

Ka whati te tai, ka pao te tōrea!

Our race against time

Te Ara Whakamua o Te Awa Kairangi ki Tai
Lower Hutt Climate Action Pathway

March 2022



LOWER HUTT
**COMMUNITY
CLIMATE CHANGE
RESPONSE**

Manaaki whenua, manaaki tangata, haere whakamua

Care for the land,
care for the people,
go forward

Enabled by



In partnership with



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Our Community Lead Group

The Lower Hutt Community Climate Change Response is led by a group of community leaders to test a new, ambitious and connected way of working with the community to shift the dial on collective action.



Bruce Anderson
Transition Towns

“We can’t wait for others to solve the climate crisis for us.”



Cr Josh Briggs
Hutt City Councillor

“Any plan is only as good as the action that is taken, and in this case actions by everyone are needed to reach this goal.”



Sòrcha Carr
Youth Climate Activist

“If you’re ready to step up, now is the time. If you aren’t, step aside.”



Helen Down
Former CEO Hutt Valley
Chamber of Commerce
& Industry



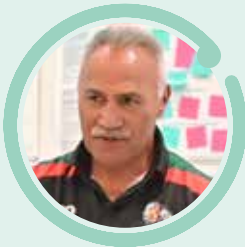
Jude Opira Bidong
Ethnic Community
“Everyone has a part to play
in climate change – every
action and step counts.”



Virginia Horrocks
Eastbourne
“We do not inherit the
earth from our forefathers;
we borrow it from our
children.”



Helen Oram
Hutt City Council
“The tide is turning on the
way we work – together –
for our city’s future and
next generations. I’m
committed to seeing a
community response on
climate change action.”



Ken Laban
Pasifika Communities



James Renwick
Climate Commissioner
“We can transform
Lower Hutt and inspire
all of Aotearoa.”



**Te Karanga
o te Tui Marino**
Mana Whenua
“We are the environment,
and the environment is us.
Kia kaha Aotearoa.”



Karen Yung
Zero Carbon Network
“Now is the greatest
opportunity to realise our
past; connect with our
present, and ensure the
best possible future for us
and our communities.”





“If any country in the world can do this, it’s us, New Zealand. And within New Zealand, Te Awa Kairangi ki Tai Lower Hutt can be a leader in the community response, helping to inspire others and make the change we need.”



Professor James Renwick, Climate Scientist and Lead Group

Ngā hua o roto







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Working together on our climate response

“We” are responding as a community. Throughout this document “we” means “the Lower Hutt community as a whole, including Hutt City Council (HCC), businesses, organisations and the community.”

About this document

Who is it for?

Community and business leaders, influencers and residents who are involved or want to get involved in climate action to make a positive change for our city.

How you can use this in your community

Share information and inspire individual and collective action, by supporting existing initiatives and taking forward new ideas.

How this pathway will evolve

This is a living document and will continue to be developed over time, to take account of new actions and priorities. HCC and the Lead Group will oversee this process.



Ka whati te tai, ka pao te tōrea!

Our race against time

The earth is getting hotter, and it will affect us all.
The greater the warming, the more damage it will cause.

We are constantly seeing the effects of our changing climate. Raging wildfires, heatwaves and major floods regularly hit global headlines.

Te Awa Kairangi ki Tai Lower Hutt is located on the most densely populated flood plain in New Zealand and our coastal communities are exposed to sea-level rise. Climate change poses a real threat to our city and our communities.

We need to keep the global temperature rise below 1.5°C to avoid the worst impacts of global warming. We are running out of time.

We must take action NOW to cut greenhouse gas emissions. The sooner we slow global warming, the less damage there will be to us, and to all ecosystems.

This requires transformational change, which cannot be achieved solely through local government initiatives or the actions of a few individuals.

We need everyone to step up and take action

That is why our community as a whole is tackling the climate crisis together. If we all do our part, as government, as businesses and as members of the community, then we can achieve net zero emissions by 2050 and get our city prepared for the impacts of climate change.

We know what we need to target – our transport, energy and waste emissions and also what we consume. We also need to change the way that we think about te Taiao – our natural world.

Our community has strong foundations to build on, with passionate and determined people already working to make the change we need. There are community organisations fixing and donating bikes, local groups planting, weeding and cleaning up beaches and businesses turning recycled materials into new products.

We must boost our efforts so we can move faster and further together

This climate action pathway provides a critical first step in Lower Hutt's response to the climate crisis. But, right now, we don't have all the answers. We need to continue building knowledge, trialling initiatives and adapting to new technologies, policies, regulations and other mechanisms for change.

