Te Rourou Māpua Guide





MIHI

E ngā mana, e ngā reo, e nga rau rangatira mā, nau mai ki ngā whārangi akiaki o te pukapuka para kore nei.

ACKNOWLEDGEMENT

Para Kore Ki Tāmaki would like to acknowledge the support from Auckland Council and the Waste Minimisation and Innovation Fund (W.M.I.F.) in the development of this guide which was created to equip marae, kura, collaborative partners, and other communities in Tāmaki Makaurau with access to tools and information for diverting waste from landfill in a mana enhancing way.

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CONTENTS

Kaupapa	4
Purpose	5
Mapping Your Para Kore Journey	6
Goal Setting with the M.A.U.R.I Framework	7
Te Toi o Matariki	8
Resource Audit	12
Refuse & Reduce Waste	14
Reuse Resources: Composting	16
Create Resources: Māra	18
Hosting a Para Kore Event	22
Getting the Message Clear & Inspiring Others	24
Inspiring Groups	26
Celebrating Success	26
Useful Contacts	27
Accessing Funding	27

KAUPAPA

"Nāu te rourou, nāku te rourou, ka ora ai te iwi."

Who is this guide for?

This guide is for anyone who has a vested interest in their impact on Papatūānuku, marae, Māori communities and kura alike. As Māori we have an intrinsic connection to Papatūānuku stretching back to the creation mythology, equipped with this knowledge of self, it is up to us to change our behaviour and give back.

"With your food basket and mine, the people will thrive."

Context

In Tāmaki Makaurau, households currently send approximately 200,000 tonnes of waste to landfill per year. Landfills are one of the most obvious examples of the disregard for Papatūānuku that our current consumer behaviours present and the urgency with which we need to act cannot be overstated.

In devotion to the total and undisputed protection of Papatūānuku and in the hopes of supporting your mana motuhake, we have created a tool through which you will understand the in's and out's of the Para Kore ki Tāmaki programme. Here you can map your personal para kore journey, learn about the processes needed for different waste management and minimisation methods, set goals, and be inspired.



Mapping out the kaupapa of Para Kore ki Tāmaki, 2014

PURPOSE

This guide is a tool for which marae, Māori communities and kura have the ability to take ownership of their para kore journey and cater their actions to their specific needs and goals.

Throughout this guide we have detailed ways to identify where different waste streams are coming from, how to deal with those waste streams and how to change the perception of waste from something to simply be rid of, to a resource that deserves to be preserved and respected. At the forefront of this guide is the total protection of Papatūānuku, every piece of information and support is curated with the express intent to help marae, kura and Māori communities to deepen their relationship with Papatūānuku and give back in as many ways possible.



Para Kore ki Tāmaki flag outside the pop up repair cafe on Williamson Ave, 2022



Planting day for the opening of Pacific Vision Aotearoa in Manukau, 2022

MAPPING YOUR PARA KORE JOURNEY

In the first steps of your para kore journey, it's important to have a clear idea of where you want to see your marae in the future. Te Toi o Matariki framework, detailed on page 8, is a tool to plan out and map your para kore journey. The horizontal line indicates above and below ground, marking out the road ahead and the evolution of the relationship that the marae, kura or household has to its waste. The curving line is representative of the tangible systems and education that your marae, kura or household will implement to become a para kore space.

It is important to note that this framework is a template for marae, kura and households to plan out the steps, behavioural change and comprehensive waste systems they would like to see in their space and should be edited as necessary. The plot points that are provided are our suggestions, but please feel free to edit this as necessary.

The points achieved will change depending on where you are at in your journey, but the end goal remains the same, a sustainable and truly para kore marae. Feel free to add your own milestones and markers so that this road map is unmistakably yours and specific to your journey.



Raranga workshop at community kayak event with Experiencing Marine Reserves, 2021

GOAL SETTING WITH THE M.A.U.R.I. FRAMEWORK

Though goal setting can be tough, it's an important step in the para kore journey, serving as a guide to keep you heading in the right direction. The framework we believe in is M.A.U.R.I.

