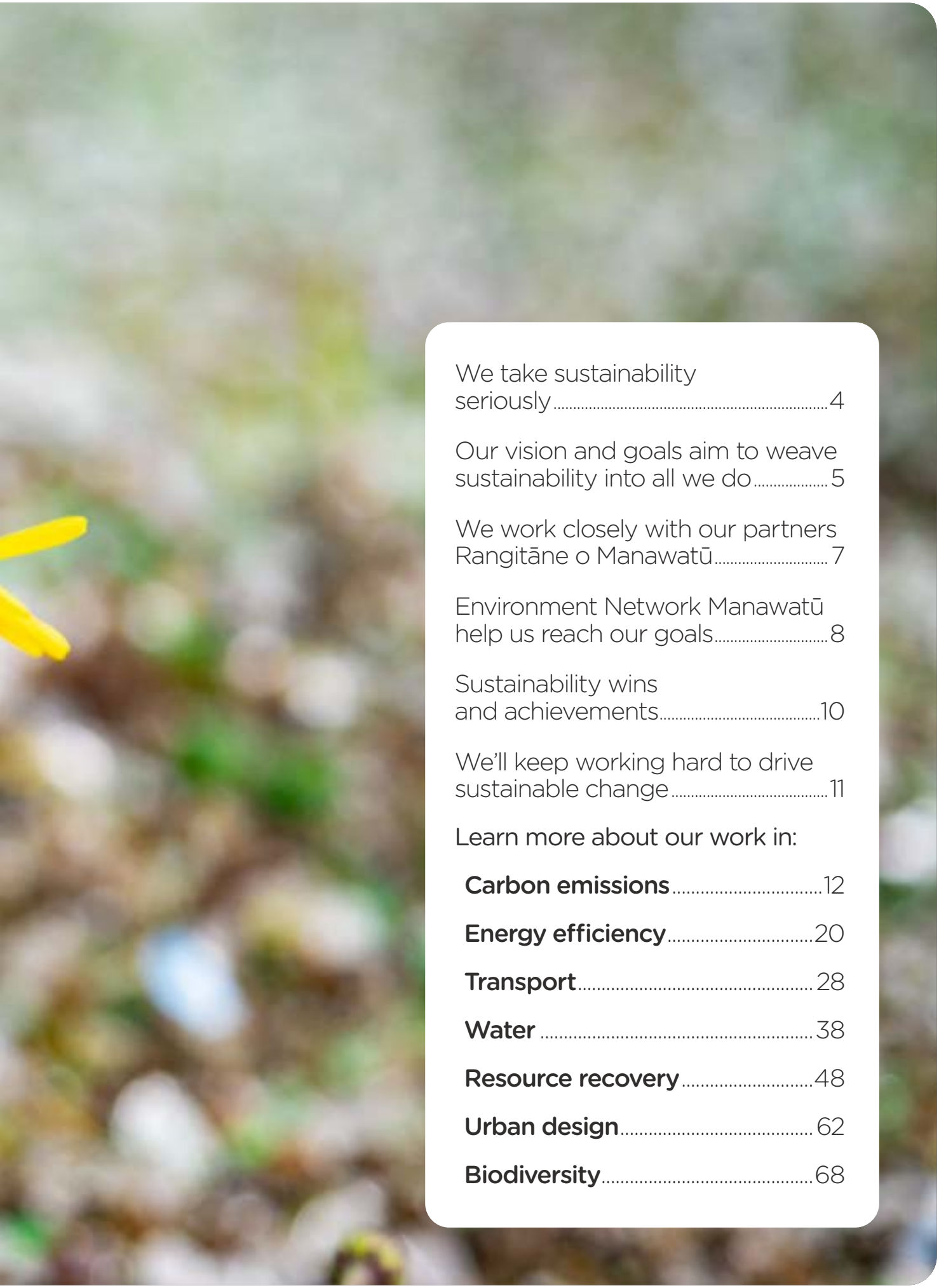
Environmental Sustainability Review 2024



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We take sustainability seriously

Kia ora,

The beginning of 2023 sent a sharp reminder on the urgency of reducing carbon emissions when Auckland's Anniversary Weekend floods were closely followed by Cyclone Gabrielle, which caused widespread destruction along parts of the East coast, including for our near neighbours in the Hawkes Bay.

The impact of these storms showed just how much damage can be done by the increasing frequency and intensity of serious weather events, not just to people's lives and property, but to crucial infrastructure - with the insurance bill up to around $2.7 billion so far.

We've been working to reduce the carbon footprint from Council's operations and partnering with other organisations to tackle emissions across the city. We're also collaborating with other councils on a Joint Climate Action Plan to combat climate change, and mitigate its effects, across the region.

Over the last two years our Low Carbon Fund has invested in some excellent projects to bring down our emissions and drive energy efficiencies across our operations and facilities. These have included installing more efficient streetlights, boilers and systems at our Aquatic centres and replacing older stock in our vehicle fleet with hybrid and electric pool cars for our officers.

Now that we've made these more straightforward changes, we'll need to step up a gear to keep pushing toward our goal of lowering Council's organisational emissions by 30% by 2030. We'll also need to make some hard decisions on ways we can encourage behaviour change from residents living and businesses working in Palmerston North, to lower emissions across the city.

I'm proud of the work we've done as an organisation to make some really positive progress as shown in this edition of our biennial Sustainability Review, which builds on the work outlined in the earlier 2020 and 2022 editions. We'll continue to report on how we're tracking every two years and can look forward I'm sure to even better outcomes in the 2026 version. I'm also glad to be working with other councils and organisations around the region to align ideas and resources and build resilience for the future.

Moving forward, we need to widen this spirit of collaboration, and work with everyone in our city to do things differently and bring emissions down, not just for Council, but for the whole city. Lowering our citywide emissions is not something Council can do on its own. We'll need to bring everyone along on our low carbon journey to reach our goals for 2030, and beyond.

Nga mihi nui,
Mayor Grant Smith JP

Our vision and goals aim to weave sustainability into all we do

We want to reduce our emissions and the impacts of climate change on the Council and the city. We want both Council and community activities to be more sustainable.

Our vision for our city is 'He iti rā, he iti pounamu - Small city benefits, big city ambition'.

Four goals sit beneath this vision, to describe the outcomes we want to achieve for our communities.

Our Oranga Papaioea City Strategy is the foundation for our next Long- Term Plan (2024-2034). It's our response to the role of local government "to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future". The strategy, and the 14 plans that sit beneath it, describe the actions we'll take to achieve our four goals.

They are:

Goal 1:

An innovative and growing city

Goal 2:

A creative and exciting city

Goal 3:

A connected and safe community

Goal 4:

A sustainable and resilient city

The plans that feed into these goals with regards to sustainability are the Climate Change and Sustainability plan, Biodiversity and the Manawatū River plan, Transport plan, Housing plan, Resource Recovery plan and Water plan. Our biennial Sustainability Reviews report on the work being done throughout the organisation to continually drive improvements in our sustainable outcomes.

We work closely with our partners Rangitāne o Manawatū

Palmerston North City Council and Rangitāne o Manawatū have a strong partnership founded in Te Tiriti o Waitangi and work towards joint outcomes in many areas including those encompassed by sustainability.

Council has a Partnership Agreement with Rangitāne o Manawatū and our strategic direction affirms the important requirements to ensure that mana whenua values and perspectives have significant weight in decision making.

Rangitāne has recently completed the Rangitāne o Manawatū Environmental Iwi Management Plan which clearly sets out their values and priorities for the region. The plan provides Council with an invaluable way of working with our iwi partners to ensure proactive, transparent and productive relationships that advance positive environmental and Whānau Ora outcomes.

Another exciting development is the recent establishment of a Kairaukaha role situated within our Strategic Planning unit. The role has been created through funding from the Waters Reform Better Off Support with the purpose of bridging the iwi and council environmental functions and building joint capability. This role will work closely with both iwi and Council with a focus on ensuring that our working procedures reflect the intent of the partnership relationship.

The Rangitāne o Manawatū Committee considers matters relating to the wellbeing of Māori in Palmerston North and also has a strong focus on the ongoing development of Rangitāne ancestral sites, with a current focus on Te Motu o Poutoa / Anzac Park. Two Rangitāne representatives sit as appointed members on this committee, providing Rangitānenuirawa expertise.

Our Council strategies and plans highlight the special relationship tangata whenua and wider Māori have with the land, forests, rivers and sea, and the obligation to working in partnership with Rangitāne o Manawatū to restore the mauri of the waterways and forests.

Council takes our partnership seriously:

- We engage proactively and collaboratively to ensure positive outcomes where Rangitāne o Manawatū values are embodied
- We acknowledge and honour the special relationship tangata whenua have with the land, forests, rivers and sea
- We acknowledge Te Ao Māori is a key foundation for our collective aspirations for the environment
- We provide support to Rangitāne o Manawatū to achieve their own climate change aspirations
- We work with Rangitāne o Manawatū to understand the impacts climate change may have on Māori
- Support Rangitāne o Manawatū in the retention and expression of mātauranga Māori and Rangitānenuirawa
- Strengthen Māori community involvement in biodiversity projects
- Collaborate and partner with Rangitāne o Manawatū on activities along, and within the Manawatū River

Environment Network Manawatū help us reach our goals

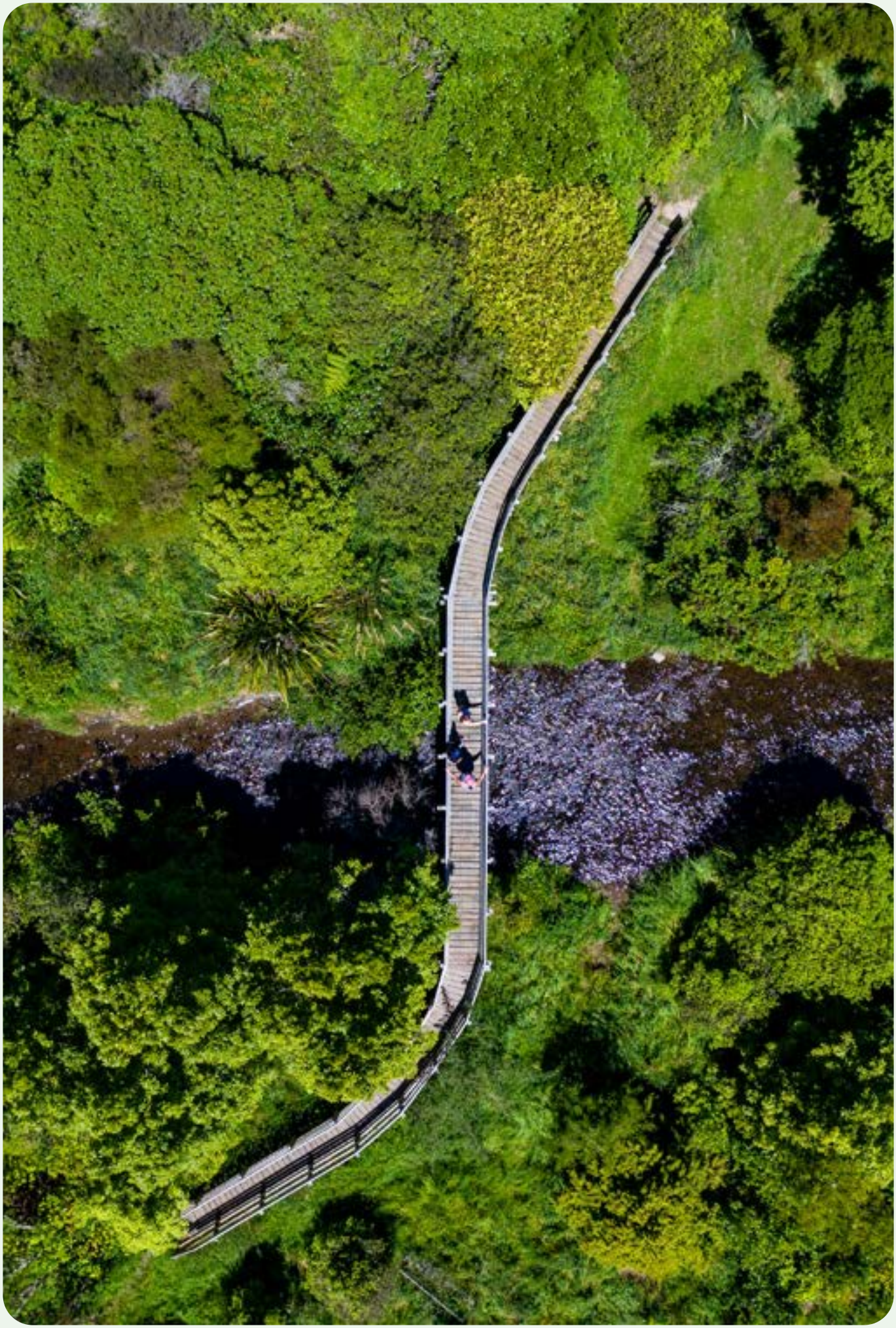
Environment Network Manawatū (ENM) is the proud Sector Lead for the Environment for Palmerston North City Council. We work in partnership to help ensure strong environmental, biodiversity and food sovereignty outcomes for the city.

ENM exists to connect and inspire communities for environmental action. They are the environment hub for the Manawatū region providing sector leadership, building capacity and capability, and creating community. Their vision is that the ecological and human communities in the Manawatū River catchment, are living in harmony.

ENM promotes environmental activities and advocates for positive environmental outcomes. They connect volunteers, support organisational sustainability, provide educational opportunities and seek to increase the stream of funding to the sector. They celebrate the diverse passions of their 65+ member groups, that include biodiversity protection, freshwater quality, food resilience, waste reduction, sustainable living, alternative energies, climate change and active transport.

ENM coordinates the Manawatū Food Action Network and Manawatū River Source to Sea collectives and supports collaborative initiatives such as Ruahine Kiwi, Palmerston North Repair Café, the Plastic Pollution Challenge, and Community Composting. ENM has a drop-in office at 145 Cuba Street, where they provide information and resources to help you on your environmental journey, and a recycling collection site for lids.

You can stay informed and get involved with what they do by checking out their website on **www.enm.org.nz** where you can also sign up to the newsletter, volunteer and donate. You can also follow them on Facebook **@environmentManawatū** or contact them on **comms@enm.org.nz**, 06355 0126.



Sustainability wins and achievements

Since 2016/2017 we've reduced our organisational emissions by 31.5%. While the Awapuni landfill's closure has largely contributed to this decrease, considerable decreases have also been made through investments from our Low Carbon Fund.

