TRANSITIONS IN ACTION

AN URBAN AND REGIONAL TRANSITIONS GUIDE

FOR TE UPOKO O TE IKA WELLINGTON

Amanda Yates, Gradon Diprose, Kelly Dombroski, Thomas Nash

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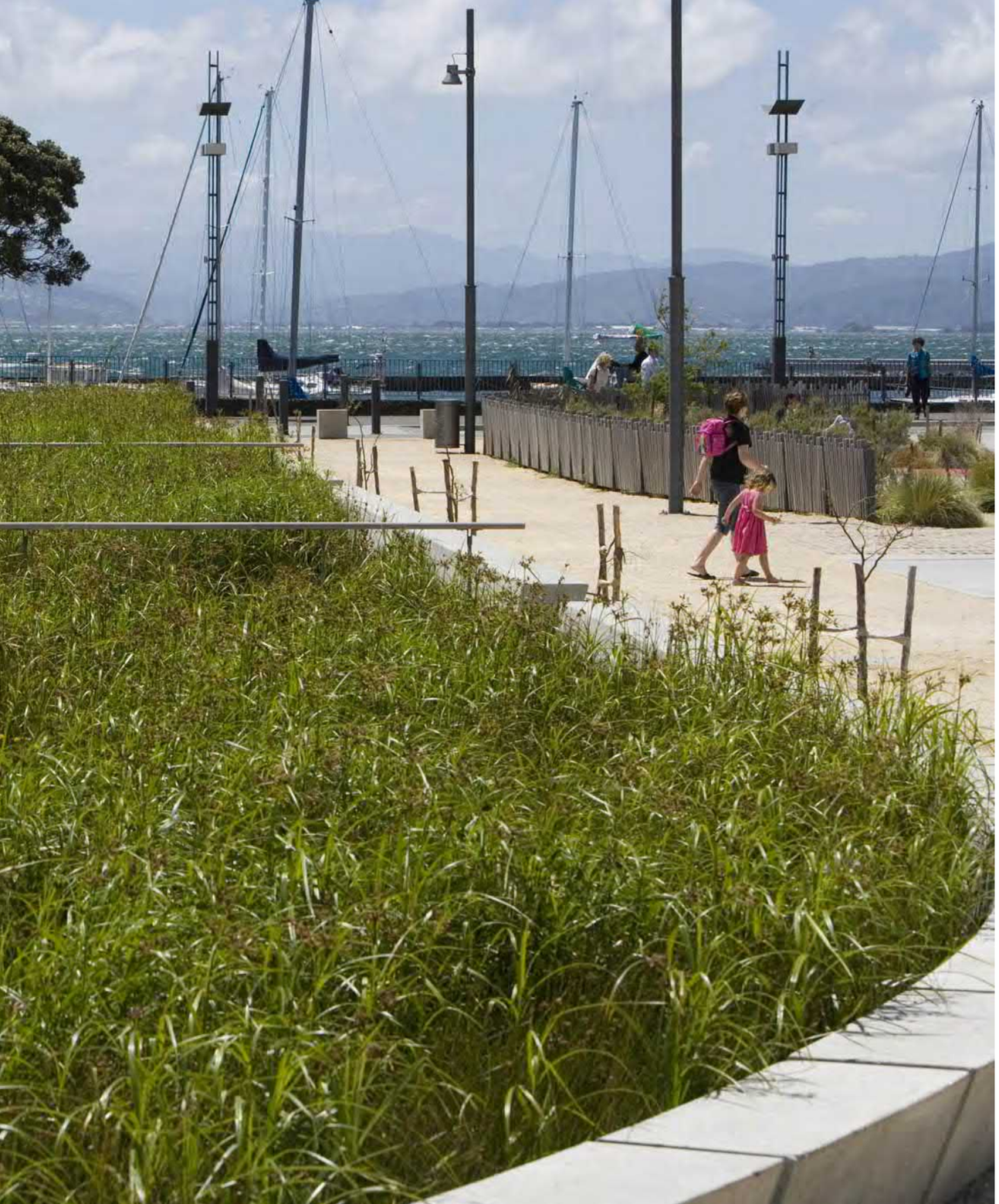
"It's easy to feel despair and desperation at a time where our decisionmakers continue to prioritise profit over people and planet, but when I see the community led mahi happening in Te Upoko o te Ika a Māui, it restores my faith in people power as a pathway to the future. This book shows that we don't have to wait for politicians to create the communities we deserve."

Tamatha Paul MP
Member of Parliament for Wellington Central



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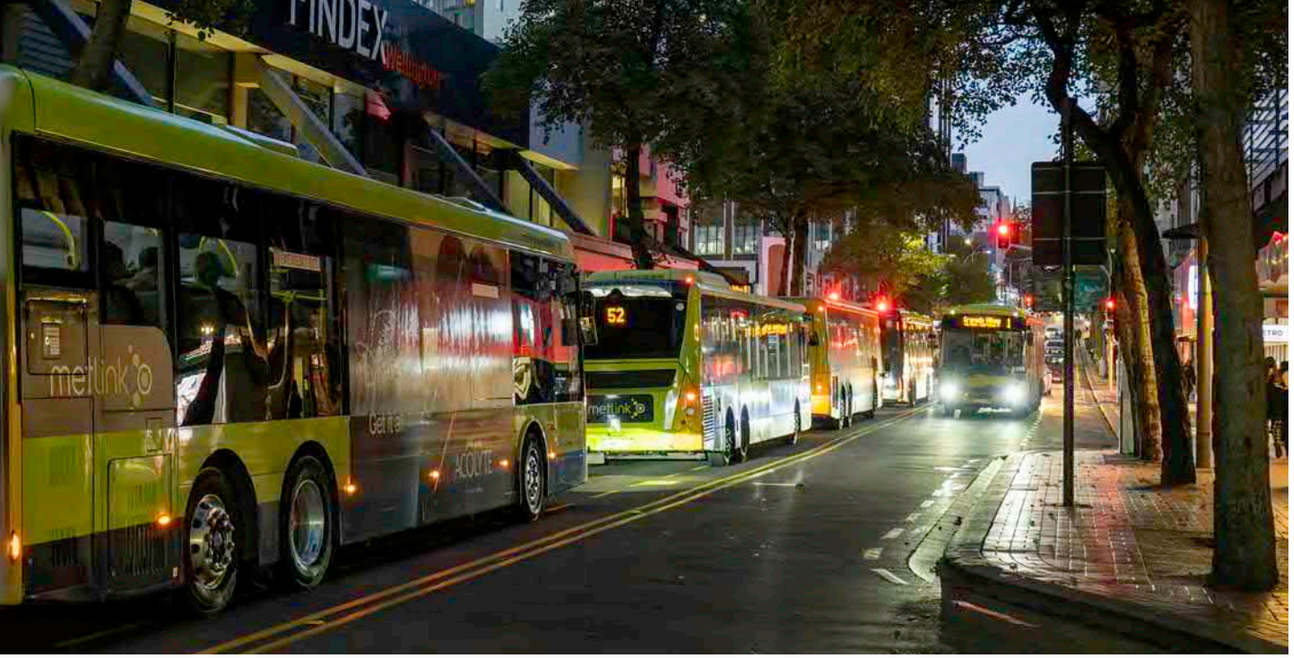
He Tīmatanga / Introduction

Our cities are facing complex socio-ecological crises, including climate change, biodiversity loss and social inequity. This changing environment is challenging, but it can also galvanise more positive change for resilient and regenerative urban systems. Some of these transitions are already occurring across different domains, in ecological, economic, and energy systems, in community networks, in the built environment and buildings. These transitions are small and localised to neighbourhoods or communities, or large, as for example in the new zero-carbon energy systems or flood-resilient wetland infrastructures currently being distributed across cities and surrounding landscapes. These changes are being driven by diverse actors – including Indigenous groups, communities, scientists, activists, urban authorities, and businesses. This Guide documents a range of innovative initiatives or projects occurring in the Greater Wellington region to help activate positive transitions more broadly.

What do we mean by transitions?

When we talk about transitions here, we are referring to an adoption of new and just systems, practices and projects that bring wellbeing for people and planet. Often transitions theory and techno-scientific change models assume that change is a technological process that relies on individuals electing to change their habits. Importantly here, we emphasise a fundamental shift in cultural frameworks, from human-centric to eco-centric, in order to heal and regenerate socio-ecological systems. What is required now is transitions in the systems that underpin our culture and cities, including ecological, energy, and economic systems, community and built environment systems.

Mauri ora, or social, cultural and ecological wellbeing, is central to a just and regenerative transition process and is a core indicator of value, over and above a narrow economic measure. Community economies researchers describe ethical principles for negotiating place-based economies that serve people and planet. Kate Raworth's "City Doughnut" model applies this approach to cities, establishing social and ecological limits for urban systems. Closer to home, the Ngā Tohu Mauri Ora Urban Wellbeing Compass (see Visualising Transitions below) visualises positive regenerative transitions



that can enhance urban resilience and social and ecological vitality in Aotearoa New Zealand.

In this Guide, we understand urban and regional change as a way to build towards wider transitions in our social systems, our built environments and infrastructure, and in our economy. In this approach, participatory practices and community-led change can be powerful ways to initiate transitions in place. Wider policy or strategy initiatives – "top-down" models of change – can then support this place-based or flax-roots change process.

Why does a Transitions Guide matter?

By bringing together a curated collection of recent or in-development transitional projects situated in Te Upoko o Te Ika, the Wellington region, this Transitions Guide works to catalyse further change. The projects are wildly diverse, ranging from small-scale social businesses to large-scale urban energy infrastructures, to new regenerative buildings. The initiatives champion exploratory, open-ended approaches that a place-based, local model of change provides.

This change model allows flax-roots possibilities to be investigated in real time, with active communities. Each project is also propositional and speculative, as it explores opportunities for a future Wellington region.

The Guide is arranged via watershed catchments, following the holistic ecological and community based organisational model, adopted by the Greater Wellington Regional Council as part of its Whaitua programmes for catchment management. Understanding economic and social activity at the level of a watershed helps to connect us and our everyday activities to the physical environment.

The Guide shows how just transitions to more regenerative, equitable, low-carbon, less wasteful, and redistributive economies are already underway across the Greater Wellington region.

As a region, Wellington faces challenges on a range of fronts including climate, housing, and the natural environment. There has been a steady decline in the health of freshwater ecosystems and freshwater fish, both in urban areas and more rural areas. There is a severe housing shortage, particularly in Wellington City, and expensive, low quality rental housing is the norm. This is bringing down Wellington's attractiveness as a destination for talent and business and causing a drag on the city's economic competitiveness.

Meanwhile, water infrastructure in the region's cities has been neglected in favour of decades of artificially low council rates. It will require many years of sustained investment to replace old pipes, repair leaks and install new infrastructure, such as water treatment plants, smart water meters and more bulk water storage.

The same is true of rail infrastructure, where key assets on the rail network – parts of tracks, bridges, signals, points, etc – need to be replaced. The choice between a focus on public investment in rail, both for public transport and freight, and a focus on investment in roads will be decisive in shaping the success or failure of the Wellington region, both in conventional economic terms and in the broader conception of economic, social and environmental success.

The cost of dealing with this infrastructure deficit – whether it is water, public transport or other infrastructure – will now fall to younger generations who bear little responsibility for the deficit building up in the first place. In fact, the infrastructure deficit was fuelled by an environment of low rates and taxes and economic settings that provided for high untaxed capital gains on property. As a result, property ownership is unachievable for many young people. This intergenerational inequity is a key challenge for the region and for the country.

Te Upoko o Te Ika – Greater Wellington: the potential

Yet despite its challenges, the Wellington region is well positioned to lead the development of more resilient and regenerative urban systems. It is a relatively low emissions region compared to the rest of the country, dominated by Wellington City's technology and services focused economy, with some industry in the Hutt Valley and primary production in Kāpiti and Wairarapa.

The region's economic heart is Wellington City, the capital of Aotearoa New Zealand and a significant economic centre. The region's population is spread over several cities located along the main transport routes up to the Kapiti coast on the northwest, the Hutt Valley, to the north, and the Wairapapa, to the east. The Hutt Valley and Kapiti are connected to Wellington City by rail and Wellington City has an extensive bus network, resulting in the highest per capita use of public transport in Australasia outside Sydney.

The region has a range of spectacular natural environments, from the mountains of the Tararua and Remutaka ranges to the sea with a coastal marine area that reaches from Otaki all the way around to the rugged Wairarapa coastline. The region has a highly educated and resourceful population with a reputation for creativity. Geographically, the region acts as a transition point between the North and South islands of Aotearoa. Mana whenua have a variety of various kinds of relationships with the different levels of city and regional governance throughout the region and a number of Iwi have settled claims with the Crown under the Te Tiriti o Waitangi.

As a region, a number of indicators are going in the right direction. There are several critical decisions ahead on where to focus future public and private investment and how and where to prioritise urban and economic development.

The native bird population is flourishing in Wellington City with predator eradication efforts having proven successful over the last few decades. The Regional Council's possum control work, the Zealandia fenced sanctuary, the Predator Free Miramar and now Predator Free Wellington initiatives and Capital Kiwi (see page 72 for more) are all elements of a remarkable turnaround in native bird life in the capital city.

Meanwhile, public transport use is on the rise, with bus use reaching all-time highs in

March 2024 and train use steadily increasing. With all these benefits, the region has the potential to enjoy thriving social, cultural and ecological wellbeing supported by resilient and regenerative systems. Some specific examples of this potential include:

- Shifting the incentives of urban development towards building high quality residential buildings within existing urban areas instead of converting more land outside urban areas into residential sections.
- Supporting housing models focused on provision of homes to people who need them and security of tenure, rather than simply profit, including more social housing, led by local and central government.
- Developing vibrant, fun, mixed-use and walkable neighbourhoods with local shops and cafes mixed in with housing and schools and workplaces, rather than focusing on commuter suburbs lacking convenience and community.
- Scaling up public transport and active modes to facilitate the development of these neighbourhoods and to allow people to live healthy, connected, high-quality, low-emission lifestyles, without increasing their cost of living.
- Restoration of urban streams through dedicated projects that incorporate natural waterways into urban stormwater and flood protection systems and, where possible, daylight piped streams, restore stream banks and construct wetlands to clean up water on its way to the sea.
- Further restoration of native vegetation on previously grazed land to regenerate the natural infrastructure of forests, wetlands, and coastal marine areas.

Conclusion

This Guide documents real-world stories of how people and organisations are working together to achieve and progress important work. In talking with these groups, we have witnessed people's passion, engagement, and the gritty work of addressing bureaucratic barriers and rules. We have documented the powerful impacts of the projects, how they connect people across social difference, foster joy, curiosity, and fun, enable relationships, reduce waste, save money, and improve both the environment and people's lives. While we are living in a time of complex and often polarising crises, we can see that wellbeing-led just transitions are already happening through this work, driven by individuals and communities. The everyday practices and examples documented in this book offer a range of ways for communities to have more agency and achieve resilient and regenerative transitions that improve their own wellbeing and wider social and ecological wellbeing together.

The new enterprises, models, and structures that we document here illustrate wellbeing-led change in multiple domains, whether in ecological, economic, energy systems or community and social infrastructures and innovative buildings. These are the kinds of initiatives, projects, organisations, businesses, and people that will bridge the gaps between the path we – as a region and country – are currently on as well as the path we need to take to deliver a more resilient future. We need just transitions to meet the needs of all people and to enable a restoration of the vitality and wellbeing of the ecosystems that support all life, including our own.

We hope the entries in this book will inspire people to consider how they can contribute to help bridge the gaps in ecological regeneration, climate adaptation, housing, community, energy, food, or transport system transitions. The Guide is a snapshot of how we are already succeeding in this transition, in specific places, and within communities. It is time now to scale out existing transitions efforts more effectively across Aotearoa to better enhance the wellbeing of planet and people.

Reference

Hamdi, *About the Art of Practice and the Limits of Planning in Cities.*

Visualising transitions

Understanding Ngā Tohu Mauri Ora Urban Wellbeing Compass

How can our cities and urban communities be better supported to enact regenerative system change?

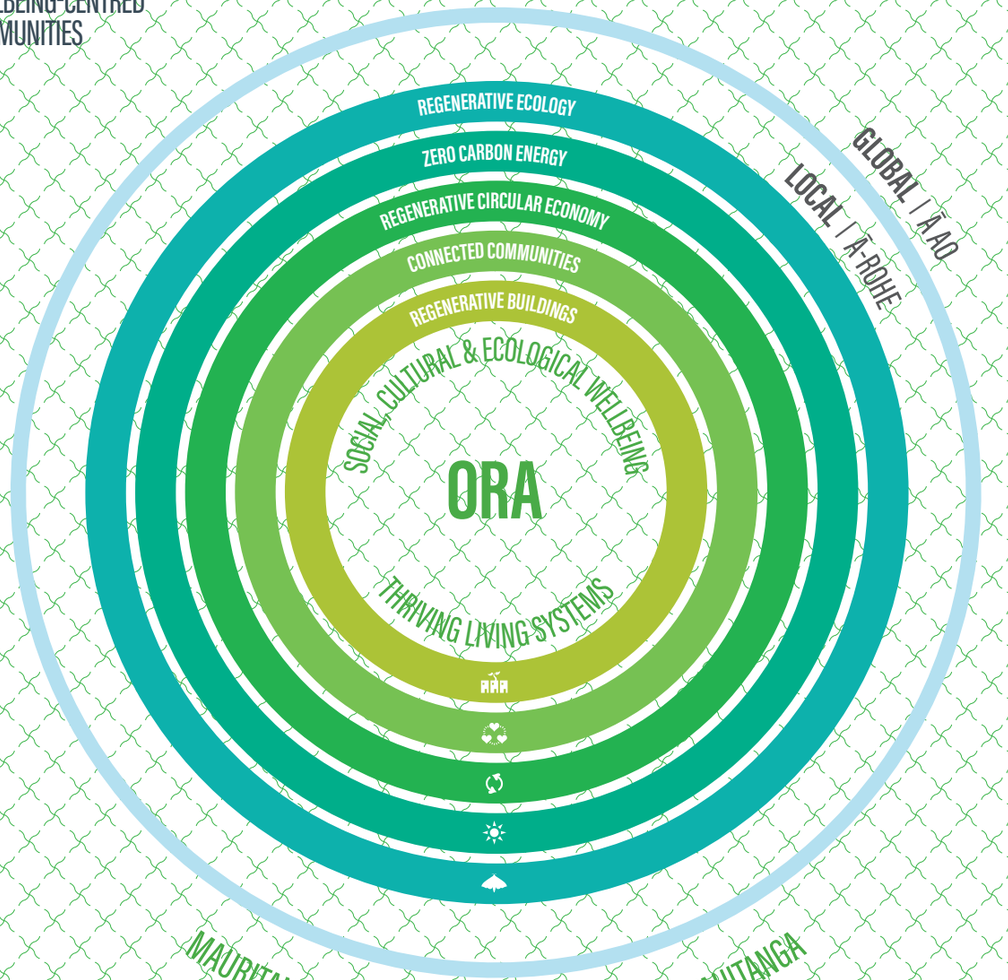
Supporting communities to think and talk about transition can be a valuable way to build awareness, direction and intention to action change. This Guide is intended as a tool to support such reflection, communication and engagement. Within the Guide we use an urban regenerative action 'compass' as a further transition tool that helps users to see urban systems transitions in action in each project.

The 'compass' focuses to transitions for mauri ora or social, cultural and ecological wellbeing. Mauri is the interconnectivity of life while mauri ora is the vitality of that connected life field or system (Durie, 2001; Yates, 2016; 2021). Thinking through mauri, through life force and living systems, allows us to understand our environments as animated and alive – rivers, mountains, oceans, sky, wetlands, insects, bird-life, plant-life and humans all intermeshed together on this living planet. The compass connects ancient Indigenous knowledge and contemporary regenerative approaches for the wellbeing of planet and people as a connected whole. Focusing from a human-centric to an ecological mauri-centric model communicates a clear direction for urban resilience and regeneration.

The compass visualises, in five central circles, key urban transitions in regenerative ecosystems, zero-carbon energy, regenerative circular economies, connected urban communities, and regenerative buildings. The innermost circle focuses on mauri ora, thriving life. A mesh background represents mauri, or the connected living systems of the planet. Local and global rings draw attention to how local system change can build wider global resilience and regeneration. A side panel points users towards principles and pragmatic actions on the ground for mauri ora, resilience and thriving.

NGĀ TOHU
MAURI ORA
REGENERATIVE ACTION
COMPASS

A TRANSITION TOOL
FOR RESILIENT, ECOLOGICAL, WELLBEING-CENTRED COMMUNITIES



Five rings of the compass explained

Wai ora, whenua ora / ecology

Regenerating living ecosystems and infrastructures

Ecology is the first ring of the regenerative urban action compass as thriving ecosystems are foundational to urban and wider global systems wellbeing. As we increase urban nature, we build resilience in the face of floods and heat events and enhance biodiversity – the planetary life support system – while increasing human wellbeing in proven ways.

Ecological vitality needs to be at the centre of urban policy, design and action to see cities thrive.

Hihiri-ora / energy

Transitioning to zero carbon energy

Transitioning our cities to a zero-carbon energy system for buildings and transport supports climate stability and improves ecological and social wellbeing, while distributed building-based renewable energy generation and storage improves energy resilience and sovereignty.

We can power our vehicles and cities from the ecological and renewing resources of sun, wind and water.

Ōhanga ora / economy

Transitioning to a regenerative circular economy

Economy focuses on the transition from linear take-make-waste economies to regenerative circular economies that actively revitalise the societies and ecosystems they operate within. This includes utilising low-carbon and non-toxic materials, developing para kore or zero-waste systems, or working with the ethical employment practices that are part of wellbeing-led just economies.

A just, regenerative, circular and resource-to-resource economic approach ensures we're respecting planetary boundaries and working with the ongoing regenerative and recycling processes of the living world while enabling social and ecological wellbeing.

Hapori ora, āhei ora / connected communities

Connecting and resourcing communities

This domain emphasises the value of connected and resourced urban spaces and neighbourhoods that allow for local living, working, schooling and shopping. Living more locally enables more social connection, supports active mobility options such as walking, biking, scooting that are good for the planet and our bodies, and supports a lower-carbon lifestyle.

Creating accessible and resourced spaces that connect urban communities in just and equitable ways can improve social, cultural, and ecological wellbeing.

Whare ora / architecture

Creating regenerative buildings

Our buildings can integrate larger urban system changes for enhanced wellbeing. They can generate local renewable energy, use circular bio-based materials and practices, and create community connection when designed for shared and social spaces.

Our buildings and neighbourhoods can enhance ecological, social and cultural wellbeing as they generate resource and connect communities.

Te Whanganui-a-Tara

This catchment includes all of the land and waterways that flow into Te Whanganui a Tara, Wellington's magnificent harbour and the south coast of Wellington, including the Taputeranga Marine Reserve around Wellington's Island Bay. It includes Te Awa Kairangi Hutt River and all of the tributaries that flow into it from forested hills and it also includes streams like Kaiwharawhara that flow from Wellington City's western hills to the harbour. It is the most densely populated of the region's catchments and its urban streams need some love.