M: Measurable

Is your goal measurable and if so, how will you measure it?

A: Achievable

How achievable is your goal and what time frame do you see this happening in?

U: You

Where do you see yourself in this goal?

R: Realistic

How realistic is this goal? What are the barriers that stand between you and the realisation of this goal?

I: Intent

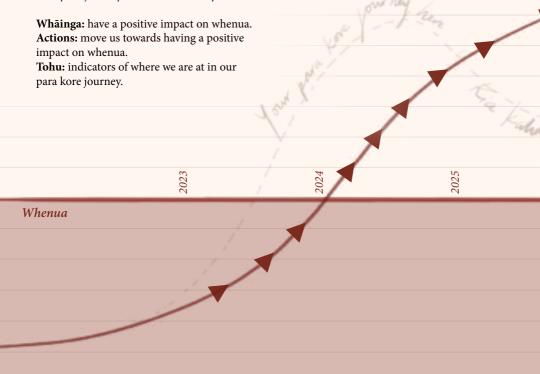
When planning out your goal, it is important to own it with the intention "I will..."



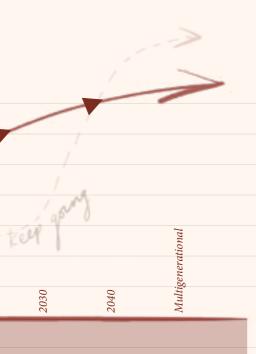
Collaborative workshop at Henderson Primary School with the ReCreators, 2021

TE TOI O MATARIKI

The overall goal is to be having a positive impact on whenua (achieving whāinga/goals above the whenua line). Firstly, write in your own actions and whāinga you want to achieve. As you achieve these, map them on the timeline below. Throughout your journey you may notice tohu which indicate where you are at in your journey - note these as they arise.



Tohu



Whāinga (examples)

- ◀ What might this goal look like for your marae?
- ◀ Nothing to landfill
- ◀ Social enterprise created around waste eg māra
- ◀ All kaimahi are waste champions
- **◄** Education on marae eg community workshops
- ◀ All marae events are para kore
- ◀ Reuse resources eg composting

Actions (examples)

- **◄** Quarterly resource audits in place
- ◀ Separate waste eg recycling bins in use
- ◀ Refuse waste eg Kaitiaki Agreement in use

Te Toi o Matariki - Mapping Your Para Kore Journey

The overall goal is to be having a positive impact on whenua (achieving whāinga/goals above the whenua line). Firstly, write in your own actions and whāinga you want to achieve. As you achieve these, map them on the timeline below. Throughout your journey you may notice tohu which indicate where you are at in your journey - note these as they arise.

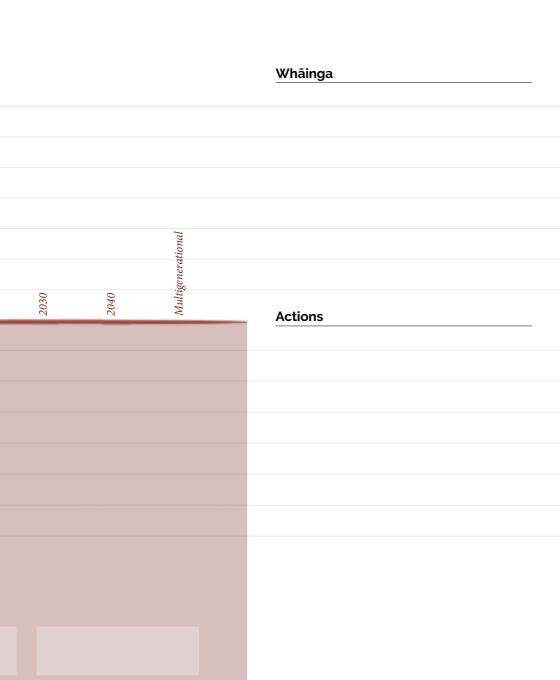
Whāinga: have a positive impact on whenua. **Actions:** move us towards having a positive impact on whenua.