Our low carbon fund has helped us achieve a lot over the past two years

- Lighting and heating upgrades at the CET Arena
- Electric vehicles and charging points in the CAB basement
- Wood pellet boiler at the Esplanade
- Pool covers and LED lighting at the Lido
- Heat pumps and LED lighting at changing rooms and remote offices
- More than 23,000 trees planted by the Green Corridors team in 2022/23
- More electric vehicles for staff and as pool cars
- Electric mower, parks tools (blowers, brush cutters, etc.), and an ATV
- LED streetlights at reserve car parks
- Wood pellet boiler at the depot nursery
- Solar panels at the MRF (recycling center)
- More pool covers for the outdoor pools at the Lido

This has saved around $472,000 for rate payers and just over 3,000 tCO2e

We'll keep working hard to drive sustainable change

Continue working to reduce emissions from our operations and support the wider city to reduce their emissions:

- Reduce Council activities that produce greenhouse gases (e.g. use of diesel, electricity and natural gas)
- Promote activities that support low-carbon city outcomes, including those that compensate for activities that produce greenhouse gases
- Encourage and promote sustainable best-practices in Council activities and the wider community

Improve the cities resilience in the face of climate-related risks

- Strengthen our city's adaptive capacity to Palmerston North's climate-related risks

Support local residents and businesses to reduce their greenhouse gas emissions

- Develop a Business Sustainability Fund for Business 2024/25
- Support businesses through a Business Sustainability Fund for Business 2025 onwards
- Develop a Green Building Fund (year 1 - See Housing plan) 2024/25 onwards

Work with natural systems to reduce our impact on the environment

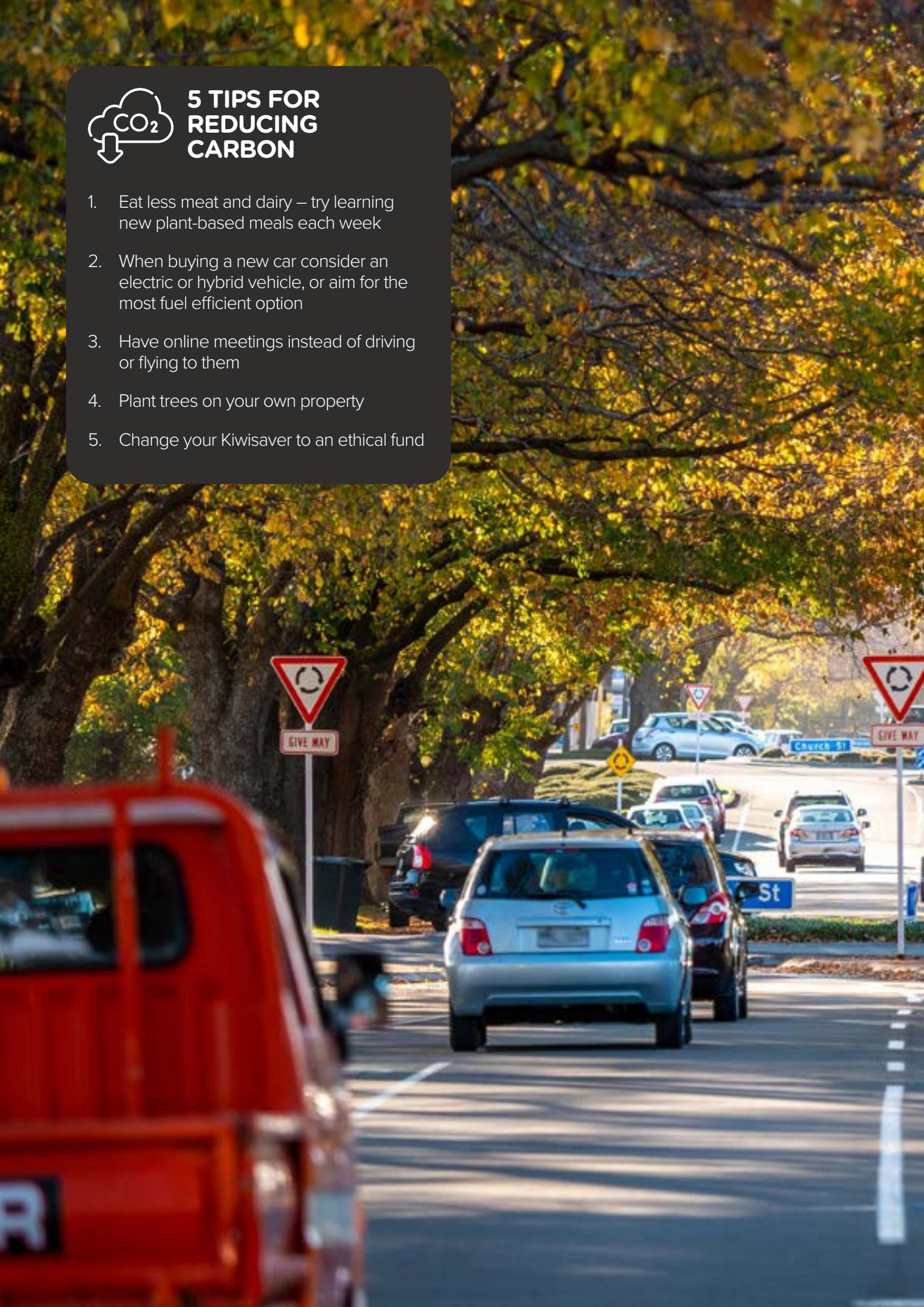
- Develop new native forest planting 2024/25

Work with the local community to deliver economic and social changes that include and work for everyone

- Co-develop a community-focused city-wide climate action plan, including the articulation of local co-benefits and the identification of projects that may attract co-funding 2024/25

We're also working on

- Proposing to set an organisational target of net zero emissions by 2050
- An updated Vegetation Framework for the city
- Continued work on cycleways and shared pathways in the city
- Partnership and support for Environment Network Manawatū as our Sector Lead organisation in the environmental space
- Introducing a food waste collection in future years
- Looking into options for polystyrene and soft plastics recycling
- Spending more on storm water mitigation and adaptation
- Continuing to investigate ways to reduce this city's wastewater, or alternate uses for treated wastewater as part of our adaptive management work which forms part of our Nature Calls consent application



5 TIPS FOR REDUCING CARBON

1. Eat less meat and dairy – try learning new plant-based meals each week
2. When buying a new car consider an electric or hybrid vehicle, or aim for the most fuel efficient option
3. Have online meetings instead of driving or flying to them
4. Plant trees on your own property
5. Change your Kiwisaver to an ethical fund

Carbon emissions

Carbon emissions

Last year's Auckland floods and Cyclone Gabrielle are a reminder of the devastating effects that look set to continue as a result of climate change. The February cyclone is now the costliest tropical cyclone on record in the Southern Hemisphere, with total damages estimated to be at least NZ$13.5 billion.

These events, which heavily affected some of our neighbouring districts, highlight the need for all New Zealand's cities, including Palmerston North, to make significant and effective changes to lower their carbon emissions. They also show how crucial it is for councils to incorporate resilience into the way buildings and infrastructure are constructed and maintained.

A central part of our goal to lower Palmy's emissions is achieving a 30% reduction in the city's greenhouse gas emissions by 2031. This target is our part of a national effort to make the whole of New Zealand carbon neutral by 2050.

Put simply, carbon neutral means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed by natural processes like forests. To do this we have adopted many of the principles of the government's national emissions reduction plan through our Eco City Strategy and strategic Climate Change Plan.

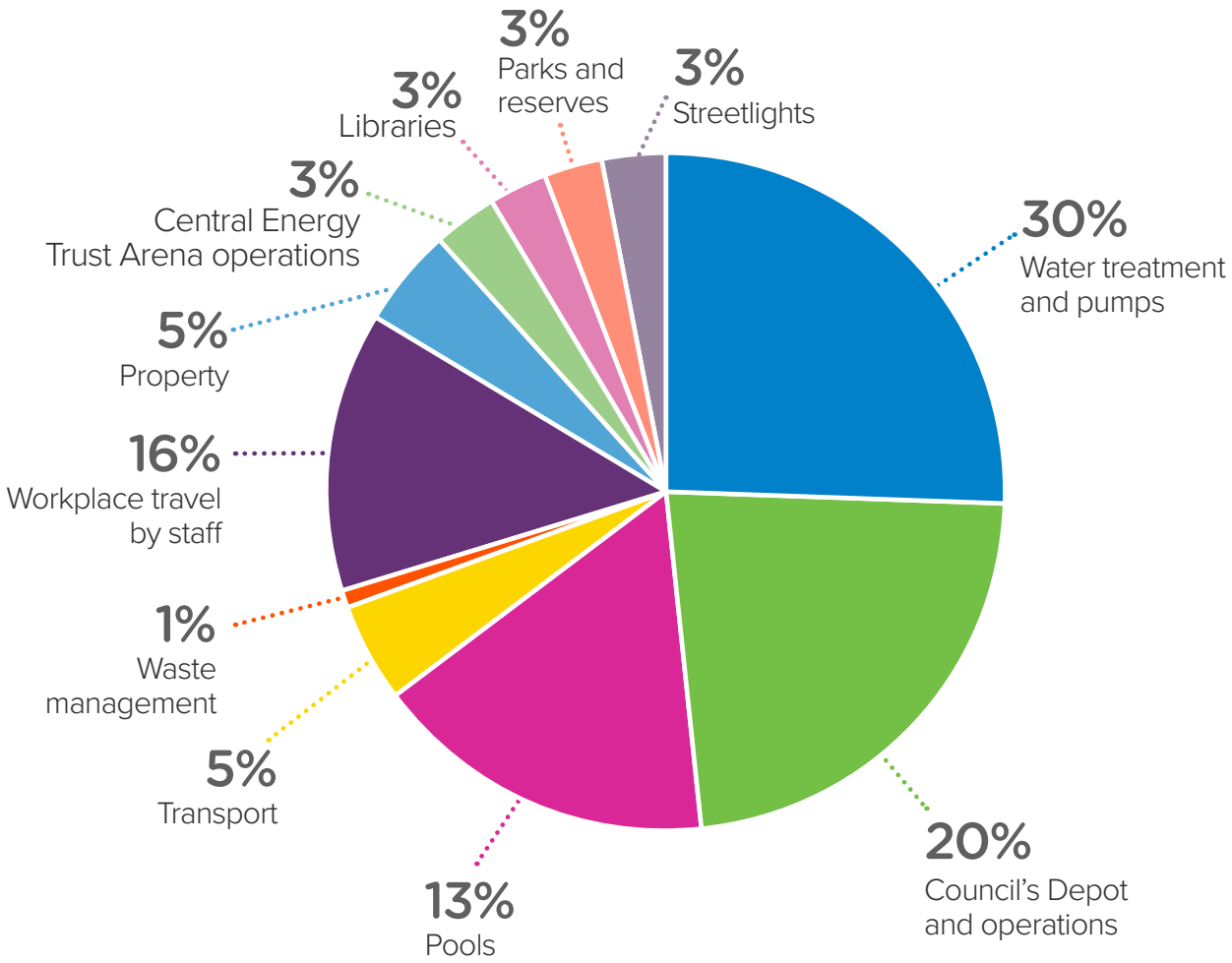
We've begun to take direct action through the establishment of our Low Carbon Fund, which commits $1 million each year towards lowering carbon outputs from our operations. So far, we've used this toward more efficient streetlights, boilers, systems at the Lido pool complex and purchasing electric rather than petrol when vehicles in our light fleet need replacing. On a wider scale we've also continued an ongoing programme of planting natives in parks and reserves, building better and safer cycling infrastructure, and are working on a plan to install solar panels around more of our Council buildings.

Council has reduced its annual emissions by 8329 tonnes of carbon dioxide equivalent (tCO2e) or 31.5%, since it first began monitoring in 2015/16. While that is an excellent start it is important to take into account that a large portion of this reduction (88.3%) has come about as a result of closing our Awapuni landfill. Emissions from the landfill will continue to go down as the organic material within breaks down. Each year there will be less organic waste generating less and less methane.

The remaining emissions from our operations have lowered by around 14% which means we're still on track to meet an operational reduction in organisational emissions, other than those from the landfill, by 2030. But as we continue toward that target it is worth noting that having achieved most of the easier carbon saving wins generated from our services and facilities, as we progress further down the track it will become harder to make gains. This will likely mean more difficult, complex and costly initiatives are required to continue to make meaningful progress in the future.

Across the city itself the good news is that despite growth in both our population and economic activity, our city-wide emissions have plateaued in recent years and emissions per capita and per GDP are beginning to decrease. However, if we're to meet our target of a 30% reduction in emissions across the city itself by 2031 we'll need to not only drive our own efforts forward at pace, but also encourage behaviour change within our community as well.

Palmerston North City Council Organisational Emissions Inventory 2022-23



All hands on deck to build climate response

The Manawatū-Whanganui region extends from Ruapehu in the north and Horowhenua in the south, to Whanganui in the west and Tararua in the east. Around 250,000 of us call it home. The landscape is hugely varied with three major river systems, two coasts and the central plateau. As one of New Zealand's largest areas of hill country, we also have the country's highest proportion of highly erodible land.

The effects of climate change are already being seen throughout our region, with impacts felt across farms, businesses, families and communities. Given the size of the challenge it only makes sense to join forces with other local councils, iwi and organisations to work on a collective and effective response.

The Manawatū-Whanganui Climate Action Joint Committee brings together tangata whenua and mayors from across the region, along with the chair of Horizons Regional Council, to work on shared initiatives to combat climate change.

The committee adopted their inaugural Joint Climate Action Plan in early 2023. Recognition of mātauranga Māori is a key part of the plan, which seeks to work with iwi and community organisations on initiatives to lower emissions and respond to local impacts.

The plan encourages all councils to increase their focus on climate resilient development, especially with regard to transport networks and storm water management. It recommends the prioritisation of climate change mitigation within planning processes, and highlights areas where councils can work together.

Making changes to how we plan and build our infrastructure will require investment and new thinking on how we do things. It also means we'll need to support each other and our community through the transition ahead. This action plan provides a foundation for us to work together to respond to climate change and ensure our region remains a great place to live for future generations.

Parks keep it clean, lean and green

Anyone who has been in one of our Council buildings like the Central Library, Central Energy Trust Arena and Customer Service Centre will have seen the beautiful indoor plants grown by Senior Nursery member Rebecca Fitzpatrick. Propagated and cared for over many years, these stunning specimens delight both staff and visitors.

Rebecca says most of Council's indoor plant collection have been grown on from plants originally purchased many years ago.

"I pretty much continually divide plants or do cuttings and have kept them going forever. They're all babies of babies of babies." She says many of the plants brightening up spaces are chosen because they require less water. "We tend to use quite a few plants that only need watering once a month during the summer and maybe once every 2 months in the winter."

Many of the plants used by our Parks Team are also selected based on their ability to retain water. This helps them to be more resilient during dry periods and certain species are specifically planted around stormwater facilities to help slow and filter the city's rainwater runoff.

One way the nursery contributes to its own financial sustainability is through hiring out larger plants in the collection to major events and award dinners at Council venues. Jayne Vertongen also propagates many of the lovely collection of plants on display in the Peter Black Conservatory in the Victoria Esplanade from seed or cuttings. Much like Rebecca, she understands the advantages of growing our own plants.

A recent change at the Peter Black Conservatory has been the replacement of the old gas fired boiler with a wood pellet alternative. This removes the need to use gas to heat the conservatory and propagation house during the cooler months. The replacement of the gas boiler at the Council's depot nursery is currently underway. Both initiatives contribute to reducing Council's carbon footprint.

The Parks Team have also been working to propagate more plants onsite at the Depot nursery for use in our parks and reserves. This reduces the risk of importing weeds and plant pests that may have become established in other parts of the country. It also lessens our carbon footprint by not having to transport them from suppliers around the country.

Parks have developed a system where the teams provide a list of what they want grown for the following planting season, reducing the quantity we need to buy in from elsewhere. Rebecca says the nursery is trialling biodegradable 'eco pots' made from coconut fibre.

"The plants grown in these can be planted straight into the ground without having to remove the pot. The plants roots will grow through the fibre mix so there is no excess waste or packaging."

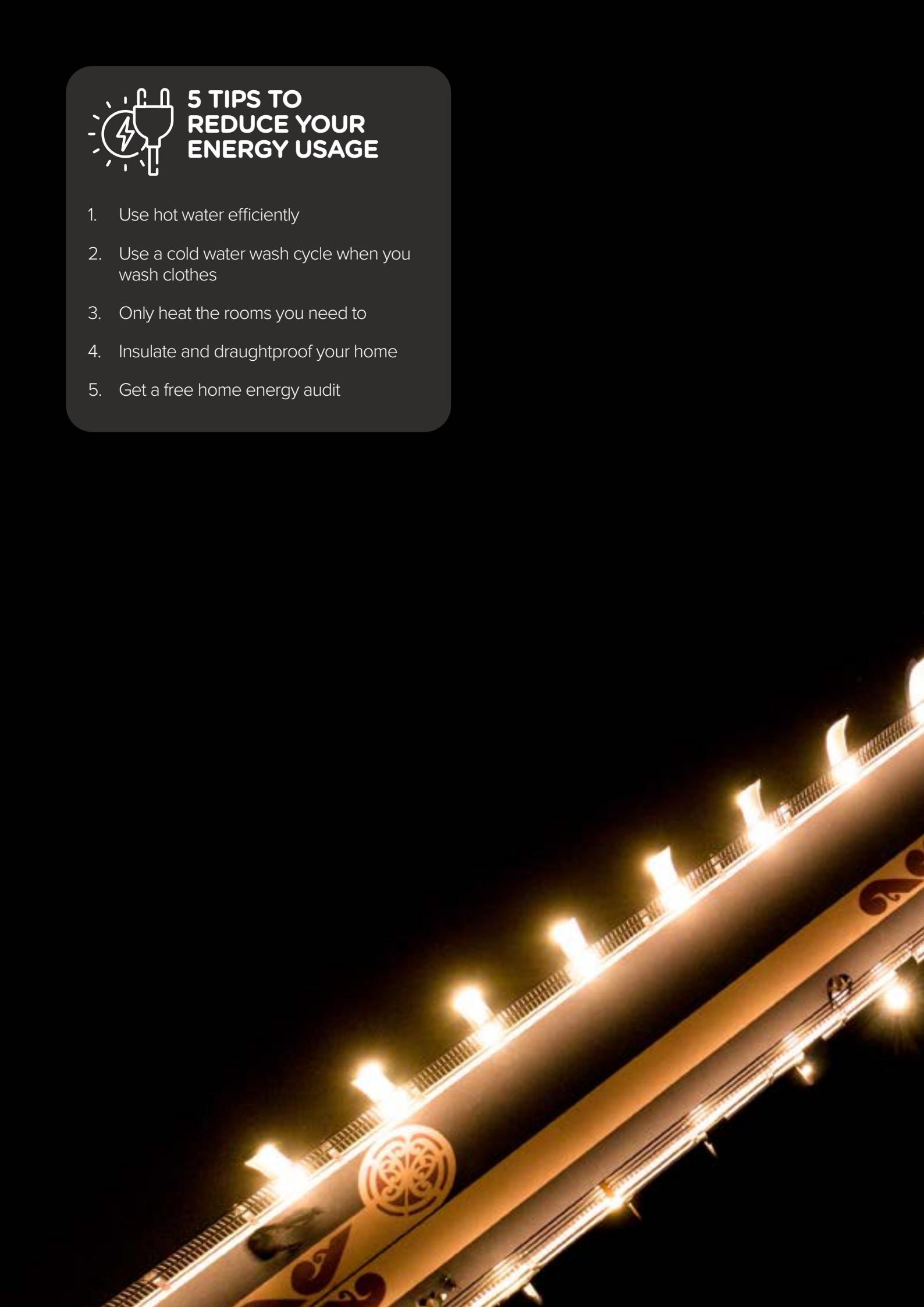
Green waste generated from maintenance activities is recycled. Sent to the Awapuni Resource Recovery Centre for processing, the weeds and other green waste comes back to Parks as compost for use on the gardens around the city. Tree waste is chipped and used as mulch. The Parks team has also been replacing petrol powered tools with battery powered alternatives and ATVs with electric golf carts. A new electric ride-on mower is about to be trialled, and if it can handle the high use we put mowers through, ride-ons around the city parks will begin to be replaced with an electric alternative.