Kaicycle

Solving Wellington's food waste dumping

- Regenerative circular economy
- Connected communities

Transitions at a glance

Thanks to Kaicycle, city-living Wellingtonians unable to compost household or office food waste on site can drop off or have their food waste collected. Kaicycle then compost the waste and sell, use or donate the compost and the food they grow with it. This stops food waste and organic materials piling up in landfill and contributing to greenhouse gas emissions. They also provide community education on composting and regenerative farming. Kaicycle is an example of a regenerative circular economy and a more connected community.

Reinvigorating food and green waste

Food and green waste in landfills releases methane – a potent greenhouse gas that fuels climate change. Yet currently Wellington City Council doesn't collect food and green waste. Change is afoot: the Ministry for the Environment (MfE) mandated that by 2030, all urban districts and city councils will have food and garden waste collection services. Community organisations such as Kaicycle are creating transitions now.

Making compost collection easy

Kaicycle removes about 40 tonnes of food waste each year from 220 households and offices in Wellington. They collect compost by e-bike and provide community drop-off points for waste. Using specially designed composting boxes that blend food scraps with arborist waste, coffee chaff, and wood shaving, they are transforming what was once waste into rich, earth-friendly compost.

A regenerative, organic urban farm in the heart of the capital city

Kaicycle donates much of their compost to local gardening groups and uses the rest in their Newtown regenerative, organic urban farm. This farm supports community agriculture – providing weekly produce to members in exchange for a seasonal subscription. They also give excess food and

"We are on a mission to see communities recycling their organic waste and growing nutrient-dense food."

https://kaicycle.org.nz

compost to volunteers, community food projects and social housing. They also educate the community through public volunteer sessions, events, workshops, and an urban farm school – run in partnership with education provider Papa Taiao Earthcare. In 2023, over 25 local high school students participated in a year-long, NCEA accredited programme at the farm school.

Introducing high-capacity composting

For the past year, Kaicycle has been on a mission to expand its operations. With a recent boost in funding, they are setting up a new, advanced composting facility in Rongotai, equipped with a high-capacity, in-vessel composter. This new site will increase their processing capability by 60 tonnes per year. They collaborate with Predator Free Wellington on trapping efforts.

Since July 2023, Kaicycle has also been collaborating with Te Toi Mahana to establish a seedling nursery and food gardens at the Pukehinau Apartments. Using Hua Parakore (Māori organics), the initiative draws on Māori knowledge about how to grow food and take care of the whenua (land) without using contaminants. It empowers residents to engage in food sovereignty, climate action and resilience.

Transitioning to a regenerative, circular economy

Grassroots organisations, such as Kaicycle, encourage community-led transitions that reduce waste and repurpose it in ways that support social and environmental health.

How can wider urban systems support the change Kaicycle is leading?

More funding is needed for organisations, such as Kaicycle. The Waste Levy provides an opportunity to fill the funding gap to support wider systems change across Aotearoa New Zealand.

How can you support local communities to make change?

Adopt and enhance food and green waste collection and processing services. Or if home composting isn't an option and your council doesn't provide services, support innovative local solutions that welcome compost contributions, such as Kaicycle, Sharewaste or your nearest community garden.

Educate people about how to turn food and green waste into a resource. Whether it's traditional composting, bokashi, or worm farming, each method turns scraps into gold for gardens. Once more people learn how to do this, it creates a ripple effect, raising awareness about how to reduce and repurpose the waste we create.

Find out more

https://kaicycle.org.nz

www.sharewaste.org.nz

Office of the Prime Minister's Chief Science Advisor. (2023). Community solutions for food waste. Retrieved from: https://tinyurl.com/5x7ahmjr

Research evidence

For more on how policy can support diverse forms of organic waste infrastructure, see:

Diprose, G.,et al. (2023). 'Emerging transitions in organic waste infrastructure in Aotearoa New Zealand'. *New Zealand Geographer*, 79(1): 15-26.

For more on how community-based organic waste management works, see:

Diprose, G. et al. (2023). *Scaling-up, scaling-out & branching out: Understanding & procuring diverse organic management models in Aotearoa New Zealand.* Zero Waste Network. Retrieved from https://tinyurl.com/3avb5m7t

For more on international examples of community-supported composting, see:

Morrow, O., & Davies, A. (2021). 'Creating careful circularities: Community composting in New York City'. *Transactions of the Institute of British Geographers*, 47, 529-546.

For a recent series of reports on food waste in Aotearoa New Zealand, see:

Office of the Prime Minister's Chief Science Advisor reports on food waste and solutions: www.pmcsa.ac.nz/topics/food-rescue-food-waste/what-can-i-do-with-my-food-waste/

For statistics on the emissions impact of community-led composting, see

New South Wales Environmental Protection Agency. (2022). *Emissions impacts of composting food waste.* Retrieved from: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wasteregulation/fogo/22p4164-emissions-impacts-composting-food-waste.pdf

‘Complementing our goal of using Wellington’s harbour-based geography to reduce transport emissions, Ika Rere will also deliver a comfortable and reliable service for passengers’.

Website quote https://eastbywest.co.nz/electric-ferry

East by West Ferries

Providing zero carbon ferry services

- Regenerative ecology
- Zero carbon energy

Transitions at a glance

East by West Ferries run commuter and tourist ferry services in Wellington Harbour. They operate the Ika Rere, the Southern Hemisphere’s first fully electric, high-speed passenger ferry – and support public transport and social equity for ferry passengers. East by West Ferries is protecting the local environment and supporting the use of renewable energy as part of Wellington’s transition to zero-carbon transport options.

Going electric

East by West Ferries is a privately owned company offering commuter and tourist ferry services between central Wellington (Queens Wharf), Mātiu/Somes Island, and Days Bay in Eastbourne.

Ferry services have been running in Wellington for decades, but in 2022, East by West introduced Ika Rere, the Southern Hemisphere’s first fully electric, high-speed passenger ferry. Built by the Wellington Electric Boat Building Company and powered by Meridian Energy, Ika Rere represents East by West’s vision of Wellington as a “... sustainable, smart city.”

Ika Rere offers a quieter, smoother ride with fewer moving parts than traditional diesel engines. This reduces the need for maintenance and therefore disruption to the sailing schedule. The ferry is also lighter, faster, and can carry over twice the number of passengers compared to East by West’s diesel-powered ferries.

This move to renewable energy is part of a broader effort to decarbonise public transport across the Wellington region, involving collaboration between Metlink, the Greater Wellington Regional Council, Meridian Energy, and local manufacturers (such as the Wellington Electric Boat Building Company).

Transitioning to equitable transport solutions

What's the transitions takeaway of East by West Ferries?

While East by West Ferries champions zero-carbon transport with the innovative Ika Rere ferry, it has also supported public transport and social equity for ferry passengers. When the Labour government's half-price public transport fares ended in July 2023, East by West Ferries took bold action. They absorbed half of the fare increase, easing the transition for passengers and attracting new riders. This move kept ferry costs equal to a single bus trip to the same destination. While East by West Ferries could no longer afford to continue subsidising fares beyond early 2024, the action reflects their commitment to the 'Tiaki Promise', caring for people and place. It is an example of how a transition to zero-carbon transport can also support more connected communities.

How can you support local communities making this change?

Advocate for better services by speaking to local city and regional councillors, and your MP, to push for improved public transport. Personal efforts matter, but real change comes from investing in affordable, accessible, and reliable public transport. Political decisions and public investment make this possible. Use local public transport, especially those testing new zero-carbon technologies. Your ridership helps drive change.

Find out more

https://eastbywest.co.nz/electric-ferry

https://www.simrad-yachting.com/sv-se/world-of-simrad/sustainability/ika-rere/

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Muhammad, I., & Pearce, J. (2015). 'Discursive barriers to sustainable transport in New Zealand cities'. *Urban Policy and Research*, 33(4): 392-415.

Mackenbach, J.D. et al. (2016). 'The influence of urban land-use and public transport facilities on active commuting in Wellington, New Zealand: Active transport forecasting using the WILUTE model'. *Sustainability*, 8(3): 242-256.

Stone, J., Mees, P., & Muhamma, I. (2012). 'Benchmarking the efficiency and effectiveness of public transport in New Zealand cities'. *Urban Policy and Research*, 30(2): 207-224.

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“The Living Pa represents a fundamental shift in the way we live and work, and the way we care for the natural world around us.”

www.wgtn.ac.nz/living-pa

The Living Pā

Investing in Māori regenerative building culture

- Regenerative ecology
- Zero carbon energy
- Regenerative circular economy
- Connected communities
- Regenerative buildings

Transitions at a glance

The Living Pā is a living building nestled on the Kelburn campus of Te Herenga Waka, Victoria University of Wellington. The building is a showcase for regenerative design and cultural integration. Designed to enhance its local ecosystem and embracing social equity, the Living Pā serves as a cultural heart for the campus, weaving together mātauranga Māori (Māori knowledge) and kaitiakitanga (environmental care) with cutting-edge regenerative practices. For these reasons, the Living Pā is helping a transition towards a more ecologically integrated built environment and a regenerative, circular economy.

The role of living buildings

Buildings are at the heart of the climate crisis, responsible for about 40 percent of annual global carbon emissions. These emissions stem not only from building operations but also from the materials used in construction, such as concrete. The concept of Living Buildings offers a groundbreaking solution to this challenge.

Living Buildings are designed to exceed mere sustainability; they aim to regenerate and give back resources to the ecosystems and communities they inhabit – and in this context, enhance mauri (lifeforce).

To achieve this, they must excel in seven critical areas: site, water, energy, health and happiness, materials, equity, and beauty. More than just reducing harm, living buildings contribute positively to mauri – the life force of both nature and people – turning buildings from carbon sources into carbon sinks and agents of ecological restoration.

Regenerating ecosystems and centering culture

As a living building, the Living Pā is more than just a piece of architecture; it’s a dynamic test bed for decarbonising and regenerating our living environment in a way that aligns well with tikanga Māori (Māori practices, values and knowledge).

Strategically located next to Te Tumu Herenga Waka, the university's wharenui (meeting house), the Living Pā hosts the offices of the Deputy Vice-Chancellor Māori and the Sustainability Office, Ngāi Tauira (Māori students association) and Āwhina (support services). The ground floor is an open zone for all, the second floor is dedicated to teaching, and the third floor provides office space for staff, making The Living Pā a multifaceted hub for regenerative learning, innovation, community and culture.

Net positive buildings

The three-story, 3000 m² building champions the use of locally sourced, low-carbon materials, generates its own energy and captures water for use in the building.

Notably, mass timber is used in the building. This low-carbon alternative to concrete and steel, made from multiple wood panels glued and fixed together, significantly reduces the carbon footprint, turning the building into a carbon sink.

With its suite of solar panels, the Living Pā not only meets but exceeds its energy needs by 105 percent, ensuring net positive energy generation. An advanced building energy management system monitors and optimises the use of power for heating, cooling, and lighting, while onsite lithium batteries enhance energy resilience, providing a buffer during grid power outages.

Transitioning to regenerative buildings

Living buildings like the Living Pā are contributing to more socially and culturally just and ecologically healthy urban systems.

What is the transitions takeaway for you and your city?

Ecosystem regeneration is a fundamental aspect of the transitions embodied in the Living Pā. Wider ecological restoration initiatives associated with the Living Pā include regenerating local waterways by daylighting 30 meters of the culturally important headwaters of the Kumutoto Stream. Meanwhile, to combat urban flooding, a 20,000-litre rainwater retention tank moderates water flow into the city's systems. The building uses this captured rainwater for drinking water, treating it for safe drinking first. An onsite wastewater treatment plant recycles water for toilet flushing, annually conserving over 300,000 litres of precious drinking water. In a further move for ecological wellbeing the Living Pā eliminates the use of red-listed and highly toxic chemicals, opting instead for safer, eco-friendly materials. The building has wider wellbeing benefits for the neighbourhood and city.

How can you support local communities making this change?

Encourage those who are building new to consider following the Living Building certification process. Not only does it transform the immediate environment, but it also catalyses broader regenerative change in social and ecological systems.

Find out more

www.wgtn.ac.nz/living-pa

https://architecturenow.co.nz/articles/bringing-the-change-the-living-pa-te-herenga-waka/

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Schurig, S., & Turan, K. (2022). The concept of a regenerative city: how to turn cities into regenerative systems. *Journal of Urban Regeneration & Renewal*, 15, 2, 161-175.

Cole, R.J. (2023). Transition to a regenerative future: a question of time. *Buildings and Cities*. 4, 1, 457-474.

Wesley Rātā Village

Connecting people to affordable housing, each other and nature

- Connected communities
- Regenerative buildings

> “We’re retrofitting a massive staff nursing home into apartments. We constantly have to think, ‘how could we repurpose this?’ ‘How could this be adapted?’ ‘How could this be reimagined?’ Those are great skills. They’re great processes. What Rātā Village will do, I hope, is show how you can help people live connected lives.”
>
> Moira Lawler, Wesley Community Action

Transitions at a glance

The Wesley Rātā Village in Naenae, Lower Hutt is affordable housing that promotes community well-being and resilience. Creating an inter-generational community especially for older people without a permanent home or assets, Rātā Village focuses on quality and amenities. It emphasises connections to nature and to other people. The Wesley Rātā Village is showing the way for transitions towards more connected communities and affordable, sustainable housing.

Tackling Aotearoa New Zealand’s housing crisis

Aotearoa New Zealand faces a critical housing crisis, with our homes being more expensive and lower in quality than those in most OECD countries (Barker, 2019). This crisis has led to long waiting lists of people needing government-subsidised housing. As of September 30, 2023, the Government’s Housing Register had 25,284 applicants.

The housing crisis deepens the socio-economic divide between homeowners and renters. Renters often spend a larger portion of their income on housing and accumulate less material wealth (Bentley, 2021).

Opinions on the solution vary. Some advocate for building as many new homes as possible. Others emphasise careful planning of new housing developments, to avoid poorly designed high-density developments or sprawling low-density areas that could create new problems.

Innovative housing solution: Te Hiko Rata Village

In partial response to these concerns, community housing providers such as Wesley Community Action, alongside partners, have crafted a strategic approach to housing that promotes wellbeing and resilience at Wesley Rātā Village in Naenae, Lower Hutt.

In February 2019, Wesley Community Action, Airedale Property Trust, and the Methodist Trust Association began constructing 25 affordable rental homes on this site to cater for individuals on the Government’s Housing Register.

Rātā Village now offers 55 affordable rentals, including 30 rented privately to older tenants. Exciting plans are in motion to transform the two existing large buildings into modern apartments.

Sitting on a beautiful 60 hectares at the edge of Naenae, Wesley Rātā Village boasts a rich history. From 1955 to 2017, the site housed the Wesley Haven Rest Home and Hospital. Today, it features buildings, gardens, and vast stretches of regenerating native bush with public walking tracks.

Designing affordable homes that connect people and nature

The redevelopment at Rātā Village aims to provide affordable housing in an intergenerational community, especially for older people without a permanent home or assets. Unlike many developments that prioritise quantity, Rātā Village focuses on quality and amenities, emphasising connections to nature and to other people. Each home offers privacy, sunlight, and scenic views, while the overall layout fosters interactions between residents and their natural surroundings.

The design features communal spaces, outdoor areas, and a village green for residents. These areas host various activities, including an Ageing Well group, Positive Seniors Club, community meals, cooking classes, an intergenerational playgroup, a nature playgroup, and art classes.

A collaborative project with the Naenae Nature Trust and Te Atiawa supports native bush regeneration through pest eradication, enhancement of the Waiwhetu stream headwaters, and works to improve community access to the site.

Though Wesley Community Action staff support the village social programmes, the community leads the programmes, focusing on the local community's skills, needs, and desired activities.

Wesley Rātā Village exemplifies how thoughtful housing solutions can enhance community wellbeing and create vibrant, sustainable communities.

Supporting transitions to connected communities

What urban systems transitions can further support the change exemplified in Wesley Rātā Village?

Buildings and landscapes can be better designed for community interactions and to support peoples' connection to each other and nature. The village enjoys stable tenancies and is fostering strong community bonds, even welcoming new babies! The approach demonstrates the importance of intentional placemaking where residents connect in diverse, meaningful ways, creating a vibrant, supportive environment.

How can you support local communities making this change?

Support Government policies that provide decent housing for low-income groups. Support nonprofit organisations working in housing. You could do this by gifting or holding land in trust, serving on boards, contributing to fundraising or providing volunteer work for these organisations.

Find out more

www.wesleyca.org.nz/community-actions/wesley-rata-village

Research evidence

Coele, M. (2014). Co-housing and intergenerational exchange: exchange of housing equity for personal care assistance in intentional communities. *Working with Older People*, 18(2), 75-81.

Barker, A. (2019). *Improving well-being through better housing policy in New Zealand* (OECD Economics Department Working Papers No. 1565).

Bentley, A. (2021). Sticky rents and the affordability of rentals for housing in New Zealand. *New Zealand Population Review*, 47, 145-170.

"Given the urgency required to transition to more sustainable urban mobility, cities around the world have been using new 'quick-build' ways of installing interim, connected bike networks and other improvements that invite more people to walk, bike or use public transport much sooner than otherwise planned."

Paneke Pōneke – Bike Network Plan, adopted 10 March 2022

Wellington's transitional walk, bus and bike lanes

Getting the city moving better

- Regenerative ecology
- Connected communities

Transitions at a glance

With a commitment to providing 166km of safe routes for people to bike around the city by 2032, Wellington is using a transitional approach to successfully improve mobility. The programme sees the use of bike lanes installed relatively quickly using adaptable, lower cost materials. This means, based on public feedback, designs can be refined once they are installed. Bus lanes and improved bus stops, alongside pedestrian improvements, including around 35 new and improved pedestrian crossings by 2024, are also delivered along the way. The programme shows how a shift to sharing public road space more equitably and efficiently allows the greatest benefit to the greatest number of people and supports the transition to zero carbon energy in ways that regenerate the built environment.

Reallocating road space for walking, bikes and buses

Prioritising private car travel within cities is neither space nor cost efficient, compared to other options. Given that 95 percent of private motor vehicles use fossil fuels, it also guarantees higher emissions than other transport options, such as public transport, biking and walking.

By reallocating road space for dedicated bus lanes, the city is learning how to better support the two million bus boardings that take place per month in the Wellington region, most of which happen in Wellington City. Their decisions are about making the network faster and more efficient. Similarly, reallocating road space to allow people to ride a bike safely unlocks the potential for people to use a bike to travel to and from work, rather than rely on a private car or use public transport, which is already at capacity during peak morning and afternoon hours. Making biking safe for people also provides the highest benefit for the lowest cost of any transport investment.

So far bus and bike lanes have been delivered on the main North-South transport route from Newtown to the central city route via Adelaide Road and Cambridge and Kent Terraces. These bike lanes are working. Data showed a 140 percent increase in usage before and after with trips growing from 4,500 in February 2023 to 10,900 in February 2024. Bike lanes have also been put in place on Brooklyn hill, Ngaio Gorge and Aro St. Bike lanes and improved pedestrian crossings have been delivered in Kilbirnie and are underway in Thorndon. A route all the way around the harbour is being delivered piece by piece, with safe routes already in place past Oriental Bay towards Evans Bay and along Cobham Drive.

A core element of the wider Wellington transport plan is to put in place North-South and East-West city busways that use a new waterfront bus lane, in addition to the existing public transport spine from Courtenay Place to Lambton Quay.
In time, these city busways can be upgraded to higher capacity mass rapid transit, such as light rail.

Meanwhile, parking management has been critical to this reallocation of public road space to maximise public benefit, with Wellington City Council's 2020 Parking Policy providing the foundations for this work. Making changes to car parking is one of the more challenging political tasks, but smart management of car parking that incentivises public and active transport increases the efficiency of the overall transport system and makes economic and environmental sense.

Transport solutions create more affordable housing

Very importantly, these road space reallocation works not only improve transport outcomes, they also allow for more housing to be developed along the transport routes where people can live without needing to rely on a car. This reduces overall transport costs, increases city safety and vibrancy, makes the city cleaner and allows people to get around more efficiently. The IPCC has identified transport and urban form policies as amongst the best value for money interventions that can be made to reduce emissions.

Transitioning to zero carbon transport

What are the transitions takeways from Wellington's transitional bus and bike lanes?

All over Aotearoa New Zealand, our large cities could become denser by funding and undertaking road space reallocation in ways that creates safe spaces for people to bike and dedicated lanes for buses to move people through the city. By councils and central Government coming together, more policy and planning decisions can be made to facilitate road space reallocation. Alongside policy decisions lies better coordination between agencies around transport and housing to clearly communicate the relationship between different policies and investments and the economic benefits to people when public agencies get these policies and investments right. All of this can help transition our built environments to safer spaces that support zero carbon transport solutions.

How can you support local communities making this change?

Advocate for parking management measures that allow for the re-allocation of road space and contribute to more efficient and more equitable transport outcomes. Support those decision makers who campaign for a transition to public road space that benefits the greatest number of people. Catch public transport and consider if you can safely ride a bike from your home to your work.

Find out more

www.transportprojects.org.nz/current/

www.transportprojects.org.nz/assets/Modules/DocumentGrid/Bike-Network-Plan-Final-June-2022.pdf

https://thespinoff.co.nz/wellington/23-11-2023/wellingtons-massive-cycling-upgrade-is-ambitious-fast-and-surprisingly-cheap

Research evidence

For evidence behind the Innovating Streets for People programme, see:

Blewden, M. et al. (2022). 'Streets for tomorrow...Today'. *Journal of Road Safety*, 33(4), 25–31.

For understanding public acceptance and reaction to Innovating Streets for People, see:

Sargisson, R.J. et al. (2022). *Citizen Responses to Tactical Urbanism Initiatives in Aotearoa New Zealand.* Retrieved from http://dx.doi.org/10.2139/ssrn.4144180

For a media analysis of coverage of such programmes, see:

Nello-Deakin, S. (2023). "They are deconstructing the city": a typology of media narratives on tactical urbanism. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 1-20. https://doi.org/10.1080/17549175.2023.2257197

“We are creating an inclusive space, based on an understanding of equity in an unequal world. When, in many parts of this world, there are minorities who are unsafe, oppressed or colonised, it is our role to keep creating a space in which those people who are unsafe elsewhere, are included here, are safe here. It is this safe space that not only allows us to care for each other, it is this safety that enables us to go out into the world and fight for what we believe in. To do dangerous things.”

Ash Holwell, two/fiftyseven Founder

two/fiftyseven

Recycling building materials to support creative communities

- Zero carbon energy
- Connected communities
- Regenerative circular economy
- Regenerative buildings

Transitions at a glance

two/fiftyseven is a co-working and events space on Willis Street in Wellington. It was opened by Ash Holwell in 2019 and is now a fixture of Wellington’s progressive and creative communities. It has had a focus on honouring the Indigenous land on which it stands, including by providing space for use by mana whenua and Māori. The business has been carbon positive in both its development and its ongoing operations. When the office was fitted out, every material that could be was salvaged, recycled or reused. For example, the doors and timber from the old conventional office layout were converted by a local furniture maker into desks, and the carpet tiles, wiring, sockets and sprinkler pipe were all reused. two/fiftyseven shows how a regenerative building can be developed in ways that connect communities.