Tohu: indicators of where we are at in our para kore journey.

2023

Whenua

Tohu



WASTE RESOURCE AUDIT

Waste separation

Waste separation is one of the most important and formative parts of any para kore journey, ensuring that all resources are sent to their respective streams is paramount to diversion from landfill. When separating resources from waste, it's important to know what you are looking for, understanding where it is going and what effects these different resources will have on Papatūānuku. Additionally, once you separate your waste, you then have the opportunity to give nutrients and energy back to Papatūānuku by composting food scraps.

Why do a resource audit?

A resource audit is an excellent way to keep track of what is coming through your marae, workplace or home, and gives you the ability to plan for minimising the consumption of the products that need to go landfill.

Tracking your resource audits

The tracker below is split into the 4 basic resource streams that you find in your average landfill bin. This gives you a clear understanding of what types of resources are currently coming through your space and how you are tracking with your goals.



Waiata & Ngarimu at a Papakura Marae audit

Resource Audit Tracker

Resource audits should be undertaken quarterly

Date	Landfill (kg)	Recycling (kg)	Compost (kg)	Soft Plastics (kg)	Total (kg)
(Winter)					
(Spring)					
(Summer)					
(Autumn)					

Contact <u>Uru Whakaaro</u> for an editable file and/or printed copies of the Resource Audit Tracker.

What you will need

Scales
4 different coloured buckets
Tarpaulin
Gloves

Set up

- Once your landfill bin is completely full, begin your audit. The aim of this audit is to get a good understanding and picture of what is being thrown out. Lay out your tarpaulin and empty the landfill bin out onto it
- 2. Set up your 4 buckets, 1 for landfill, 1 for recycling, 1 for compost and 1 for soft plastics

How to sort

- Weigh you bins on the scales to make sure you know how much to subtract from the weight of each waste stream
- 2. Wearing gloves, work your way through the pile of rubbish on the tarpaulin splitting the contents into the four different bins
- Once each bin becomes full, or as you are finished with the contents of your landfill bin, weigh each bin, Using the table below to mark how much each stream weighed
- 4. Repeat this process 3 times throughout the year and watch as your landfill system slowly but surely decreases until it is basically unused.

What goes where?

Recyclables

- Any plastics that have 1,2 & 5 are recyclable in Tāmaki Makaurau, make sure that they are clean first
- All metals
- Clean cardboard (i.e. cardboard without food on it)
- Glass

Compostable

- If it comes from Papatūānuku, it can return to Papatūānuku
- Dirty cardboard (i.e. cardboard that has had food on it) can be composted, we suggest ripping it up before putting it into the compost bin
- Meat products can only go into bokashi, and after being fermented can then be put into the compost system

Soft Plastics

 A soft plastic is any type of plastic that you can scrunch up or that crunches when screwed up, e.g. plastic bags, plastic wraps, chip packets etc

Landfill

- Landfill is for anything made of multiple materials that cannot be split from one another
- Any plastic that does not have a recycling symbol
- Polystyrene

Health & Safety: Ensure all participants are wearing thick gloves and closed toe shoes. Resource audits do not deal with medical waste.

REFUSE & REDUCE WASTE

Where is this waste coming from?

Now that we have identified the types of resources coming through your marae, whare or community space, it's time to act. An important part of minimising the amount of resources sent to landfill is understanding their source. Most single use items come from the kitchen, a good place to start is by choosing to purchase items that do not come in single use packaging, for example, if you have identified meat trays or plastics from vegetables are coming through the kitchen, an alternative option is to buy direct from a homekill, freezing what you can in reusable glass containers or buying from your local market or grower and asking them specifically not to wrap your products in plastic.

If there is lots of plastic coming from office spaces, consider finding alternatives for these products that have a much longer shelf life and have a far less harmful impact on Papatūānuku.