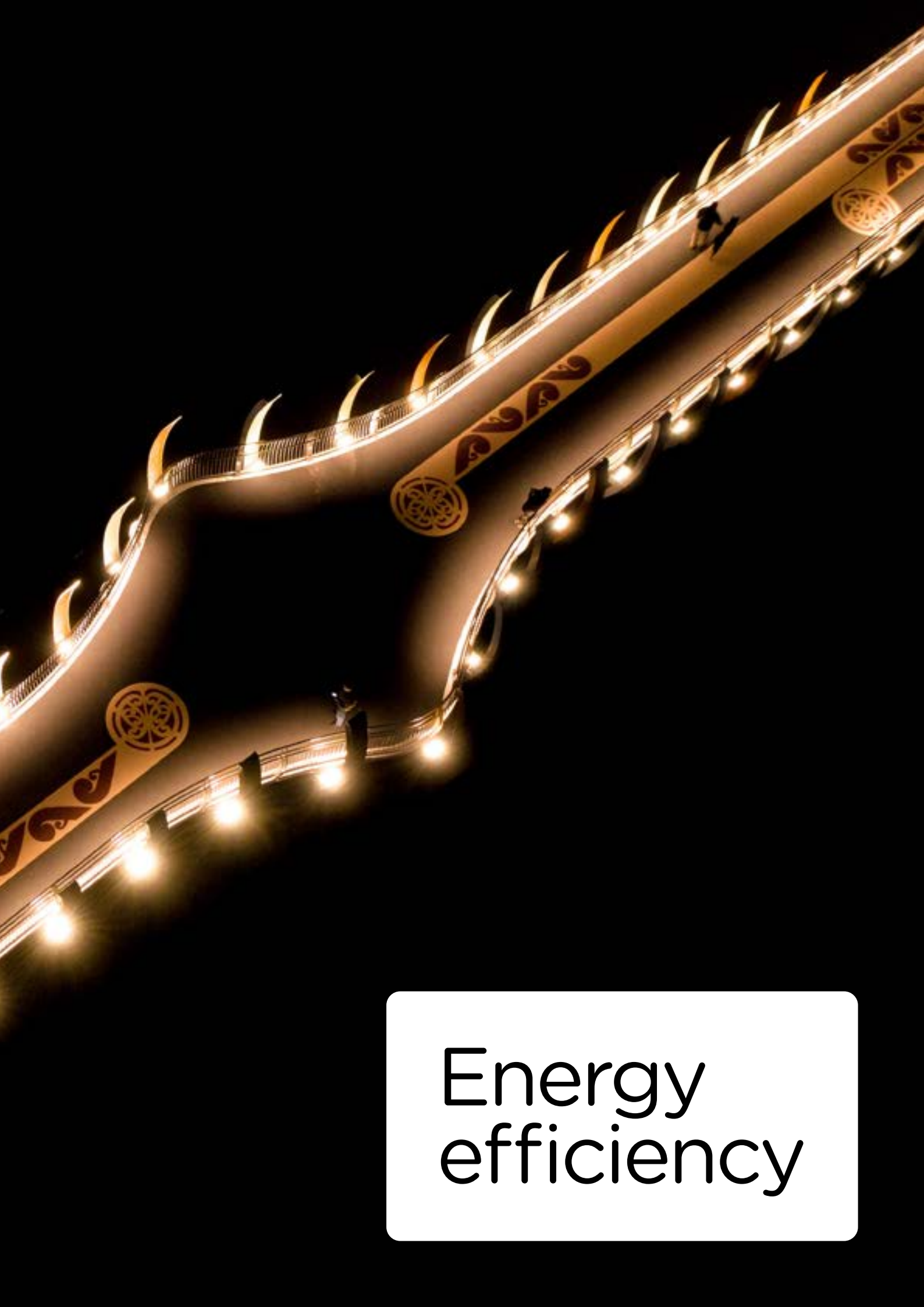
Group Manager, Parks and Logistics, Kathy Dever-Tod says that sustainability is an ongoing focus for the team. "The assets we manage are the 'lungs of our city', they will help us to adapt to the impacts of climate change, through helping cool the environment and mitigating the impacts of intense rainfall events. They need to be managed sustainably".

Rebecca Fitzpatrick grows many beautiful plants that brighten up Council spaces around the city.

5 TIPS TO REDUCE YOUR ENERGY USAGE

1. Use hot water efficiently
2. Use a cold water wash cycle when you wash clothes
3. Only heat the rooms you need to
4. Insulate and draughtproof your home
5. Get a free home energy audit





Energy efficiency


greenworks
PALMY

Energy efficiency

Investment in using energy more efficiently has been a major focus in our efforts to tackle climate change and there's more exciting projects underway right now. We've made some big strides in this area, implementing modern energy efficient technology, harnessing low carbon alternatives and even generating electricity where practical.

Efforts to improve energy efficiency and to switch away from fossil fuels have been ramping up over the last two years with new pellet burning boilers replacing the old gas versions in both our Council nursery and the plant conservatory at Victoria Esplanade.

We've replaced eleven of our Council vehicle fleet with fully electric cars, and installed charging stations for them in the basement of our city centre offices.

We will continue to make the switch to cleaner vehicles as those in our fleet reach time for replacement.

Many of our operations teams have also been making the change to cleaner, quieter, more energy efficient tools and equipment as those in use reach the time for replacement. You will probably have seen a couple of our electric rubbish trucks around town, but we also have rechargeable mowers, chainsaws, weed whackers and even leaf blowers.

The large solar panels on the roof of the city centre Council offices have been performing well and are currently supplying around 10% of the building's electricity. We will soon be giving these huge panels a professional clean and looking at whether adjusting their angles slightly will result in an even higher output.

Speaking of solar power, we're also working on a proposal to install more solar systems on Council buildings over the next few years. These solar projects will be subject to funding, which will be decided on by our elected members.

Less mowing has long grass flowing

Another initiative from Council's Parks team to mow Linklater Reserve less often has seen people and dogs alike revelling in the resulting carpet of long luxurious grass.

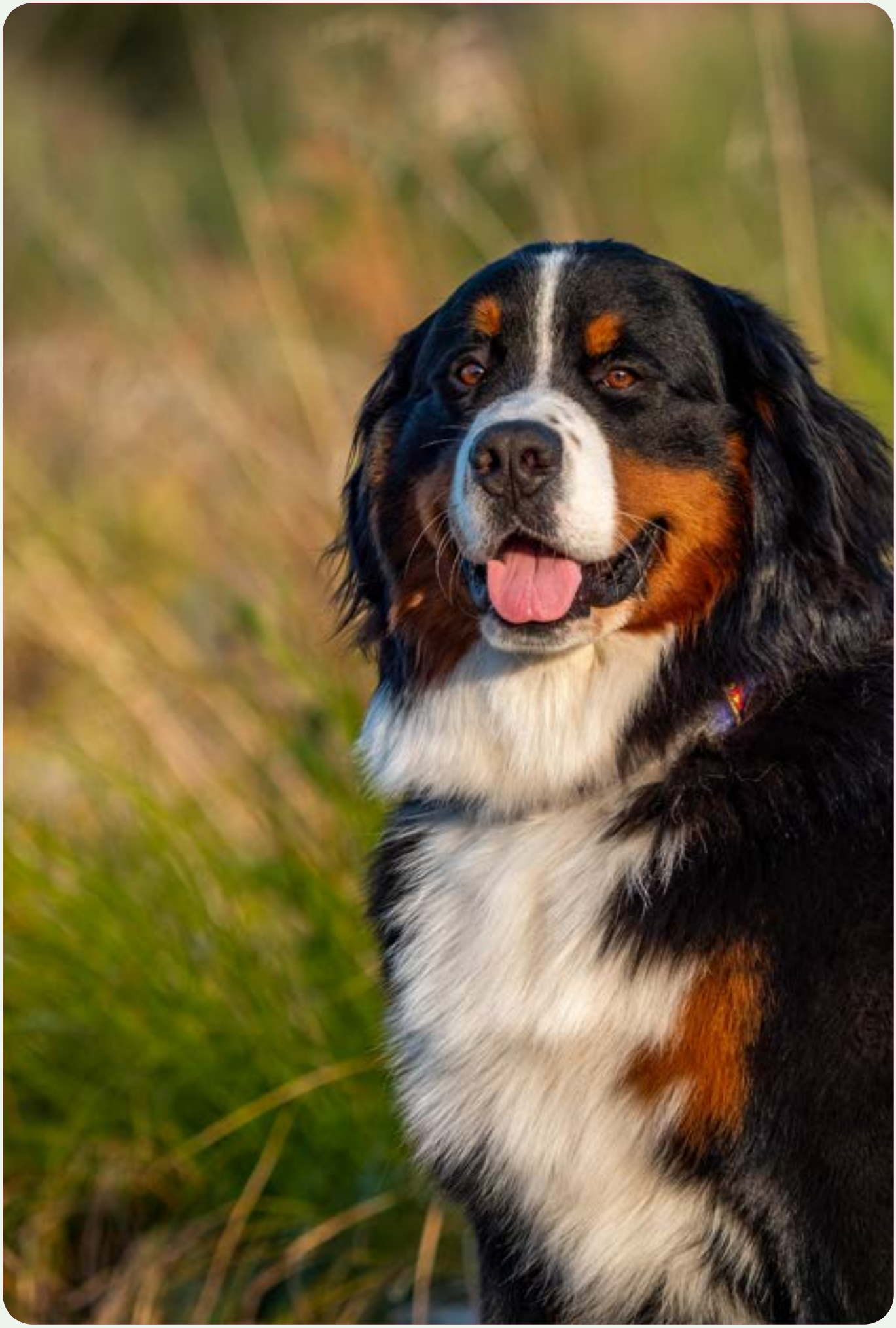
Four years ago, the team looking after the reserve began mowing just the edges of the paths every two weeks, while leaving the rest untouched. This means the majority of the area is available for growing hay, which gets cut and sold off twice a year.

Only mowing the park twice a year means we generate less emissions from our large heavy duty diesel powered mowers which are used to keep down grass in big areas. Plus, some of the money generated then feeds back into the care and maintenance of park facilities.

Feedback from public has been positive, with many park users saying their dogs love to run and play around in the long grass.

The space is also a healthy environment for bees and other insects to enjoy in an area largely dominated by industrial development and housing.

The success of the initiative at Linklater Reserve means the Parks team will be taking a look at other reserves where the same kind of approach could be adopted in the future. They'll also soon be planting areas around the river with wildflowers, to encourage biodiversity in the form of bees and other beneficial insects.



Renewable energy? We're massive fans

As one of the country's earliest adopters of wind farms, it's fair to say we're massive fans of renewable energy around here!

Palmy has been harnessing the predominant westerlies that blow through our beautiful ranges since the Tararua Wind Farm opened in 1998. So, it seems fitting that we're now also home to the Turitea Wind Farm - currently the largest wind farm in the country in terms of power generation, and also believed to be in the top 5% of wind generation sites worldwide.

Turitea was formally opened by then Minister of Energy Megan Woods in May 2023. It has the capacity to produce 840GWh hours a year - enough to power 120,000 households. With 60 huge turbines, each measuring 125 metres from ground to blade tip, the electricity generated from the site will add 2% of fully renewable energy to the national grid.

The project began construction in 2021 and wasn't without its challenges. The difficult topography and climate conditions of the wind farm's location were challenging for the project team, with intense rainfall, high winds, snow during winter, and dry conditions during summer.

Thousands of people worked on Turitea's construction, putting in more than one million hours of labour and delivering this project with tenacity, ingenuity, cutting edge technology and of course skill.

Mercury says many of the workforce spent a lot of time in Palmy during that time, enjoying everything the city had to offer and supporting local businesses.

"During the build itself there were more than 2,500 people on the project, so that's a lot of motel rooms, coffees and cheese scones in that time. In addition to these crews, we were very pleased with the number of local firms who were involved as sub-contractors. Now the farm is up and running, its ongoing operation is supported by local teams."

Turitea Wind Farm is located in the Turitea Reserve, upon the Tararua Ranges. This area holds great significance and cultural identity to Rangitāne and gives life to the mauri which flows throughout the rohe. The reserve is a major water catchment area for Palmerston North and also the habitat of many native species, including reptiles, bats and birds. These factors meant that strong environmental management and partnership with Rangitāne was essential.

Mercury says environmental mitigation for the project has included the planting of around 31,000 plants and working with ecology specialists to capture, care for and return native gecko to the area once the job was done.

"We worked closely with Rangitāne o Manawatū as kaitiaki, and benefited from the cultural, physical, and spiritual guardianship they have shown for this site. We also welcomed oversight from other specialist ecologists which included designing the turbine layout to minimise the disturbance to indigenous vegetation and fauna where possible. We continue to work with Rangitāne and others to re-plant the site, including 10 hectares of new native planting."

Mercury says they will continue to invest in renewable energy and appreciate the shared commitment to this type of decarbonisation by Palmerston North city which continues to lead the way in clean energy generation.

"We share a long-term approach and a commitment in sustainability with Palmerston North City Council and have been delighted with the interest shown in the project by the Mayor and city over the years. Mercury are committed to being here for the long term, and that includes supporting the community. We value the relationships we've built with city leadership as well as Council's operational teams over the years."

