

Aotea Great Barrier

He aha te mea nui o te motu Aotea. He moana, he whenua, he tangata.

What is the essence of Great Barrier Island?
It is the sea, it is the land, and it is the people.¹

The Great Barrier Local Board vision is to “create the world’s most liveable island”. Supporting more sustainable living underpins this vision. Since 2015, the Local Board has funded community discussion to develop a shared vision for the island’s environmental future. Waste management and minimisation have featured strongly in these conversations.

Key features of the Aotea Great Barrier community are presented below.



Around 900 permanent residents (2013 Census)

- 462 households
- 44% one person households
- 60% public land administered by Department of Conservation



Mainly European/Pakeha and Maori

- Ngati Rehua Ngatiwai ki Aotea is the local iwi
- 91% European/pakeha, 18% Maori, 3% Pacific, 1% Asian
- 17% born overseas



Older and lower income

- Median age 54, the oldest in the Auckland region
- \$30,100 median household income
- 53% employed, 149 local businesses, three local schools

See the [Great Barrier demographic report card²](#) for more on the island’s community.

People come to the island for a unique way of life and residents live an alternative ‘off the grid’ lifestyle, with local power, water, septic and drainage systems. Community motivation for sustainable living and doing things differently tends to be high.

¹ [Great Barrier Local Board Plan 2014](#).

² Accessible at <http://stateofauckland.aucklandcouncil.govt.nz/demographic-report-card/great-barrier-local-board-2013/>.

Great Barrier – Waste Stats



Refuse into Claris landfill (tonnes 2015/16)

Kerbside Refuse	224
Commercial Refuse	51
Public Drop Off Points Refuse	97
Port Fitzroy Barge	4
Inorganic and mixed load	265
TOTAL REFUSE	641

Recycling (tonnes 2015/16)

Cardboard	50
Glass	111
Aluminium	2
Tin Cans	2
Plastic	4
Recycling (Mixed)	19
TOTAL RECYCLING	188

Summer barge (tonnes 2015/16)

Recycling (11) Rubbish (4) **TOTAL 15**
(Glass made up 9 tonnes, Plastic 2 tonnes)

Cost of waste services (2015/16)**

Total annual cost is approximately \$850,000, or around \$1700 per rateable property (including GST). Great Barrier ratepayers pay around \$240 of this per property and the rest is subsidised by regional rates funding. Staged reduction of this subsidy is intended.

Support for community action

Council resources community education and behaviour change, local waste minimisation and community led waste action and solutions.

Key issues



Reducing the high cost of waste services on the island



Public drop-off rubbish and recycling points being used as dumping sites



Influx of visitor and boatie waste in holiday periods



High levels of food/green waste and recycling going to landfill



Claris landfill is nearing the end of its life



Minimising packaging coming on to the island



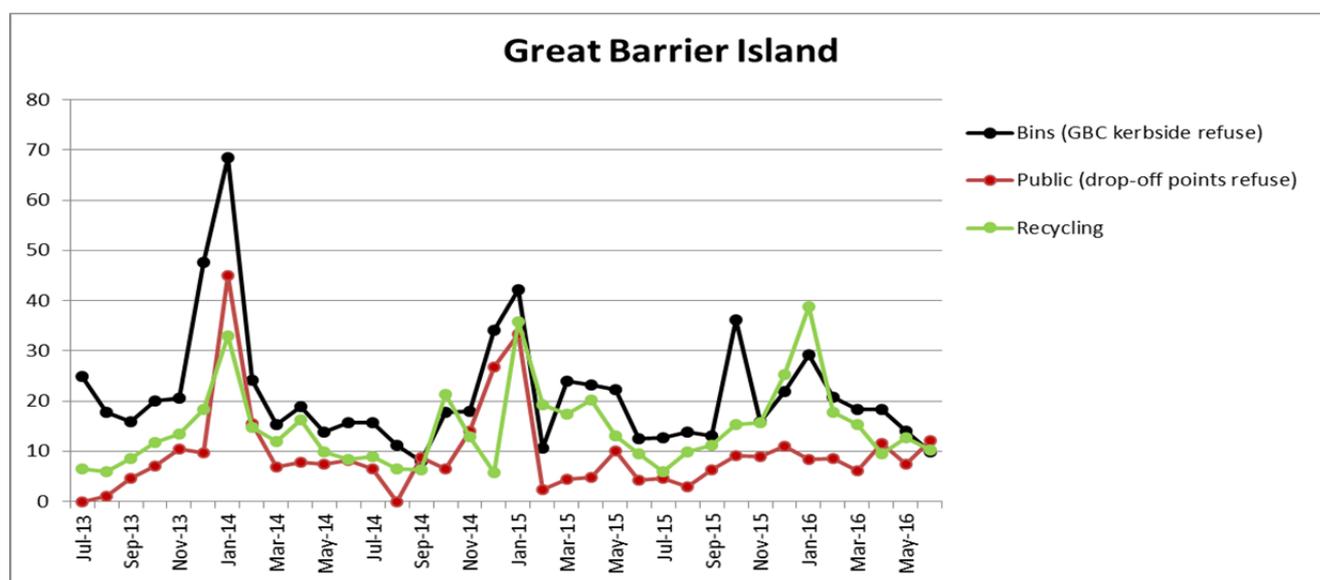
Supporting on island use of waste streams such as glass, building material and cardboard