If there is an increase in the amount of single use resources following an event where manuhiri will be in your marae or space, offer as much resourcing and support as possible in the lead up to the event to make sure that all manuhiri are aware of your dedication to the para kore journey. Some of the ways to bring your manuhiri onto your para kore journey are to provide a kaitiaki agreement a few weeks prior to their arrival, readily

inform them of the current waste systems that you have at the marae and ensure that all signage around the marae (in the kitchen, on the bins and in all the common areas) is accessible, clear and easy to follow. In tandem with the signs and kaitiaki agreement, an induction when the manuhiri arrive is important so that there is a full understanding of the on site systems that the marae has available.

On the next page is a 'Kaitiaki' Agreement', a template form that can be used to ensure that any manuhiri visiting your space understand your commitment to Papatūānuku and the necessary systems that need to be in place to achieve your para kore vision. The kaitiaki agreement displayed is merely a template that can be changed as you see fit.



Richelle at Ōrākei Marae worm farm bins, 2014

We are committed as kaitiaki of Papatūānuku to ensuring our marae is a para kore space. All aspects of landfills are negative. We want to choose the best options to create the least amount of landfill waste as possible and provide maximum education to our manuhiri and whānau alike. We want to protect our oceans, our land and our people.

We request:

- All plastic brought onto the marae be taken home with you
- No polystyrene is to be brought onto the marae
- If there are food scraps that the marae is made aware of them and that they are redirected to the most appropriate system available
- Any and all manuhiri that have entered our space respect our whenua and our wishes to keep our marae a para kore space

We will provide:

- Adequate signage and education about the current systems that the marae has on offer
- An induction about what resources can go into what bin
- Support where needed when it comes to waste diversion and waste separation
- A judgmental free and safe environment for all manuhiri to learn about the consequences of current waste and its effects on Papatūānuku

We,	
	nd will adhere to all of the above.
Date	
·	Para Kore ki Tāmaki logo (optional)

Contact <u>Uru Whakaaro</u> for an editable file and/or printed copies of the Kaitiaki Agreement.

REUSE RESOURCES COMPOSTING

Why composting?

Across Tāmaki Makaurau, approximately 45% of an average landfill bin is filled with food waste. Once this resource is dumped into a landfill, it starts to contribute to the global production of greenhouse gases such as methane, where as, if it was to be placed back into the whenua, then it has the opportunity to grow more food, regenerate the health of the soil and contribute to the world wide fungal network.

While composting is an incredibly important part of reducing waste, there is mahi and responsibility that comes with it.

The page opposite details the three main methods of composting and each of their benefits and requirements. See the <u>Compost Collective</u> for full how to guides for each of these methods.

Top: Turning the aerobic compost heap at Ōrākei Marae, Takaparawhau 2016

Above right: Bokashi bins at Waiata's homestead, with 'browns' bucket in orange

Right: Aerating worm farms at Ōrākei Marae, Takaparawhau 2016







Aerobic composting

This method uses a combination of 'greens' and 'browns' to create soil.

- Largest system needs >1m² space
- Must be outdoors
- Need 1 bin for an average household
- Needs garden waste (70% 'browns')
- Can't take meat or bones
- Needs additional pest proofing
- Needs turning. Final product ready to use in garden



Bokashi composting

Bokashi ferments food scraps using enzymes in a two part segmented bucket.

- Very compact
- Can be kept indoors or outdoors
- Need 2 bins for an average household
- No garden waste must add enzymes
- Takes any food scraps including meat
- Pest proof
- Less maintenence. Final product must be dug into a trench



Worm farms

Worm farms create soil using worms and by carefully adding food scraps over time.

- Medium sized needs <1m² space
- Must be outdoors but needs shade
- Need 1 bin for an average household
- Needs 30% 'browns' and worms
- No meat, bones, citrus or eggshells
- · Pest proof
- Needs checking on. Final product ready to use in garden



CREATE RESOURCES

"Ko te kai he rongoā, ko te rongoā he kai."

"Let your food be your medicine and medicine be your food."

Growing kai and rongoa Māori is a way of practising Kaitiakitanga on your whenua as well as a way of taking care of whānau by eating healthy kai, free of pesticides and toxins.