We must act now to ensure the best possible future for ourselves, our tamariki and our earth. As our rangatahi told us at their climate change hui:

“Do something your future self will thank you for.”

Rangatahi Climate Hui (April 2021)

1

Te āhuarangi ki Te Awa Kairangi

The climate context

There's no time to lose

Our earth is getting warmer and the effects are being felt throughout the world, including right here in Te Awa Kairangi ki Tai Lower Hutt.



Ko te aituā kei te haramai

The harsh reality

If we do not rapidly reduce greenhouse gas emissions, by 2030 we will have guaranteed a temperature rise of 1.5°C, and are likely to hit 2°C within 20 years, and 3°C within 50 years.

What is causing our changing climate?

Climate change is caused directly or indirectly by human activity altering the composition of the atmosphere by producing increased levels of greenhouse gas emissions. We produce these gases when we burn petrol, oil, diesel, gas and coal (fossil fuels) and release carbon emissions into the atmosphere. Methane emissions are also produced through agriculture and landfills.

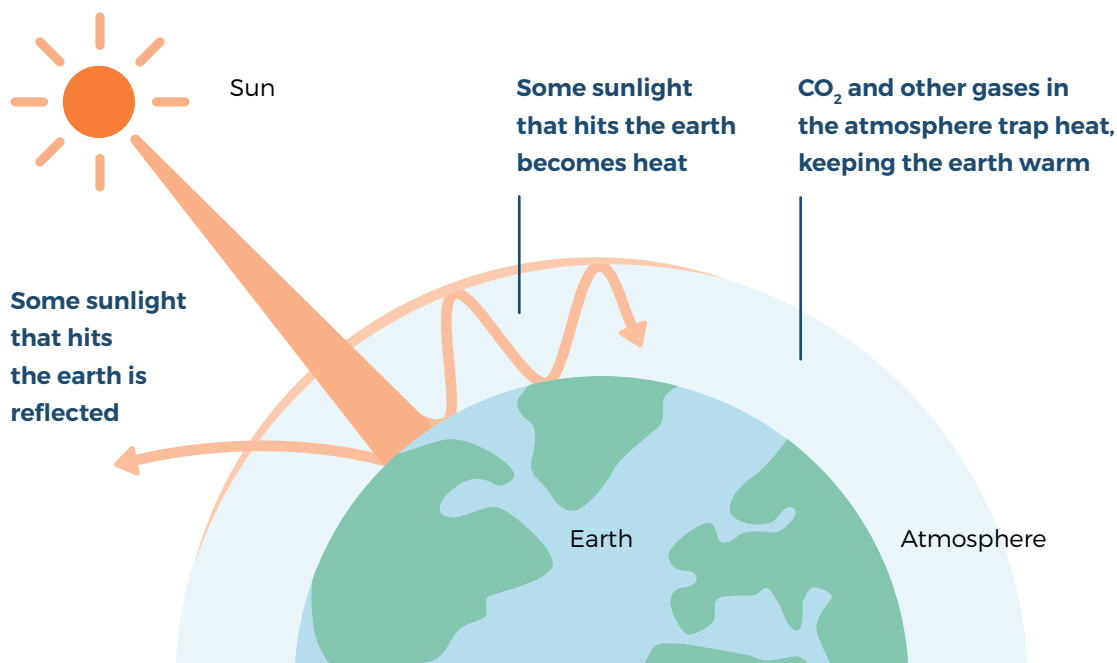
We are adding greenhouse gases to the atmosphere at an incredibly fast rate these days. We've increased atmospheric carbon dioxide by 50% over 300 years, but half of that has happened in only the past 30 years!

Why does this matter?

These greenhouse gases sit in the atmosphere, capturing some of the earth's heat before it escapes to space. It's like having a blanket or duvet covering the whole globe which is warming the planet. The more emissions we produce, and the higher the concentration of greenhouse gases in the atmosphere, the 'thicker' the blanket, and the warmer the earth.

The problem is that we have been producing more and more greenhouse gas emissions and warming the planet to levels already outside our previous experience. Global temperatures have risen 1.1°C since the 19th century. The greater the warming, the more damage it will cause because rising temperatures are altering the climate and our ecosystems everywhere - leading to more droughts, more flooding, more wind, and more heat waves.

The greenhouse effect



Ka huri te ao i tō tātou nukuaō

Our valley is changing

Our river, Te Awa Kairangi – Hutt River, once ran through a valley covered in dense kahikatea forest, flowing into a vast estuary before entering Te Whanganui-a-Tara, Wellington Harbour.