5 TIPS TO REDUCE YOUR TRAVEL EMISSIONS

1. Check out the new bus routes on the Horizon's website
2. Choose to walk more, if possible
3. Consider biking one or two days a week or check out one of our shared pathways for weekend fun
4. E-scooter to get short distances
5. Carpool to work if you can

Transport


We have 534kms of roads, 572kms of footpaths and 400 bus stops
BUS
42 electric buses introduced to the city fleet
We have 14207 street trees recorded in our database
Main St
GIVE WAY
PALMY PROUD

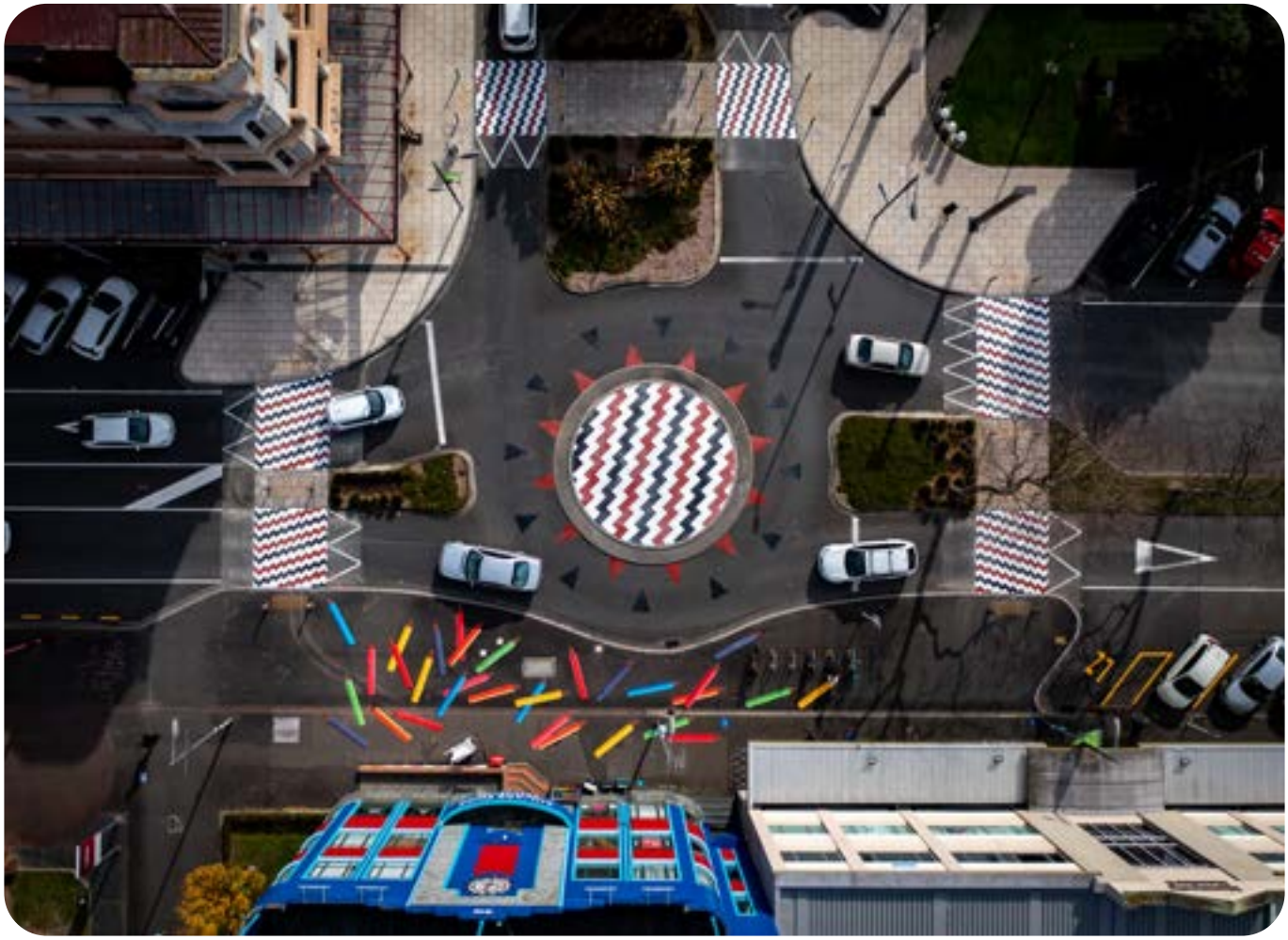
Transport

Transport is the greatest contributor to carbon emissions in the city, producing more than half of our greenhouse gas emissions. To address this, we are working towards a network that both reallocates road and street space and provides more sustainable modes of travel.

Fewer people are walking, cycling and catching the bus in Palmerston North, yet it's a flat and compact city that makes it ideal for cycling or walking. However, the same wide roads and streets which are great for vehicles and parking, create challenges for pedestrians and cyclists.

Wide and busy roads and streets can be an impediment for pedestrians with lower mobility, deterring them from walking.

In order to better support our communities, we are building a safer cycleway network, while also improving better connectivity for pedestrians. This approach will help us seek a better balance for everyone who uses our transport network.



Palmy on pedals

Research done as part of our Urban Cycle Masterplan found many people in our city want to cycle, they just don't feel safe enough to do so. That's because on most of our roads cyclists aren't separated from vehicles by more than a strip of paint. Our roads were designed many decades ago – when preference was given to motor vehicles. This isn't sustainable for our future. So, we're now investing in retrofitting parts of our transport network to provide more options for those who don't have vehicles or want to stop using them as much.

In 2020, we delivered our first protected cycleway on Main Street-Pioneer Highway. In 2022, we embarked on an extensive engagement process for a similar overhaul of Featherston Street – including the provision of five new pedestrian crossings and a uni-directional protected cycleway – providing people on bikes with a key link from one end of the city to the other.

The first section of the Featherston Street cycleway was built in early 2024. Once completed this cycleway will, over time, connect to others on Albert, Vogel and Botanical Streets, which in turn will connect to Main St and Pioneer Highway– bringing to life our vision for a safe network of protected cycleways, where more people will feel safe to take up active modes. Funding for the remaining sections of Featherston was put on hold by NZTA - Waka Kotahi in late 2023.

Featherston Street was the top priority in our cycling bible – the Urban Cycle Masterplan – as there had been 442 crashes between 2012-2022. Two people were killed. To come up with the new street design, we undertook the largest piece of engagement for a transport project our Council had ever done. Over 10 months we held several public feedback sessions, three co-design workshops and hundreds of conversations with businesses, user groups and other organisations. The result was a protected uni-directional cycleway with five additional pedestrian crossings to make it safer for everyone travelling by foot, bike and bus. This resulted in a significant reallocation of the road space, including major changes to intersections and the removal of about 400 parking spaces to allow enough space for the cycleway barrier. Construction is being staged over several sections as funding becomes available.

We're also in the midst of installing a physical barrier on the Summerhill Cycleway – which, like Featherston Street, formerly only consisted of painted lines. Funding for the construction was put on hold by the government in 2023 but the new road markings are in place. As soon as we secure funding we can install the physical concrete separation. This was another top priority in our cycling bible as it's one of our fastest growing areas of the city in terms of housing growth. We're still in the very early stages of our city journey in building safe cycling networks, but we'‘re looking forward to seeing our community out and about, enjoying a safer and more sustainable transport network throughout their city.


100
3786
QLL747

A clean green (and quiet) revolution in public transport

In early-2024, Palmerston North launched the first fully electric bus network in New Zealand.

The new fleet is part of Horizons Regional Council's overhaul of public transport services in the city, which also includes new routes, bus stops and shelters. Our city's long-term vision is to provide a land transport system that is environmentally sound, safe, efficient, sustainable and accessible for everyone in our community.

The new fleet means Palmerston North and Ashhurst residents are now able to enjoy faster, more direct and frequent, and easier-to-understand services.

With buses running every 30 minutes from 6.30am until 9pm daily, and as often as every 15 minutes at peak times, people now have vastly improved options for travelling across the city.

These new buses are not only smoother and quieter, but they are fitted with USB chargers and have more space on board for those who use wheelchairs, prams and other mobility devices. They also have a range of more than 300 kilometres, so they can do a full day in service without needing to charge.

Delivered by Horizons Regional Council, the launch of the new network coincided with the City Council's introduction of new bus shelters, thanks to funding secured via the NZ Transport Agency - Waka Kotahi Transport Choices programme.

The new network helps achieve our goals of reducing emissions from transport while also reducing congestion for those who need to drive.

The new bus shelters feature designs which are inspired by two historical mapmakers of Manawatū, Haunui-a-Nanaia and John Tiffin Stewart.

Hitting new heights in carbon reduction

Palmerston North Airport has reached a lofty milestone toward sustainability, announcing in December 2023 that it had been awarded a prestigious Level 4 Airport Carbon Accreditation for its efforts to reduce carbon emissions.

The accreditation is part of a global carbon management programme for airports which independently assesses the efforts of airports to manage and reduce their carbon emissions.

Palmerston North Airport is currently the only airport in New Zealand to hold this level of accreditation, which also places it amongst an elite group of only 23 other airports around the world that have ACA 4 status.

Chief Executive David Lanham says the recognition is a result of the airport's comprehensive sustainability strategy which includes initiatives to reduce carbon emissions, enhance energy efficiency, and implement eco-friendly practices throughout airport operations.

"Achieving ACA Level 4 accreditation is a testament to our unwavering commitment to environmental sustainability. Some of our decarbonisation initiatives have included procurement of carbon neutral electricity for the terminal and tenants, transitioning vehicles to EV or hybrid, and decommissioning outdated gas equipment."

Locals show love for low carbon travel

After two years and more than a million kilometres of rides, it's safe to say Palmy people have taken to e-scooters like ducks to water!

The success of the electric powered low carbon transport alternative has seen local operators now able to operate 24 hours a day. The success of the accessible and sustainable form of travel can be seen in the numbers.

It took only a year and a half to hit our 500,000th ride and clock up over a million kilometres worth of trips on e-scooters around the city. The popularity of e-scooters has turned out to be a great fit with Council's goal of enabling more environmentally friendly travel options.

Jacksen Love from Flamingo Scooters says since the beginning of the year, Palmerston North riders have taken over 500 rides per day on their scooters, which is a lot of zero emission trips.

"Flamingo is proudly Carbon Neutral certified and our mission is to provide a transport option that lowers carbon emissions, reduces reliance on cars and provides a first and last mile connection with public transport.

Our most recent Palmerston North rider survey was conducted in December 2023, generating highly positive results.

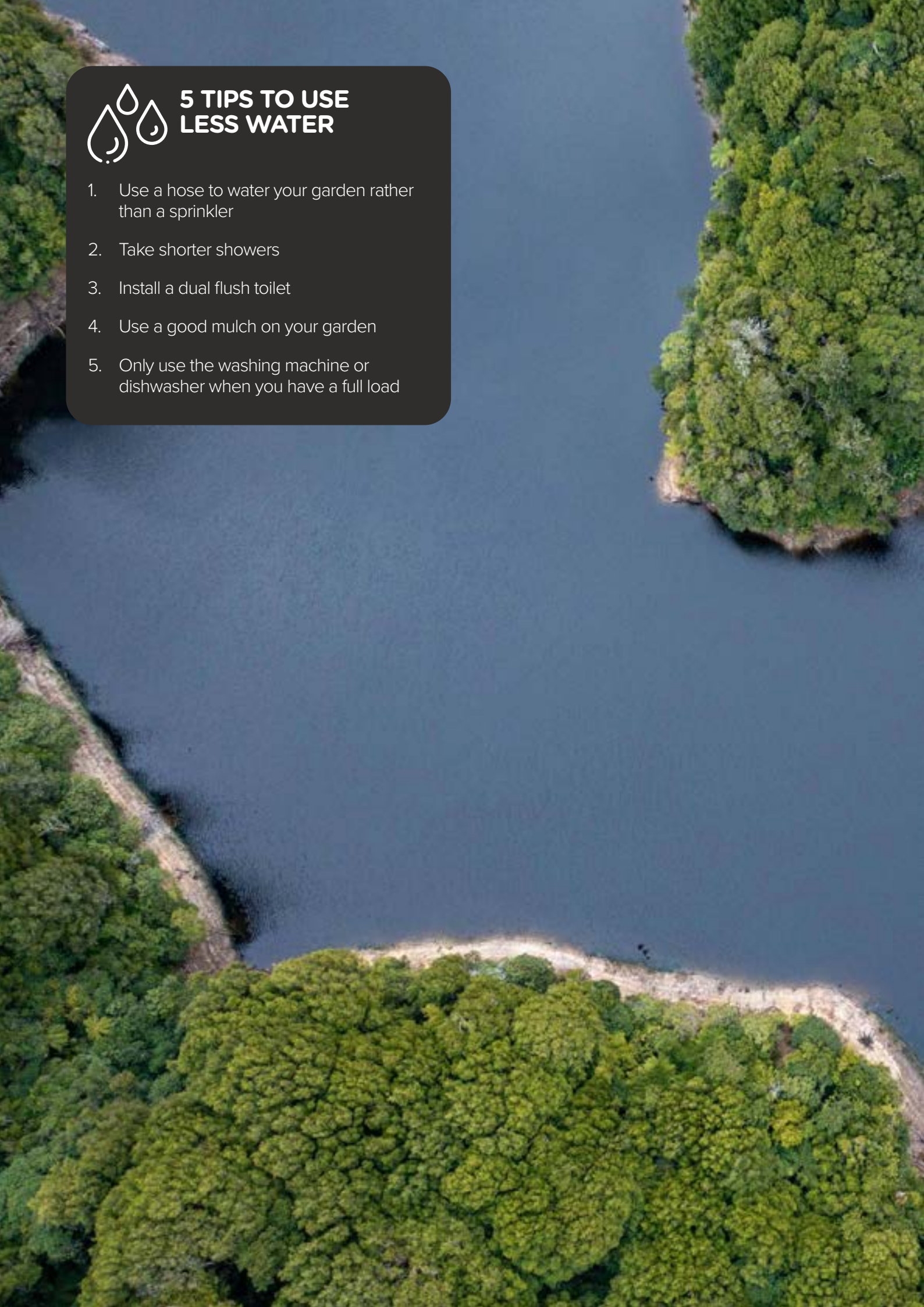
Notably 72.9% of riders agreed that electric scooter sharing in Palmy has made it easier for them or their family to not own a personal car or motor vehicle (or not own as many personal cars or motor vehicles) and a further 66.9% agreed that electric scooter sharing in Palmy has helped them decrease how often they travel by motor vehicle. 66.8% of riders had also used a Flamingo scooter to connect with public transport."

He says another noteworthy result from the survey was that 70% of respondents indicated they had made trips they would not have otherwise made without the scooter.

"This demonstrates how electric scooter sharing creates a transport system that supports the local economy by increasing mobilisation and generating economic activity."

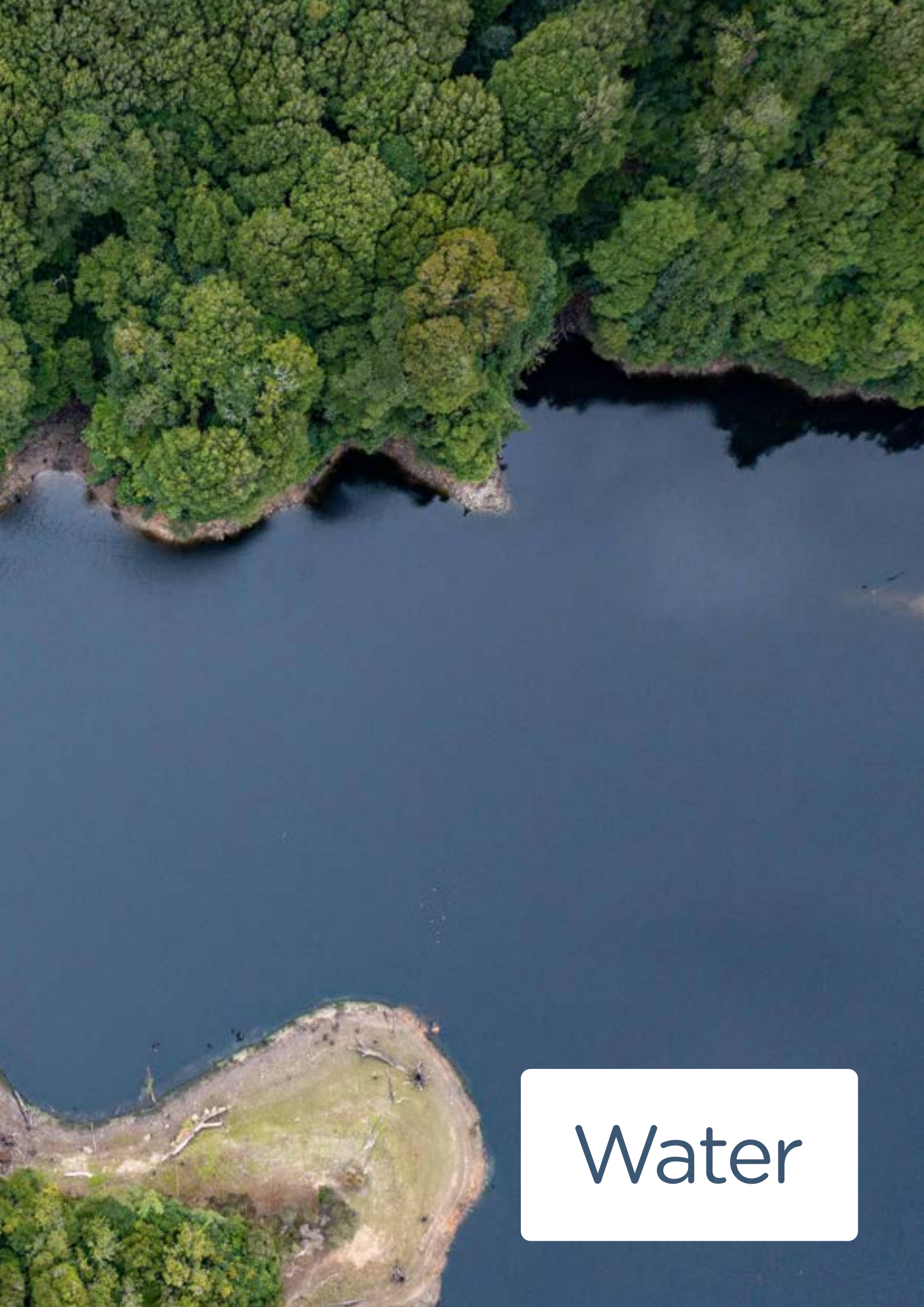
The number of accidents and injuries has been comparatively low, with the majority of complaints about where or how scooters have been parked, showing riders are considerate and ride them safely.