Food scraps, organic material, garden clippings, cut grass, paper, cardboard and mulch are all ingredients used to build soil structure, retain moisture, suppress weeds, while protecting and nurturing our soil. The reuse of resources is essential in growing productive māra along with participation by willing gardeners both experienced and/or on a learning journey.

Considerations when choosing the location for a māra include available sun, shelter from wind and water availability during dry summer periods, along with accessibility to the māra.

Māra can range from vege gardens, to orchards, to food forests or a combination of any of these.

Top: Vege māra (Papatūānuku Kōkiri Marae)

Above right: Orchard

Right: Food forest







Plants to Get Your Vege Garden Started

Select vegetables that the whānau will use from across the following categories:

- Winter staples
- Long keepers
- Summer 'eat as you harvest' kai such as salad greens
- Reserve space for crops that can stay in and carry through all seasons

Include foundation and shelter plants, along with other māra associated plants. This will help give structure and support to your māra.

Winter staples Roasters and soups	The long keepers Storage crops	Summer kai 'Eat as you harvest' salads	Crops that can stay in Harvest as you need it	Plants associated with māra
Carrots	Pumpkins	Cucumbers	Kōkihi	Hue
Parsnips	Squash	Tomatoes	Welsh onions	Kōwhai
Leeks	Corn	Capsicums	Chives	Kawakawa
Onions	Kūmara	Courgettes	Rhubarb	Karaka
Celery	Riwai / Taewa	Kamokamo	Perpetual	Ti Kouka
Cabbage	Garlic	Green beans	spinach	Edible flowers
Broccoli	Beans - many	& peas	Silverbeets - all colours	Bee food
Beets	types e.g. green beans	Lettuce and range of salad	an colours	Bio crops
Spinach	to red kidney	greens		Herbs
	beans			Pollinators
				Nitrogen fixers
				Companion plants

1. Wharekai māra

The wharekai māra to top up the needs of the wharekai, this may be some garden basics in a raised garden, such as silver beet, parsley, a lemon tree, herbs and edible / beneficial flowers.

2. Marae focused māra

A marae focused māra can supply the wharekai year round and keep the store room stocked up with long keepers, preserves and ferments. These can also be teaching gardens for everyone to regularly share in the mahi while learning together.

3. Intensive seasonal māra

Intensive seasonal māra with a wider papakāinga reach for provision of kai and learning. This may also be extended to a social enterprise which generates income, employment and local community provision beyond the immediate papakainga.

4. Orchards and food forests

Long term investment plantings require planning and implementation up front with seasonal mahi such as mulching, pruning, companion planting and community harvesting. Once established, orchards and food forests require less daily and weekly care than a vegetable based māra.

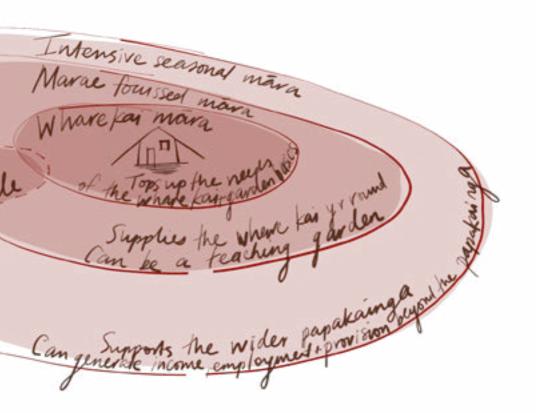


He Karakia Māra

Nau mai e Rongo

"Nau mai e Rongo Tau mai e Rongo Tau mai ko te āiō Tau mai ko te aroha Tau mai ko ngā hua o te ora E Rongo whakairia ki runga Kia tina, tina Hui e. Tāiki e."

Composed by Nuki Tākao



HOSTING A PARA KORE EVENT

When running an event, waste is always an important factor as it is almost unavoidable. The infographic below details the steps necessary to ensure that whatever resources come through your event, you are well equipped with all of the systems and knowledge necessary to divert as much of the resources from landfill as possible.