Taking care of community

The space has hosted hundreds of events since opening and many of these events have either been free of charge or at a heavily discounted rate. This event hosting support has been explicitly provided as a contribution towards building community and supporting like-minded work and projects, often for groups experiencing structural injustice.

The space also hosted New Zealand’s first mental health gym, The Well. This initiative was the first anchor tenant in the space and provided services to other users and people in wider Wellington.

Challenging the commercial property model

two/fiftyseven has also consciously worked to supersede the prevailing model of commercial property, which has tended to be based on extracting maximum profit for owners and shareholders. Instead, it is a privately owned commercial property, whose objectives are to promote community outcomes. This is a core part of its reason for being.

As a result, the space is used at all hours. Since its opening three years ago, two/fiftyseven has provided space for over 225,000 hours of work and play, for over 500 organisations and hosted nearly 1,000 events and hui.

Supporting regenerative building transitions

two/fiftyseven is an example of how we can create regenerative buildings that support just transitions and more deeply connected communities.

What is the transition takeaway for your city?

Explore the potential to incentivise commercial properties that are explicitly delivering community, social and environmental outcomes through a council rate rebate. Any incentives (such as a rates rebate) would need to be independently measurable and administered in a way that does not compromise council revenue overall.

How can you support local communities making change?

If you have a co-working space in your area, why not opt to work there a few days a month, if you have the option of remote or hybrid working, as part of your job. If you are hosting an event, think about venue selection and choose value-led providers, such as two/fifty seven, who are supporting people who are unsafe, oppressed or colonised.

Find out more

www.twofiftyseven.co

www.stuff.co.nz/environment/climate-news/126506482/removable-walls-and-secondhand-finds-a-coworking-and-events-space-making-a-positive-climate-difference

https://bestawards.co.nz/spatial/workplace-environments/spacelamp/two-fiftyseven/

https://bestawards.co.nz/spatial/repurposed-spaces-adaptive-reuse/spacelamp/two-fiftyseven-1/

Research evidence

For more on coworking in Aotearoa, see:

Methorst, J. J. (2023). Coworking Spaces in Aotearoa New Zealand: Embodied Geographies of Care in Pandemic Times. In J. Merkel, D. Pettas, & V. Avdikos (Eds.), *Coworking Spaces: Alternative Topologies and Transformative Potentials* (pp. 97-109). Springer International Publishing.

For more on the transformative potential of co-working spaces, see:

Merkel, J., Avdikos, V., & Pettas, D. (2023). *Coworking Spaces: Alternative Topologies and Transformative Potentials*. In J. Merkel, D. Pettas, & V. Avdikos (Eds.), Coworking Spaces: Alternative Topologies and Transformative Potentials (pp. 1-14). Springer International Publishing.

For more on what it's like to work in a coworking space, see:

Dandoy, A. (2021). *Community Management Practices in Coworking Spaces: Being the 'Catalyst'*. In N. Mitev, J. Aroles, K. A. Stephenson, & J. Malaurent (Eds.), New Ways of Working: Organizations and Organizing in the Digital Age (pp. 401-427). Springer International Publishing.

“A future where everyone in Te Upoko o Te Ika (Wellington) has access to a safe, working bike, and the skills to ride and maintain it, for transport, health or fun”.

www.ekerua.com/about-ekerua

EkeRua ReBicycle

Making cycling accessible for all

- Regenerative ecology
- Zero carbon energy
- Connected communities

Transitions at a glance

EkeRua ReBicycle refurbishes and redistributes donated bikes to those in need – along with essential gear such as helmets, locks, and lights. They provide this service in exchange for koha – and provide free bikes to those unable to donate. By innovating in this way, EkeRua ReBicycle is helping the transition towards a zero-carbon transport system, a healthier environment and a more connected community.

The barriers to cycling in Aotearoa

Cycling offers many benefits. Research shows cycling provides many great outcomes, such as boosting health and well-being, saving money and protecting the environment. Imagine the thrill of cruising down a path built just for cyclists!

Yet, despite 81 percent of New Zealanders knowing how to ride a bike, only half have access to one. This limited access, coupled with safety concerns and inadequate cycling infrastructure, poses significant barriers to cycling in Aotearoa New Zealand.

EkeRua ReBicycle: empowering communities with bikes and bike gear

EkeRua ReBicycle, a charitable trust in Newtown, Wellington, refurbishes and redistributes donated bikes to those in need. Along with bikes, EkeRua provides essential gear such as helmets, locks, and lights.

Until 2024, EkeRua offered these services for free, relying on volunteer bike mechanics. However, to address rising costs and growing demand, EkeRua now offer repaired bikes and gear for koha from their workshop. Despite this change, EkeRua remains not-for-profit and will continue to provide free bikes to those unable to donate.

EkeRua redistributes about 75 percent of donated bikes, using the rest for parts or selling them to fund their work. Focused on equity, EkeRua ensures access to bikes for transportation and recreation for those who otherwise couldn’t afford it in Wellington. They also work to remove barriers to cycling, spreading the physical and mental health benefits, economic savings, and sheer joy of biking to more people.

Supporting transport transitions

What is the transitions takeaway for EkeRua ReBicycle?

EkeRua has redistributed over 2,500 bikes and hosted more than 500 fix-up bike events, teaching people how to maintain and repair their own bikes. EkeRua ReBicycle know the secret to getting people out of their cars and moving their bodies is to make bikes more accessible. It's why in 2021, EkeRua and its partners received a three-year grant from the Wellington Community Trust's climate action fund. This funding aims to increase Wellingtonians' access to safe bikes that work, boost community resilience, and reduce carbon emissions. The grant supports regional bike hubs which support initiatives such as bike libraries, workshops, and bulk purchasing of helmets, locks, and parts.

EkeRua also acquired an electric bike-fix-up van, equipped with tools and parts in a mobile workshop to reach areas lacking bike services. Also, partner organization USO Bike Ride launched the Motuhenga Community Cycle Hub (a bike library and workshop) in Eastern Porirua.

Through these efforts, EkeRua continues to empower communities, promote sustainable transportation, and foster a love for cycling.

How can you support local communities making this change?

Support funding and design proposals for safer bike paths in your community. Safer cycling infrastructure encourages more people to ride and enjoy the benefits of cycling. Give your old bike and gear to EkeRua or similar charitable trusts across Aotearoa New Zealand. Get your next bike from an organisation such as EkeRua instead of buying new.

Find out more

www.ekerua.com

Research evidence

For more on the kind of support cycling and walking need, see:

www.nzta.govt.nz/assets/resources/understanding-attitudes-and-perceptions-of-cycling-and-walking/Waka-Kotahi-Attitudes-to-cycling-and-walking-final-report-2023.pdf

To find out about women's cycling needs, see:

Russell, M. et al. (2021). Pedalling towards equity: Exploring women's cycling in a New Zealand city. *Journal of Transport Geography*, 91, 102987.

Smith, M. (2016). Cycling on the verge: The discursive marginalisation of cycling in contemporary New Zealand transport policy. *Energy Research & Social Science*, 18, 151-161.

Hopper Refill

Supporting the unpackaged movement

- Regenerative circular economy
- Connected communities

> “We are not after making a profit – we want to be part of the zero-waste conversation and provide a service to Wellington customers and community.”
>
> Francine Corhumel, Hopper Refill store manager

Transition at a glance

Hopper Refill was a zero-waste store that helped people to cut down on single-use packaging. Located in the heart of Te Whanganui-a-Tara Wellington’s CBD, people could buy a wide selection of bulk foods and products and take them home in reused jars, containers, or bags. Hopper Refill also educated the local community on how to practice zero waste. Sadly, the retail store closed its doors on 7 July 2024 as it was no longer financially viable to remain open under the current constraints. However, Hopper Refill worked out some of the details of how to transition to zero-waste retail, which will be useful as other businesses take up the challenge of supporting a transition to a circular economy and more connected communities.

The plastic predicament and a path forward

Petrochemical plastic waste poses a critical challenge worldwide, impacting environmental and human health, as well as driving an ever-growing demand for fossil fuels. Remarkably, 36 percent of all plastic produced globally is packaging, predominantly single-use and aimed at consumers.

Plastic has woven itself deeply into the fabric of daily commerce, making it a formidable task for businesses and communities to cut back. Often, they are trapped by inflexible infrastructures and financial commitments that discourage a transition to zero waste – the closure of this refillery being a case in point.

Buying bulk to reduce food waste

Hopper Refill offered a selection of bulk foods – ranging from pasta and spices to grains and rice – alongside eco-friendly cleaning supplies and personal care products. Shoppers could also find fresh, affordable essentials, such as eggs, lemons, bread, tofu, and creatively upcycled items.

The store sourced most products in bulk, transferring them into bins and containers from which customers could conveniently refill their own jars or bags. This cut down on packaging waste and promoted a culture of reuse.

Hopper also worked closely with suppliers to return containers that their products arrived in so the suppliers could refill and reuse also.

While paper bags were available, the store championed a bring-your-own approach, offering a free jar library to ensure everyone could shop, regardless of whether they brought containers.

Affordability was key. One advantage of being able to choose the items you buy is that people on tight budgets can purchase the exact quantity they need, which also creates less food waste.

Supporting a plastic-free shopping experience

In its mission to eliminate plastic waste, Hopper Refill was confronting a wider waste-based system. Many producers and retailers offload the clean-up costs of their products onto communities and local governments, which manage waste through tax-funded rubbish collection and recycling. This means the producer and retailer do not pay for the full cost of the life cycle of their product and packaging.

By using refill and reuse packaging, Hopper Refill and other organisations transition away from a waste model to a circular, local approach that supports customers to bring their own vessels or use paper bags. Shopping at Hopper Refill required a more active consumer role. Customers measured out their purchases, filled containers, and brought reusable bags/containers. Compared to buying products with single-use plastic packaging, shopping at Hopper took more time – but customers seemed to enjoy the process and the ability to control the amount of product bought.

Because Hopper Refill was not a large supermarket, it could not compete with pricing, due to its smaller order volumes. For other smaller retailers supporting zero-waste and locally sourced products, the challenge is the same.

Transitioning to saying yes to plastic-free models

An organisation, such as Hopper Refill, exemplifies how viable alternatives to single-use plastics can exist, albeit with different investments and accommodations from shoppers. These types of retailers support the transition to a more regenerative, circular economy.

What is the transitions takeaway for the change Hopper Refill was leading?

When standalone retailers compete against overseas-owned supermarkets, they struggle to survive financially. That is why more support is needed for any business modelling change towards more holisitic, ecological systems. Hopper's approach proves that with collective rethinking and a shift in retail systems and consumer habits, we can start to transition away from petrochemical plastics.

How can you support local communities making change?

Give more visibility and support to ecological systems change business models. They will only thrive if people are more encouraged to vote with their wallet. Yet with the cost of living that can be a difficult ask. It's why help needs to come in the form of law reform around single-use plastic. Help people in your community learn how to substitute single-use plastic packaging with alternatives. Get behind global, national, and local initiatives that are attempting to reduce plastic waste or expand reuse schemes.

Find out more

www.hopper.nz

Research evidence

For more on reducing packaging in New Zealand, see:

Diprose, G. et al. (2022). 'Reducing single use packaging and moving up the waste hierarchy'. *Kōtuitui: New Zealand Journal of Social Sciences Online*, 18(3): 268-289.

For more on the importance of policy and law shifts, see:

Blumhardt, H., & Prince, L. (2022). 'From lines to circles: reshaping waste policy'. *Policy Quarterly*, 18(2): 71–80.

For evidence on reusable packaging and environmental impacts of single-use packaging, see:

Coelho, P.M., Corona, B., & Worrell, E. (2020b). *Reusable vs single-use packaging: a review of environmental impacts. Zero Waste Europe.* Retrieved from https://zerowasteeurope.eu/library/reusable-vs-single-use-packaging-a-review-of-environmentalimpact/.

For more on how NZ could response in policy and law, see:

Farrelly, T., & Green, L. (2020). 'The global plastic pollution crisis: how should New Zealand respond?' *Policy Quarterly*, 16(2):67–75.

"It's not just about gardening, it's connecting with nature, especially for people who don't have gardens in their homes. We have compost heaps – the heart of any community garden is the compost because we're trying to build soil."

Innermost Gardens introduction video.

Innermost Gardens

Fostering a green, thriving community

- Regenerative ecology
- Regenerative circular economy
- Connected communities

Transitions at a glance

Innermost Gardens in Wellington's Town Belt on Mt. Victoria is a community garden, offering a range of spaces for cultivating plants and trees. Its composting service also fills a vital gap for local waste management. Functioning as a dynamic community hub, the gardens play host to events and activities that foster strong community ties and promote environmental stewardship. Innermost Gardens is helping build a regenerative, circular economy and a more connected community.

Wellbeing through gardening

In Aotearoa New Zealand, urban gardening has woven a vibrant tapestry of food, biodiversity, and beauty throughout the nation's history. Yet its popularity ebbs and flows socially, politically, and aesthetically. The recent COVID-19 pandemic has sharply highlighted food security issues – particularly in urban areas – and refocused attention to how inner-city community gardens can bring resilience and diverse wellbeing. There is now a widespread revival of urban gardening throughout Aotearoa New Zealand with gardens connecting people socially, lowering the impact of rising food costs, and reducing the environmental impacts of mainstream food production.

The rise of community gardens

A relatively, well-known approach to collective urban gardening, community gardens are thriving across Aotearoa. Research shows there were 204 vibrant hubs of cultivation dotting the landscape in 2020 (https://villagegarden.info/aotearoa-community-gardens/). These gardens bring communities together through two main models of cooperation. In one, a group collectively uses a piece of land to grow, harvest, and share their food. In the other, the land is divided up and individuals manage their smaller plots, growing and harvesting their own crops.

An essential composting service

Established in 2006, Innermost Gardens is a hub of community, sustainability, and growth in Wellington's Town Belt on Mt. Victoria. Driven by the mission to "grow community through hands in the soil," it offers individual plots and shared spaces where gardeners cultivate everything from vegetables to native shrubs. Importantly, Innermost Gardens tackles a critical gap in Wellington's waste management by providing essential composting services for gardeners and surrounding residents. With no municipal organic waste collection and processing available, the garden's composting initiative prevents food waste from ending up in landfills, where it would release climate-warming methane. Meanwhile, the gardens serve as a vibrant gathering place, hosting community events, weekly working bees, and various social gardening activities. This strengthens community connections – fostering a green, thriving community.

Diverting over 7,000kg of kitchen green waste from landfill

In 2019-2020, Innermost Gardens partnered with Wellington City Council and Victoria University researchers to demonstrate the benefits of the garden. The team delved deep into its profound impact on community and environment, looking well beyond traditional metrics such as 'food waste diverted from landfill' and 'kgs of produce grown'.

The research revealed impressive outcomes:

1. The on-site composting facility saw an estimated 850 drop-offs of kitchen green waste, successfully diverting 7,477 kg of waste from landfill.
2. The composting efforts potentially captured around 26,822 kg of CO2, significantly reducing greenhouse gas emissions (GHGs).
3. An encouraging 80 percent of compost contributors walked to the site, integrating this green practice into their daily exercise routines.
4. The garden provided enriching volunteer and personal development opportunities to 620 individuals.
5. Activities in the garden's hall, including homeschooling, meditation, dance classes, and community dinners, reached over 4,710 people.
6. Remarkably, all these benefits were driven 100 percent by volunteer effort, showcasing the power and dedication of the community.

Supporting community gardens

What is the transitions takeaway for Innermost Gardens?

Innermost Gardens brilliantly demonstrates how council land can be collectively managed to benefit both people and nature. Despite challenges such as funding constraints, reliance on volunteers, land access issues, and occasional food theft, these community gardens serve as important green spaces, especially for apartment dwellers without their own gardens. The impact research shows the significant role these urban oases can play in enhancing city life, offering a solution for sustainable urban planning and community engagement.

How can you support local communities making this change?

Get involved with your local community garden, urban restoration project, or composting initiative. Advocate for local government policies that promote community gardens on public land. Support localised organic waste processing systems that keep community gardens at the heart of a city's sustainability efforts. Contribute to the cycle: Separate your organic waste, including garden trimmings, and deliver it to nearby collection points.

Find out more

www.innermostgardens.org.nz

https://villagegarden.info/innermost-gardens

Research evidence

For more on community gardens in Aotearoa, see:

Graetz, G. (2019-2020). Social, Health and Environmental Impacts of Community Gardens. Masters of Landscape Architecture, Victoria University. Report retrieved from https://green-kpis.villagegarden.info/wp-content/uploads/2020/12/VillageGardenProjectReport_Bliss_Graetz.pdf

Morris, M. (2020). *Common Ground, Garden Histories of Aotearoa.* Otago University Press: Dunedin.

For research on the importance of small-scale food production, see:

Nicholls, E. et al. (2020). 'The contribution of small-scale food production in urban areas to the sustainable development goals: a review and case study'. *Sustainability Science*, 15: 1585-1599.

For a set of indicators to help monitor the contributions of community gardens, see:

Beilin, R., & Hunter, A. (2011). 'Co-constructing the sustainable city: how indicators help us 'grow' more than just food in community gardens'. *Local Environment*, 16(6): 523-538.

Mevo car sharing

Embracing a car-light lifestyle

- Zero carbon energy
- Regenerative circular economy

Transitions at a glance

Mevo is a car sharing company, offering short term car rental (hourly and day rates) to customers in Te Whanganui-a-Tara Wellington, Tāmaki Makaurau Auckland and Kirikiriroa Hamilton. Their goal is to help people reduce their transport emissions – and get cars out of urban areas to create more liveable towns and cities in Aotearoa. In Te Whanganui-a-Tara, the car sharing service is supporting a transition to better mobility opportunities and more efficient and more zero-carbon energy systems.

The challenge of car-dominated cities

Mevo's vision goes beyond merely offering a car sharing service with EV option. Their mission is to forge more beautiful, liveable cities by presenting a superior alternative to private car ownership.

In Aotearoa New Zealand, urban and transport planning hinges on private cars, leading to redundancy, inefficiency, poor use of urban space and congested cities. Changing individual behaviour isn't enough; we need transformative urban mobility infrastructures to support a transition away from car ownership and towards zero-carbon mobility.

Cutting emissions and enhancing liveability Mevo challenges the status quo by providing a car sharing service that significantly reduces the number of vehicles in urban areas, thereby cutting transport emissions and enhancing city liveability. Mevo offers both 'flex' and round-trip sharing options through a user-friendly app that allows customers to locate and unlock vehicles easily. The 'flex' model enables parking in thousands of pre-approved spots citywide.

Strategic partnerships and sustainable practices

Founded in 2014, Mevo's successful growth was made possible by strategic collaborations with city councils to navigate parking policies. This has proved crucial for scaling the service beyond a niche market and to start shifting norms. Mevo isn't just about profit; they're a living wage employer committed to being fully lifecycle carbon negative. They meticulously measure all emissions, from manufacturing to disposal, and offset these by 120-200 percent using permanent rainforest credits.

Without traditional advertising, Mevo relies on peer referrals and word-of-mouth to grow their customer base. They now have over 30,000 users – from individuals to corporate and government clients – across three cities, expanding annually by 100-200 percent. Their diverse customer base has varying motivations for car sharing, ranging from environmental (reducing emissions and using multiple transport modes) through to financial and practical (the expense of owning and storing a car).

Transitioning car ownership

What is the transitions takeaway for Mevo car sharing?

Mevo wants sustainable transport to be achievable for as many people as possible. This concern extends to making the transition to electric vehicles (EVs) accessible for all. As co-founder Erik Zydervelt points out – 'not everyone can afford to buy an EV, but more people can afford to hire one short-term'. Car sharing can grow by expanding into additional urban and rural areas – an initiative Mevo is currently focused on. This supports mobility and connection for communities, while enhancing the liveability of our built environment and reducing transport carbon emissions.

How can you support local communities making this change?

To help your community embrace shared urban mobility, it's important to get buy-in from local government. In Wellington, Mevo users benefit from being able to park in any legal council spot. Improve public transport through better urban planning. Public transportation and urban planning enhances the viability of car sharing. Use business partnerships to link car sharing with other sustainable options (such as cargo or family e-bikes). This can accelerate the shift towards shared urban mobility.

Find out more

https://mevo.co.nz/

https://www.meridianenergy.co.nz/ev/mevo

https://thespinoff.co.nz/business/14-03-2018/the-primer-the-car-sharing-service-putting-electric-vehicles-on-wellingtons-roads

Research evidence

See the below references for research evidence on car sharing:

Sobiecki, L., & Chapman, R. (2020). Car sharing in a compact city: Pinning down the benefits and barriers. *Journal of Earth and Environmental Sciences Research*, 2(3), 1-8.

Nijland, H., & van Meerkerk, J. (2017). Mobility and environmental impacts of car sharing in the Netherlands. *Environmental Innovation and Societal Transitions*, 23, 84-91.

Standing, C., Standing, S., & Biermann, S. (2019). The implications of the sharing economy for transport. *Transport Reviews*, 39(2), 226-242.

Ferrero, F. et al. (2018). Car-sharing services: An annotated review. *Sustainable Cities and Society*, 37, 501-518.

"A [workplace] fleet owner in New Zealand has 16,000 cars. Those aren't used nights or weekends. People drive their private car to work, get out, leave their private car to sit there all day, get in a fleet car, drive it somewhere and park it to sit. Now you have two cars sitting around. We just bring those use cases closer together and make our cars as seamlessly available and easy to use as private cars but with better cost, convenience, quality and emissions. If you have a decently dense network, it works. We are also seeing people go from a two-car family to a one-car family. Or they live in the CBD and they can choose not to own a car. The idea is to really support what we call, 'the car light lifestyle'."

Erik Zydervelt, Mevo Co-Founder.

"Almost 20 years on Waitangi Park continues to afford ecological richness at Wellington's highly valued recreational waterfront. Ecological functionality is subtly, but inextricably, linked to the Park's distinctive landscape character of crafted urban spaces that draw on the heritage of Wellington's natural and cultural histories."

Nicole Thompson, Wraight & Associates Ltd.

Waitangi Park

Creating wider wellbeing through ecological urban design

- Regenerative ecology
- Regenerative circular economy

Transitions at a glance

Waitangi Park is an important and well-loved public landscape on the edge of Wellington Harbour. With a functional wetland that wraps around the perimeter of the park, the park is an excellent example of how to create ecologically restorative public spaces. The park recognises the importance of this landscape to mana whenua, enhancing cultural and ecological wellbeing as the presence, mana and vitality of Waitangi stream is restored. The wetland demonstrates how cities can become 'spongey' with ecological infrastructures enhancing resilience and regeneration as urban water flows are slowed and cleaned, carbon is sequestered, biodiversity enhanced and human wellbeing improved. Replacing grey 'pipes in the ground' infrastructures with blue-green ecological infrastructures like these supports a transition to resilient and regenerative urban ecosystems.