**Financial information for Aotea Great Barrier is updated from information prepared for the council's 2015 Long Term Plan discussions.

Aotea Great Barrier waste profile

Claris landfill is the main point of waste disposal on the island. Recycling (glass, plastic, tin, steel) is shipped to Auckland for sorting and diverting to markets for reuse³. Some card and paper is used on island and the rest is shipped to Auckland. The remaining refuse material is disposed of in the Claris landfill, which is also the only disposal point on the island for septic tank sludge. The resource consent for this landfill expires in 2027, its capacity is reducing and work has begun to explore alternatives for waste disposal.

Aotea Great Barrier experiences visitor and boatie influxes over summer and holiday periods, with consequent increases in waste volumes. This graph shows waste volumes from mid-2013 to mid-2016, with kerbside rubbish collection volumes trending down, recycling volumes increasing slightly and a decrease in rubbish volumes at public drop-off points. See Appendix Three for a breakdown of rubbish volumes by season and source (kerbside, drop-off, summer barge or commercial), and of recycling by season and type (card, glass, tin etc).



What is going to landfill?

Latest analysis⁴ of Aotea Great Barrier refuse bags in September 2014 (winter season) and January 2015 (summer season) showed that food waste comprised 30.6% of the weight of the average kerbside bag in winter and 45% in summer. This may be linked to concerns about composting encouraging dogs and rats, and visitors dumping food waste before leaving the island.

58% of a typical winter Aotea Great Barrier rubbish bag could be composted or recycled

The waste audit found that 58% of the winter contents of kerbside refuse bags could be diverted from landfill, and 62% of the summer contents. The island currently has no kerbside collection of plastic, aluminium, steel, tin and glass containers, which could help explain the high proportion of recyclable materials in the island’s refuse. The weekly tonnage of construction and demolition waste

³ See <http://www.makethemostofwaste.co.nz/> for more on how recycling is handled.

⁴ Waste Not Consulting (2015), *Survey of Solid Waste on Great Barrier Island*, prepared for Auckland Council.

has also increased in every survey since August 2010, though the biggest waste issue on the island is household waste. The latest waste audit noted a drop in card and paper levels found in kerbside rubbish collected. Kerbside card and paper recycling was introduced in late 2013 and the next waste audit will clarify the extent of card and paper in kerbside rubbish collected (and going to landfill).

From 2016, an inorganic collection will be held every year. In 2016/2017, Council is working with the local community to develop a new way to collect, reuse and recycle inorganic items, with a view to establishing a community recycling centre, where these unwanted items can be repaired and reused on the island. This is an exciting development for Aotea Great Barrier that will result in local employment, income generation and reduced waste to landfill.

The relatively high waste costs on the island are linked to visitor influxes and the higher costs of providing services on the island. Currently there is around a \$1460 difference between the cost of waste services (around \$1700 per rateable property) and what Aotea Great Barrier ratepayers pay through a targeted rate (\$240)⁵. The difference is a subsidy that is paid through regional rates funding. The planned staged reduction of this subsidy means reducing the costs of waste collection services on the island is a priority.

Okiwi Passion – Growing local food and waste wise kitchens

Okiwi Passion is a market garden that was featured in July 2016 on television's Country Calendar. An aim is to reduce the island's dependency on Auckland for its food supply by growing an extensive range of produce, plus seedlings for local gardeners. This is made available at a small local market, and via a fruit and vegetable box delivery service. Most of the island's cafés are supplied with salad greens from Okiwi Passion, which also helped form the North Barrier Co-op, specifically for the purchase of bulk organic dry goods. This has around 20 members and is run on volunteer labour. Caity Endt provides workshops teaching locals and visitors how to compost, be waste wise in the kitchen and be more self-sufficient with food.



Caity Endt from Okiwi Passion leading a cheese making workshop

⁵ Financial information for Aotea Great Barrier is updated from information prepared for the council's 2015 Long Term Plan discussions.