Funding

While running an event can be costly, making your event a para kore event doesn't have to be. There are a myriad of funding opportunities available thanks to amazing organisations such as EcoMatters, Clean Events and Auckland Council.

EcoMatters has funding and resources available to help your event become para kore. At the top of the resources they have available is their reusable plates, cups and cutlery for hire, eliminating the need for single use or take away packaging all together. They also have a Zero Waste grant to cover the costs of bin system hireage. Clean Events provide an exceptional service delivering and picking up bin systems for the event.

Additionally, Auckland Council has excellent information about how best to plan and run a para kore event on their Zero Waste Events website, where it details their '4 Steps to a Zero Waste Event'.



Para Kore ki Tāmaki team running the para kore operations for ASB Polyfest, 2021



Ngarimu stationed at the bins at ASB Polyfest 2021, Manukau

1. Communicating with vendors

Vendor agreement is to be sent out and signed, agreeing that all participating vendors will provide either compostable packaging or will provide reusable packaging that the participants can wash and bring back, that all vendors will not bring polystyrene to the event and that they are responsible for taking their own waste home.

2. Finding staff

The size of the event will determine how many staff you will need for waste management. During this period, a site visit is mandatory, and will give you an idea of how many bin systems you will need, where they need to be located and what possible hazards need to be identified in the RAMs forms. Ensure that there is enough staff to man all bin stations on site to maximise waste diversion and education to all event participants and have at least 2 staff sweeping the event grounds for any waste that has been dropped on the ground.

3. Bin systems

While finding staff you will also need to organise your 3 bin systems (Landfill, Recycling and Compost) for the event, contacting service providers such as waste management, clean events, envirowaste or green gorilla, all of whom are well equipped with the systems necessary to deal with any and all waste generated by the event.

4. Health & safety

Ensure the Risk Assessment Management (RAMs) is filled out and signed by all participating waste management staff. When all staff arrive they need to read and sign the RAMs forms to make sure they are aware of the hazards and the minimisation or elimination plans that are in place. Ensure that all staff are equipped with a hi-viz, closed toe shoes and gloves to keep them as safe as possible.

5. Post event

Once the event has finished, your staff have done a final sweep of the area to leave it cleaner than you found it and the bins have been picked up, you will need to have a debrief with your team to collect any feedback that they may have about the event and the process that could be improved. Once this has been completed and all feedback has been recorded and collected it's time to have a debrief with the event organisers to pass on the key points from your staff debrief. In preparation for the event organisers, contact your service providers and request that they provide you with the diversion rates from the event, this ensures that you are well equipped with as much information as you need to improve on the event going forward.

GETTING THE MESSAGE CLEAR & INSPIRING OTHERS

Education on the Marae

It's important to ensure that all manuhiri, whānau, ringawera and ringa roupā are aware of the current waste reduction systems in place so that no one is left behind. This can be as simple as ensuring that waste reduction signage is clearly visible to all, or as in depth as hosting quarterly resource audits, running community workshops around waste reduction for the local community or creating a space where knowledge can be shared on a regular basis.

An invaluable part of any para kore journey is bringing those around you along for the ride, uplifting your local community and giving them the tools necessary to improve their relationship with their own waste. Once your marae feels they are ready, it's time to take your knowledge and share it with whanau and community alike. This is your marae's chance to serve as a space of inspiration and learning, passing on taonga tuku iho.

Signage

On the next page are examples of signage that Para Kore Ki Tāmaki has readily available for print. We have included a downloadable version of these signs so that you can make them your own.

Workshops

When running workshops around resource retention, waste diversion and the constraints and benefits of different composting systems, make sure to detail the victories, big and small, as well as the difficulties so that those who are learning from you grow to understand not only the hard work that has been done, but the sense of empowerment that comes from taking control of your relationship to waste, and how a lot of the things that we throw away have a beneficial use in our gardens and māra.