Self-cleaning streams

The Waitangi stream is daylighted and streamed through a series of landscaped wetlands in this project. Water entering from the Waitangi stream culvert system can contain biological (sewage) contaminants, as well as chemical contaminants. The design cleans stream water as it passes through the system. It also provides a source of irrigation for the park landscaping. Water is passed through gravel and UV filtration to remove coarse sediments and bacterial contaminants. Subsequent wetlands filter further, as the water passes through native reeds, including Oi Oi and sea rush. Clean water streams from 'End Weir' down onto the Waka Landing Beach or via a performative 'whoosh' bucket at Clyde Quay. The porous landscape that comprises the wetland and associated parkland is able to slow and manage extreme flood events with more resilience than traditional grey stormwater systems. As extreme flood events happen with climate change such resilient urban landscapes will become increasingly valuable.

A rain garden planted with hydrophytic species and bio-retention tree pits also slows, contains and filters water run-off from adjacent hard paving. Micro-organisms in the soil medium consume contaminants. Together the wetlands, rain-garden and associated plantings provide habitat for coastal birds, such as southern gulls and cormorants. The park is also widely used by walkers, picnickers and for urban events.

Wider wellbeings

Waitangi Park is a source of wider mauri ora (social, cultural and ecological wellbeing) in addition to the remediation of polluted urban stream water. Blue-green ecosystems like these can sequester atmospheric carbon. When designed as an integrated urban ecological system – with forests, wetlands, swales, rain gardens, street trees, green roofs and walls – cities can become large scale carbon sinks.

Urban green and blue space also has important

cooling effects. Contemporary cityscapes cause a significant urban heat island effect. Changing to an ecological approach in the design of urban infrastructures and buildings so that natural green and blue systems are incorporated can significantly reduce urban overheating. As climate change drives temperature increases and extreme heat events such cooling strategies will become increasingly important.

A further key co-benefit of ecological infrastructures like those in Waitangi Park is their contribution to local biodiversity. As well as remediating water, the new ecosystems provide habitat and food for a whole host of local wildlife. Access to such biodiverse natural environments also bring wellbeing to people with evidenced stress-reduction, healing, improved cognition and physical health benefits.

Transitioning to a resilient ecological urbanism

Waitangi Park is an important early example of how integrated urban ecological systems can bring multiple co-benefits that enhance the mauri or vitality of place and people.

What is the transitions takeaway for you and your city?

Waitangi Park is an example not only of how blue-green infrastructures can be designed and implemented but also how they can be envisioned, managed, monitored and maintained. As living systems, they require a vision for ecological change and an ongoing management plan that necessitates collaboration between Council urban, infrastructure and ecology teams that might not otherwise overlap. There are important lessons to be learnt in this innovative park project about how to design and also manage and maintain living systems for a more ecologically resilient and regenerative city.

Find out more

https://landezine.com/waitangi2

Research evidence

For more on urban blue-green infrastructures see:

Bell, S., Fleming, L. E., Grellier, J., Kuhlmann, F., Nieuwenhuijsen, M. J., & White, M. P. (2021). *Urban blue spaces: Planning and design for water, health and well-being*. Routledge.

Andersson, E. et al. (2019). Enabling Green and Blue Infrastructure to Improve Contributions to Human Well-Being and Equity in Urban Systems. *BioScience*, 69(7), 566-574.

Puppim de Oliveira, J. A. et al. (2022). Innovations in Urban Green and Blue Infrastructure: Tackling local and global challenges in cities. *Journal of Cleaner Production*, 362, 132355.

For ecological infrastructures and heat island effect see:

Leal Filho, W. et al. (2021). Addressing the Urban Heat Islands Effect: A Cross-Country Assessment of the Role of Green Infrastructure. *Sustainability*, 13(2), 753.

For more on how urban nature improves human wellbeing see:

Reyes-Riveros, R. et al. (2021). Linking public urban green spaces and human well-being: A systematic review. *Urban Forestry & Urban Greening*, 61, 127105.

“We see housing as a fundamental right and an investment in our mokopuna and future generations.”

Dwell staff member

Dwell

Pioneering community housing solutions

- Connected communities
- Regenerative buildings

Transitions at a glance

More people in Aotearoa New Zealand are experiencing housing insecurity and the vulnerabilities that come without having a secure place to call home. Dwell is a housing provider in the Te Whanganui-a-Tara region providing a broad range of housing services. Some of these services include managing an inner-city papakāinga, supporting those transitioning from our mental health system to find a safe place to live, and supporting families into home ownership. Dwell’s mahi makes sure housing delivers wellbeing and creates community connections.

Housing for community wellbeing

Dwell is more than just a housing provider – it aims to enable community wellbeing and security. Offering social rental housing and shared living services, the organisation caters particularly to those transitioning from the mental health system.

It also embraces innovative housing models, such as shared home ownership and helping first-time buyers achieve homeownership.

Managing the inaugural city papakāinga

Dwell manages Wellington’s inaugural city papakāinga for the Te Aro Pā Whenua Trust, a modern take on traditional intergenerational housing developments on ancestral Māori land. The Te Aro Pā project is a partnership with the land’s collective owners, referencing the original Te Aro Pā in what is now central Wellington. It features 14 homes designed to nurture community among young families, professionals, and kaumātua (elders), linked to the Ngāti Ruanui and Taranaki iwi of Te Aro Pā.

Creating community connections

Today, housing insecurity transcends economic barriers, affecting not just the traditionally vulnerable but also the working poor, younger generations, and those nearing retirement. Dwell confronts this challenge head-on by introducing housing models reminiscent of Europe’s long-term stabilised rents. This allows families and communities to establish and maintain deep community ties.

Transitioning to building for regeneration and community

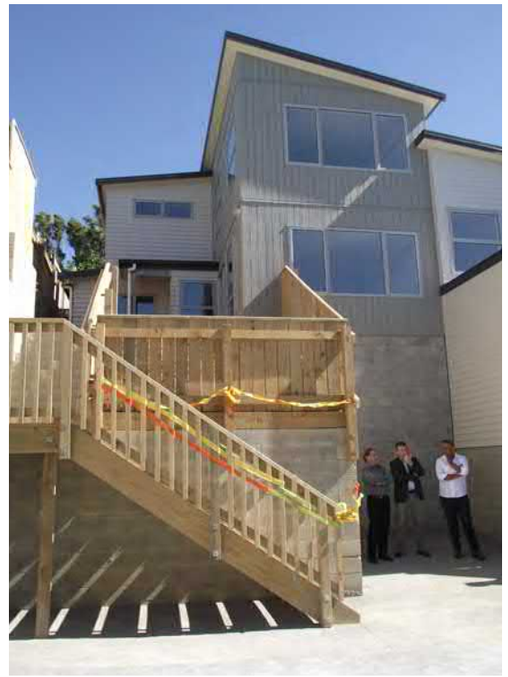
What is the transitions takeaway from Dwell?

Dwell's commitment is not only economic. They want their housing to be a pathway to wellbeing and to support sustainable building methods. Increasingly, the organisation is using eco-friendly materials and designs, such as passive heating, cooling, and flood resilience. Taking this approach ensures its buildings are not only ecologically friendly but also support social connectivity and community wellness.

The various initiatives Dwell supports – from social housing and shared homeownership to intergenerational papakāinga – are revolutionary. They provide more than just shelter; they offer a long-term home base and a sense of belonging within a supportive community framework.

How can you support local communities making this change?

Consider other models than housing-for-profit, such as build-to-rent or cooperative housing models. Build-to-rent supports long-term stable renting, while in cooperatives owners pay for a share rather than a specific unit. This can increase affordability. Use Papakāinga or co-housing-type strategies that include shared spaces, such as whare kai (kitchens), kai mara (vegetable gardens), and laundries. These types of facilities build community connections. Plan for, or select, sites that have urban infrastructures that support social and ecological connection. For example, local nature spaces, walk and bikeways, public transport, and access to healthy food.



Find out more

www.dwell.org.nz/tearopatrust

www.rnz.co.nz/news/regional/299330/papakainga-provides-affordable-city-living

Research evidence

For more on discriminatory policies and how contemporary papakainga are tackling it, see:

Kake, J. (2019). *Rebuilding the Kāinga: Lessons from Te Ao Hurihuri.* Bridget Williams Books.

For more on institutional racism and housing ownership, see:

Houkamau, C. & Sibly, C. (2015). 'Looking Māori Predicts Decreased Rates of Home Ownership: Institutional Racism in Housing Based on Perceived Appearance'. PLoS One, 19(3): e0118540.

For up to date statistics on housing and Māori wellbeing, see: Stats NZ. (2021). Te Pā Harakeke: Māori housing and wellbeing 2021. https://www.stats.govt.nz/reports/te-pa-harakeke-maori-housing-and-wellbeing-2021/

CentrePort

Driving zero-carbon transport and energy

· Zero carbon energy

Transitions at a glance

Wellington's CentrePort is the key hub for freight and transport in central Aotearoa. But unlike other ports around the world, this one doesn't run on fossil fuels alone. Using a range of initiatives, the port is attempting to achieve net zero carbon by 2040. Since 2019, they have cut emissions by 37 percent. One way they have done this is by reinstating rail transport for moving large volumes of cargo. Their next step is to generate onsite, renewable electricity. CentrePort shows a transition towards zero-carbon transport and energy systems.

Decarbonising operations

While ports have existed for centuries, the 20th century saw them become heavily dependent on fossil fuels, contributing around 3 percent of global greenhouse gas emissions. Reducing emissions from the shipping industry is crucial. As essential hubs and significant emission sources, ports play a pivotal role in the broader effort to decarbonise transport.

CentrePort is working to achieve net zero carbon emissions by 2040, with an interim goal of reducing emissions by 30 percent by 2030. They are doing this by investing in EVs, upgrading to LEDs and investing in more rail transport.

Collaborations to lower carbon

When the port's grounds were affected by the 2016 Kaikoura earthquake it made diesel-powered straddle carriers unsafe. This provided an opportunity for the port to acquire lower emission vehicles and machinery. Whenever infrastructure comes to the end of its life, it is now replaced with a low emissions alternative.

When they can't find a solution that works, CentrePort will partner with other providers. For example, they replaced their unsafe straddle carriers with a different mode of container transport called IMVs (tractor and trailer).

Finding only one global provider offering a 100 percent electric option, they integrated a trickle charge feature, allowing units to charge when idle and only swap batteries when necessary. CentrePort became the third port

> **"We have a culture of you've just got to go, you've got to start stuff. You could try and create the ultimate plan that's staged in 15 different ways and designed to achieve a great outcome, but you may never start it. Where as for us, we think, 'Right we've got these discreet things, let's figure out how we're going to do it and then we just do it."**
>
> Andrew Steele, CentrePort general manager (strategy and stakeholder relations).

worldwide and the first in Aotearoa to use these electric IMVs.

The shift to lower emissions has reaped multiple benefits: quieter operations due to electric cranes and IMVs, improved air quality, efficient and reliable LED lighting – and even better health and safety (as staff and contractors spend less time changing bulbs at great heights).

Upcoming projects include installing microgrids and solar panels to provide shore power for ships, paired with a 1-megawatt battery. This initiative aims to supplement the energy produced on-site with connections to the country's main energy grid.

Transitioning to zero-carbon transport

What is the transitions takeaway from Centreport?

CentrePort's decarbonisation process changed their approach to operations and future planning and has created a far more sustainable maritime operation.

It's a system that other ports, who may be considering transitioning from diesel to electric, can follow. Interestingly, there are unintended yet important consequences to such a transition. For example, the introduction of IMVs required staff to learn new skills and adopt new routines for battery management tasks, as well as changes to site planning. Meanwhile, to charge the IMV batteries, CentrePort had to create dedicated charging spaces, meaning investment in new energy infrastructure. Choosing a suitable site that could withstand bad weather and support port operations was crucial.

The vision is that by 2040, CentrePort will be an example for how other ports can make a transition to decarbonise and become more sustainable.

Find out more

www.centreport.co.nz/environment/sustainability

Research evidence

For more on the carbon emissions of ports, see:

Wang, B. et al. (2023). 'A review of the port carbon emission sources and related emission reduction technical measures'. *Environmental Pollution*, 320, 121000.

For research on port pollutants, see:

Barberi, S. et al (2021). 'Pollutant emissions in ports: A comprehensive review'. *Infrastructures*, 6(8), 114.

For more on the importance of ports in decarbonisation strategies, see:

Chalouhi, J. (2023). *The influential role of ports in pursuing decarbonisation*. GHD Insights. Retrieved from www.ghd.com/en/insights/the-influential-role-of-ports-in-pursuing-decarbonisation

“We talk a lot about having all these lost skills but there’s so many people who still have the skills and really want to share those skills with other people. They just needed a platform.”

Polly Griffiths, Sustainability Trust’s Sustainability Manager.

RepairED programme

Mending to divert waste from landfill

- Regenerative circular economy
- Connected communities

Transitions at a glance

RepairED is tackling waste through repair. This programme hosts frequent repair workshops across Wellington, promoting practices that emphasise reuse, repair, and sharing. RepairED also fosters community connection and sustainability. By providing this initiative, the Sustainability Trust is helping us transition to a more circular economy and more connected community.

Changing collective behaviour to reduce waste-to-landfill

Aotearoa New Zealand faces a significant challenge with waste ending up in landfills. Simply amending individual behaviours won’t solve this systemic issue. Instead, a comprehensive shift in how New Zealanders handle, manage, and process materials is crucial. This includes enacting new laws to combat planned obsolescence and strengthen the ‘right to repair’ things, as well as giving people the resources to relearn and share repair skills.

Despite a strong desire to avoid sending items to landfills, many communities find themselves without the necessary support or infrastructure to make different choices. By building a collective framework for repair and reuse, we can significantly reduce landfill waste and foster a more sustainable future.

Creating a repair culture

RepairED, an initiative spearheaded by the Sustainability Trust, collaborates with businesses and organisations such as MakeRoom Wellington, Consumer NZ, and Repcon to tackle repairing things, rather than throw them away. People attend events to learn how to reuse and repurpose broken stuff.

Supported by Wellington City Council’s Waste Minimisation Fund, the Sustainability Trust, Nikau Foundation, and Environment Hubs Aotearoa, RepairED was launched in 2021 to revitalise the way we fix and maintain everyday items through hands-on workshops and skills sessions. The programme focuses on two main areas:

1. Electrical, Technology, and General: this category covers everything from small appliances and furniture to toys.
2. Clothing and Textiles: this includes everything from mending clothes to maintaining sewing machines.

Participants can easily sign up online or drop by a RepairED workshop. They have the option to either have their items repaired by volunteers or learn to do it themselves. Previously, RepairED has also offered bike repair sessions, and there are plans to introduce jewellery repair.

The workshops operate primarily on volunteer expertise, which dictates the range of repairs offered. So far, there’s been a high demand for fixing clothing and electrical items, especially toasters, electric kettles, and lamps.

Supporting data-driven decisionmaking

RepairED collects data on every product repaired and this information is fed into a national database, helping consumers identify which brands and products fail most often. It also integrates with the Sustainability Trust's recycling and other zero-waste initiatives. For instance, many e-waste items and sewing machines received by the Trust are refurbished and reintroduced into the community through RepairED's workshops or lent to other organisations.

Beyond repairs, RepairED actively supports community engagement events in Te Toi Mahana, where residents come together to fix various items. The programme also collaborates with Wellington Timebank and Endo Warriors Aotearoa to produce Menstrual Mates – reusable menstrual products. These efforts not only promote sustainability but also provide essential items to those in need.

All resources created by RepairED, such as manuals and guides, are open source, allowing other groups to benefit from their initiatives. Volunteers at RepairED relish the opportunity to share their expertise and connect with others who enjoy tinkering and learning through practical activities. There's a shared joy in bringing new life to something once broken, underlining the programme's positive, community-focused, and educational impact.

Funding challenges

One major hurdle for Sustainability Trust with RepairED is securing stable, long-term funding. Additionally, finding appropriate and accessible spaces to store equipment and host workshops is critical but often difficult.

Coordinating such initiatives also demands substantial time for managing relationships, organising volunteers, ensuring participant safety, and nurturing the social connections that are crucial for success. Without comprehensive producer responsibility and stewardship laws, the community and groups such as RepairED often end up shouldering the costs associated with waste disposal and combating planned obsolescence. Although RepairED is a valuable response to pressing environmental issues, it also highlights the broader challenges of transitioning from a linear to a more sustainable, circular economy.

"People just want a place for their stuff to go. They don't want to put it in the landfill bin but it takes time for them to work out where they can take stuff and what the options are. That's why we have ended up with all of these overlockers and sewing machines; people just trying to make sure that it doesn't end up in landfill," says Kim Tabrum, Sustainability Trust's Lead Sustainability Educator.

Transitioning to repair cafes

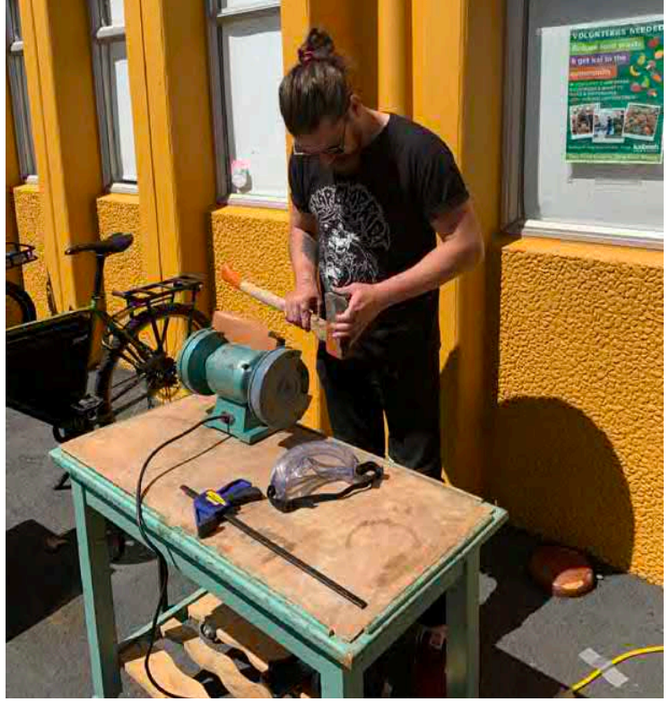
What is the transitions takeaway from RepairED?

RepairED is leading a growing movement. Across the Wellington region, communities in Upper Hutt, Boulcott Street, Karori, Ngaio, Raumati South, and Ōtaki have embraced the concept, setting up their own repair cafés. Meanwhile, around Aotearoa, many more are being set up.

Repair Café Aotearoa New Zealand plays a pivotal role by supporting these cafés through promotions, advocacy, and capacity building. This national network not only enhances the visibility of repair cafés but also strengthens their impact, helping local communities become more sustainable and connected.

How can you support local communities making this change?

Advocate for repair legislation (eg. Consumer's current campaign in New Zealand). Use your consumer power to question retailers and manufacturers about the repairability of their products. If a product isn't repairable, ask why not. Support local zero waste hubs that offer spaces for diverse events and sustainable practices. Join or back Repair Café Aotearoa New Zealand by visiting their website www.repaircafeaotearoa.co.nz.



Find out more

https://sustaintrust.org.nz/repaired

https://sustaintrust.org.nz/about-us-1

https://www.repaircafeaotearoa.co.nz/

Research evidence

For more on evidence-based pathways to establishing a right to repair, see:

WasteMINZ Product Stewardship Sector Group. (N.D.). *Pathways for right to repair in Aotearoa New Zealand.* WasteMINZ. Retrieved from: https://tinyurl.com/mrer77en

For more on community-led repair, see:

Bradley, K., & Persson, O. (2022). 'Community repair in the circular economy – fixing more than stuff'. *Local Environment*, 27(10-11): 1321-1337.

For discussion on NZ's right to repair legislation, see:

Win, T.Z. (2022). The Right to Repair. *New Zealand Law Journal*, 164-168.

Capital Kiwi

Bringing kiwi back to our capital city

- Regenerative ecology
- Connected communities

Transitions at a glance

The Capital Kiwi project is restoring kiwi habitat and populations in our capital city, through extensive trapping around Wellington's southwest coast. It is a collaborative effort uniting iwi, landowners, and community members in a common, inspiring cause to help revive the taonga species. By innovating in this way, the Capital Kiwi project is helping native biodiversity to thrive and supporting the transition to a more regenerative ecological solution.

Bringing wild Kiwi back to Wellington

The kiwi is a cultural icon for Aotearoa New Zealand, yet its populations have been decimated by introduced predators and shrinking habitats. Until recently, managed breeding programmes have not successfully reintroduced kiwi chicks into the wild. Yet Capital Kiwi is aiming to do just that.

Spanning 23,000 hectares from Red Rocks to the west of Porirua, the project has deployed 4,500 predator traps. Starting in November 2018, the team established a complete trapping network by 2020. By 2022, pest levels dropped so significantly that the Department of Conservation approved the transfer of North Island Brown Kiwi (Kiwi-nui) back into the project area.

Inspiring community conservation

Capital Kiwi thrives because it unites diverse groups who rarely interact. Volunteers from all walks of life – farmers, mountain bikers, 4WD clubs, youth, hapū and iwi – check trap lines and care for the habitat and its kiwi residents. Founder Paul Ward says it is successful partly because no one in Aotearoa New Zealand is ever going to be against the restoration of kiwi. Volunteers are united in a common and inspiring cause.

The Capital Kiwi project has created a 'kiwi commons,' a shared resource (the pest-free habitat) and goal (to reintroduce kiwi to the area) that is managed collectively. This effort ensures a pest-free habitat for kiwi, demonstrating a communal commitment to conservation.

Supporting ecological transitions

Large multi-party partnerships across political lines are important in supporting a transition to a more biodiverse, ecologically rich environment.

What is the transitions takeaway from Capital Kiwi?

The project's success shows what we can achieve when we work together for a common goal and poses the question about how else Wellington could work together to create other opportunities to restore ecology. Meanwhile for all communities around Aotearoa New Zealand, Capital Kiwi is an example of how we can work together to resolve complex issues involving various stakeholders, landowners, laws, and processes. It shows the power of collective responsibility, governance and care in creating solutions for a more ecological, regenerative transition.

How can you support local communities to make change?

Observe what complex environmental problems are in your area and select one to focus on. Then consider what collaborations and partnerships might work to overcome divisions between people and unite them under a common goal. Consider how we might learn from the Capital Kiwi project in ways that supports other similar conservation projects in your area. Participate in collective efforts for environmental care in your own area.

Find out more

www.capitalkiwi.co.nz

Research evidence

An Australian example of a partnership approach to conservation:

Macleod, N., Kearney, F., Spooner, H., & Woods, M. (2010). 'Conservation of critically endangered wildlife species – scope for private landholder and citizens' action'. *Proceedings of the 16th Biennial Conference of the Australian Rangeland Society*, Perth. Retrieved from https://austrangesoc.com.au/wp-content/uploads/2019/05/MacLeod-et-al-new.pdf

See discussion of Australian example as a commoning activity:

Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013). *Take Back the Economy: An ethical guide for transforming our communities.* University of Minnesota Press.

Research on article on partnership approaches:

Gavin, M. C. et al. (2018). 'Effective Biodiversity Conservation Requires Dynamic, Pluralistic, Partnership-Based Approaches'. Sustainability, 10(6), 1846.