Great Barrier Island Community Gardens

The Great Barrier Island Community Garden sits on DOC land beside the Medlands Church. It receives community waste such as coffee grinds from a local café, shredded paper from Council offices and waste carpet for making paths and use as mulch. Compost and other gardening related courses are offered, and residents and visitors are free to help themselves to the produce and leave a koha in the honesty box out the front. Local food outlets use the fresh herbs grown in the gardens.

A key role of the community garden is its communal worm farm – used and appreciated by holiday makers and back owners, as well as locals. Others just visit for inspiration.



Locals using the communal worm farm at the community garden

Sarah Harrison - Resource gatherer, artist and potter

Sarah Harrison set up the 'Rat Shed' in Shoal Bay Tryphena, as a place for people to take unwanted items to find a new home. People are welcome to come and take anything they find. Sarah also creates art out of objects collected from these items. She looks for the creative and functional potential in everything and tries to keep materials out of the Claris landfill. "I eye up everything that comes in... what can that be used for, by whom and if not, how can it break down?"

Sarah traces her reuse journey back to her childhood on Aotea Great Barrier. Her family made do with what was around them and adapted things to meet their needs. Inspiration has also come from visiting third world countries and seeing people's resourcefulness in finding creative solutions. For Sarah: "The artist's role is to inspire and encourage people to look at 'trash' in a different light and to keep those conversations around waste minimisation flowing. We are not necessarily going to sort the problem singlehandedly, but hey, every drop in the bucket helps to fill it eventually!"



Sarah Harrison on her 'Heineken' wall



The 'Rat Shed', Shoal Bay, Tryphena

Iwi and community drivers

Environmental responsibility means being authentic. Sustainability won't just happen. It's a belief, an attitude, a journey of social responsibility and we know that together everything is possible (Ngati Rehua Hapu Management Plan)⁶.

We could become a zero waste island like Capannori⁷ in Italy (local resident).

Aotea is an important ancestral home of Ngati Rehua Ngatiwai ki Aotea people. The Ngati Rehua Ngatiwai ki Aotea Hapu Management Plan 2013 comprehensively sets out what is important to the iwi. In relation to waste, what is most important is that Ngati Rehua are fully engaged in meaningful discussions about how waste is managed, any changes being considered, opportunities to exercise kaitiakitanga and to develop social and economic opportunities regarding waste.

The Ngati Rehua Ngatiwai ki Aotea Trust Board has identified waste minimisation as an area of possibility for its hapu, in terms of employment generation and supporting its aspirations as kaitiaki. In 2013 the iwi received Waste Minimisation Innovation Fund support to explore feasibility of resource recovery enterprises on Aotea Great Barrier. Ngati Rehua will proactively seek ongoing opportunities for its people as waste management and services evolve on the island.

Alongside iwi, other Aotea Great Barrier residents are engaged and passionate about the island and its future. As the stories above and below show, many community waste initiatives are underway, with high interest and energy around waste locally.

Since 2013, almost \$70,000 from council's Waste Minimisation Innovation Fund has gone to groups on Aotea Great Barrier.

Multiple surveys, workshops and discussions have been held with the local community about waste. Feedback supports maximising on island handling of waste, with the ultimate goal of a self-sustaining system that deals with the majority of waste on island. Major community drivers and concerns relating to waste are summarised below.

⁶ Ngati Rehua Ngatiwai Ki Aotea Hapu Management Plan, 2013, p10.

⁷ See the Story of Capannori <https://www.zerowasteurope.eu/2013/09/the-story-of-capannori-a-zero-waste-champion>.

Priorities

- Reducing waste costs
- Reducing waste created and sent to landfill
- Being more enterprising, creative and self-managing of waste

We want

- Kerbside collection and well managed drop-off points for visitors and residents with boat/remote access
- More food and green waste composting
- More on island handling of waste, creating income and jobs
- A community recycling centre

We are concerned about

- Boaties and visitor waste polluting the island
- The level of packaging (plastic and card) coming on to the island
- More illegal dumping with moves to disposer pays
- Having to pay more for waste

Stonewall Store

The Stonewall Store at Tryphena models sustainability and waste minimization. The store has stopped using plastic bags, buys from local suppliers, increased its bulk food bins and now supplies a wide range of dry goods and cleaning products in bulk. Food scraps are supplied to a local with pigs and cardboard/paper is reused, composted or separated for recycling. Only 'Eco' products are used in the cleaning of the store. Owner Joss also supports an Island cooperative buying group and a weekly local produce market outside her store.