Given the high amount of use by Palmy's riders with relatively few issues a review in mid-2023 saw a change to 24 hour operation. Having e-scooters available 24 hours a day makes them more usable for shift workers who may rely on them to get to and from work.



5 TIPS TO USE LESS WATER

1. Use a hose to water your garden rather than a sprinkler
2. Take shorter showers
3. Install a dual flush toilet
4. Use a good mulch on your garden
5. Only use the washing machine or dishwasher when you have a full load


Water

Drinking water

We have 587km of water pipes, 14 reservoirs and 21 bores and pump stations

We completed 5.16km of pipe renewals over the past year

We completed construction on a new supply bore and contact tank (small reservoir) on Railway Road. This is a key strategic location that provides for future growth in this area of our city, while improving our compliance with the new Drinking Water Quality Assurance Rules

We also continue to work closely with the new Drinking Water Regulator – Taumata Arowai, to improve Palmerston North's compliance status. This will be an on-going journey over several years as some of the required changes to our networks are significant and complex

Wastewater

We have 424km of wastewater pipes, 5794 manholes and 37 pump stations

Wastewater passes through our treatment plant for around four days before it is discharged to the Manawatū River

Our planned investment for wastewater treatment and discharge in the coming years is the largest ever for Palmy, and significant at a National level

We have completed significant numerous renewal programmes over the past year

Stormwater

We have 5,511 manholes, 290km of piped drains and 20km of open drains

3km of urban streams and open drains cleared of vegetation or weeds over the past year

Vautier, Sutton and Paisley pump stations upgraded over the past year

CCTV inspection of 3.5km critical network completed over the past year

Water consumption

Water consumption varies year on year. Over the past three years, per day each person has used:

2021/22 - 249 litres

2022/23 - 226 litres

2023/24 (to April) - 272 litres

* This data includes water loss (leaks or other causes) of between 8.1 - 15%.

Water

We manage drinking water, wastewater and stormwater for residents and visitors to our city and the villages of Ashhurst, Bunnythorpe and Longburn.

All our water services are delivered within the context of the Manawatū River Leaders Accord, which sets out the shared commitment to improving the mauri of the Manawatū River. The Accord comprises iwi and hapū, local and central government, farming, and industry leaders, along with Massey University and environmental and recreational advocacy. Recently it has grown to include others, being a collaborative group supported by Horizons Regional Council.

The river is at the geographical, recreational, and spiritual heart of Palmy. The mauri of the river is a direct reflection of people's values. It is of great historical, cultural, spiritual, and traditional significance to Rangitāne and the wider community.

Drinking water

We have four water supplies, which includes a combination of the Turitea dams and several bores in Ashhurst, Bunnythorpe, Palmy and Longburn. Our water supplies are of high quality and are generally plentiful. However, summer droughts and growing demand means we may occasionally need to conserve water to ensure sufficient supply.

There's been some major changes to drinking water standards

In November 2023, the new water regulator Taumata Arowai established new Drinking Water Quality Assurance Rules (DWQAR). The new rules require there to be a longer period of time for the chlorination of water to occur before it is pumped into the network, known as 'contact time'.

Chlorination is a common and effective treatment method used to remove bacteria from water. The amount of chlorine residual needed is tiny - just 0.2 parts per million. The Turitea dams and our bores at Ashhurst, Longburn and Bunnythorpe supply the majority of the city's water, which already meet the new quality standards. One of our bores at Papaioea Park also has an Ultraviolet Reactor (UV) which means the water from this bore meets the new quality standards.

Two of our city bores don't fully meet the new drinking water quality rules. We have plans drawn up to fix them. In the meantime we have switched them off until they are upgraded. We are also working with the National Regulator Taumata Arowai to agree on a solution for our bore sites lack of contact time. This simply means how long the Chlorine needs to be in contact with the water to be effective.

The changes to legislation are not only affecting Palmerston North, but most of New Zealand cities who are also now working on solutions to become compliant with the new quality rules. Our city has invested in water assets over time to provide a resilient network which is why we only have a small number of water supplies that need additional work. Past and planned works mean that we aim to continue supplying the same amount of drinking water we always have.

Looking to the future, we want to achieve the following actions for our drinking water:

Bring our remaining bore supplies up to the new Drinking Water Quality Assurance Rules.

We're committed to developing programmes to reduce residential water use and increase storage. We also need to upgrade aging infrastructure including pipes and reservoirs. We are looking to improve our district-wide resilience and improving the water supplies for our satellite communities, such as Ashhurst, Bunnythorpe and Longburn, which have separate water supplies.

We will continue to strive to supply safe and readily available water.

We're investigating smart metering to accurately profile commercial water use.

We strive to ensure all urban areas continue to be serviced with treated water as demand grows and our city expands. We have some capacity for growth and plans for more borewater sources in the future to meet this demand.

Over time we will need more bores to help service our growing population, in new housing or industrial areas that are developing and to meet agreed Levels of Service while improving resilience.

There will be seismic strengthening of some key water assets to reduce risk of major asset failure, loss of service and reduce the time to restore services after a seismic event.

If demand increases, we are planning for water supply zones throughout the district that could have water pressure reduced to save water. This, coupled with household water-saving and storage solutions, will further reduce water demand and wastewater flows. Pressure management will also help to reduce leaks from the network, and we are currently investigating zones where we can lower pressure to achieve this.

Wastewater

We own and manage our wastewater treatment plant in Awapuni. The discharge of wastewater is stringently managed and monitored by Horizons Regional Council.

In September 2021, Council adopted our preferred option for the treatment and disposal of Palmy's wastewater in the future. We are now working through the consent process for this. This will be the largest project for the Council for several years and a range of important considerations need to be made, such as affordability, community, public health, environmental and sustainability implications.

Ongoing consideration is being given to new ways to manage, move, and treat our wastewater, and we have taken some steps already. An example of this is our new Pressure Sewer Policy. This requires pressure sewer systems to be installed in areas with specific challenges to service with conventional gravity sewer systems. This reduces the risk of failure and stormwater entry into the wastewater network and provides storage to help smooth peak flows to the treatment plant.

Looking to the future, we want to achieve the following actions in wastewater treatment:

- Continue working on requests and technical work required for Horizons Regional Council to continue to process our resource consent for our Nature Calls project for the future treatment and discharge of our city's wastewater.
- Smart metering and on-line monitoring are introduced to provide more robust profiling of flows and loads, especially from large trade waste dischargers
- A reduction of stormwater infiltration and inflow into the wastewater network through proactive monitoring of our network. 12 flow monitors were deployed in our wastewater networks to measure flow and levels, which will inform the hydraulic modelling calibration and help to focus efforts on areas with suspected high inflow and infiltration issues
- A city-wide wastewater network hydraulic model is being calibrated to represent the most recent wastewater demands and should be completed FY23-24 which will help to inform key asset management and city development decisions.

Stormwater

As our city grows and the impacts of large events across New Zealand are better understood, our stormwater networks will become increasingly more important. This will include allowance for the expected impacts of climate change.

Over the last decade or so, there has been increasing awareness that urban water bodies are at risk of both flooding and poor water quality – leading to a shift in stormwater management approaches.

This shift has been towards an integrated approach that seeks to protect and enhance the freshwater environment through sustainable stormwater design and management. This holistic approach is not just about stormwater devices, but one that mimics natural processes, reducing flows and treating stormwater contaminants rather than systems designed principally for drainage.

This approach means:

- We will continue to use modelling data to identify areas of Palmy that are subject to flood risks and to evaluate options for solutions to reduce flooding frequency and the impacts of flood events.
- We will evaluate options to continue to manage stormwater through effective design.
- We are placing greater emphasis on collaborating at Plan Change stages to include low impact design, water sensitive urban design, sustainable urban drainage systems and best management practices for all new greenfield developments.
- We work together with developers to achieve sustainable outcomes for new developments including things like grassed swales, rain gardens and wetlands that will improve water quality. A notable example of this includes ecological restoration works at Tamakuku Terrace and the new attenuation and treatment pond at Whakarongo.
- We continue cultural and urban water quality monitoring at most of our urban streams. This gives an indicator of health of the streams and contamination levels to programme, maintenance, treatment and restoration works.

Nurturing nature

Near the heart of our river pathway lies a testament to innovation and environmental stewardship – at Gas Works Drain. Connecting Napier Rd/SH3 to the Manawatū River shared pathway by Kauri Park Nurseries, this vital waterway has recently undergone a transformative upgrade aimed at not only bolstering its stormwater capacity but also nurturing local biodiversity.

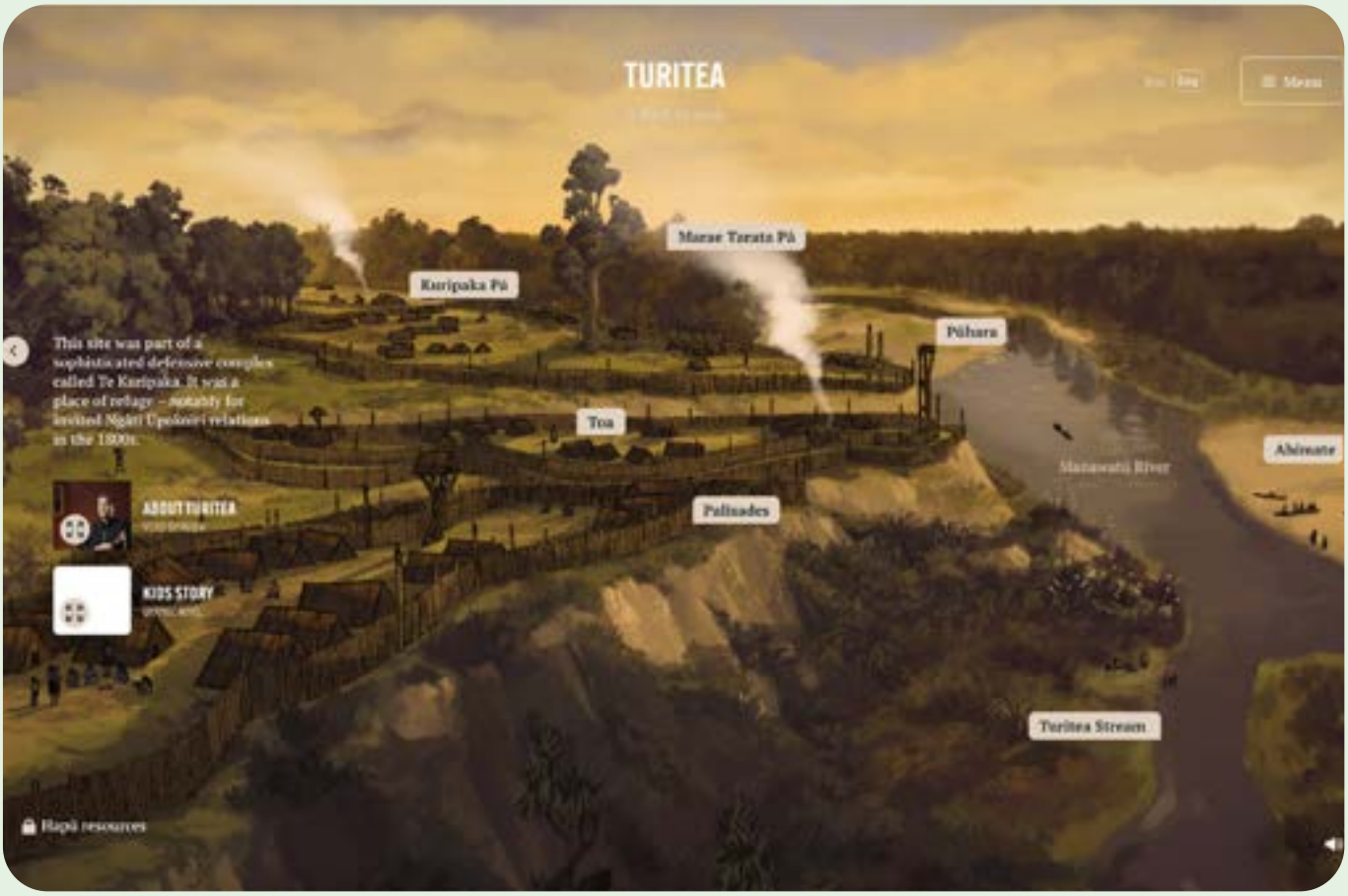
At the forefront of this initiative is a collaborative effort between council staff, environmentalists, and iwi voices. Recognising the importance of preserving and improving our natural ecosystems, the Council sought guidance from Rangitāne, our local iwi, to improve fish spawning and native planting while upgrading the stormwater catchment areas that services one of our fastest growing suburbs in Kelvin Grove.

One of the key objectives of this project was to widen the stormwater drain, increasing its capacity to manage runoff from burgeoning residential developments in Kelvin Grove. By expanding the catchment area, the upgraded system is designed to mitigate the risk of flooding while safeguarding the surrounding environment.

However, this project is not merely about infrastructure; it's also about regeneration. Working hand in hand with Rangitāne, the initiative integrated new fish beds and spawning areas into the redesigned stormwater system. Prior to construction, Rangitāne undertook the important task of relocating fish from the area. Once completed, the rejuvenated environment will be a habitat where they can thrive.

The upgrade also includes a planting scheme to reintroduce native vegetation to the area to improve biodiversity, water quality and the wider ecosystem.

Projects like these are proof that progress and preservation can go hand in hand. As we look ahead, we will continue to champion initiatives with our partners that nurture our biodiversity and safeguard its precious resources. Together, we can pave the way towards a more resilient and sustainable community for everyone to enjoy.



A deep-dive into our awa's history coming soon

Palmy residents and visitors will soon get a hands-on lesson in the history of our awa (river).