"Our taonga can share the hills here with us. We're a bunch of Kiwis who are making this happen."

Paul Ward, Capital Kiwi founder

“It was never trying to ram the sustainability thing down everyone’s throats. Where we started was, ‘Let’s make something that – in terms of performance, in terms of style – just looks and feels better than what’s out there.’”

Luke Sinclair, Streetdog Co-Founder.

FTN Motion

Revolutionising the motorbike

- Zero carbon energy
- Regenerative circular economy

Transitions at a glance

The Streetdog electric motorbike is helping people cut their transport emissions and improving traffic congestion without compromising on style or quality. This new innovative mode of transport is the brainchild of FTN Motion, a company driven to create a desirable product that gives people a cooler option to transition to low-carbon transport energy systems – and a cleaner environment.

How do you beat traffic gridlock, reduce carbon emissions and look cool?

This is the question FTN Motion Streetdog electric motor co-founder Luke Sinclair posed when they first started working on an early design. “It straight away made so much sense as soon as we chucked our first motor in, made our first battery pack and put it all into a bicycle frame,” he says. “It just seemed so obvious why this was going to be a way forward for low-speed travel – which battery technology is really well suited to.”

Making it desirable to encourage behaviour change

The popularity of the Streetdog shows the power of creating a cool product to shift people’s transportation choices. Most Streetdog buyers are new to motorcycles, often choosing it over a second car. This switch cuts emissions in two ways – more people opt for electric, lightweight vehicles and their design utilises more innovative materials. Parts of the bike are constructed from a hemp composite that emits 40-50 percent less carbon than fiberglass, which is the traditional alternative. The ecologically friendly material also benefits the health of the workers building the bikes in Wellington. Through stylish transportation, FTN Motion is paving the way for a rapid shift to healthier, low-carbon transport.

Creating low-carbon transport transitions

What is the transitions takeaway from FTN Motion?

FTN Motion's commitment to ecologically friendly innovation, combined with the stylish design and performance, sets a new standard for low-carbon transportation. By creating products that people want to use, their popularity fuels the transition to low-carbon transport energy systems. This strategy not only addresses environmental concerns and traffic congestion problems, but also redefines what it means to travel smartly and stylishly in urban environments.

How can you support local communities to make change?

Lobby decision makers in your region to think differently about transport by encouraging them to support infrastructure, vehicles and capabilities that will both reduce our carbon footprint and our time sitting in traffic. Ask what role motorbikes and e-bikes might play in this transition and whether you can change your own transport option to make a difference now.

Learn more

www.ftnmotion.com/about

This Youtube video answers some of the most common questions: https://youtu.be/WFlYl7ptSMY?si=QYFz6qT38IkI3B42

Research evidence

Motorcycles have a range of benefits including reducing the ecological footprint of travel patterns:

Han, T. T., Vale, B., & Vale, R. (2017). Sustainable Transport: A Comparison of Ecological Footprint and Travel Patterns in Three Cities in Vietnam, New Zealand and Finland. In T. H. Karyono, R. Vale, & B. Vale (Eds.), *Sustainable Building and Built Environments to Mitigate Climate Change in the Tropics: Conceptual and Practical Approaches* (pp. 71-89). Springer International Publishing.

Electric motorbikes are an important part of transition to cleaner energy transport systems:

Nguyen-Phuoc, D. Q. et al. (2023). The influence of environmental concerns and psychosocial factors on electric motorbike switching intention in the global south. *Journal of Transport Geography*, 113, 103705.

Diverse transport forms including electric motorbikes are important for reducing emissions in the greater wellington region:

Petredean, Han Ling (2020). Accessibility in Aotearoa: A Mixed-Methods Study of Low-Emissions Transport Demand in the Greater Wellington Region. Open Access Te Herenga Waka-Victoria University of Wellington. Unpublished thesis.

HIKO e-bikes

Electronic bikes as transport equity

- Zero carbon energy
- Regenerative circular economy
- Connected communities

Transitions at a glance

Through subsidising access to electric bikes, the HIKO e-bike project in Wainuiomata, Lower Hutt is a pilot programme focusing on the transition to low-carbon transport. It's a way for people in the community to gain more access to low-carbon transportation, cut transport emissions and improve their physical health.

Improving mobility

The spark for the HIKO e-bike pilot was ignited by Big Street Bikers, inspired to demonstrate the transformative potential of subsidised e-bike programs. This vision was catalysed by a fruitful research partnership between Dr. Caroline Shaw and Cheryl Davies from Kōkiri Marae, setting the wheels in motion for this groundbreaking project. For a whole year, 25 participants explored the benefits of e-bikes. The programme was shaped over 18 rigorous months of development, design, and deepening partnerships. This extensive preparation is a key reason for the success of a project which aims not only to enhance mobility, but also promote healthier lifestyles and reduce carbon footprints.

The connection of each of the paritipants to the community and the marae helped embed the project within the town and has paved the way for a wider uptake of electronic bikes.

"To me [...] it's my health machine that allows me to exercise regularly, pain free and I enjoy the social aspect where I get to ride with like-minded people".

(Participant)

Transitioning to low-carbon transport solutions

What is the transitions takeaway from HIKO e-bike project?

The pilot shows how dynamic collaboration between communities and organisations can promote the shift to low-carbon transport. Hosted by Kōkiri Marae, which also selected the participants, the pilot involved Healthy Families Hutt Valley, who brought its expertise in coordination and project management, while Big Street Bikers were instrumental in designing the scheme, sourcing the e-bikes, and handling the technical setup. Meanwhile, University of Otago in Wellington spearheaded the research component, ensuring the pilot was both practical and scientifically sound.

Generous funding from the Hutt City Council, Waka Kotahi New Zealand Transport Agency, and the Lotteries Commission, along with substantial in-kind support from partners including Big Street Bikers, Kōkiri Marae, Healthy Families Hutt Valley, Otago University, EkeRua ReBicycle, and Pedal Ready from the Greater Wellington Regional Council, propelled this project forward. By making a collective commitment to low-carbon transport, we support a shift to healthier communities.

How can you support local communities to make change?

Observe what barriers to active transport you see in your community then talk to your local decision makers about how to get more collaborations happening to support the shift.

Find out more

www.otago.ac.nz/wellington/departments/central-services/research/hiko-ebike-pilot

www.healthyfamiliesnz.org/post/paving-the-way-for-active-travel-across-aotearoa

https://talkwellington.org.nz/2023/ebikes-community-power-everyday-magic/

Research evidence

Interventions such as this can help reduce carbon emissions:

Keall, M. D., Shaw, C., Chapman, R., & Howden-Chapman, P. (2018). Reductions in carbon dioxide emissions from an intervention to promote cycling and walking: A case study from New Zealand. Transportation Research Part D: Transport and Environment, 65, 687-696.

This intervention facilitated greater equity and active travel:

Keall, M. et al. (2022). Equity and other effects of a program facilitating and promoting active travel. *Transportation Research Part D: Transport and Environment*, 108, 103338.

E-bike programmes can help encourage women's access to cycling and physical activity:

Wild, K., Woodward, A. & Shaw, C., (2021) "Gender and the E-bike: Exploring the Role of Electric Bikes in Increasing Women's Access to Cycling and Physical Activity", Active Travel Studies 1(1): 1-20.

Additional reference for HIKO E-Bikes:

Osborne, E., Davies, C., Raerino, K., Shaw, C. (2024). "It's good for the community to see real people like them on the bike": Exploring e-bike support in Aotearoa New Zealand.

> “The communities that we were working in had a justifiable lack of trust in individuals or organisations who came in to “help” them. It became obvious that before we could build the tools to empower communities, we needed to build an entity that the community could trust. We realised that the only way to do this was to create an entity that was genuinely owned and governed by the community that it was serving.”
>
> Our Story, The Wellbeing Protocol

The Wellbeing Protocol

Revolutionising community grantmaking

- Regenerative circular economy
- Connected communities

Transitions at a glance

The Wellbeing Protocol is a participatory grantmaking app. This ‘public good infrastructure’ is built by developers to enable participatory grantmaking for community organisations. In short, the app enables communities to propose projects for grant funding in short accessible ways, such as videos or short written statements, as well as develop a budget. It is a technology to support a transition to a regenerative circular economy and support more connected communities.

Facilitating community decision-making

Built on Web3 protocols, the app uses the latest evolution of internet with blockchain technologies to facilitate decentralised autonomous organisations to make decisions and keep records. The way it works is proposals are voted on by members of that community. They vote using a system called ‘quadratic voting’. Quadratic voting gives everyone a certain number of votes to distribute – they can distribute them around a few projects or, if they feel strongly about it, concentrate them all on one project. To protect against ‘groupthink’, the displays for voting numbers for each option are delayed.

Once the voting is done, community stewards can review the process and release the funds to the winning projects. Reporting for these grants is then also via the app. These reports can be simple photos of the outcome or other video or written reports.

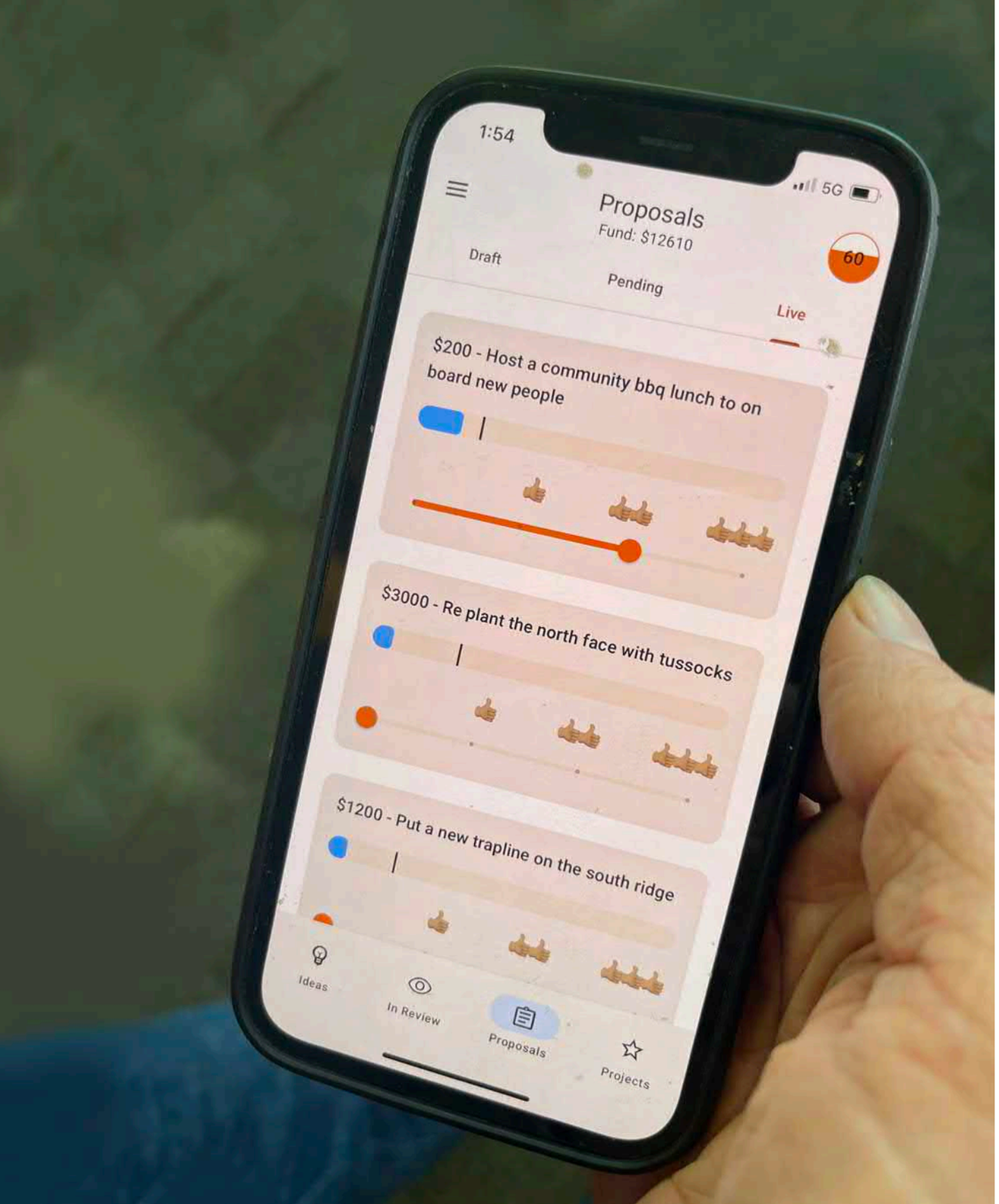
Simplifying funding allocation and reporting

The funding application processes usually used for non-governmental groups were exclusionary and time consuming. They required organisations to reframe and explain their kaupapa in ways that ticked the right boxes for funders.

As an alternative approach, the app has been trialled with Tāne Hauora, a Māori men’s health group in Waiwhetu. Sport New Zealand and Nuku Ora agreed to participate in the trial, by giving a pot of money for the use of Tāne Hauora, to be allocated to projects using the Wellbeing Protocol.

Over the course of 2023, Tāne Hauora has used the app to allocate funding to projects that meet their needs, while simplifying decision-making and reporting. This means that the group can focus more on what they are doing and less on the reporting and application processes for funding what they are doing.

The Wellbeing Protocol is currently looking for investors to progress their project to the next stage, and communities and funders who might be interested in participating in further trials. Contact the team at **www.thewellbeingprotocol.org/support-us**



Transitioning to a regenerative circular economy

The Wellbeing Protocol is an example of a technology connecting people to help them participate in a regenerative circular economy.

What is the takeaway for change for your city?

Technologies, such as The Wellbeing Protocol, are essential as we transition to a regenerative circular economy because they provide a pathway for community led groups to access funding more efficiently and to act. It could be extended into other funding arrangements, including both government funding and philanthropic funding.

How can you support that change?

If you are involved in any grantmaking bodies or processes, consider how you might make the grantmaking process less onerous for community groups. This might mean using oral or video reporting or taking responsibility for translating oral reporting into your required documentation. It could also mean simplifying the grant process, or even using lottery-based methods once a minimum requirement for funding has been established. If you are involved in decision-making about funds, consider how you can align these with community aspirations and needs, rather than being directed only by the funder priorities.

Further reading/find out more

www.thewellbeingprotocol.org/

www.thewellbeingprotocol.org/post/t%C4%81ne-ora-trial

Research evidence

For more on how cooperative and blockchain technologies can shape our economy, see:

Schneider, N. (2018). *Everything for everyone: The radical tradition that is shaping the next economy*. Bold Type Books.

For research on participatory grantmaking, see:

Hauger, T. D. (2023). Nothing about us without us: innovating grantmaking processes with participatory methodology. Innovation: *The European Journal of Social Science Research*, 36(4), 631-651.

For Canadian research on participatory grants, see:

Bérubé, M. (2023). Participatory Grantmaking: Ceding Decision-making Power to Local Communities in Peel. *Social Innovations Journal*, 17. Retrieved from https://socialinnovationsjournal.com/index.php/sij/article/view/5589

For more on the thinking behind The Wellbeing Protocol, see:

Pascall, M. (2021). The Wellbeing Protocol: Reinventing social welfare. Draft whitepaper 3.0. Available at https://docs.google.com/document/d/1X4aqz2SHc3AX2MNb7Ck30WlDpTOBx-5LSg3PSLgSD_c/edit

Te Upoko o Te Ika: Greater Wellington Region

The Greater Wellington region has a range of spectacular natural environments, with rivers flowing from the mountains of the Tararua and Remutaka ranges down to a coastal marine area reaching from Otaki in the west all the way around to the rugged Wairarapa coastline on the east. Remnants of ancient forests and wetlands remain and impressive, dedicated work is delivering an increase in biodiversity in pockets of the region through predator control, replanting and rewilding. Overall, the region's catchments are under pressure, with freshwater, harbours and wetlands in particular struggling from poorly planned urban development that has externalised its environmental costs.

"Our line in terms of energy hardship and climate action really is that... as the climate transition gathers pace, low-income households will be left behind because they can't take advantage of the solar panels or the EVs or the smart rates and all that kind of stuff".

Phil Squire, Founder of Toast Electric

Toast Electric

Powering affordable home energy

- Zero carbon energy
- Connected communities
- Regenerative buildings

Transitions at a glance

Toast Electric is a 'social energy retailer'. Their aim is to eliminate energy hardship and reduce household carbon emissions across the wider Wellington region. Through innovating in this way, the energy retailer is delivering warmer, drier homes and helping bring about a transition to a more socially equitable energy system.

Building affordable energy models

In Aotearoa New Zealand, nearly one-third of households' grapple with energy hardship, struggling with high energy costs, poverty, and substandard housing. In response, in 2018 the New Zealand Government started an Electricity Price Review (EPR) and a reducing energy hardship work programme. The review spotlighted the vital role of electricity 'social retailers' in making energy more affordable and steering the shift away from carbon-based fuels.

Following that Government review, Wellington's not-for-profit Sustainability Trust launched Toast Electric in September 2022. As a 'social retailer,' Toast Electric now serves around 500 customers, offering more affordable electricity and paving the way for a greener, more inclusive energy future.

Delivering community energy

On a mission to eliminate energy hardship and reduce household carbon emissions across Wellington, Hutt Valley, Porirua, Kāpiti, and Horowhenua, all profits from this organisation go directly to lower electricity costs for low-income households, rather than enriching shareholders. To do this, Toast Electric creatively balances its customer base. For every three to six regular clients, it supports one 'energy wellbeing client' with reduced-cost electricity. Beyond providing affordable energy, they also offer comprehensive 'energy wellbeing' services. This includes advice on insulation and heating, and providing customised, recycled curtains through the Sustainability Trust's 'Well Homes' and 'Warm Fuzzies' programs.

The strategy behind Toast Electric's approach is clear: by lowering energy costs and enhancing housing energy efficiency for low-income families, they tackle poverty and reduce the health issues linked to damp and unhealthy homes, a pressing issue in Aotearoa. This dual focus not only fosters healthier homes but also builds more connected communities.

Transitioning community energy

What is the transitions takeaway from Toast Electric?

As a small not-for-profit in the regulated and complex electricity market of Aotearoa New Zealand, Toast Electric procures electricity from the market at competitive rates and provides electricity below market price, thanks to a two-year contract with an energy gentailer. Meanwhile, a Community Climate Action Grant from the Wellington City Council helped Toast Electric cover essential start-up costs such as IT, finance, customer service systems, and hedge protection insurance. These collaborations are essential to support more 'social energy retailers' to enter our highly competitive and costly electricity market.

Designed around privatised for-profit norms established between the 1980s and 1990s, and further complicated by subsequent regulations aimed at fostering competition and controlling consumer prices, Aotearoa New Zealand's electricity market requires all energy providers to have expensive hedge protection insurance, which is designed to reduce risk. Currently, Toast Electric has reached its customer capacity limit, because of its hedge protection insurance requirements. However, they are actively seeking ways to make more impact. Plans include supporting other energy wellbeing-focused enterprises in Aotearoa, by sharing their expertise and systems, thus broadening their reach and continuing to innovate in the energy sector.

How can you support local communities to make change?

Let your local politician know you're keen for them to support action on energy hardship. Support local community-led energy initiatives happening in your area.

Find out more

https://www.toastelectric.nz/about-us

https://rnz.co.nz/news/business/474117/toast-electric-nz-s-first-not-for-profit-power-company-to-launch-this-month

https://www.canstarblue.co.nz/energy/electricity-providers/toast-electric-new-zealands-first-not-for-profit-power-company/

Research evidence

For more on the reviews by government, see:

New Zealand Government. (2019). Electricity Price Review: Final Report. Retrieved from www.mbie.govt.nz/dmsdocument/6932-electricity-price-review-final-report

Ministry of Business, Innovation and Employment. (2023). Defining energy hardship. Retrieved from www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-hardship/defining-energy-hardship/

For more on energy hardship solutions in NZ, see:

O'Sullivan, K., & Viggers, H. (2021). Six ways to help fix energy hardship in New Zealand. *Policy Quarterly*, 17(4): 65-72.

For more on the effects of cold housing and fuel poverty, see:

Howden-Chapman, P. et al. (2012). Tackling cold housing and fuel poverty in New Zealand: A review of policies, research, and health impacts. *Energy Policy*, 49: 134-142.

For more on the possibilities for NZ energy futures, see:

MacArthur, J., & Berka, A. 2020. (Re)charging communities?: Three energy futures for Aotearoa/New Zealand. *New Zealand Sociology*, 25(2): 47-75.

For more on inclusive energy, see:

Berka, A., MacArthur, J. et al. (2018). Policy Strategies for inclusive renewable energy in Aotearoa (New Zealand). *Policy Commons Blog*. https://www.policycommons.ac.nz/2018/12/06/policy-strategies-for-inclusive-renewable-energy-in-aotearoa-new-zealand/

Wellington Fruit and Vege Co-op

Creating access to affordable fruit and vegetables

- Regenerative ecology
- Regenerative circular economy
- Connected communities

Transitions at a glance

Wellington Region Fruit and Vege Co-op has transformed access to fresh produce. The co-op has a partnership to buy fresh fruit and vegetables from MG Fresh Produce Group (a grower co-operative). They then on-sell kai to members at a much more affordable rate than supermarkets. By doing this, the co-op is helping to transition towards a circular economy and a more connected community.

Growing food security in Aotearoa

One in five New Zealand households with children under 15 faces food insecurity (Salvation Army, 2024). While financial hardship is often the main cause, easy access to affordable fresh produce is also a significant issue in some communities. Instead, these communities are exposed only to 'food swamps', where poor-quality, highly processed foods are all that is available.

Rising inflation, global supply chain disruptions, and extreme weather events have also intensified concerns about food availability and affordability in Aotearoa New Zealand. Research shows that food insecurity is on the rise and will likely impact more of us in the future.

Enabling food security is central to the work of the Wellington Region Fruit and Vege Co-op. Launched in 2014 to tackle debt, savings, and food security in Porirua, the not-for-profit initiative is coordinated by Wesley Community Action, Te Whatu Ora (formerly Regional Public Health), and local communities. Over the past decade, it has transformed access to affordable, fresh produce for this community.

Partnering with MG Fresh Produce Group, a grower co-operative, the co-op buys fresh fruit and vegetables in advance. Volunteers then pack the produce at 11 hubs, with 41 pickup points across the Wellington region. Today, the Co-op serves around 1,700 households. Members place and pay for orders one week ahead (Prapavessis & Vogliano, N.D). They then receive about 7kg of produce for $12 – this same produce would cost over $22 in a supermarket, based on 2019 prices (Activity & Nutrition Aotearoa, 2019).

Wesley's Te Hiko: Centre for Community Innovation (see more on page 121) fosters learning and sharing about the Co-op, embedding it in a broader ecosystem of community economic initiatives.

Transitioning community economies

What is the transitions takeaway of the food security focused Wellington Regional Fruit and Vege Co-op project?

The Wellington Region Fruit and Vege Co-op emerged from Wesley Community Action's vision to shift from a charity to becoming a community economy.