Waste goals and key actions for Aotea Great Barrier

Drawing on iwi, community and council priorities, waste goals and key actions for Aotea Great Barrier are as follows. These will be pursued by the community, iwi and council working together.

GOALS	KEY ACTIONS	
	Community will	Council will
Everybody composting their food and green waste	Keep food and green waste out of rubbish bags Increase home and community composting, mulching and chipping	Continue to resource local community education, composting and behaviour change Help develop organic waste processing systems and find solutions to management of noxious weeds
Moving towards zero recyclables in domestic rubbish bags	Keep recyclables out of rubbish bags Recycle properly at drop-off points Promote through community education	Introduce a kerbside recycling service in 2017/18 for all recyclables Support on island reuse of paper, glass and other materials
Establish a community recycling centre by 2020	This is a major collaborative community, iwi and council initiative. It involves trialling a new inorganic approach in 2016/17; learning from this to understand what material can be utilised on island; developing reuse and repair initiatives; building capacity to run a community recycling centre (CRC); and creating an inclusive process to develop an inspiring and effective Aotea CRC, by 2020	
Claris landfill improvements, charges and alternatives	Keep food and green waste, recycling and reusable inorganic material out of landfill	Introduce gate charges for all waste to landfill and sludge (not reusable inorganics or recyclables) Reduce opening hours Continue to introduce sustainability features to the landfill Start work on landfill alternatives
Reduce waste coming on to the island	Develop a local action plan to reduce packaging through for example communal ordering and bulk buying, becoming plastic bag free, negotiating with big suppliers to minimise packaging, develop safe on island drinking water sources	Support community efforts to reduce waste coming on the island
Support creative iwi and community action, education and behaviour change	Local awards and incentives to reward waste leaders, hold an annual event Sharing inspiring local stories Attending regional and national gatherings such as Community Recycling Network hui	Continue to resource community education, action and behaviour change and support iwi initiatives
Reduce commercial and construction and demolition waste	Keep food and recycling out of landfill Minimise packaging, model zero waste practices Explore options for keeping building and demolition waste out of the landfill	Work with local community and business to reduce building demolition material going to landfill
Reduce visitor and boatie waste	Promote Aotea Great Barrier as a zero waste, sustainable community Promote a pack in pack out policy for	Develop a disposer pays system for boaties Review waste coming on to the summer

	visitors	barge Identify better management options for visitor waste
Encourage more on island use of waste streams	Continue community initiative to use all paper and card on island for composting	Council to research on island uses for glass and support community led solutions

All of these goals and actions will be pursued with a view to reducing waste costs and supporting community led solutions and initiatives. Examples of this are ensuring that all occupied households have food waste and compost bins, and developing communal access to wood chipping and mulching.

A community led initiative is already underway to increase local recycling of paper and cardboard and council has undertaken to explore options with the community for on island use of glass, in 2017. Council will also focus in 2017/2018 on developing a disposer pays system for boaties enjoying the Hauraki Gulf Islands marine environment, to shift the costs of managing boaties' waste to those who produce it.

A game changer for Aotea Great Barrier will be the development of a community recycling centre on the island by 2020. Interest has been expressed in this becoming an environmental hub for the island, which can showcase sustainable living and drive positive environmental and social change.

Short term waste cost reductions will come from introducing landfill charges for rubbish and reviewing the number of public drop-off recycling points. The potential introduction of region wide disposer pays for refuse from 2018/2019, including the Hauraki Gulf Islands, will further reduce waste costs and incentivise waste minimisation. As disposer pays comes in, there are concerns that littering and rubbish dumping on the island will increase. Practical strategies to monitor and address this will need to be put in place prior to disposer pays coming into effect.

Claris Landfill going more 'eco'

Exciting developments are underway in 2016 at Claris landfill, including recycling bays, a public 'living loo' toilet block (see www.naturalflow.co.nz/) and upgraded solar panels. These panels will run all electrics, the weighbridge, amenities and the living loo, making the site fully self-sustaining for power needs.

Waste services for Aotea Great Barrier to 2020

Waste service changes in the next three years are as follows:

- kerbside recycling for all recyclables introduced in 2017/2018. This will include glass, plastic, tin, aluminium, paper and card and be weekly in summer and fortnightly in winter
- reduced public drop-off sites for recycling from 2017/2018, taking the time to get the number right ('retired' sites can be used for education and community use)
- a new approach to inorganic collection and on island use of inorganic materials trialled, with steps taken towards establishing a community recycling centre by 2020
- disposer pays for domestic rubbish proposed to be introduced from 2018/2019 (depending on the outcome of the review of the Waste Management and Minimisation Plan in 2017)
- summer barge to remain in place, until a disposer pays system for boaties is introduced
- introduce gate charges by mid-2017 for all rubbish to landfill and continue with reduced landfill opening hours over winter.