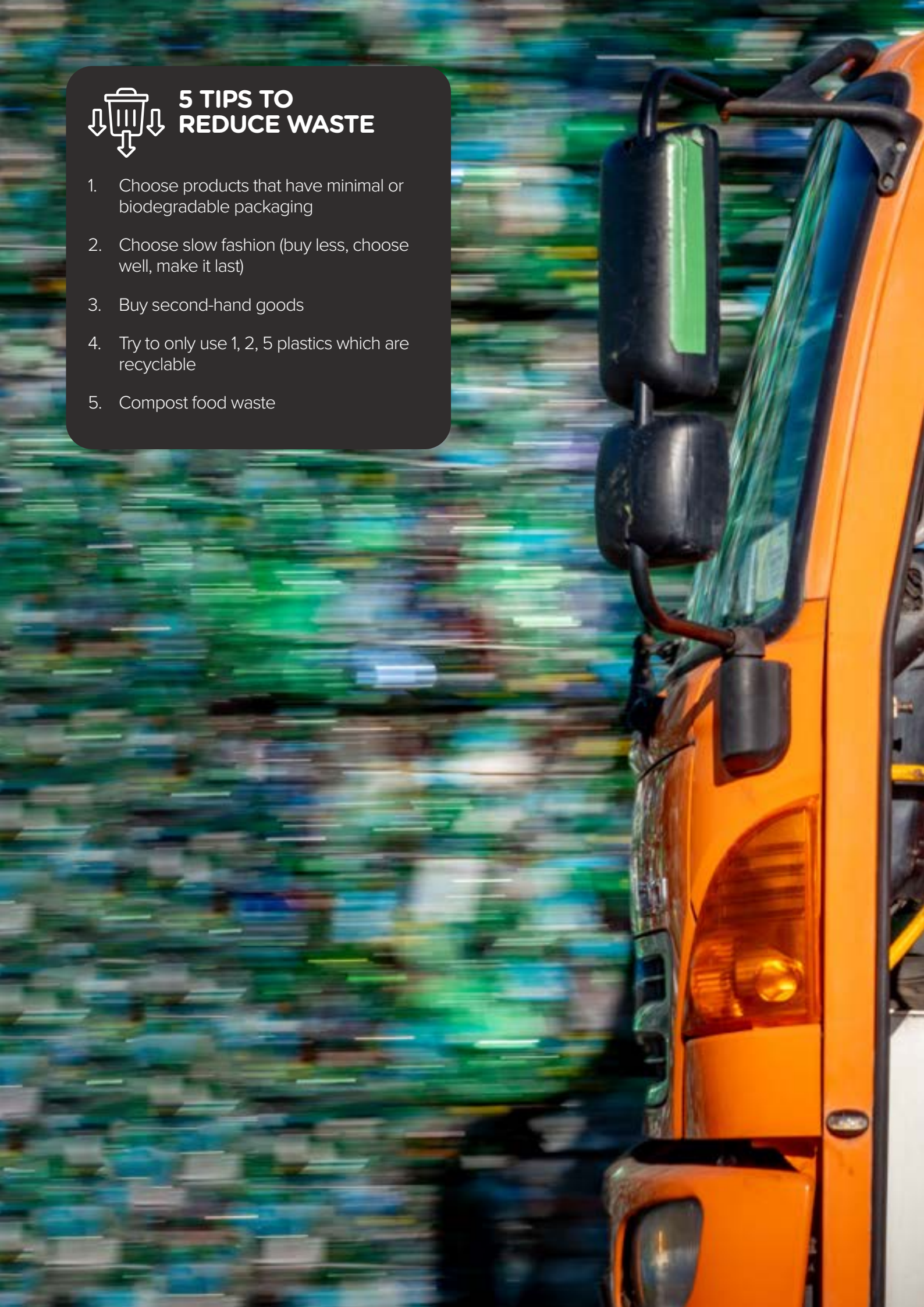
He Ara Kotahi, Hei Ara Kōrero is an iwi-led digital platform that will share the mātauranga (knowledge) of Rangitāne o Manawatū of the awa through an interactive map and virtual guide. The guide will include videos, photos, maps, animations and much more!

The project aims to inspire and connect whānau (family), nga kura (schools) and hapori (community) with the history and stories of our river, growing the connectivity and awareness, and the mauri, of the Manawatū Awa, which is one of only two places in the world where the river runs east to west through a main divide. Sites that will be focused on include Awatapu, Ahimate, Te Motu o Poutoa, Turitea, Mokomoko and Ruahine.

This awesome new resource will be available for anyone to access from anywhere and, being a mobile friendly platform, this means you can learn from the comfort of your home, classroom, or while you're out on a stroll along the river pathway at the very spots being talked about! This helps better connect our community with Rangitāne o Manawatū cultural and environmental mātauranga and pūrākau (storytelling)

The project is funded by the Ministry of Culture and Heritage, and is supported by the Central Economic Development Agency (CEDA).

The platform is expected to be available in June 2024.



5 TIPS TO REDUCE WASTE

1. Choose products that have minimal or biodegradable packaging
2. Choose slow fashion (buy less, choose well, make it last)
3. Buy second-hand goods
4. Try to only use 1, 2, 5 plastics which are recyclable
5. Compost food waste

Resource recovery

Resource recovery

We provide kerbside recycling and rubbish services for residents and offer convenience with three recycling drop-points across Palmy. We're not just here for residents; our commercial customers also benefit from these services. From e-waste to Tetra Pak, batteries to tyres, we're equipped to handle it all, ensuring that each recyclable is given a new life.

We have 694 public bins in the city and we also lend our support to local events and community gatherings, promoting sustainability every step of the way. And for those rare items that require special handling, we host household chemical waste drop-off days to make responsible disposal accessible for all residents.

Every six years we conduct a city-wide audit of Palmy's waste habits. This covers how much we are recycling and how much is going to landfill, as well as any trends.

Our latest assessment estimated that Palmy sent 55,000 tonnes of waste to landfill in 2022.

But almost half of this was potentially divertible - meaning it could have been composted, recovered, reused or recycled instead!

Of the 55,000 tonnes of waste, about a third came from households through kerbside collections. The rest came from construction and demolition, industrial or commercial sectors, or residents taking their own rubbish to the dump. The amount of waste per capita sent to landfill has increased from 544kgs in 2017 to 607kgs in 2023.

These waste assessments help provide the data for our Waste Management and Minimisation Plan which sets out what we are doing to look after our environment and new initiatives to help reduce our carbon footprint.

Some key areas where we could improve our effectiveness in waste diversion:

- A significant proportion of waste going to landfill is organic waste, with food waste present across all kerbside rubbish collection systems.
- We lack the facilities to recycle or otherwise divert construction and demolition waste (apart from some timber and concrete) with a predicted increase in construction activity.
- More recyclables could be diverted from commercial properties.
- Community engagement, understanding and awareness of waste issues could be improved somewhat although Council has been working hard in this space.

Households that use our council rubbish bags manage their waste differently to households that use wheelie-bins. And the bigger the bin, the more food, green waste, and recyclable items they throw out.

Waste assessment is just for 2022.

Rubbish and recycling collected by Council

	2021/2022	2022/2023
Rubbish collected from kerb (tonnes)	3,409	3,203
Recycling collected from kerb (tonnes)	3,395	2,975
Glass collected from kerb (tonnes)	1,703	1,606
Recycling at our drop off points (tonnes)	694	752
Glass recycling at our drop off points (tonnes)	752	621
E-waste (tonnes)	50	48
Motor oil recycling (litres)	10,618	13,302
Green waste drop-off (tonnes)	7,203	7,311
Compost sold (m^3)	1,340	1,950
Number of rubbish bags collected	554,834	521,233
Number of recycling bins emptied	569,811	584,610

While the volume of kerbside recycling has reduced, so too has the volume of rubbish. This could be put down to reduced levels of consumption, with people needing to get rid of less household material. The number of recycling bins emptied also increased, showing that people are putting their wheelie bins out more often.

Tonnes of e-waste received has dropped slightly because less and less CRT televisions and screens are being dropped off. However, the amount of e-waste items dropped off is increasing.

Motor oil recycling is one of the more recent initiatives that we've introduced, so it's nice to see more people are using this service.

We're facing some key challenges in our waste space

Government changes will heavily impact us

Significant changes continue to be made around the way that waste is managed in New Zealand. From 2024, all councils will accept the same materials in their kerbside collections, which, we already mostly complied with. By 2030, all councils will also need to provide households with a food scraps collection service, to make it easier for people to divert food scraps from landfills. There will also be new and more comprehensive waste legislation coming our way, which will replace the current Waste Minimisation Act 2008 and the Litter Act 1979.

Rubbish disposal will cost us more

The Waste Disposal Levy has increased from $10 a tonne prior to 2020, to $50 a tonne in July 2023. This will reach $60 per tonne in July 2024. This means we continue to pay more for disposing of rubbish in the Bonny Glen landfill. All elements of our kerbside rubbish collection service will be considered as part of the 2023-34 Long Term Plan.

Our closed landfill will continue to be managed

From 1950 to 2007, 2.5 million tonnes of rubbish were deposited at the Awapuni Landfill. Now closed, we have the ongoing responsibility to maintain its integrity. The current consent expires in 2029 and soon we will need to start the process of reconsenting it. This consent will be so that we can continue to maintain it as a closed landfill and manage any environmental impacts.

Repurposed glass a smashing good idea

Early 2023 saw us join forces with the local companies Higgins Concrete and Hirock Quarries to give waste glass a new lease on life.

In just six months, more than 5,000 cubic metres of glass waste was saved from the brink of the landfill abyss – that's the equivalent of two full Olympic-sized swimming pools. The ingenious solution? Transforming this glass waste into a valuable resource, by crushing and using it as an aggregate in concrete, roads, and footpaths. It's a win-win that's not only reducing waste but also on the carbon footprint associated with concrete production.

Over the years, Council had been wrestling with the challenge of dealing with mixed waste glass, a by-product of the glass recycling process where different colours of glass end up mixed together. For glass to be recycled, it needs to be sorted into its colours – green, clear and brown. While all council glass collections are sorted at the kerbside, some customers can't sort the glass like we do. When this happens, glass is manually sorted, and waste "fines" – small, broken pieces of glass - are generated. These fines can't be recycled, and stockpiles accumulated over several years.

Faced with this dilemma, Council was determined to find an innovative way to manage this glass waste.

Enter Higgins Concrete and Hirock, a family-owned local company who provide quality concrete and services right across the country.

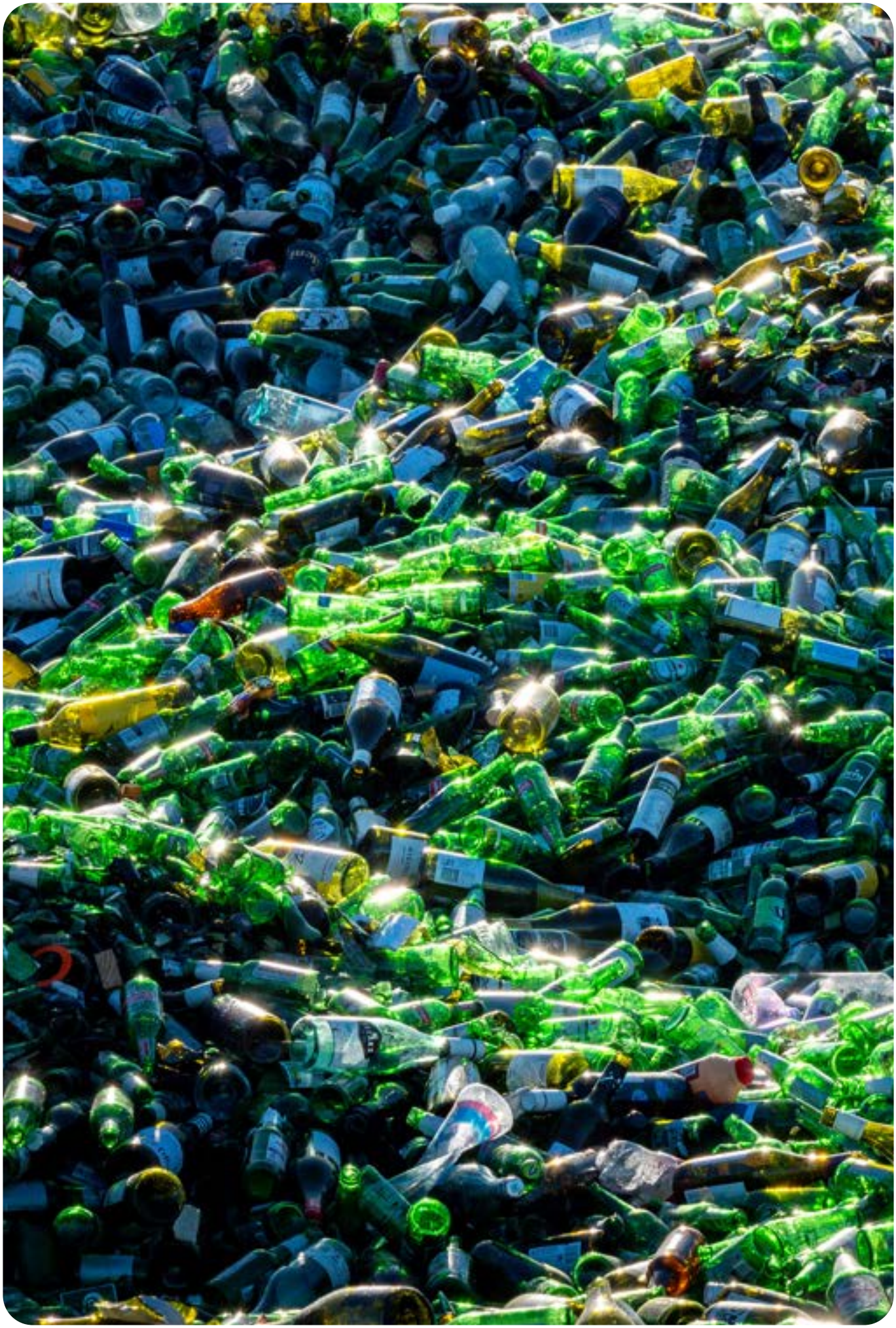
When asked how much glass had been collected, Hirock Transport Manager, Daniel Higgins, put it into perspective.

"Between March and August of 2023 we collected about 5,000 cubic metres of waste glass from the Council's Awapuni recycle site. That amount of glass waste would fill two full Olympic sized swimming pools. Once our truck and trailer units collect the glass from Council, we use a large mobile impactor crusher to grind the glass into particles down to as fine as sand. These are then blended into roading aggregates, concrete and general use."

Hirock Te Matai Road Quarry Manager, Paul Tocker, says their customers benefit from the carbon reduction and in meeting their environmental product declarations (EPDs).

"EPDs are the international standard for measuring carbon footprint of all concrete and construction products. So, we're pleased to be passing on more environmentally friendly products to our customers, and while we're not the first to do something of this sort, we've enjoyed trialling the different concrete products that can be used in roads, footpaths and more."

As the partnership continues to flourish, there's no doubt that this serves as a reminder of the potential that lies within waste materials when approached with creativity and determination. By working together, Higgins Concrete Hirock Quarries and Council are contributing to the creation of eco-friendly products that not only enhance the city's infrastructure, but also promote a greener future.



Fixing things and building bonds

There is a broken bird ornament being bonded back together, a bike getting a once over and a ripped book being mended. There are chats between young and old, laughter, tea drinking and a lot of smiles. It isn't hard to see that the Palmerston North Repair Cafe is a hit and the benefits to a community are wide and many.

Organiser Helen King from Environment Network Manawatū says it's a win, win, "which is hard to come by these days," she laughs, "it is a very, very grateful place on all sides". The ethos is around fixing something rather than buying a new one and throwing the old one into landfill. Volunteers with a vast array of skills including sewing, mending, woodwork and bike repairing come in for the once-a-month cafe and while fixing things up they also pass on some skills.

Menzshed Manawatū and SuperGrans Manawatū were on board from the get-go supplying volunteers and many have also come forward from the community. There is Darryl who says he gets a lot from sharing his skills. Surrounded by tools and workbenches he says "the reward we get is that we can help people and they are always so thankful". Howard, another fix-em-up superhero, chips in, "and the looks on kids' faces when we fix their toy, the huge grins, it's great".

Helen says people are encouraged to sit with the volunteers and see the whole process, "and invariably what I hear at every cafe is, oh I could do that myself now." A mother and daughter have brought in a ripped book which Anne, a retired book mender specialist who once worked for Massey University, is giving all her attention to. "I think it's important to share your skills and help your community," says Anne, "that's the way I was brought up and it makes you feel good".

Young eyes watch older hands and, as Helen says connections are made. "Our volunteers feel a real resonance by helping," she says, "and that is so important, especially for our older people". Laughter erupts at the Menz Shed corner as a young girl points to the taped up bird ornament, "it looks like it's in hospital".

Over in the sewing corner Paula is stitching up the split side on a much loved teddy bear while its young owner looks on. Paula volunteers for Super Grans and has been at all of the Repair Cafes.

She says "it's all about making favourite toys cuddlable again. I get a real kick out of making something look new again".

A hug for the teddy bear, an emphatic thank-you for Paula and perhaps even a light lit in a young person to learn a new skill.

It's interactions like this that the 20 something volunteers give up their Saturdays for. Howard says he wants to change the "throw away mentality". "In my day we didn't just go out and get a new one and we had the skills taught to us to fix things. Passing that on makes me happy". And the Repair Cafe is making a difference; after 9 cafes they have repaired and kept 270 items out of landfill.

Helen says from an environmental perspective, "there is really, really good stuff happening here and what you can't help but see when you come to a Repair Cafe is the people aspect of things and the community cohesion."

People keep coming through the door. A toy train track, another bike and a pair of jeans in need of a mend. A group of women congregate in a corner in deep discussion over cups of tea. Kids gather around the 'take things apart' table and heads are scratched over a particularly tricky mend on a scooter. "Isn't it wonderful?" says Helen as the fixed up teddy bear is carried past her and the chuffed young owner looks up at her and exclaims, "Look it's fixed!".