Before the co-op, Wesley operated a community garden and tool library in Canons Creek, Porirua, helping about 100 whānau grow food at home. While successful, the organisation's employees observed, "It's hard for those of us who have more resources at the best of times to maintain a veggie garden... let alone when you're stressed out about other things and sick". Staff and community partners noticed unequal access to fresh produce in Canons Creek, compared to wealthier suburbs. This observation spurred the creation of the co-op to address these disparities. Impact evaluations of the Wellington Region Fruit and Vege Co-op reveal broad, positive outcomes across financial, health, social, and environmental spheres. These benefits include access to cheaper, more nutritious food, volunteering opportunities, new social connections, reduced waste and packaging, and direct support for local growers instead of supermarket intermediaries.

Wesley Community Action is now exploring how they can leverage the co-op network to expand into providing protein-rich foods and supporting local food production and local business sales. They are starting by focusing on soil health and composting, recently starting a composting trial in a nearby community garden. Not long ago they launched a seedling-raising programme to try and grow more local food and hope to sell this through the co-op.

While some funders and decision-makers view Wesley Community Action's work as isolated projects, the projects are intended to connect to support larger transition to economic systems, centred on equity and wellbeing.

How can you support local communities to make change?

Get involved in calls to develop a Food Strategy for Aotearoa. For example, see: www.eatnewzealand.nz

If you live in the Wellington region, join the co-op and/or encourage others to do so.

The more members, the greater the buying power and benefits for everyone (including growers). If you live outside the Wellington region, join a similar co-op through Food Together.

Find out more

Wellington Fruit and Vege Co-op website – www.hauorakai.nz/about

For more on fruit and vege co-ops and how this model and initiative impacts on the food systems: https://tinyurl.com/3zhvwkz8

Research evidence

For international research evidence on co-operatives and community economies, see:

Nembhard, J. (2015). Understanding and measuring the benefits and impacts of co-operatives. In *Co-operatives for sustainable communities: Tools to measure co-operative impact and performance.* Edited by Brown, L. et al. Centre for the Study of Co-operatives.

For large multi-stakeholder food co-operatives see:

Lund, M. (2012). 'Multi-stakeholder Co-operatives: Engines of innovation for building a heathier local food system and a healthier economy'. *Journal of Co-operative Studies*, 45(1): 32-45.

For more on food co-operatives as a strategy for nutrition, see:

Mihrshahi, S. et al. 'Food co-operatives: A potential community-based strategy to improve fruit and vegetable intake in Australia'. *International Journal of Environmental Research and Public Health*, 17(11): 4154.

Prapavessis, D., Vogliano, C. N.D. Impact evaluation of Wellington Fruit & Vege Co-op programmes using a mixed-methods and value-based approach. Massey University. Retrieved from: www.rph.org.nz/public-health-topics/nutrition/research-papers/full-fruit-and-vege-co-op-impact-evaluation.pdf

"A really cool model of how community, government and an agency can coordinate to make something cool happen."

Anonymous interview subject

Greater Wellington's Low Carbon Acceleration Fund

Supporting climate action without more cost for ratepayers

- Regenerative ecology
- Zero carbon energy
- Regenerative circular economy
- Connected communities

Transitions at a glance

Greater Wellington's Low Carbon Acceleration Fund is an investment initiative driving better outcomes for the region's energy, transport and communities. The Fund has also delivered studies to decarbonise public transport and progress renewable energy projects. By creating climate action without more cost to its residents, it is building capacity and modelling transitions towards zero-carbon energy systems for transport and the built environment.

Addressing climate change without extra cost

Many local councils in Aotearoa New Zealand face a tough question: how can they afford to tackle climate change while grappling with rising living costs? That's why after declaring a climate emergency in 2019, the Greater Wellington Regional Council (Greater Wellington) established the Low Carbon Acceleration Fund (the Fund) in 2020.

Forest funds local climate action

Funded through emissions units allocated by the central government under the Emissions Trading Scheme (ETS), the Fund relies on Greater Wellington's substantial forestry assets. Initially, these forests, which began growing before 1990, were a potential liability. When the ETS began, if landowners had forest that started growing before 1990, they would have obligations to the Government, if they ever cut it down. This imposed a new 'cost' on all owners of pre-1990 forest. To manage this opposition, the Government gave owners of pre-1990 forest some emissions units on a per hectare basis. Greater Wellington secured 255,660 emissions units and have used these to fund local climate action.

Jake Roos manages the Fund and says Council's foresight has allowed them to leverage the increasing value of these units borrowing against current units in order to invest in increasing units. The unit value escalated from around $19NZD each in 2019 to $58NZD each in 2024. Starting with a fund of $4.9 million, the Fund has grown to approximately $14.8 million.

The Fund specifically supports emission-reduction initiatives for Greater Wellington's operations, ensuring these actions contribute to reducing the community's carbon footprint. Greater Wellington has thus created a regenerative model for climate leadership, where they can pursue significant climate actions, monitor progress, and manage financial resources – without additional cost to ratepayers.

Thanks to the Fund, nearly one million new plants have been planted in regional parks, marking a massive stride in ecological restoration and increasing Greater Wellington's units. The Fund has also pioneered studies to decarbonise public transport, fostered renewable energy projects and helped the switch to energy-efficient LED lighting.

Another achievement is the revitalisation of

“It is a collective action problem, we need to do our part. We must face the strong possibility that a lot of other people won’t do their part. But that doesn’t change the fact that every tonne of emissions we prevent from reaching the atmosphere makes things less worse. We absolutely have to continue. The people in authority, such as the Regional Council, will be who people look to. We want to be in the best position possible to be able to provide that leadership”.

Jake Roos, The Fund manager

wetlands in Queen Elizabeth Park on the Kāpiti Coast. Natural regeneration has exceeded expectations because of the way it multiplies benefits across the community and environment.

Supporting transitions for funding collective action

Greater Wellington’s Low Carbon Acceleration Fund is an example of organisation-led transitions to create systems for investment in different kinds of economies based on reducing emissions.

What is the transitions takeaway of the Fund?

As the first of its kind for councils around the motu, the Fund is leading and inspiring other councils to embrace the opportunities for creating significant, regenerative change. This includes the need for bold decision-making. For example, retiring grazing on Greater Wellington land to reduce emissions stirred controversy, but also highlighted the council’s commitment to environmental stewardship and ultimately increases their access to investment funds. This pioneering fund not only showcases Greater Wellington but is forging a path for others to follow by modelling transitions to different forms of economy.

How can you support local communities to make change?

Think outside the box to find innovative ways to fund climate action in your community. For example, Greater Wellington uses the fund for internal climate change training programmes to strengthen staff knowledge and their commitment to the mission, prompting further innovation. Have your say in local body elections and vote for elected council members who show strong climate leadership and an understanding of why zero-carbon energy systems are fundamental for the future health of our economies.

Find out more

Greater Wellington’s Organisational Climate Emergency Action Plan: https://tinyurl.com/yc7syyez

Background to the Low Carbon Acceleration Fund: https://tinyurl.com/yj5rxef9

Research evidence

For more on house climate change adaptation might be funded in innovative ways, see:

Boston, J., Lawrence, J. 2018. ‘Funding Climate Change Adaptation’. *Policy Quarterly*, 14(2): 40-49.

For more on the possibilities for NZ emissions trading, see:

Leining, C., Kerr, S., Bruce-Brand, B. 2019. The New Zealand Emissions Trading Scheme: critical review and future outlook for three design innovations. *Climate Policy*, 20(2): 246-264.

Metlink

Decarbonising public transport in Greater Wellington

- Zero carbon energy
- Built environment

“The decarbonisation strategy has changed our thinking and the way that we operate as Metlink, not only because we actually want more buses, but because we started to think about the long term inter-generational investment in infrastructure we need to fully decarbonise our fleet...”

Tim Shackleton, Senior Manager of Commercial,
Strategy and Investments at Greater Wellington Regional Council.

Transitions at a glance

As part of its transition to zero carbon, Greater Wellington Regional Council and its public transport delivery arm, Metlink, is decarbonising public transport across the region The push to decarbonise transport is part of the Council’s broader goal of being a carbon neutral council by 2030. While the Council is focused on reducing their own internal emissions, attracting people to use public transport services tends to have far greater impact. Public transport is widely regarded as one of the key tools in transitioning the built environment to zero carbon emissions transport through reducing personal car use and the associated congestion for other traffic.

Improving air quality with “too-quiet” buses

The first step has been replacing old buses at the end of their life with electric, zero emissions buses (ZEB). Over the last five years, Metlink has gone from having 0 ZEBs buses to over a 100, which is between 20-25 percent of the fleet. To maximise the benefits of the new ZEBs, they are used on the highest frequency routes. Environmental monitoring down these corridors has identified a significant improvement in air quality where diesel buses have been rapidly replaced by ZEBs.

Funding this decarbonisation programme comes from three sources – central government, local rates, and customer fares. While ZEBs are an important part of story, they have also prompted a re-think in how public transport infrastructure is owned and delivered. While the current operating model is partly outsourced, where the Council designs the network and timetables, and contractors own and manage the assets to deliver that (including buses and depots), ZEBs require fixed charging sites. This creates a challenge for both contractors and the Council because the infrastructure can be expensive and heavily restricted by the capacity of the local power network.

Throughout Te Whanganui-a-Tara the response to new ZEBs has been overwhelmingly positive – particularly around emission and noise reduction. Surprisingly, there is even an occasional complaint that the new electric buses are too quiet!

Getting a handle on technology and infrastructure changes

In this sector, technology changes so quickly it can be hard to know when to invest. Meanwhile, the wider infrastructure requirements for ZEBs are significant. Charging infrastructure (electricity) and appropriate sites are needed to house the buses while they charge. For example, by the time Metlink has 250 ZEBs, they will draw down the voltage of a mid-sized town overnight when charging. This requires a lot of both space and available electricity supply in CBD areas. In Wellington, this is both challenging to find and potentially expensive to develop, if Metlink (and the Council) are to own it. The process also brings together different organisations, who shape the

wider system (e.g. central government, private sector, and territorial authorities) and asks them to align their priorities.

Tim Shackleton, the Senior Manager of Commercial, Strategy and Investments at GWRC describes a transport vision for Wellington in 2040 as low private car ownership with integrated technology that connects different transport options. These will give people a wider range of choice in getting where they need to be. For example, a trip might include a mix of rail, bus, scooter, car share app, ride share, and in time newer tecnologies. This journey would be seamlessly organised and perhaps even supported by Artificial Intelligence (AI).

While the primary goal is to decarbonise Metlink's transport network, there seems to be a variety of second opportunities and industries emerging from the widespread application of battery and charging technologies. For example, batteries could potentially be used in solar arrays, people's homes, and community facilities.

Transitioning to zero emissions transport

What is the transitions takeaway of Metlink?

The opportunities created by Greater Wellington Regional Council to show how to transition to zero emissions transport reveals a gap in our electricity needs. The most recent Ministry of Business, Innovation and Employment (MBIE) annual reporting on energy use in Aotearoa New Zealand notes that while our electricity needs are currently largely met by renewables, only about 30 percent of our total energy consumption is supplied by renewables. The transport sector is the largest non-renewable category of energy use. The implications of decarbonising the wider transport sector are therefore significant and will place new pressures on the national grid, with implications for planning and siting of new electricity infrastructure, and urban form, more generally. And while some people are replacing their petrol cars with EVs, these still have high embodied carbon and perpetuate a culture of private car ownership and use. To address these interconnected concerns, we may see private charging hubs develop, and increased use of car sharing and public and active transport. Land use and space in high-density urban areas will also drive different behaviours around how and when we may charge various electric vehicles.

The decarbonisation transition requires long-term thinking around property location, charging infrastructure and power network capacity investment. This makes the transition of all transport to zero emission more challenging than previous fossil fuel-operating models. To support wider urban systems change across the motu, Councils are currently sharing information and business cases, and experimenting with various technologies to enable a full longer-term transition to zero emission public transport.

In addition, a lot of this infrastructure requires permanent, long-term investment solutions, which is difficult to achieve with private companies on short-mid-term contracts.

How can you support local communities making this change?

Get behind decision makers (local Councillors and politicians) who are trying to invest in public transport infrastructure. Take public and active transport whenever you can.

Find out more

www.metlink.org.nz/news-and-updates/news/new-green-machines/

www.metlink.org.nz/news-and-updates/news/funding-for-electric-bus-depot-welcomed/

www.rnz.co.nz/news/national/477001/wellingtonians-breathe-easier-as-electric-bus-fleet-expands

Research evidence

For NZ stats on energy use, see:

Ministry of Business, Innovation and Employment. 2023. 'Energy in New Zealand 2023'. Retrieved from: https://www.mbie.govt.nz/dmsdocument/27344-energy-in-new-zealand-2023-pdf

For more on the land-use implications of energy transition, see:

Tran, T.H., Egermann, M. 2022. 'Land-use implications of energy transitions pathways towards decarbonisation – Comparing the footprints of Vietnam, New Zealand and Finland'. *Energy Policy*, 166: 112051.

For research on the electrification of NZ's transport, see:

Reguyal, F., Wang, K., Sarmah, A. 2023. 'Electrification of New Zealand transport: Environmental impacts and role of renewable energy'. *Science of The Total Environment*, 894: 164936.

“The fact of who we are and all the other services we provide means that we can offer a holistic set of services to the clients for their house... This is effective for making real changes in families’ lives.”

Susie Robertson, Sustainability Trust.

Well Homes

Creating warmer, healthier homes

- Zero carbon energy
- Regenerative circular economy
- Connected communities
- Regenerative buildings

Transitions at a glance

The Well Homes programme helps low-income households in the Wellington region by providing essential household items and support to help people have healthier homes. They offer things such as beds, bedding, heaters, window insulation kits, cleaning products, curtains, and insulation referrals. In doing so, Well Homes is building capacity and modelling transitions towards zero-carbon energy systems for homes, a circular economy and a more supported community.

Transitioning from cold, damp and mouldy to warm, dry and healthy housing in Aotearoa

Cold, damp, and mouldy housing poses significant health impacts on people in Aotearoa New Zealand, especially for renters and low-income households (Howden-Chapman et al., 2021). Despite recent legislative efforts to address poor quality rental homes, such as the Healthy Homes Standards, researchers argue more action is needed. Ensuring warm, dry, and healthy homes will improve the wellbeing of many New Zealanders.

Healthy, warm, safe homes

Well Homes transforms the lives in low-income households by providing essential household items and support to low-income households with expectant mothers or children up to secondary school age, suffering from housing-related illnesses.

Well Homes offers beds, bedding, heaters, window insulation kits, cleaning products, curtains, and insulation referrals to Warmer Kiwi Homes.

Delivered by the Sustainability Trust, in partnership with Tū Kotahi Māori Asthma Trust, Well Homes is part of the Healthy Housing Initiative run by Te Whatu Ora, supported by various government, community, and philanthropic partners, including the Hutt Mana Charitable Trust, Regional Public Health, He Kainga Oranga, Wellington Community Trust, and the Todd Foundation.

Launched in 2015 to combat rheumatic fever in children, Well Homes focuses on those most at risk of health problems due to living in cold, damp housing.

Benefits of Well Homes partnering with the Sustainability Trust

The Sustainability Trust’s administration of Well Homes offers several advantages, as the Trust integrates the programme with their other services, including the Curtain Bank, the ‘Warm Fuzzies’ programme, and advocacy efforts.

For instance, if a household referred to Well Homes isn’t eligible (such as not having children under five but still living in a cold, damp house), they can still receive help through the

Sustainability Trust's 'Warm Fuzzies' programme and the Curtain Bank, which provides made-to-measure, lined, full-length curtains. Assessors also offer advocacy support, such as writing letters to landlords or contacting Kainga Ora or WINZ on behalf of families. These additional services are funded through grants and the Trust's social enterprise.

Assessors familiar with the full range of services offered by the Sustainability Trust can provide more comprehensive support. They can assist families with installing curtain tracks and curtains and offer holistic care tailored to each household's needs. This approach ensures a smoother, more personalised experience for clients, as they interact with a single assessor who understands their situation, rather than being shuffled between different organisations and assessors.

Transitioning to funding healthy housing

What is the transitions takeaway from Well Homes?

Organisations, such as The Sustainability Trust, need secure, long-term funding streams opened to manage housing and energy programmes and to advocate for changes to the wider housing system, such as engaging with landlords and the Tenancy Tribunal.

This funding can come from both central government and philanthropists, as well as social enterprise initiatives and it must priortise communities facing energy hardship, due to rising living costs.

Despite these challenges, the Sustainability Trust remains committed to creating positive change. By forging strong partnerships and advocating tirelessly for better housing, the Trust continues to strive for equitable housing and energy solutions and more connected communities.

How can you support local communities to make change?

Back national healthy housing standards that are monitored and enforced, especially for rentals. Acknowledge that poor-quality housing in Aotearoa New Zealand is a structural challenge and so requires a comprehensive response. This includes physical housing improvements, education, clear legislation for minimum standards, funding for energy bills and proper heating, and advocacy for tenants facing non-compliant landlords. If you are a landlord, ensure your property meets or exceeds healthy home standards.

Find out more

www.takirimai.org.nz

https://sustaintrust.org.nz/healthy-homes-smart-homes

Research evidence

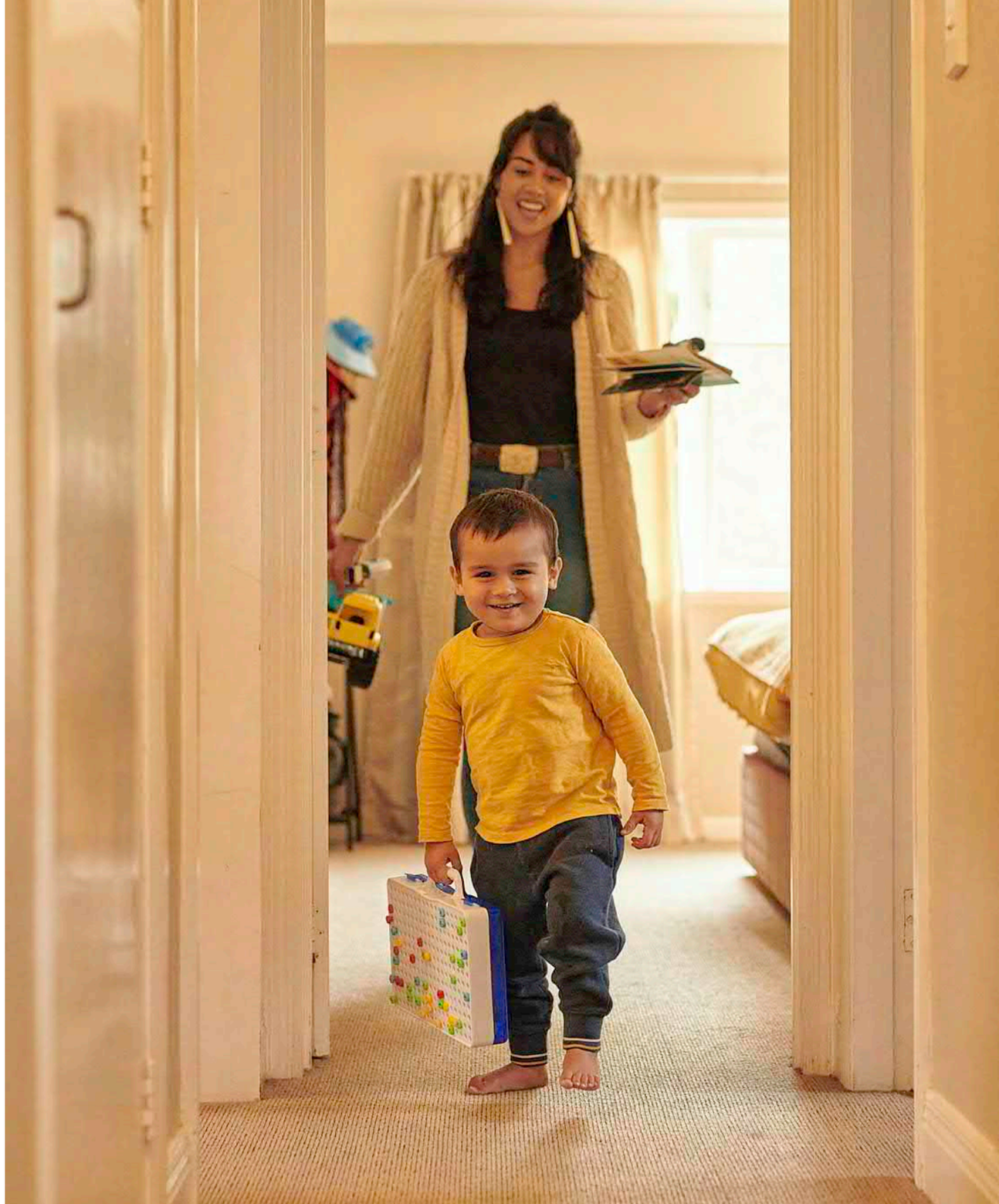
Howden-Chapman, P. et al. (2021). 'The effects of housing on health and well-being in Aotearoa New Zealand'. *New Zealand Population Review*, 17: 16-32.

For research on the health outcomes of the initative, see:

Chisholm, E., Pierse, N., Davies, C., & Howden-Chapman, P. et al. (2020). 'Promoting health through housing improvements, education and advocacy: Lessons from staff involved in Wellington's Healthy Housing Initiative'. *Health Promotion Journal of Australia*, 31(1), 7-15.

Pierse, N. et al. (2020). 'Well Homes Initiative: A Home-Based Intervention to Address Housing-Related Ill Health'. *Health Education & Behavior*, 47(6), 836-844.

Chisholm, E. et al. (2019). *What can we learn from Healthy Housing Initiatives? New evidence from the Wellington Well Homes schemes.* Public Health Communication Centre Aotearoa. Retrieved from https://www.phcc.org.nz/node/1056/printable/pdf



Porirua

This catchment includes the land and waterways flowing into te Awarua o Porirua, a harbour that once supported a bounty of kai moana and clean swimmable coastal waters. The harbour has been severely degraded by sedimentation and pollution, mainly from urban development and transport projects that did not adequately protect the health of freshwater and the marine environment. The harbour and the Porirua stream that flows into it are taonga for Ngāti Tao Rangatira and much work is required to restore them.

"Imagine a thriving cloak of native trees, manu and insects around the bare hills of Porirua."

Ngāhere Korowai Facebook Page Description

Ngāhere Korowai

Cloaking the hills with regenerating forest

- Regenerative ecology
- Connected communities

Transitions at a glance

Imagine the bare hills of Porirua East transformed into a biodiverse native forest. That's the vision of Ngāhere Korowai. This community project is focusing on pest control and replanting native plants and trees to give people a stronger connection to te taiao. Workstreams have started, including a community nursery, pest-trapping network, community planting, hiring a project coordinator, and investigating legal protection status. Community planting days, both on public and private land, are already underway. By doing this work, the Porirua East community and its project partners are helping the region transition to a more protected environment and connected community.