Reduced and comingled⁸ public drop-off points

The open and unmonitored nature of the drop-off points allows the service to be abused by poor sorting of recyclables and illegal dumping of material not suitable for the sites.

Reducing the recycling drop-off points once kerbside recycling is introduced and requiring more material to be taken to Claris landfill for disposal or recycling will improve recycling rates and reduce service costs. Comingling will address current recycling contamination issues and make it easier to separate recycling off island.

Landfill changes

Use of the Claris landfill has long been free to residents and businesses on Aotea Great Barrier, making this an attractive option to take rubbish and unwanted items. It also means that there is little incentive to minimise waste and the landfill fills up faster.

Over and above the kerbside and public drop-off rubbish collection, approximately 45 tonnes of material per year enters Claris landfill from commercial and residential users. A gate charge to bring rubbish to the landfill outside of kerbside and drop-off rubbish collections will reduce the cost burden on ratepayers and encourage waste minimisation by commercial and residential users.

Any further changes to landfill hours will be consulted on with the local community to ensure appropriate access.

⁸ Comingled means that all recycling goes into one bin (card, paper, glass, tin etc).

Disposer pays and waste charges

Council's 2012 Waste Management and Minimisation Plan (the WMMP) signalled a move to disposer pays for domestic rubbish to landfill region wide in 2018/2019, including the Hauraki Gulf islands. The WMMP is being reviewed and an updated version will be adopted by June 2018. Any change to disposer pays approaches or timing will be consulted upon as part of the development of the updated WMMP and may affect the timing and service approach outlined below.

How disposer pays can occur on Aotea Great Barrier will be investigated during 2017/2018, in close consultation with the board and the community. It is likely to mean that residents and visitors will buy prepaid bags for household refuse and to have implications for how public rubbish drop-off services operate (for example operating through user pays coupons or tokens). Charges for disposer pays for waste to landfill will be set in consultation with the Local Board and consulted on through Council's annual planning process. Feasibility, fairness and affordability will be key criteria in decision making.

Developing a disposer pays system for boaties for their waste will also be investigated in 2017/2018. Any changes here will need to be accompanied by a community education and awareness campaign. See the section on marine and boat users for more on this.

This table summarises Aotea Great Barrier waste services and likely service changes to 2020.

Service type	Service to 1 July 2017	July 2017 – June 2018	July 2018 – June 2019	July 2019 – June 2020
Rubbish collection	Weekly kerbside rubbish collection	Planning for disposer pays for weekly kerbside rubbish collection	Disposer pays introduced for weekly kerbside rubbish collection, via bins or bags, in line with the WMMP review	Disposer pays weekly kerbside rubbish collection
	Four public rubbish drop-off points	Four public rubbish drop-off points	Disposer pays proposed to be introduced for public rubbish drop-off points, in line with the WMMP review	Disposer pays public rubbish drop-off points
	Illegally dumped rubbish removal and abandoned vehicle collections	Continue	Continue (with contingency measures to mitigate increased dumping with the introduction of disposer pays)	Continue
	Litter bins and loose litter collections	Continue	Continue	Continue
Recycling collection	Weekly kerbside collection of paper and card only	Full kerbside recycling (weekly summer, fortnightly winter)	Full kerbside recycling (weekly summer, fortnightly winter)	Full kerbside recycling (weekly summer, fortnightly winter)
	13 drop-off recycling sites (not comingled)	Reduced number of comingled recycling	Continue, review as necessary	Continue, review as necessary

		sites		
Inorganic collection	Annual kerbside inorganic collection	New annual approach to inorganics developed, based on 2016/2017 trial	Continue with new annual service	Community Recycling Centre established
Summer barge at Fitzroy	Refuse and recycling bins for boaties waste provided December to February each year	Develop a marine users disposer pays system	Disposer pays system for boaties, in line with the WMMP	Disposer pays system for boaties
Claris landfill	Before mid-2017, introduce gate charges for all rubbish to landfill	Continue	Seek to increase cost recovery for the landfill operation	Seek to increase cost recovery for the landfill operation
Community education and support	On island waste minimisation education and support for community action	Continue	Continue	Continue

Any significant changes to the services above will be consulted upon and communicated appropriately, before being introduced.

Aotea Great Barrier has clear opportunities and the community leadership to make major strides towards becoming a zero waste island. This can happen swiftly, by working together and employing more of the creative thinking and community energy for change that is already so evident.