Julie from Oak & Thistle and Koha making soap at a workshop at the Uru Whakaaro office, 2022

IPU POAKA



WAIRĀKAU



PIG BUCKET

PĀMU NOKE



BOKASHI



HANGARUA



RUAPARA



pens rubber/latex gloves mask fruit netting straws polystyrene cup

INSPIRING GROUPS

Pacific Vision Aotearoa

Pacific Vision Aotearoa (P.V.A.) deliver the zero waste kaupapa to Pasifika communities across Tāmaki Makaurau, with a wealth of knowledge spanning everything from composting and māra creation, to waste minimization, sustainability and systemic support.

Papatūānuku Kōkiri Marae

Papatūānuku Kōkiri Marae have developed an expansive and extraordinary māra kai that provides food for their community, as well as setting up the 'Kai Ika' program, through which they save large quantities of fish frames from going to landfill, making them available to the community.

ME Family Services

ME Family Services works tirelessly in Otāhuhu and Māngere to save mountains of fabric and clothing from going to landfill, gifting over 70,000kg of material to their local community, including furnishings, work clothes and clothing to those in need.

TROW Group

TROW Group work in the construction and demolition industry rescuing all types of building materials that otherwise would go straight to landfill, and sending them up to the Pacific Islands for another life. Currently 50% of our national landfill is being filled with construction materials.

CELEBRATING SUCCESS

Zero Waste Awards

The <u>Tāmaki Makaurau Zero Waste</u> <u>Awards</u> celebrate the mahi of those working to reduce waste to landfill across our city. Nominations open just after Matariki, so if you know of an unsung hero in your community whose work deserves to be recognised, please put their name forward.

Para Kore Pānui

Sign up to the Para Kore ki Tāmaki newsletter to hear how other marae and kura in Tāmaki Makaurau are overcoming obstacles on their own para kore journey to becoming a better marae.

Getting To Zero

Getting to Zero is a monthly newsletter which aims to show as many people as possible the incredible work that is happening in the waste space, shining a light on the important mahi that so many organisations and companies do within Tāmaki Makaurau.

USEFUL CONTACTS

ACCESSING FUNDING

Para Kore (Outside of Auckland)

For support for Māori communities outside the Auckland region, reach out to Para Kore Marae Incorporated on their website, Facebook or Instagram. For support across the Tāmaki region, contact Para Kore ki Tāmaki on email, Facebook or Instagram.

Eco Nappy Services

Auckland based cloth nappy laundering service who suppy clean nappies and pick up and clean used nappies. Contact them on their Website, Facebook or Instagram.

Tāmaki Freecycle Groups

There are a number of Tāmaki-based groups where you can give away or pick up second-hand goods for free:

- <u>freecycle.org</u> (search for Auckland)
- Auckland Family Free Cycle

Auckland Library of Tools

Community hub that provides access to a broad range of tools and equipment and reduces unnecessary consumption. Contact them on their Website, Facebook or Instagram.

Report Illegal Rubbish Dumping

Illegal rubbish dumping is any rubbish dumped on public property. If you see any <u>illegally dumped rubbish</u>, please call <u>0800 NO DUMP (0800 663 867)</u> to notify Auckland Council. Available 24 hours a day, seven days a week.

Waste Minimization Initiative Fund

The <u>Waste Minimization Initiative</u> <u>Fund</u> (W.I.M.F.) is designed to promote and achieve waste minimization and diversion initiatives and assist in the creation and development of educational waste minimization projects. Funding amounts range from \$5,000 - \$100,000.

Community Composting Grant

EcoMatters has a <u>fund</u> available for recipients to organise the creation of a community composting hub, with the maximum cap at \$500. This grant is designed to help provide contributions for a large scale composting project, safety equipment and tools, composting signage and workshops around D.I.Y. solutions for composting.

All images in this guide were supplied by Para Kore ki Tāmaki, excluding:

P.17 top: <u>Love Food Hate Waste NZ</u> P.17 middle: <u>The Spruce/Adrienne Legault</u>

P.17 bottom: <u>Fodder Farm</u> P.18 bottom: <u>Our Wild Garden</u>