Bringing nature closer to their doorstep

The vibrant community of Porirua East dreams of a korowai (cloak) of ngāhere (forest) over the hills that embrace them. This vision unites Ngāti Toa Rangatira, Wesley Community Action, Zealandia, Aotearoa Pasifika Men's Group, Porirua Regeneration Project (Kainga Ora), Greater Wellington Regional Council, Porirua City Council, and residents connected with Wesley House in Canons Creek.

The goal is environmental equity – to bring te taiao (nature) within reach of communities such as Waitangirua, Cannons Creek, and Ascot Park. The community will learn and practice values such as low-carbon development and compact city design, inspired by Wellington's town belt and Zealandia.

A community championing biodiversity leadership

This project aims for Porirua East locals to lead, own, and drive this initiative. This is being done by listening to residents' needs and desires to shapes the project's direction. Some of its goals include:

- boosting biodiversity, especially native birds and plants
- giving access to rongoā Māori plants and mātauranga for health and medicine
- offering flood protection
- capturing pollution from Transmission Gully
- increasing nature access for community health and wellbeing.

Ecological transitions to benefit the environment and community

What is the transitions takeaway from the Ngahere Korowai?

The Ngāhere Korowai project is transforming the Porirua East region by fostering restored connections between the community and their natural environment. It champions collaborative efforts in pest control, native replanting, and community engagement to beautify once-barren hills. As well as empowering local leadership and widespread participation, projects like this enhance biodiversity, health, and wellbeing for both the environment and the community. By making sure that areas of richly native biodiversity are available and accessible for all, this supports the transition to a more protected environment and connected community

How can you support local communities to make change?

Show your support for the extension of local regional parks. In Wellington, this includes the extension of the Belmont regional park north into Waitangirua, allowing more people to access and support the regional parks network. Organise or participate in community planting or reforestation projects wherever you live.

Find out more

www.tehiko.org.nz/resource-hub/ngahere-korowai

www.facebook.com/NgahereKorowai/about

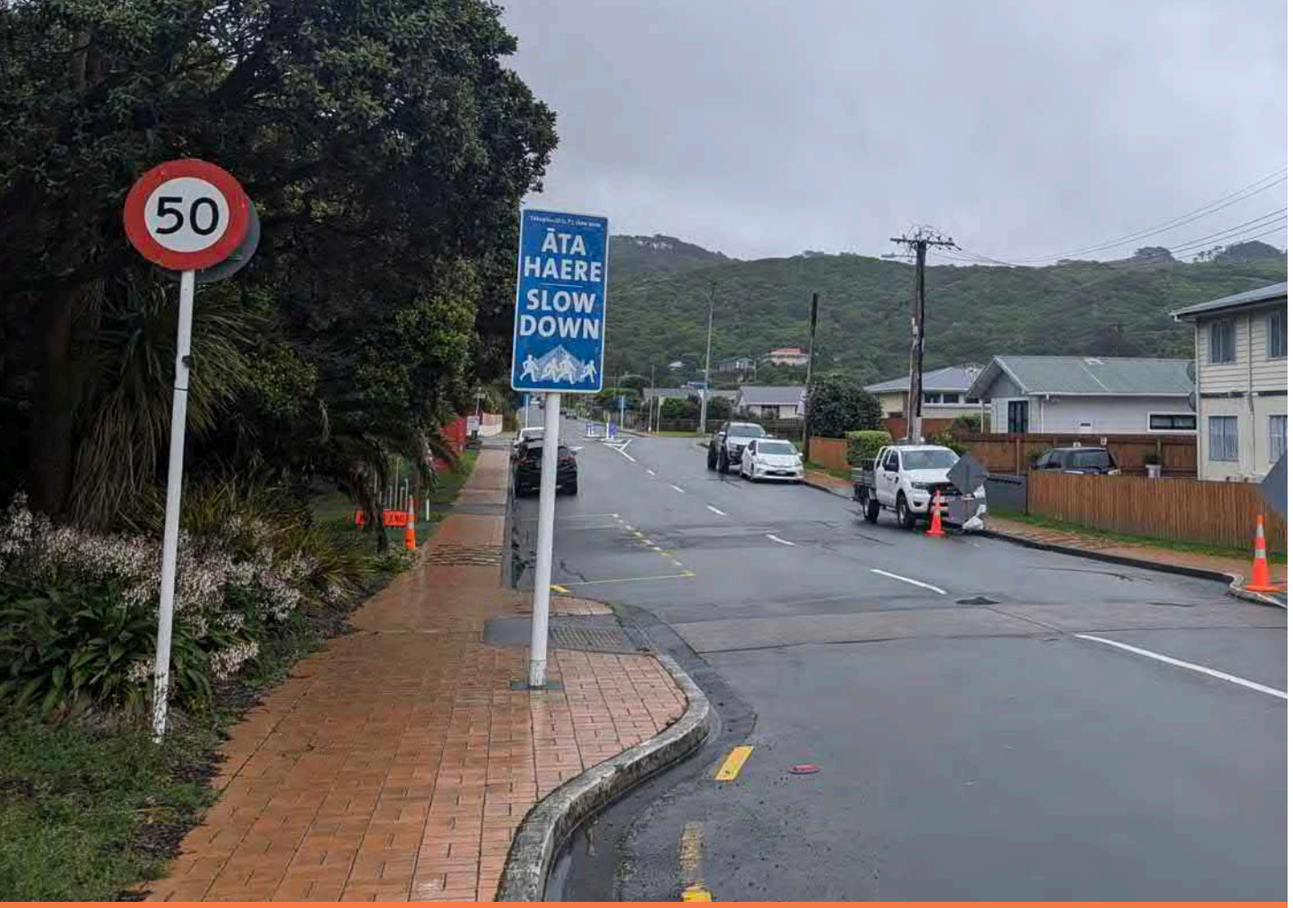
Research evidence

Community-led reforestation leads to deeper relationships with trees and ecological systems:

Tidball, K. G., Metcalf, S., Bain, M., & Elmqvist, T. (2018). Community-led reforestation: cultivating the potential of virtuous cycles to confer resilience in disaster disrupted social–ecological systems. *Sustainability Science*, 13(3), 797-813.

Community-led action helps people reconnect with the environment:

Simon, K., G. Diprose & A. C. Thomas (2020) Community-led initiatives for climate adaptation and mitigation. *Kōtuitui: New Zealand Journal of Social Sciences Online*, 15, 93-105.



"This is an opportunity to celebrate our language and show that it is valued. The next generation will see we have pride in Te Reo when they see signs around."

Kaumātua Taku Parai, Ngāti Toa

Porirua's bilingual traffic signs

Ngāti Toa Rangatira's road to culturally changing spaces

- Connected communities
- Regenerative buildings

Transitions at a glance

Porirua has had bilingual traffic signs in te reo Māori and English since 2017. These bilingual signs are part of the local iwi Ngāti Toa Rangatira efforts to decolonise spaces in Porirua. They are committed to Māori cultural visibility and community pride. Local students helped design the signs.

Through this work, Ngāti Toa Rangatira and partners are contributing to the development of a more culturally just urban landscape in Porirua.

Decolonising spaces

Since 2017, Te Hiko Street in Porirua has featured bilingual traffic signs in te reo Māori and English. The signs read, "Ata haere, slow down," and includes an image of people walking in front of a wharenui.

Many members of the local iwi Ngāti Toa Rangatira live within and around Takapūwāhia marae. Like many iwi around Aotearoa, Ngāti Toa Rangatira has suffered land loss, language loss, and pollution and destruction of sources of sustenance. The project begins to reclaim space for te reo Māori by normalising reo street signs. The project was a partnership between Takapūwāhia marae, Te Puna Mātauranga, and Porirua City Council. Then Mayor Mike Tana was "...thrilled to see these bilingual signs going up in the city. Māori is an official language of New Zealand and making it more visible throughout our community acknowledges its mana."

Community input into bilingual sign design

Students from Te Puna Mātauranga, an iwi-based learning support and education center, helped design the signs. Center manager Bianca Elkington said the students were delighted with the result, which they felt positively represented them, showing a family in front of a marae.

Elkington said "We were looking for a project we could engage our students in, and this was a great opportunity for them. The kids wanted a sign that reflected their community, and it was important to them te reo was first on the sign."

Researchers highlighted these signs were a first in the area, contributing to "an ongoing sense of place" and signaling Ngāti Toa Rangatira's long-standing presence in Porirua. Normalising te reo Māori and making Māori history and presence visible in the city supports the well-being of both people and place.

Supporting culturally just transitions

How is Ngāti Toa Rangatira supporting culturally just transitions?

Bilingual street signs have created a focal point in Porirua to show a commitment to Māori cultural visibility and community pride. Young people led the way in the development of bilingual street signs, as part of a wider project on imagining decolonised urban places. This outward expression of mana supports the transition to more culturally just urban landscapes.

How can you support local communities making this change?

Learn about the history of your area, and what role colonisation and violence played in shaping it. Change must begin with collective acknowledgement of past wrongdoings. When you look around where you live, think about what evidence there is of Māori language and culture. What evidence is there of the presence of contemporary mana whenua (the iwi/hapu with customary authority in the region)? Think about how you can contribute to change within your sphere of influence. Support young mana whenua and other people imagining decolonial work in your rohe (area).

Find out more

Press release from Porirua City Council on the project: https://community.scoop.co.nz/2017/09/poriruas-first-bilingual-sign-slows-down-traffic/

Bilingual signs are just one way of imagining decolonisation. This readable book explores other relevant strategies:

Elkington, B., Jackson, M., Kiddle, R., Mercier, O. R., Ross, M., Smeaton, J., & Thomas, A. C. (2020). Imagining Decolonisation. Bridget Williams Books.

This website has a huge range of resources for urban wellbeing, including information on indigenising urban areas for shared wellbeing: www.buildingbetter.nz/. See, for example: www.buildingbetter.nz/video/imagining-decolonised-cities-dr-rebecca-kiddle-bianca-elkington/

Research evidence

For more on the project and decolonising Porirua, see:

Kiddle, R., Elkington, B., Ross, M., Mercier, O. R., Thomas, A., Gjerde, M., Smeaton, J., Arona, T., & Mawer, C. (2023). Imagining a decolonized city in and from Aotearoa New Zealand. International Journal of Urban and Regional Research, 47(1), 146-154. https://doi.org/https://doi.org/10.1111/1468-2427.13132

For research evidence on multilingual cities, see:

King, L., & Carson, L. (2016). The multilingual city: Vitality, conflict and change. Multilingual Matters.

For a wider discussion of decolonisation with reference to street signs, see:

Ross, M., Kiddle, R., Thomas, A., Elkington, B., Mercier, O. R., & Smeaton, J. (2024). Decolonisation. In K. Dombroski, M. Goodwin, J. Qian, A. Williams, & P. Cloke (Eds.), Introducing Human Geographies 4th Edition. Routledge.

Te Hiko Centre for Community Innovation

Creating circular economy abundance

- Regenerative ecology
- Regenerative circular economy
- Connected communities

Transitions at a glance

Thriving economic systems that nurture the communities they serve is the focus of Te Hiko Centre for Community Innovation. Their mission is to keep local resources circulating in local communities through innovative approaches, such as wealth pools, vegetable cooperatives, and ecological action groups. By innovating in this way, Te Hiko is modelling a shift to a regenerative wellbeing-first economic system that supports community connection and ecological wellbeing.

Reimagining economic systems to empower everyone

Te Hiko Centre for Community Innovation focuses especially on the needs of whānau (families) and hapori (communities) in Porirua, Te Awa Kairangi Hutt Valley and Te Whanganui-a-Tara Wellington. Te Hiko is backed by Wesley Community Action – an independent group with roots in the Methodist Church. Wesley Community Action has dedicated over three decades to strengthening local economies and supporting real human needs.

The collective focuses on communities and individuals who are frequently overlooked by other agencies. They have successfully created an inclusive approach that combines different researchers, funders, and collaborators and reflects on both methods and outcomes.

Keeping resources circulating within communities

Te Hiko is spearheading a transformative economic model that encourages resources to be shared within local communities. This prevents them from going ‘down the drain’ to large corporates outside the region.

Transitioning to thriving communities

Organisations, such as Te Hiko Centre for Community Innovation, are supporting a shift to more connected and better-resourced communities by focusing on economic transformation.

What is the transitions takeaway from Te Hiko?

Delivering an economic revolution with community prosperity at its core is vital in the transition to wellbeing-led economies. Te Hiko Centre for Community Innovation is a collective that has helped its community to thrive by working alongside Wesley Community Action to support:

- A wealth pool and the Good Cents financial learning groups and programmes (see page 124)
- Creating the Rata Village, which offers affordable, intergenerational housing (see page 28)
- A vegetable co-op for the region (see page 94)
- The Ngāhere Korowai project partners' restoration of Porirua's surrounding areas into a 'cloak' of native forest (see page 112).

This model can support economic transformation and connect communities in other regions by supporting initiatives that have their own organisational groups but no legal structure, in the way that Te Hiko has supported Whānaufluence, Common Ground and others. Through these initiatives Te Hiko is working to connect its local community and transition to a more regenerative circular economy.

How can you support local communities making change?

Advocate for collective ideas that support community wellbeing and drive the creation of grassroots economies. This may include participating in a wealth pool, community savings group, vegetable co-op or environmental action groups. Let people know about collectives already operating locally in your area to encourage communities to participate. Build networks with international and national organisations seeking to transform economies for people and planet.

Find out more

www.tehiko.org.nz

Te Hiko is using the Inspiring Communities theory of change to achieve sustainable change, using a community-led development approach. The approach is centred on the idea that any community can make sustainable change and relationships are essential for organizing and influencing change. Find out more at https://inspiringcommunities.org.nz

Te Hiko uses the Te Ara Weteriana-The Wesley Way to guide their work. Find out more at www.wesleyca.org.nz

Research evidence

For practical advice on 'taking back the economy' for people and planet, see this easy to read but research-informed text aimed at community organisers, businesses, and government agencies with international examples.

Gibson-Graham, J.K., Cameron, J., & Healy, S. (2013). *Take back the economy: an ethical guide for transforming our communities.* University of Minnesota Press.

For an overview of community economies as an idea and practice, and to connect with other international efforts to transform economies and societies, see the short, commissioned pieces on The Next System Project website. You could start with:

Gibson-Graham, J. K. et al. (2017). Cultivating community economies: tools for building a liveable world. *The Next System Project.* https://thenextsystem.org

For an explanation and exploration of community development practices that centre the capabilities of local communities, also known as "assets-based community development", see:

Mathie, A., & Cunningham, G. (2003). From clients to citizens: Asset-based community development as a strategy for community-driven development. *Development in Practice, 13*(5), 474-486.

For the culmination of The Next System Project in book form, with international examples.

Speth, J. G., & Courrier, K. (2020). The new systems reader: alternatives to a failed economy. Routledge.

"What we want is abundance in our community. We want that plugged in so that we can grow the wealth in our community. Wealth isn't just money. It's knowledge, it's our people, hearing their voice..."

Ruth Nonu, support worker local economies at Wesley Community Action.

"We don't [usually as a culture] talk about money. It's a taboo subject and all the stuff tied up in it, so we sort of unravel that. What I sense is the shift in people, they develop their own agency. They realise, 'Actually, I've got to step into this. But I'm not alone'."

Ruth Nonu, Good Cents Support Worker

Good Cents

Supporting people to get out of troublesome debt

- Regenerative circular economy
- Connected communities

Transition at a glance

Good Cents is a financial learning course run at the Te Hiko Centre for Community Innovation (see page 121). It uses collective action to help people with unmanageable debt. Organisers have also created a wealth savings pool – a communal bank account that people put savings into. From the pool, they can then draw interest-free loans, thereby avoiding debt. Good Cents is creating a community economy transition by fostering local economic resilience and connected communities.

How Good Cents supports financial thriving

Good Cents is a community-led financial learning course that has helped more than 450 participants in the Te Awarua-o-Porirua region to reduce and manage debt. Created by individuals tired of the financial struggle that causes frequent visits to local food banks, this eight-week programme empowers people to find collective solutions to their fiscal challenges. These challenges are often made worse by the trauma of colonisation and intergenerational poverty.

Yet unlike traditional financial courses, Good Cents doesn't dictate solutions. It fosters a collaborative environment where participants harness their collective problem-solving abilities. Former participant Ruth Nonu now leads the financial learning course.

The results are tangible and inspiring: a community wealth savings pool, a timebank, and a vegetable cooperative have all emerged from the issues identified by the group. Together, they're not just addressing debt – they're building a resilient, resourceful community.

From troubling trend to community empowerment

In 2007, Good Cents was sparked by a troubling trend at a Porirua food bank operated by Wesley Community Action. Organisers noticed an increase in visitors and decided to probe deeper. They asked just two questions: "What brought you here today?" and "Do you want to talk about it?" Their findings revealed a critical issue – escalating personal debt at crippling interest rates was overwhelming the community.

From these kōrero, Good Cents emerged as a peer-led initiative focused on community engagement. The initiative brought together affected community members, third-tier lenders, mainstream bankers, ministers, and community leaders. They started by dissecting the financial struggles and questioning the systems that perpetuated the debt. A surprising discovery was that third-tier lenders were doling out small, higher-interest loans than those offered by mainstream banks. This was drawing vital funds away from the community. This was drawing vital funds away from the community.

From these discussions, a co-created theory of change emerged, focused on 'plugging the hole' where community finances were being drained away by loan sharks. This

clear understanding of external debt helped participants have compassion for their own situations and empowered them to take charge of their financial futures with the support of their community.

A collective financial lifeline

The Wealth Savings Pool thrives on a simple yet powerful concept: collective savings. Members contribute what they can, large or small, to a communal bank account. This set up is managed by an accountant, who tracks each member's contributions. When it's time for a significant purchase, people can use their own savings, and borrow the amount they need, without interest. They then pay back their own savings and the amount they borrowed. At the end of the loan payback period, they can withdraw their savings. However, during the payback period, the money is used for other loans in the group. This method not only safeguards individual savings but also fuels the group's ability to supply interest-free loans, so borrowers can avoid external debt.

Transitioning community economies

What is the transitions takeaway from Good Cents?

The Good Cents financial empowerment course and the wealth savings pool are important tools that empower communities to make change towards regenerative, community-led economies. Imagine a future around Aotearoa where community savings groups and peer-led financial education are the norm. It would support thriving local economies and a transition away from global banks. With economic resilience bolstered, it also prepares communities to withstand disasters.

How can you support local communities making this change?

Engage in conversations and support initiatives tackling debt and poverty. Back economic and community endeavours that uplift those with lower incomes. From school lunches and buses to food banks and community gardens, every effort counts. Whether you personally need these approaches or not, community and public good initiatives can be transformative for people living with unmanageable debt. Start your own savings group! Whether it's a rotating savings association or a wealth pool, creating a savings group is an excellent way to promote and enhance financial literacy – whatever your income level.

Find out more

www.tehiko.org.nz/resource-hub/good-cents-course

www.livingeconomies.nz/solutions/savings-pools

Research evidence

For case studies from other parts of the world, see:

Hossein, C. S., & Christabell, P. (2022). Community Economies in the Global South: Case Studies of Rotating Savings and Credit Associations and Economic Cooperation: Oxford University Press.

For more on community savings, see:

d'Cruz, C. et al. (2014). Community Savings: a basic building block in the work of urban poor federations. International Institute for Environment and Development. www.iied.org/10711iied

Ruamāhanga

This catchment covers the land surrounding the Ruamāhanga River and the waterways flowing into it from the Remutaka and Tararua ranges. It was once an area of mighty forests and thriving wetlands all the way from the northern edge of Wairarapa to the Wairarapa coast, including Wairarapa Moana, which is recognised by the UN as a Wetland of International Importance. Clearance of the forests, drainage of the wetlands and ongoing farming activities have degraded the waterways of the catchment, in particular Wairarapa Moana where protection and restoration work is underway. This work is bearing impressive results and needs to be scaled up.

"People look after a particular species of plant, animals. Some people look after lizards. Some people look after birds. Some people really want to clean up a piece of river. Some people want to restore a piece of native bush. All these people work on that biodiversity with a climate change lens. They work well when they can do what they like to do best."

Esther Djikstra, General Manager of Wairarapa Pūkaha to Kawakawa Alliance

Wairarapa Pūkaha to Kawakawa Alliance

Caring collaboration to protect ecosystems, biodiversity, water and community

- Regenerative ecology
- Connected communities

Transitions at a glance

The Wairarapa Pūkaha to Kawakawa Alliance is a community network aiming to restore Wairarapa's ecosystems, biodiversity and water resources. It also builds community resilience in the face of climate change. As a bioregional alliance, the organisation unites groups across adjoining regions. This alliance is helping to regenerate the catchment's environment and create a connected, resilient community.

Nurturing nature and community

The network spans from Pūkaha (Mt Bruce) in the north to Kawakawa (Palliser) in the south, and from the western boundary of the Tararua ranges to the eastern coastline. It unites over 50 conservation and environmental groups, farmers, mana whenua, and representatives from the Department of Conservation (DOC), to Greater Wellington Regional Council and the Wairarapa District Councils.

Thriving on collaboration, the alliance is a charitable trust that gives practical support for community organisations and projects to focus on what they do best. One example of a project is the long-term restoration of Wairarapa Moana, a shallow lake in South Wairarapa important to mana whenua Ngāti Kahungungu and Rangitane ki Wairarapa (see page 147).

General Manager Esther Djikstra oversees operations, organising annual hui and regular meetings to keep communication flowing. Storyteller Ali Mackisack captures and shares the inspiring stories of the people, landscapes, and species within the region.

The power of bioregional alliances

Bioregional alliances (which unite groups who work in ecologically connected regions) play a vital role in transitioning to regenerative landscapes and healthier ecosystems. When people collaborate to care for shared resources, both social and environmental health flourish.

In greater Wellington, nurturing ecosystems, wildlife, and each other is essential, especially as we are living with climate change and experiencing more intense, frequent natural disasters. The Wairarapa Pūkaha to Kawakawa Alliance brings together small local groups, dedicated to specific places, species or natural features, to support them in their core mission. The Alliance supports and cares for each group's development by also supporting them with funding applications and reporting.

Supporting bioregional alliances transitions

What is the transitions takeaway of the Wairarapa Pūkaha to Kawakawa Alliance?