Success of trial gives food for thought

Being environmentally friendly can be messy but at the conclusion of a food scrap collection trial in Palmerston North the overwhelming response is "it's easy" and reassuringly "it doesn't stink!".

The 5 month trial, rolled out over 14 Palmy streets with over 500 diverse participants, has saved a whopping 16,010 kilograms of food from wasting away at landfill. Now that the trial has come to an end, the question is now being put to the residents, "how did it go?".

The Moore-Smith whānau, consisting of 2 adults and 2 teenagers were given a small food scrap caddy for their kitchen and a larger outdoor bin. They say everyone in the family "got on board" with biffing their food scraps into the caddy and putting the bin out for the weekly collection which was then taken to the Awapuni Resource Recovery Park for composting.

"The biggest thing we noticed was our rubbish bin. We had a compost, but it failed, so everything was going in the bin. It was pretty full but now I barely fill the rubbish bin!".

And, Moore-Smith whānau, how about the smell? "We threw plenty of stinky stuff into it, but never found smell a problem". The family concluded that they would welcome the service in the future.

The trial was to determine the pros and cons of a food scrap collection so that when the service is rolled out Palmerston North wide in the future things can go smoothly. Your average household throws out more than 3 kg of food a week which at the moment is going into landfill and this in turn rots and produces methane - an environmental baddie.

The participation rate was about 43% which Waste Minimisation Officer Melissa Doyle says "we're really happy with that because we've heard from some districts where this has been much lower. It's great to see that people were interested and actively engaged".

Feedback from the trial showed it also had the off-shoot of prompting some participants to think about their consumption and the knock on effects our food waste has on our planet.

"Honestly, it got me thinking more about what I'm munching on and how I'm handling my waste. I mean, I never thought I'd say this, but I actually found myself paying attention to what's on my plate and where it's ending up."

And for another the trial gave them the chance to "feel good about doing something positive with the scraps".

And yes, the smell thing came up a lot, but most were pleasantly surprised to have their preconceptions of food scrap collection equaling a nose-pinching stink proved wrong.

"My bin went from smelling like a trash nightmare to smelling surprisingly... not bad."

Melissa says the next step is to look at all the data the trial provided before moving forward with a strategy for the Palmy wide roll-out.

As part of Council's Long-Term Plan, we're proposing a food scraps collection service in year 2028/29.


Para Kai
Food Scraps

Carton recycling gets community on board

Making something from a waste product is a big win and in Palmerston North the community can be part of that sustainable circle while also feeling smug when they drink their morning coffee fix.

Tetra Pak cartons are the ones that hold products like soy and oak milk which are a big part of our region's passion for coffee. Cafes and households can drop their used and flattened cartons to the Ferguson Street Recycling Centre and it's where they go from there that gets interesting.

SaveBOARD is a company making low carbon building materials such as internal linings, ceiling tiles and roof board. The Hamilton based company uses Tetra Pak cartons to create their products that have a bespoke edge - they are "perfectly imperfect" and Tetra Pak's NZ Sustainability Manager Graham Burrell says that can be "a beautiful thing".

In the first year of this initiative almost 3,000 kilos of Tetra Pak cartons have been given a new life and Graham says that is good news for our environment. "It's not going to solve all of New Zealand's problems but it is one part of the jigsaw puzzle that makes us a better place with a lower carbon footprint and a more sustainable society".

Graham says the process of turning the cartons into a usable building material is surprisingly straightforward.

"It's not rocket science, it's just put through an industrial scale panini machine".

They get shredded, pressed, heated to about 200 degrees celsius, pressed again, trimmed and cut. "Job done" says Graham, "heat, pressure, time and a bit of ingenuity."

A whopping 1.8 million paper towels have been saved from the landfill!

The legends over at Precycle NZ have led an awesome project over the past year, partnering up with local schools, gyms and businesses, to collect and recycle paper towels.

Once collected, the paper towels are sorted. High grade paper towels are made into innovative new construction materials, and any low grade or heavily soiled paper towels are composted up at Awapuni Resource Recovery Park, saving them from wasting away at landfill.

We're proud to have supported this awesome project through the 2023 Resource Recovery Fund.

Urban design

Urban design

The layout of our city and its neighbourhoods affects what we do and how we do it. When looking at how to enable growth city planners might ask themselves; how easy is it to travel between home, work, shops, schools and parks? Are there transport options for how to get to these places? Do we have room for new activities, businesses and housing? And how do we make sure any growth is sustainable i.e. done in a way that safeguards our environment, is affordable and productive, and provides for the needs of future generations?

As Palmy continues to grow, we'll need to make better use of our existing spaces and infrastructure wherever we can. We'll need to build things in a way that drives a productive economy while also looking after the wellbeing of our people and our environment. Part of this will be allowing for new types of housing and businesses while protecting our green spaces, waterways and areas around the city where we grow our food.

To provide more housing and meet these needs we've proposed a change to our District Plan to introduce a medium density residential zone. This would enable more homes in areas that are close to the everyday things people need. It would also open up more options for the types of housing people could build and live in. Housing in this zone could be a bit taller, up to 3 storeys, and closer together. Section sizes in this zone could also be smaller, with landowners able to subdivide down to 150m^2.

The proposed plan change aims to make housing more accessible and affordable. Having more housing within the urban area we're already using will help to reduce our city's carbon footprint and make it easier for people to walk, bike, bus or scooter to get around instead of always relying on cars. It would also reduce the amount we'd need to build outward into our rural environment.

Part of our overall strategy to better use space within the city is to encourage the mixed use of premises throughout the city centre. Mixed use means a site can function as both a commercial premise and provide for housing.

This type of land use means people can live near to both their workplaces and the amenities they use most regularly within the city. These areas are often highly walkable, encouraging healthy active transport and lessening the need to own multiple private vehicles. Mixed-use design is often more economically productive too, in that it provides a level of financial diversity across the site by creating different income streams for the same property. Better for business. Better for the planet.

Innovative design makes work-life balance a breeze

Imagine, you're in a rush to get to work. You run a comb through your hair, grab a piece of toast and blat out the door ready for your early morning commute...downstairs. As you switch on the coffee machine in your office you remember you've forgotten your phone charging on the bench. No dramas, by the time you've popped back up to get it your coffee is ready and so are you. The day has begun in the easiest way possible.

Mixed use building is not a new concept and has been done for centuries in cities around the world. Living on the same site as your business or workplace used to be much more common in New Zealand too, until the rise of the personal vehicle meant people could venture further afield to their 'quarter acre piece of paradise'. As a result, many of our city centres emptied out of residents and urban sprawl spread further and further outward.

As the decades have passed this has become a problem with car-centric design leading to congestion, and increasingly stressful commutes. It also saw many city centres become less vibrant with less customers for some central businesses, as big ticket stores moved out to the urban fringes.

And, the carbon emissions from all those cars coming and going from further afield each day has significantly contributed to the problem of climate change.

As city populations continue to grow around the world, and in New Zealand, there's a recognition that planning well for future growth means making better use of our city's existing spaces and infrastructure. One way to achieve this is through the revival of an old idea – living and working on the same site within the city.

Our city planners and urban designers are keen to work with residents and business owners considering this option. A recent mixed-use new build by Jemma Cheer and Adam Curry provides a great example of what this type of design can achieve for both the city and developers. Their recent development is on Palmy's Main St next to the historic Railway Hotel. It contains not one but two separate businesses, a graphic design studio for Jemma and cycle shop for Adam, with a beautiful apartment on the top floor for that super chill morning commute. We asked Jemma how living and working on the new site has been so far.

Why did you two decide to build yourself?

We rented our respective spaces in central Palmy for 10+ years, so we knew what we liked. The opportunity to consolidate our business leases and residential rent, to design it from the ground up, and to own it was a long-term goal of ours.

What decisions and methods did you use to make this development more sustainable?

By consolidating the businesses into one build project, we're able to share some of the financial and environmental loads. E.g. we only needed to build one shared staffroom. Finding architects and construction partners with aligned views on sustainability, working and living from shared spaces, and the mindset to be flexible and work with our council without judgment was key. No assumptions

How does this type of build allow you to live and work with a smaller carbon footprint?

Our three primary spaces – Central Bicycle Studio, JCDC, and private residence – are on one site. All sorts of efficiencies come from this setup, including no commute time (though we'd probably be riding a bike for that anyway) and shared resources, so there is less duplication of things. Proximity to essentials like the supermarket means we're always on foot or on a bike.

Why did you choose this site?

It was available, affordable, zoned correctly for our businesses, and had a history. We like that it's one of the oldest spots in town, with character surrounding it. Folks have been living and working here long before us. The Railway Land Reserve across from us is a huge bonus and enriches our quality of life massively being inner-city.

How was the process of building this mixed-use development?

It was a very positive experience. The journey we went on with the team we built around us taught us a lot, and we're grateful to everyone for giving us a shot.

How did you find working with council?

Our direct involvement with the council was minimal compared to other team members, but we found it super positive and always heard good feedback. The opportunity to meet with the council before committing to purchasing the land, to share our goals and get some verbal enthusiasm right from the start was huge. We've felt supported and confident during the process because of that foundation.

How have you found living and working on the same premises?

It's been an easy adjustment since our previous setups were similar, but what we're gaining from the responsibility of ownership is invaluable. Having the split level, with living up top, means you can feel enough distance from business and personal pursuits if you want to.

What are the pros and cons you've found of a mixed-use development on your lifestyle?

Thus far, it's all pros. We're saving some time not moving between different buildings around the city, and both feel an element of living out childhood dreams. Living in the city has unique sights and sounds, which we love. Although it's not the norm in Palmy, it is something we admire whenever we travel to larger cities and are stoked to live like this at home.

Would you recommend this to other developers and tenants?

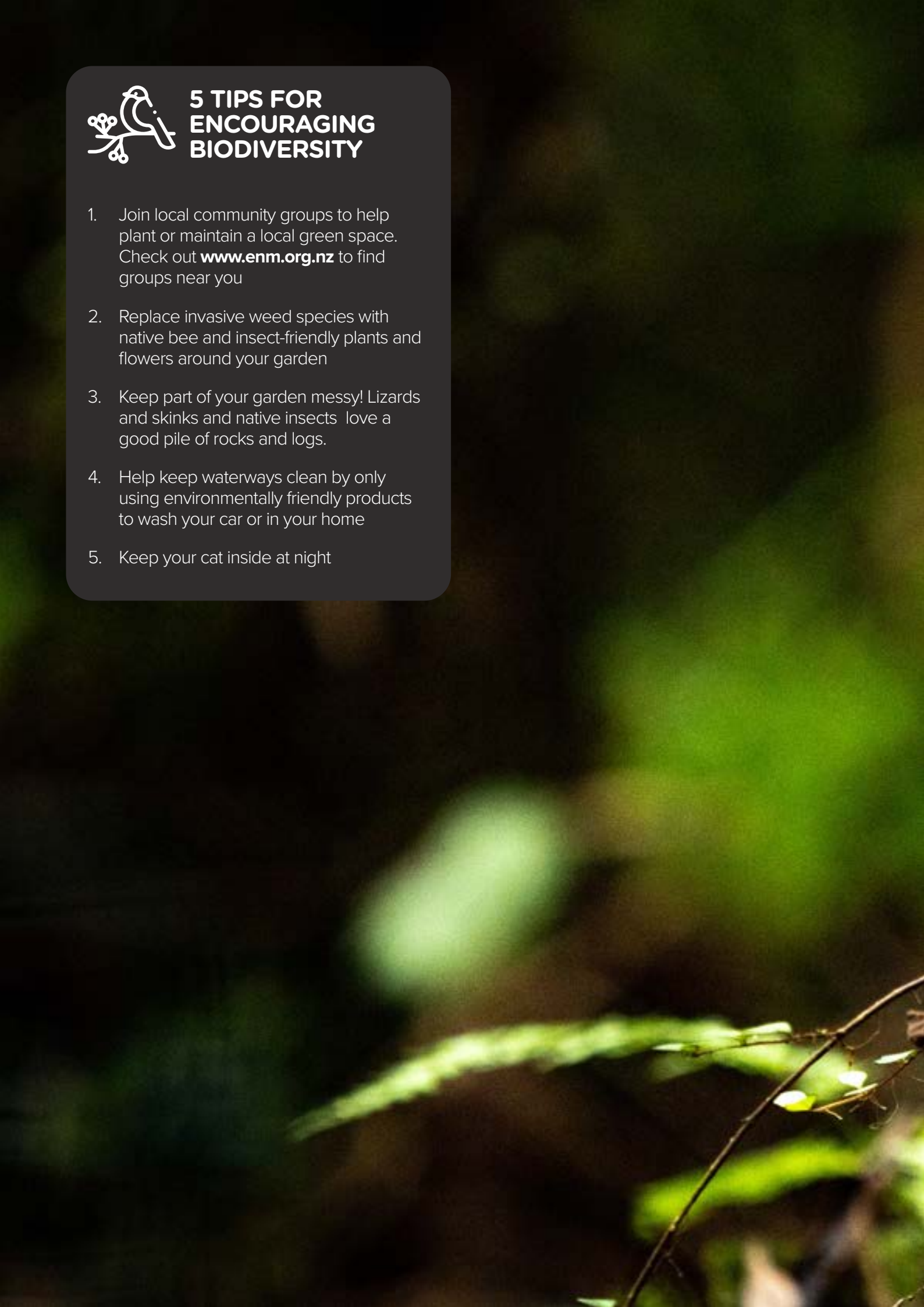
Absolutely. We're always up for a yarn to promote this approach to living in Palmy. More is more!

Would you like to see more of this type of build in Palmy?

Yes, for sure. The more folks doing this, the better it gets for everyone involved.

What will you do with the rest of the site? Have you had any interest from prospective buyers or tenants on any further developments?

We intend to develop the second half of our site with the same design principles and values as the first. We've had verbal interest from a few folks for residential and commercial opportunities created by us doing this second half, so we're optimistic about making that next step once it's viable.



5 TIPS FOR ENCOURAGING BIODIVERSITY

1. Join local community groups to help plant or maintain a local green space. Check out **www.enm.org.nz** to find groups near you
2. Replace invasive weed species with native bee and insect-friendly plants and flowers around your garden
3. Keep part of your garden messy! Lizards and skinks and native insects love a good pile of rocks and logs.
4. Help keep waterways clean by only using environmentally friendly products to wash your car or in your home
5. Keep your cat inside at night

Biodiversity

Biodiversity

Persistent efforts in pest management, along with the restoration of natural environments, are ushering in a resurgence of indigenous fauna in Palmy, restoring populations to areas they historically populated. Initiatives to safeguard and rejuvenate crucial segments of native forest and scrub areas, in both our forested reserves and urban green spaces, are helping the gradual rebound of native flora and fauna back into the fabric of the region's ecosystem.

Monitoring surveys within the Turitea Reserve have recorded a noticeable surge in the counts of native birds, with pronounced growth in species such as the Bellbird, Kererū, Rifleman, Tūi, and Pōpokatea (whiteheads). Notably, Kererū populations have soared, multiplying by approximately 15 times since 2003, while Tūi populations have exploded to 25 times their pre-control numbers. During the tranquil nights, one can witness a mesmerizing spectacle of thousands of Tūi soaring up the Turitea and Kahuterawa Valleys, returning to the reserve after foraging in Palmy's parks and domestic gardens.

The near-eradication of possums at this site, paired with the continued control of deer and other herbivores, has sparked a remarkable revitalization of the forest's understory. This has been marked by enhanced vegetative growth and seedfall rates, and an absence of the previously common possum-related tree mortality.

This positive ecological shift has however led to some unforeseen challenges. With the increase of food available, rat populations have swelled from the notably low presence, around 5% detection at the start of last decade, to a surge in the summer of 2021/2022 of roughly four times that number. The significantly higher rat numbers were exerting considerable stress on native species within the reserve, particularly the recently reintroduced Toutouwai species. In response, Council worked on a renewed strategy to suppress the rat numbers using the latest technology. This brought rat numbers to near-zero within the core area, with hopes it will be enough to help the Toutouwai to secure a foothold in the reserve and establish a sustainable population.

Toutouwai

Two years on from their local release, Palmy's Toutouwai, also known as the North Island Robins, encountered unforeseen challenges in the Turitea Reserve. Despite the grey-feathered birds' initial success following their release into the 3600-hectare area, a nation-wide explosion in rat numbers during their first summer presented significant hurdles.

