kg			
RECYCLABLE MATERIALS						
Paper - Recyclable	0.38 kg	0.42 kg	0.46 kg			
Plastic - #1,2, & 5 containers	0.18 kg	0.20 kg	0.27 kg			
Steel cans	0.07 kg	0.04 kg	0.09 kg			
Aluminium cans	0.03 kg	0.04 kg	0.03 kg			
Glass - Bottles/jars	0.33 kg	0.14 kg	0.10 kg			
Subtotal	0.99 kg	0.85 kg	0.95 kg			
Recyclable materials as % of total	15.7%	9.4%	10.5%			
COMPOSTABLE MATERIALS						
Food waste	1.95 kg	3.57 kg	4.07 kg			
Green waste	0.12 kg	1.15 kg	0.86 kg			
Subtotal	2.07 kg	4.72 kg	4.93 kg			
Compostable materials as % of total	32.8%	52.4%	54.6%			
TOTAL DIVERTIBLE	3.06 kg	5.57 kg	5.88 kg			
Divertible materials as % of total	48.6%	61.9%	65.1%			

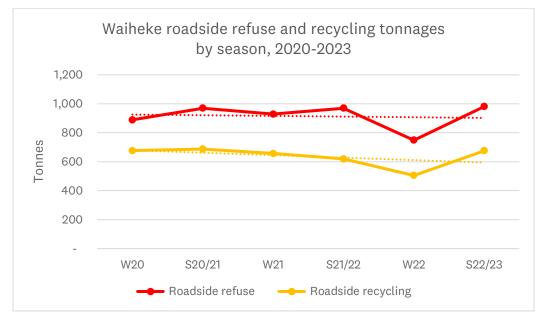
Te āpitihanga 3: Ngā tana o te para, o te hangarua me te rukenga otaota i Waiheke / Appendix 3: Waiheke refuse, recycling, green waste tonnages

The graphs and charts below reflect the tonnages of refuse, recycling and green waste that go through the Waiheke Refuse Transfer Station.

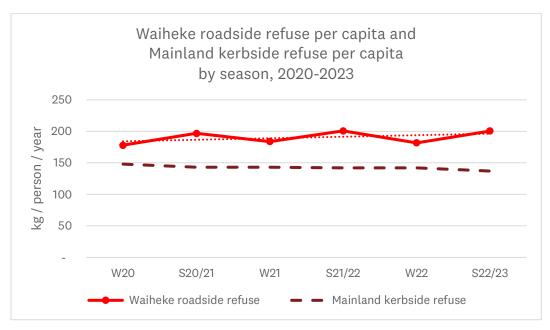
Note that the graphs below display data from summer (S) and winter (W) as there can be a lot of variation in waste tonnages depending on number of visitors to each island and seasonality of certain waste streams like green waste. Summer data covers November to April (inclusive) and winter data covers May to October (inclusive).

Roadside tonnages

The graph below shows roadside refuse and recycling tonnages from mid-2020 to mid-2023, with both roadside refuse and recycling volumes trending slightly down and dipping over the winter 2022 before increasing again in summer 2022/2023. The Waiheke population increases over summer and holiday periods with visitors and marine and boat users, with consequent increases in waste volumes.

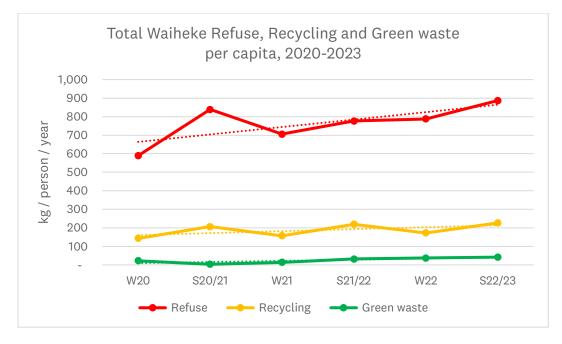


The graph below shows roadside refuse tonnages divided by population and converted to kilograms to give per capita values for Waiheke from mid-2020 to mid-2023. The same is done for refuse tonnages for the Auckland mainland from mid-2020 to mid-2023. The Waiheke per capita value for roadside refuse is higher than the mainland average.



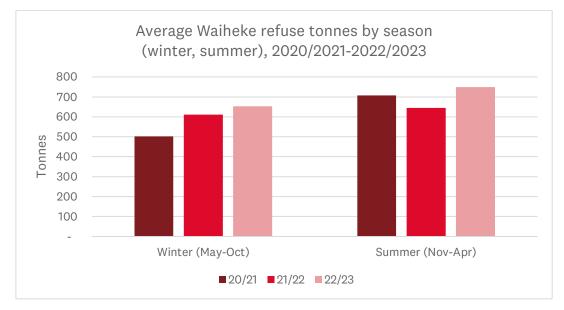
Total tonnages

The graph below shows total refuse, recycling and green waste tonnages divided by population and converted to kilograms to give per capita values for Waiheke from mid-2020 to mid-2023.

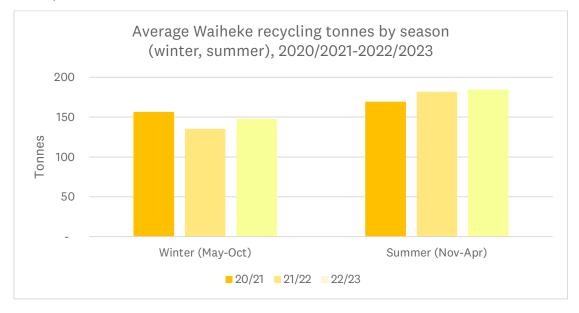


Total tonnages: seasonal trends

The chart below shows increasing levels of refuse tonnages from 2020/2021 to 2022/2023 in winter and variable summer refuse.