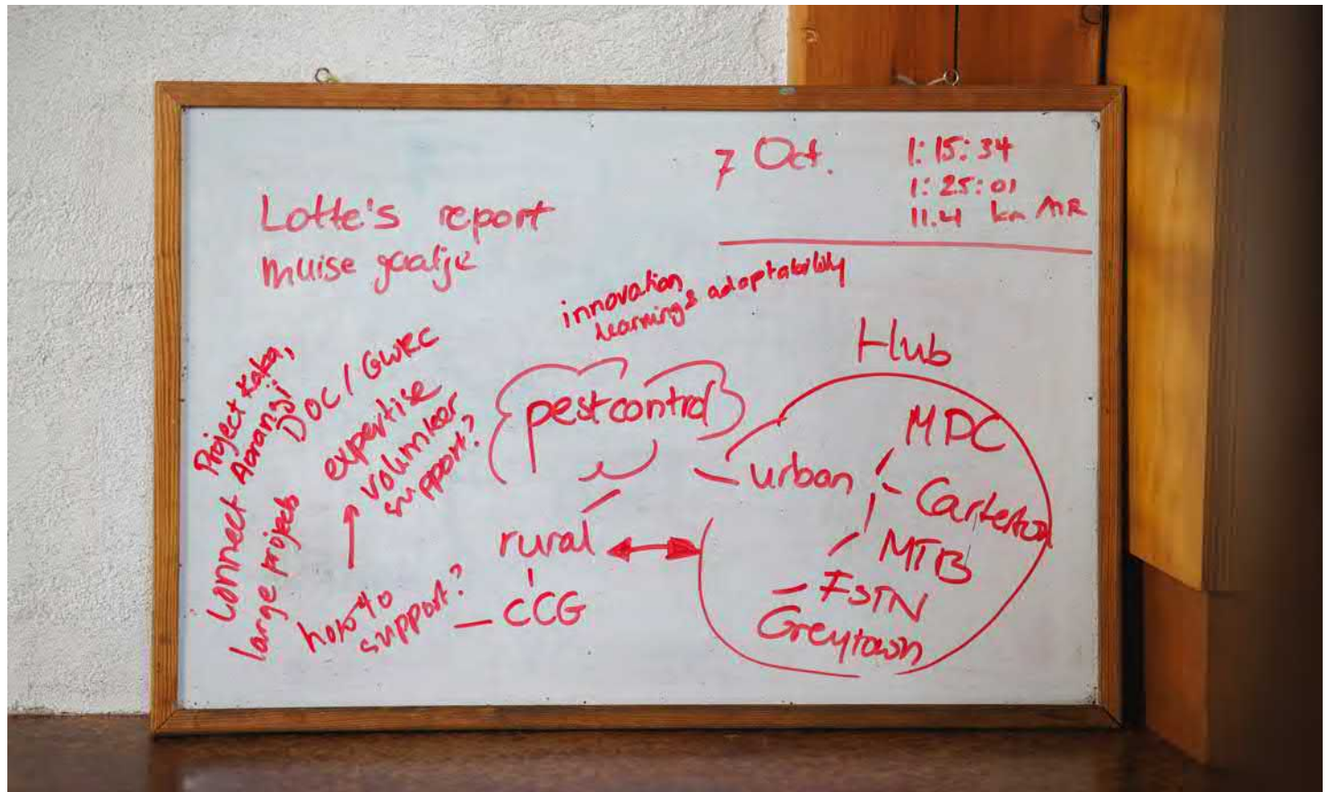
By bringing together and funding groups working in adjoining regions, these alliances can support the transition to better water quality, increased predator control and long-term environmental restoration. This includes working with local and central decision makers to provide resources for the alliances to support multiple groups to carry out activities that improve biodiversity.

The Wairarapa Pūkaha to Kawakawa Alliance:

- cares for water health, by setting up the catchment community groups for the Wairarapa whaitua (catchments), on behalf of Ministry for Primary Industries (MPI)
- undertakes predator control work in the region to care for native species and ecosystems
- works on the long-term restoration of Wairarapa Moana, a shallow lake in South Wairarapa important to mana whenua Ngāti Kahungungu and Rangitane ki Wairarapa – and important for ecological stability and biodiversity for all. The restoration work includes backyard conservation workshops, restoration days, catchment groups doing water testing, planting and education, and school groups working to support the catchments.

How can you support local communities to make change?

Begin to understand more about your local catchment, identify ecological challenges, and learn about the needs of species in your bioregion. This awareness motivates action. Find and join a restoration group that resonates with your interest. If you're in the Wairarapa region, discover local restoration groups and find out how you can support them at https://waip2k.org.nz/groups/ Learn about the actions you can take to create a thriving environment. Explore initiatives for government, local authorities, tangata whenua, and tangata tiriti at https://www.metuauru.co.nz/what-can-i-do/



Find out more

https://waip2k.org.nz/stories

www.metuauru.co.nz

Research evidence

For more on how water governance is evolving in Aotearoa New Zealand, and the role of catchment groups and mana whenua authorities, see the open access special issue of New Zealand Geographer from 2022 "New horizons in the politics of water governance" https://onlinelibrary.wiley.com/toc/17457939a/2022/78/1

For more on bioregionalism and the risks and benefits of its use as a concept for environmental activism see:

Wearne, S. et al. (2023). A learning journey into contemporary bioregionalism. *People and Nature*, 5, 2124–2140.

For more on environmental governance in a Te Tiriti context read:

New Zealand's Biological Heritage National Science Challenge Ngā Koiora Tuku Iho, A. G. a. P. W. G. (2023). *Me Tū ā-Uru.* Wellington: https://www.metuauru.co.nz/

For inspiration on diverse communities working together to transform places, see:

Larsen, S. C., & Johnson, J. T. (2017). *Being together in place: Indigenous coexistence in a more than human world.* Minneapolis: University of Minnesota Press.

Wai Waste

Food rescue to feed more people and stop landfill

- Regenerative ecology
- Regenerative circular economy
- Connected communities

Transitions at a glance

By collaborating with food donors, such as supermarkets, local growers and bakeries, and redistributing their surplus food, Waiwaste is helping to feed people in the Wairarapa. Through their passion and commitment, this small Masterton-based community organisation halts food waste from going to landfill. Instead, they distribute it through community groups, including local iwi, schools, and food banks. By innovating in this way, Waiwaste is showcasing the path to a more regenerative, circular economy and connected community.

Reducing waste, distributing resource

In Aotearoa New Zealand, research indicates around 157,398 tonnes of food is wasted annually, equating to NZ$1.17 billion of wasted food every year (Love Food Hate Waste N.Z., N.D.). Much of this wasted food ends up in landfills, where it decomposes and emits methane and other greenhouse gases. The rise of food waste is also coupled with growing food insecurity and this has spurred the emergence of food rescue organisations, such as Waiwaste.

As well as helping reduce climate emissions, these organisations create jobs and volunteer opportunities, provide essential sustenance to vulnerable populations, and support food businesses to minimise waste.

Turning excess food into food access

Staffed by two part-time employees supported by 17 volunteers, Waiwaste operates from a well-equipped warehouse. The team uses electric vans and maintains chillers and freezers for efficient food collection and distribution.

They collect surplus food from donors – including major supermarkets, Moore Wilson's, local growers, community fruit-pickers, and small retailers, such as bakeries. Then distribute it to 30 local community organisations, including local iwi, the Universal College of Learning (UCOL), housing providers, schools, and food banks.

Supporting transitions to a more circular economy

Organisations such as WaiWaste are crucial in supporting a community led transition to a more fair, equitable, circular economy.

What is the transitions takeaway from WaiWaste?

The Waste Levy, a nationwide landfill charge, is used to support the Council's waste management and minimisation plan. As co-chair of the Waiwaste Board, Louise Lee advocates for using the Waste Levy to fund the significant contributions grassroots community organsations are making to reduce food waste. This is a good opportunity to resource change more widely across cities throughout the motu.

At its heart, food rescue is community action for climate change and poverty. It presents significant opportunities to evolve existing welfare and social services by linking food producers and retailers with those in need. Through doing this, it supports a transition to a more circular economy and connected communities.

How can you support local communities making change?

Work closely with, and support, local food rescue organisations to help them access funding, or donate food. Educate people to reduce their household waste by using all the food they buy. Create connections between communities and community composting initiatives and community gardens so that people who can't compost at home have an option to repurpose their food waste. These actions not only bring people together, they also give them a relationship with how to be a part of creating healthy soils.

Find out more

https://waiwaste.org.nz

Research evidence

For evidence of the social return on investment of food rescue, see:

Clare, G., Diprose, G., Lee, L., Bremer, P., Skeaff, S., & Mirosa, M. (2023). Measuring the impact of food rescue: A social return on investment analysis. *Food Policy*, 117: 102454.

For more on the collective aspects of food rescue, see:

Diprose, G., & Lee, L. (2021). Food rescue as collective care. Area, 54(1): 144-151. doi/abs/10.1111/area.12762

See also:

Isola, A.-M. & Laiho, J. (2020) Commoning surplus food in Finland – actors and tensions. In: T. Eskelinen, T. Hirvilammi & J. Venäläinen (Eds.) *Enacting community economies within a welfare state.* London, UK: Mayfly Books, pp. 95–116.

For more statistics and strategy for reducing food waste in NZ, see:

Love Food Hate Waste, N. Z. (n.d.). *Don't let Food go to Waste.* Love Food Hate Waste. https://lovefoodhatewaste.co.nz

"In 2040, I would like to see sustainable funding for food rescue organisations. We're a pretty lean organisation but we punch above our weight in terms of what we achieve. I'd also like to encourage community gardens and community compost hubs. Not all the food that's donated to us is good enough for people to eat. But it's still got lots of nutrients in it. We can do our bit to use this food 'waste' to regenerate our soil and natural environments."

Louise Lee, Waiwaste co-chair.

Vagabond Vege

Rejuvenating soil for ethical community food production

- Regenerative ecology
- Regenerative circular economy

Transitions at a glance

Vagabond Vege is a community supported agriculture initiative – where farmers and consumers collectively share the risks and benefits of ecologically restorative and ethical food production. A dynamic owner-worker collective, they use agroecological methods (sustainable farming) to rejuvenate the soil. Vagabond Vege is helping the transition towards more caring, circular economies and regenerative ecological practices.

Farming with heart and soil

Vagabond Vege cultivates a windswept farm near the Waiohine River in South Wairarapa. Co-owners Elle, Saskia, Sheldon, and Lise embarked on this sustainable farming adventure in 2021. They grow a diverse array of vegetables, which they distribute to locals between Featherston and Carterton through a community agriculture subscription.

The farm is on its way to earning Hua Parakore certification. This is Aotearoa New Zealand's Māori organics programme, which fosters biodiversity by removing the use of problematic chemicals and instead growing in a way that values the life force of the soil. Their passion for the land, the plants, and the profound concepts of regeneration and sustainable, caring economies comes through clearly during their interview and on their engaging website.

> “We know if the inflationary number is largely artificial, you can get kind of a false inflation by everyone going it’s five per cent and so everyone just goes and adds five per cent to everything and then the Reserve Bank goes look, everything inflated…I think we landed on three and a half [percent], but we kept the delivery cost stable, we didn’t lift that.”
>
> Sheldon, farmer and co-founder at Vagabond Vege

Transitioning with community-supported agriculture

Agricultural collectives, such as Vagabond Vege, are supporting a change towards regenerative, circular economies and more caring communities.

How can wider urban systems support the growth of diverse forms of agriculture?

Community-supported agriculture builds relationship networks so that farmers and consumers can collectively navigate the uncertainties of growing food together. This model is in stark contrast to conventional, industrialised farming, where a single failed crop can lead to bankruptcy or fluctuating market prices can undermine a farmer’s livelihood.

In Te Hupenui Greytown, a community of consumers enjoys access to vegetables grown through regenerative practices, all at fair prices that sustain the livelihoods of the owner-workers. Similarly, Vagabond Vege champions this community first approach, thoughtfully balancing fair pricing with the needs of both consumers and the environment. This not only ensures economic stability for farmers but also helps create a healthier agricultural ecosystem and is leading the transition to a more regenerative circular economy.

How can you support local communities making this change?

Join a community-supported agriculture initiative in your area. Other examples in the Wellington region include Kaicycle (see page 17) and Wairarapa Eco Farms. Learn about the benefits of Hua Parakore and Māori organics and use these principles to start your own regenerative garden or support businesses that practice Hua Parakore. This system of organics gives us a uniquely Aotearoa New Zealand way to transition to more ecologically friendly practices.

Find out more

www.vagabondvege.nz

https://thisnzlife.co.nz/the-rock-stars-of-te-hupenui-are-at-their-very-best-when-surrounded-by-their-community

https://jessicahutchings.org/what-is-hua-parakore

www.mygarden.co.nz/making-compost

Research evidence

For more research on community-supported agriculture, see:

Cameron, J. (2015). Enterprise innovation and economic diversity in community supported agriculture: sustaining the agricultural commons. In J. K. Gibson-Graham, G. Roelvink, & K. St. Martin (Eds.), Making other worlds possible: performing diverse economies. University of Minnesota Press. Find the free version at www.communityeconomies.org

For the full hua parakore approach, read:

Hutchings, J. (2020). *Te mahi māra hua parakore: A Māori food sovereignty handbook*. Te Tākupu.

For a shorter explanation of hua parakore and soil regeneration, see:

Hutchings, J., Smith, J., & Harmsworth, G. (2018). Elevating the mana of soil through the Hua Parakore Framework. *MAI Journal*, 7(1), 92-102.

For more on community-supported agriculture and relationships, see:

White, T. (2020). Direct producer-consumer transactions: Community supported agriculture and its offshoots. In J. K. Gibson-Graham & K. Dombroski (Eds.), *The handbook of diverse economies* (pp. 214-222). Edward Elgar.

“As a country, we burn up about 15 per cent of our energy production in transporting it. Distributed generation minimises that waste so you’re using it where you’re producing it. [We are about] minimising that waste and increasing resilience so if you have major grid outages you’ve got that resilience to keep going.”

Greg Hoskins, Hoskins Energy Systems

Hoskins Energy Systems

Delivering local, renewable energy networks

- Zero carbon energy
- Regenerative buildings

Transitions at a glance

Hoskins Energy Systems installs microgrid and renewable energy systems in the greater Wellington region and beyond (including in many Pacific Islands). To make more of a difference, Hoskins Energy Systems prioritises suppliers whose manufacturing processes are environmentally neutral and made with ethical labour. Hoskins Energy Systems is supporting local renewable energy and wellbeing-led economy transitions.

Resilient, carbon neutral energy systems

Transitioning to local, renewable energy networks is key to building resilient, carbon-neutral energy systems. Carterton-based electrician, Greg Hoskins, and his family-owned business have been helping with this transition for over 30 years by installing microgrid and renewable energy systems. In the early days, before the advent of fax machines, email and the internet, Greg had to phone fellow electricians and suppliers to learn how to design and install pioneering micro-hydro, wind, and solar systems.

Although Hoskins Energy Systems handles all kinds of industrial and domestic electrical work, it’s their trailblazing early work in renewable energy systems that stands out. Their expertise in renewable systems has significantly shaped the future energy landscape of the greater Wellington region, positioning them as leaders in the transition to local, renewable energy networks.

Using environmentally neutral, ethically made materials

Committed to reducing the environmental impact of their installations, Hoskins Energy Systems recognise the carbon cost of materials used in microgrid systems by carefully selecting solar panels with lower embodied carbon that have been made in Scandinavia using 100 percent renewable energy.

Many panels on the market are produced using coal-fired electricity and under exploitative labour conditions, negating their potential environmental benefits, even if used for many years. To ensure true sustainability, Hoskins Energy Systems prioritises suppliers whose manufacturing processes are environmentally neutral and made with ethical labour.

Transitioning to renewable energy

What is the transitions takeaway from Hoskins Energy Systems?

Hoskins Energy Systems is a member of Sustainable Energy Aotearoa New Zealand (SEANZ) – an organisation that promotes energy transitions nationwide. The company's vision is for Aotearoa New Zealand to establish distributed energy systems that are both resilient and renewable. This includes shaping government regulations to support decentralised energy solutions.

The organisation has also expanded its renewable energy work beyond the Wellington region. It has spearheaded the installation of community owned microgrid systems in Tokelau, Tuvalu, and parts of the Cook Islands as part of a commitment to enabling low-carbon energy resilience beyond Aotearoa.

How can you support local communities to make change?

Advocate for legislative updates that align with international solar regulation standards. SEANZ has crafted standards suitable for Aotearoa New Zealand, yet our legislation remains outdated. Engage with your local MP to push for necessary changes. When involved in designing or building any sort of system that uses energy, choose renewable and distributed energy systems. Solar energy options extend beyond having to buy a solar system – visit SEANZ's website for more details. Plus, ensure the energy system components you use are environmentally sound and ethically produced. Take advantage of funding opportunities from the Ministry of Business, Innovation and Enterprise (MBIE), designed to support community renewable energy. This includes grants for solar and battery systems for buildings impacted by Cyclone Gabrielle, the creation of a virtual hub to support community renewable energy initiatives and direct support for community-level renewable energy projects.

By taking these steps, you can help shape a sustainable, resilient, energy-efficient future for our communities.

Find out more

www.seanz.org.nz

www.hoskinsenergysystems.co.nz

Research evidence

For other options on community owned renewable energy, see:

Mey, F., & Hicks, J. (2019). Community Owned Renewable Energy: Enabling the Transition Towards Renewable Energy? In P. Newton, D. Prasad, A. Sproul, & S. White (Eds.), Decarbonising the Built Environment: Charting the Transition (pp. 65-82). Singapore: Springer Singapore. https://rdcu.be/dzG3i

For more on broadening access to renewable energy, see:

IRENA Coalition for Action (2021), Community Energy Toolkit: Best practices for broadening the ownership of renewables, International Renewable Energy Agency, Abu Dhabi. www.irena.org/publications/2021/Nov/Community-Energy-Toolkit-Best-practices-for-broadening-the-ownership-of-renewables

Roberts, R., Brent, A., & Hinkley, J. (2021). Reviewing the impacts of community energy initiatives in New Zealand. *Kōtuitui: New Zealand Journal of Social Sciences Online*, 16(1), 45-60.

“In te ao Māori, the male matuku (heron) booms in loneliness and despair. The matuku and its calls were woven into waiata and kōrero to comfort people in their grief. The calls still hold that chilling feeling, as we grieve the loss of 97 percent of the repo (wetlands) that surrounded Wairarapa Moana.

We want to work collaboratively to expand the remaining wetlands, in Māori we call this mahi tūhono, the work of connecting. If we can reduce the introduced predators in our lands and forests, then we might have a chance to replenish, and a chance for manu (birds) such as the matuku and pūweto (spotless crake) to grow and enhance the mauri (life force) of the place.”

Rawiri Smith, Kaiwhakahaere Taiao for Kahungunu Ki Wairarapa.

Wairarapa Moana

Restoring the lake and wetlands

- Regenerative ecology
- Connected communities

Transitions at a glance

Wairarapa Moana is highly significant for Māori and was traditionally a rich source of food and other resources such as flax. The Moana was once the heart of an extensive and healthy wetland system, but it has been severely degraded. This is a result of Pākeha settlers clearing forests, draining wetlands for farmland and modifying the channel of the Ruamāhanga River. Work to protect farmland from flooding in the 1960s to 1980s further shrank and damaged the wetlands of Wairarapa Moana. The Ruamāhanga catchment now has almost none of its natural wetlands left. As the receiving environment for effluent, sediment and, in some cases, wastewater, the lake’s health is in a poor state and its ability to support native fish is severely compromised.

In recent years, mana whenua groups have made significant efforts to restore Wairarapa Moana, supported by the Greater Wellington Regional Council, South Wairarapa District Council and the Department of Conservation. Together these groups set up the Wairarapa Moana Wetlands Project in 2008 and began working with local landowners, farmers and the community. In 2020, Wairarapa Moana became a Wetland of International Importance under the international Ramsar Wetland Convention, becoming the seventh wetland to receive this status in New Zealand. This project shows how transitioning to an ecologically restorative environment can support more connected communities.

Returning the lake to mana whenua

In 2023, the Wairarapa Moana Statutory Board was established because of the Waitangi Treaty claim, providing cultural redress for Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua, Rangitāne o Wairarapa, and Rangitāne o Tamaki nui-ā-Rua. The Statutory Board has members appointed by Rangitāne, Ngāti Kahungunu, the Minister of Conservation, the Wellington Regional Council, and the South Wairarapa District Council to manage activities around the lake and its catchment and to restore the health of the lake and wetlands. The treaty claim also returned the bed of Wairarapa Moana and some of the public reserve land around the lake to mana whenua in 2024.

Efforts to stop the decline of Wairarapa Moana’s health are beginning to bear fruit. The nationally critical matuku-hūrepo or Australasian bittern has been seen (and heard booming) around Wairarapa Moana since 2023, demonstrating the importance of predator control in the area. Much more work is required to restore Wairarapa Moana and the full scale of restoration envisaged would likely involve changes to land use in the surrounding areas.

Transitioning to regenerative ecology

What is the transitions takeaway from Wairarapa Moana?

The collaboration between mana whenua, councils, government agencies and the community including local landowners, provides a strong basis for further wetland restoration efforts around the country. A key ingredient for success in this area is likely to be effective communication about the wider benefits of wetlands, including their role in retaining water in the landscape, preventing drought, soaking up water from high rainfall events to prevent flooding, improving freshwater quality, supporting flora and fauna, sequestering carbon and providing high value recreational areas. Councils, with the support of government, can act to prevent any further draining or degradation of wetlands through regulation, funding support and partnerships with mana whenua. The Wairarapa Moana Wetlands Project shows how this communication can be done in effective and accessible ways to support a transition to regenerative ecologies and more connected communities.

How can you support local communities making this change?

Landowners can take proactive action to protect and restore wetlands on their own properties. The government can continue the trend of increasing protections for wetlands and freshwater ecosystems and prioritise the health of waterways over human uses of water. This prioritisation is encapsulated in the concept of Te Mana o te Wai. The Government can also provide incentives for landowners to take action to restore wetlands, for example through the introduction of biodiversity credits that could operate in a similar way to carbon credits under the Emissions Trading Scheme. This would make it more economically viable to restore wetlands and other critical natural infrastructure on private land.

Find out more

www.waiwetlands.org.nz/about-the-project

www.rnz.co.nz/national/programmes/countrylife/audio/2018931269/rare-bird-returns-to-wairarapa-wetlands

www.lakestoriesnz.org/wairarapa-moana-kete-purakau

https://interactives.stuff.co.nz/2018/08/two-tribes

www.teaonews.co.nz/video/2024/07/05/the-official-return-of-wairarapa-moana-was-celebrated-by-hundreds-at-papawai-marae-in-wairarapa-on-s

Research evidence

Greater Wellington Regional Council guide to protecting and restoring wetlands:

www.gw.govt.nz/environment/land-use/protecting-and-restoring-wetlands/

Hall, D. and Lindsay, S. (2021). Scaling climate finance: biodiversity instruments. Concept paper. Mōhio Research.

https://data.bioheritage.nz/dataset/e81e8c01-755c-4a7f-a2d0-d1606249810a/resource/b5114d3c-3968-4204-b25e-fa69051365fd/download/biodiversity-instruments-hall-and-lindsay.pdf

Transitions in Action: An Urban Field Guide for Te Upoko o Te Ika Wellington

First published in 2024 by Building Better Homes, Towns and Cities

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As we live through a climate and biodiversity crisis, our cities and urban communities must transition to regenerative systems that restore and care for community, culture and the environment. In Te Upoko o Te Ika Wellington, there are already exciting seeds of this change flourishing. *Transitions in Action* captures this inspiring change, from community gardens, to equitable access, to renewable energy, to waste transformation and community ecological restoration.

This Guide maps projects to an urban regenerative action compass, a transition tool that communicates actions for mauri ora – social, cultural and ecological wellbeing. In presenting examples of flaxroots regenerative work being done in Te Upoko o Te Ika Wellington, the Guide aims to support further change in other cities and urban communities throughout Aotearoa.

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9 780473 731625