Persistent predator control measures have been critical in mitigating these setbacks. The predator management program, begun in 1997 and intensified in 2006, has been further optimised, including the use of latest-generation self-resetting traps. Our current pest control contractor is now overseeing an expanded network of over 5000 bait stations and traps. These efforts have halted the decline of the toutouwai population and set the stage for ongoing recovery.

Council's Principal Climate Change Advisor, Adam Jarvis, reflects on the past year's trials and advancements:

"While we faced an unexpected struggle with increased predator numbers, it's reassuring to see our robust control efforts paying off. The toutouwai project clearly exemplifies the necessity of sustained investment and collaboration among council, iwi, and our invaluable volunteers to overcome such an unfortunate start."

A long-planned follow-up translocation of toutouwai to improve genetic diversity of the Turitea population is planned for early Autumn 2024.

New highway uses traditional methods to ‘tread lightly’

Leaving the environment in a better place remains a key focus for the team building Te Ahu a Turanga: Manawatū Tararua Highway.

Te Ahu a Turanga is an 11.5km, four-lane highway being built between Ashhurst and Woodville to replace State Highway 3 through the Manawatū Gorge, which was closed in 2017 after a series of devastating slips.

Embedded within Te Ahu a Turanga is the principle of Treading Lightly, which empowers the project team to protect and nurture the environment surrounding the project.

The project’s ecological offset programme is reducing this impact by planting more than 1.8 million native shrubs and trees alongside the road, and in surrounding areas. Since the start of construction, more than 1 million native plants have been planted. A maintenance programme is underway, as is a pest control regime for 48ha of forest.

Five iwi partners are represented on the construction site by kaitiaki (cultural health monitors). Kaitiaki involvement in the ecological aspects of the construction has resulted in a merging of western science and Mātauranga Māori.

An example of this is the stream diversion work, which requires any streams dissected by the road to be redirected and have their aquatic life relocated.

Most major projects employ electric fishing to relocate aquatic life, however, following a request from kaitiaki, traditional fishing methods (nets and lines) were introduced on Te Ahu a Turanga. These methods have been hugely beneficial for the wellbeing of the fish and tuna (eel), while also resulting in higher yields than electric fishing. This success, both from a productivity and ecological perspective, has seen the traditional methods added to the project’s ecological plan as an alternative method.

Collaboration between construction, ecology, design and kaitiaki is having positive outcomes for the look and feel of the stream diversions. Kaitiaki have shared their generational understanding of the whenua with the construction and design teams, with the result that the man-made streams closely reflect their surroundings. This has created a more naturalistic aesthetic quality to the streams as well as ideal conditions for the aquatic life within.

Construction on the new highway started in January 2021 and is due for completion in mid-2025.

At home on the Range, Ruahine project aiming for Kiwi's return

Ruahine Kiwi is a conservation project with the huge goal of making the Ruahine Range kiwi friendly, and to get there the team on the ground take mighty steps each day.

A team of eight have developed and maintained trap lines covering over 23,000 hectares of the Southern Ruahine since the project began in 2021, with the intrepid trappers targeting mustelids (stoats, ferrets and weasels) and other pests that threaten our native species.

Ian Rasmussen, Ruahine Kiwi Project Coordinator, says they are working towards returning North Island eastern brown kiwi to the area, "so we need to have very low numbers of mustelids detected before we are able to release any kiwi."

With a predator controlled environment and improved forest health it is hoped that other species such as, whio, native snails, and long-tailed bats will also thrive.

The project is managed by Environment Network Manawatū through a collaboration between Manawatū River Source to Sea and Te Kaūru Eastern Manawatū River Hapū Collective. Te Kauru looks after the trapping work on the eastern side of the ranges, inland from Norsewood and Raniera Hauiti and Arapera Paewai are the project coordinators for that area.

"It's about revitalising our maunga back to how it used to be," says Raniera, "getting it back and getting rid of the paru paru, all the pests, in order to bring back the main goal of kiwi."

Ian says funding received through the Department of Conservation Jobs for Nature initiative has provided training for the wide-spread team.

"They have gained valuable skills and working outdoors is great and something the team thrives on. We always get to eat our lunch with an awesome view."

"The dream is to return Kiwi to the area by 2026. The mahi is progressing really well, it's an exciting project to be a part of, and we feel good that we are helping out such an important taonga."

The project has allies, receiving help from external agencies and groups, neighbouring predator control projects in the area and volunteers. The New Zealand Air Force lent its muscle, dropping 120 traps to the project area and Ryman Healthcare residents got on board as well, building over 600 traps. Community involvement has been a focus and it was hoped the project would increase public awareness of how having an active role in improving the environment could achieve positive outcomes.

Find out more at **www.enm.org.nz** or follow us on Facebook at 'Ruahine Kiwi'

Local farmers band together to improve water quality

The Manawatū River Catchments Collective are farmers aiming to bridge the urban-rural divide on waterway pollution, through boots on the ground efforts in their own backyards.

Taking their cue from the success of a similar group in Rangitīkei, the collective formed in 2020. It currently has 11 catchment groups who work throughout the Manawatū district to monitor and improve water quality in their neighbourhoods.

Manawatū is one of the North Island's major rivers with headwaters in the eastern slopes of the Ruahine Ranges. From there, it flows through the Manawatū Gorge on to Palmerston North and across the Manawatū Plains, to the Tasman Sea at Foxton. At 197 kilometres long it only ranks as the 12th-longest in the country. But at 102 cubic metres per second, it's one of New Zealand's greatest rivers in terms of flow, second only to the Waikato River.

There have been concerns around pollution in the river since the 1980s when urban sewerage, industrial waste and runoff from farms made it heavily polluted. In the years since many community organisations have come together to help clean up the river. Though water quality has been markedly improved by these efforts, there's still a long way to go for it to be considered healthy.

Chairperson of the Manawatū River Catchments Collective, Shelley Dew-Hopkins says what has been lacking up till now is meaningful engagement with the farming community. "Over recent years many committed people have worked on projects to clean up the river. Riparian planting and fencing of streams have been led by urban-based environmental groups.

"Progress has been made, but what's been missing is the farmer's voice. We see an opportunity to do our part and break down the urban-rural divide. That's why the Manawatū River Catchments Collective was established, because we see ourselves as part of the solution."

With support from the Ministry for Primary Industries, the group has set up 11 farmer-led groups throughout the mid and upper reaches of the Manawatū River catchment. Each group has specific projects relevant to them and their area. This includes the collection of monthly water quality samples from 66 sites. These samples are then sent to a lab in Palmy to inform decisions on improving water quality and biodiversity.

The group is also working on an operational plan which will include the riparian planting of wetlands on farms, and educational workshops on sustainable farming practices among local communities. Dew-Hopkins says they'll also work, on behalf of the catchment groups, with iwi, local government and farming industry advocates to progress local initiatives and policies.

"While national targets and standards are in place, many of the actions needed to meet them are local. New Zealand's farming regions are different from each other and within regions there's considerable diversity from one river catchment to the next.

"Our catchment groups have identified sensible and realistic ways they can respond to the regulations coming their way on protecting fresh water and reducing greenhouse gases. We aim to share good practices and ensure the sustainability of our farm businesses, their communities and the surrounding environments now and for the future."

The more we share, the more we have

On the second Sunday of every month you will find the Palmy Crop Swap at the Awapuni Community Centre. This is a one-hour event, where urban food growers share their surplus produce and garden-related items.

Be it crops, seeds, seedlings, baby trees, gardening equipment, cookbooks, or anything to do with gardening education or food resilience, you will find it here.

Although it is called a swap, there is no one-to-one direct swapping, It's a sharing event. You put your excess items on the tables and then leave them there while you mooch around everyone else's items to find some goodies.

It is open to anyone interested and there is no requirement to bring items to take items. The ethos of the event is based on radical reciprocity, emphasising generous sharing rather than direct swapping.

Helen Lehndorf, one of the facilitators says the event helps the local environment by fostering community-building, food localisations, sharing food-growing knowledge, being a low-waste event, and providing food security and mutual aid.

Lehndorf has run a few one-off Crop Swaps in the community since 2015 but in 2020 when she was working for the Manawatū Food Action Network, she linked up with Hilary Miller and together they put plans in place to make it a monthly occurrence. They were later joined by facilitators, Annette Nixon, Norena Knight and Leah Baken.

Crop swappers don't need to stay for the whole duration of the event, they can simply drop their items and go or they can stay.

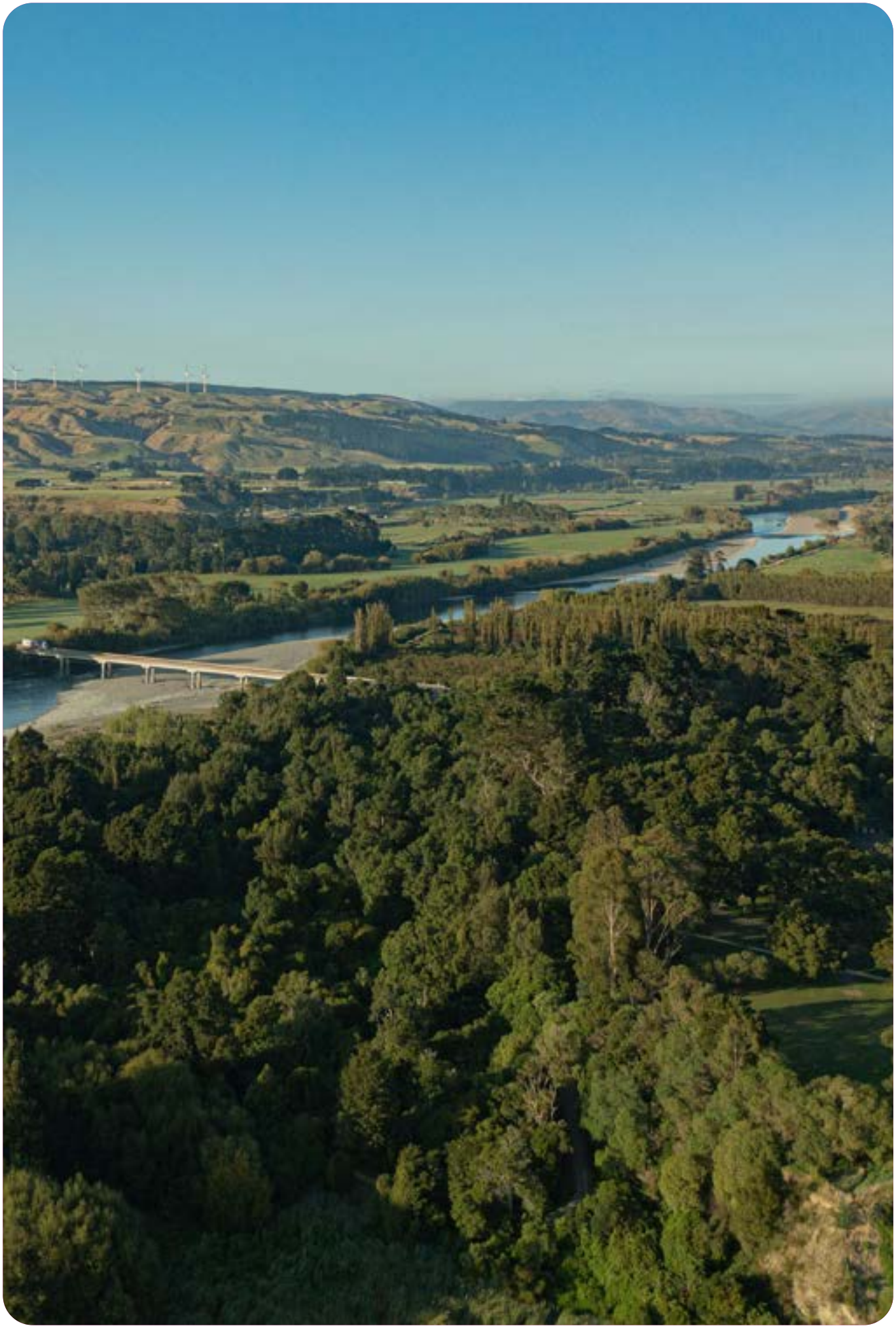
"We love seeing new people, we love people coming to take things even if they do not have anything to bring because we're all passionate gardeners, food resilience people and food localisation nerds so seeing gardening abundance shared gives us all great pleasure."

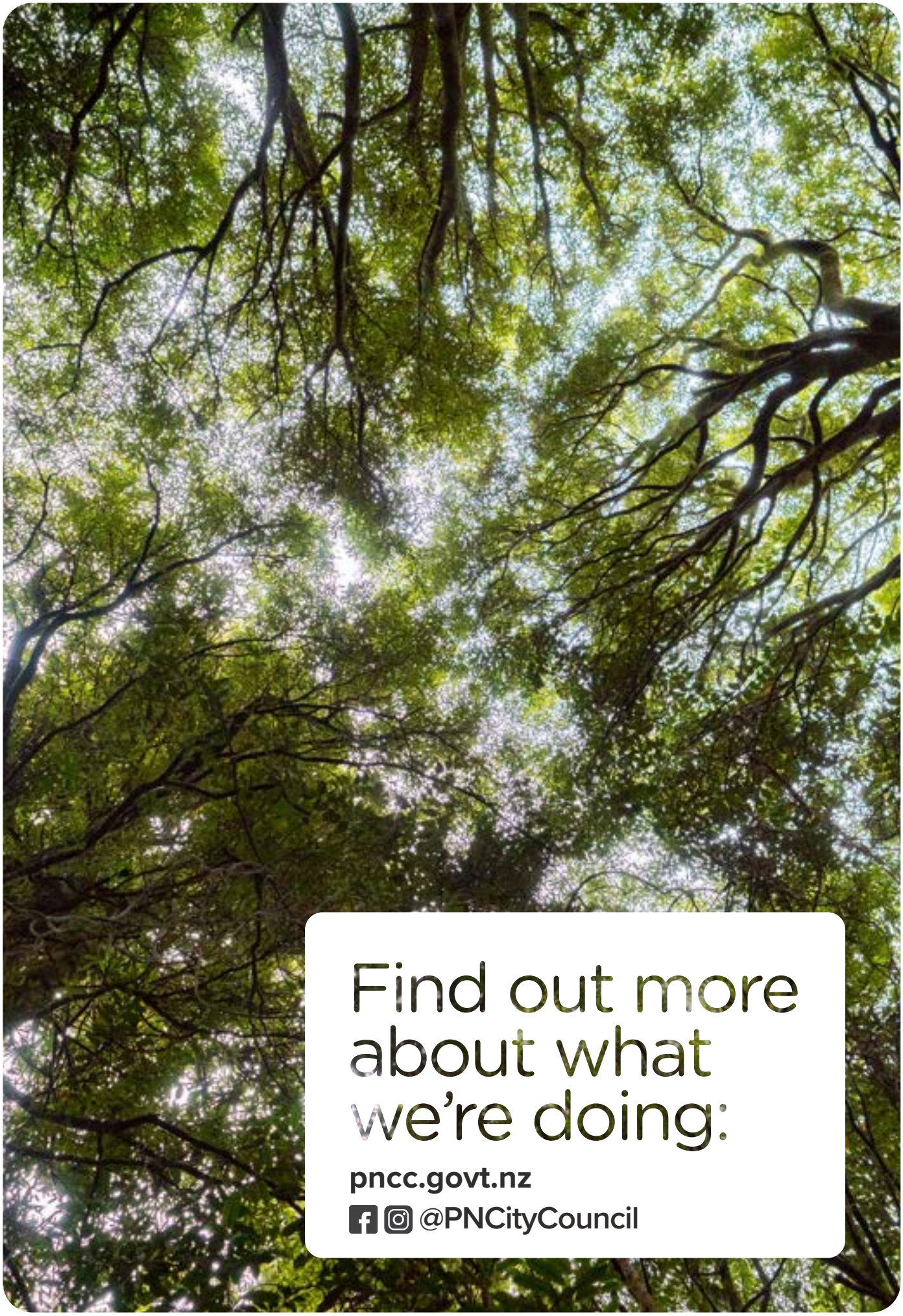
Attendees are welcome to take their uncollected items back with them at the end or leave them behind for the facilitators to distribute. Any leftover items are either donated to community gardens or shared at other community education events organised by entities such as the Manawatū Food Action Network.

The popularity of certain items varies with the seasons, with tomatoes, plums, apples, citrus and silverbeet being notable examples.

Beyond acquiring crops, the group hopes attendees take away a sense of community connection, inspiration for sharing with others and the enjoyment of meeting other local gardeners.

The success of the Crop Swap has led to the creation of similar events in Foxton and Ashhurst.

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