The chart below shows an overall decrease in recycling tonnages in the winter from 2020/2021 to 2022/2023, and an increase in recycling tonnages in the summer over the same period.



Roadside refuse audit results, September 2023 and February 2024

Waiheke refuse bins and bags audited in September 2023 and February 2024 were compared with Auckland mainland bins from central Auckland and Manukau, analysed in March 2023. The results are presented in the table below and show that Waiheke bins and bags contained an overall lower proportion of divertible material, a lower proportion of recyclable material and a lower proportion of compostable material than central Auckland and Manukau bins.

Comparison of divertible materials in Waiheke, Auckland Central and Manukau roadside rubbish - Kg per household set out	Waiheke 120-litre rubbish bins and bags combined	Auckland Central 120- litre rubbish bins	Manukau 120- litre rubbish bins			
Date of SWAP audit	September 2023 and February 2024 combined	March 2023	March 2023			
Average household set out	8.11 kg	9.00 kg	9.03 kg			
RECYCLABLE MATERIALS						
Paper - Recyclable	0.30 kg	0.42 kg	0.46 kg			
Plastic - #1,2, & 5 containers	0.13 kg	0.20 kg	0.27 kg			
Steel cans	0.04 kg	0.04 kg	0.09 kg			
Aluminium cans	0.03 kg	0.04 kg	0.03 kg			
Glass - Bottles/jars	0.15 kg	0.14 kg	0.10 kg			
Subtotal	0.65 kg	0.85 kg	0.95 kg			
Recyclable materials as % of total	8.0%	9.4%	10.5%			
COMPOSTABLE MATERIALS						
Food waste	2.37 kg	3.57 kg	4.07 kg			
Green waste	1.72 kg	1.15 kg	0.86 kg			
Subtotal	4.09 kg	4.72 kg	4.93 kg			
Compostable materials as % of total	50.4%	52.4%	54.6%			
TOTAL DIVERTIBLE	4.74 kg	5.57 kg	5.88 kg			
Divertible materials as % of total	58.5%	61.9%	65.1%			

Te āpitihanga 4: Ngā Takuhe ā-Pūtea ki te Whakaitinga me te Auahatanga mō te Para / Appendix 4: Waste Minimisation and Innovation Fund Grants

Island	Organisation Name	Project Title	Amount of funding allocated	Funding round year
Aotea	Envirokiwi Ltd	Community compost and community food exchange pantry	\$2021.00	2018
Aotea	Aotea Brewing Company Ltd	Aotea Glass Waste Project	\$3900.00	2018
Aotea	AoteaOra Community Trust	"Let's Make It"	\$2352.50	2018
Aotea	AoteaOra Community Trust	Making drinking glasses out of discarded bottles and jars	\$4265.21	2019
Aotea	Ngātiwai O Aotea Kawa Marae	Kawa Marae Para Kore	\$9402.00	2019
Aotea	Envirokiwi Community Enterprise trading as Anamata	Soft plastics recycling for Aotea	\$5096.83	2020
Aotea	Envirokiwi Community Enterprise trading as Anamata	Compost facilities on Aotea	\$15,632.14	2021
Aotea	AoteaOra Community Trust	Aotea Drinking Water Network	\$12,835.88	2021
Aotea	Envirokiwi Community Enterprise trading as Anamata	Expansion of resource recovery action using a sustainable power supply	\$50,000.00	2022
Aotea	Envirokiwi Community Enterprise trading as Anamata	Upscaling compost facilities and food waste diversion on Aotea	\$10,980.00	2023
Waiheke	Waiheke Resources Trust	The Compost Co. Waiheke Expansion Project	\$49,800.00	2018
Waiheke	Clean Island Ltd	Waiheke Construction Waste Recovery	\$49,600.00	2018
Waiheke	Plastic Free Solutions Limited	Reducing Soft Plastic through Glass Jar Reuse	\$9600.00	2018
Waiheke	New Hope Op Shop Waiheke	Waiheke Wood Waste Minimisation Project	\$30,426.00	2019
Waiheke	Waiheke Resources Trust	WRT Kai Conscious Cafe - Livingwaters Expansion	\$4900.00	2019
Waiheke	Waiheke Island Toy Library Incorporated	Community Waste Minimisation – kid's parties/events	\$5000.00	2020
Waiheke	Piritahi Marae Trust	Piritahi Māra Wairākau	\$23,871.00	2020
Waiheke	Waiheke Resources Trust	Compost Co. Expansion	\$47,913.00	2023

Successful applications from the HGI, 2018-2023

Hauraki Gulf Islands Waste Plan 2024

© 2024 Auckland Council, New Zealand. December 2024.

ISBN 978-1-991146-78-6 (Print) ISBN 978-1-991146-79-3 (PDF)

Auckland Council disclaims any liability whatsoever in connection with any action taken in reliance of this document for any error, deficiency, flaw, or omission contained in it.

This document is licensed for re-use under the

Creative Commons Attribution 4.0 International licence.

In summary, you are free to copy, distribute and adapt the material, as long as you attribute it to Auckland Council and abide by the other licence terms.

aucklandcouncil.govt.nz