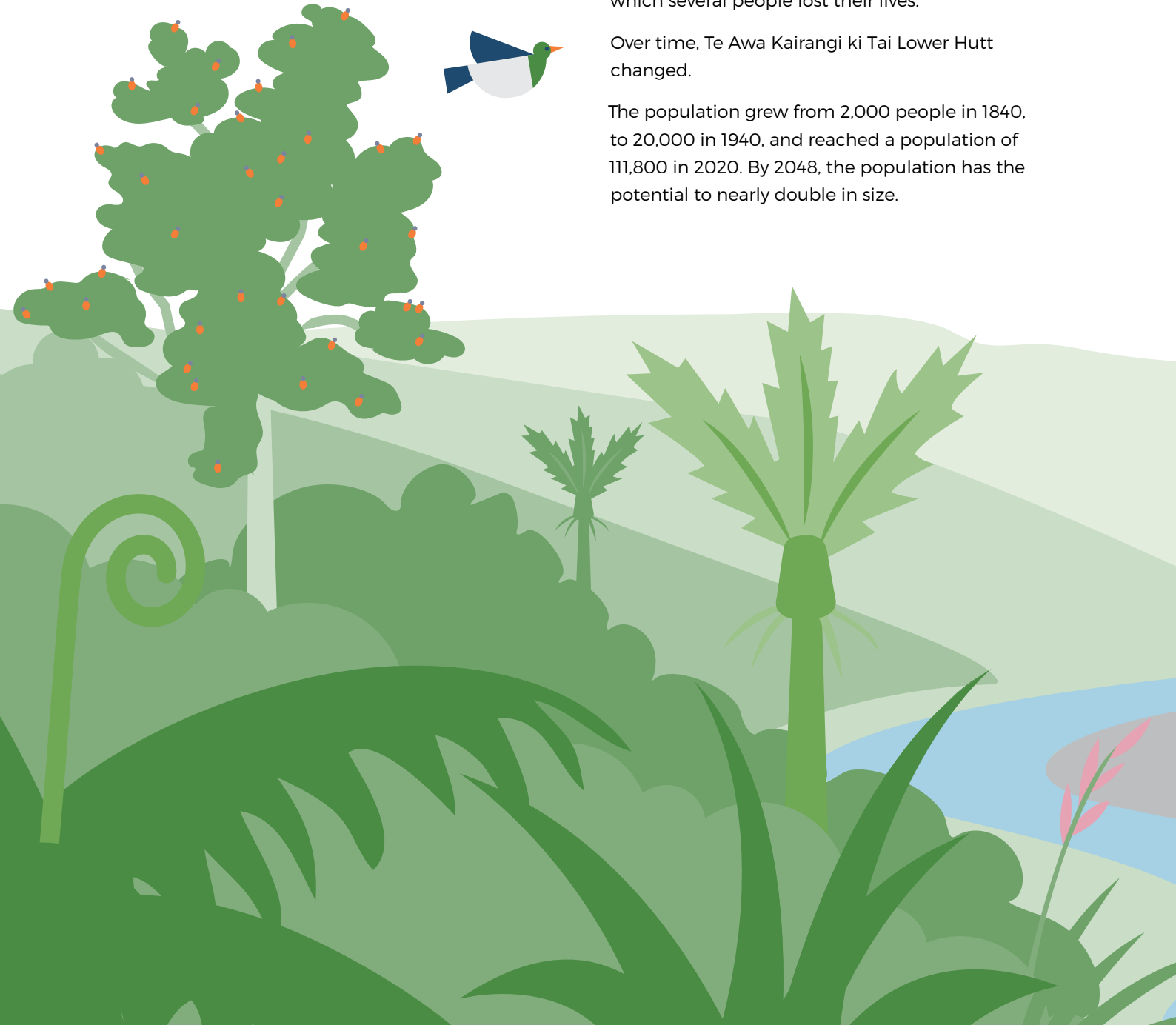
The river was abundant in fish and the surrounding forest had amazing birds, forest fruits and tall timber – earning Te Awa Kairangi its name, which means “the river full of good food” and “the source of life”.

Māori mainly settled along the estuary and most of the pā and kāinga up the valley were located close to Te Awa Kairangi or along its main tributaries. The first European immigrants settled in Pito-one (Petone) in 1840, close to the pā of Hōniana Te Puni, the paramount Te Āti Awa chief.

A massive earthquake struck the region in 1855 causing the estuary to uplift and raising the riverbed, and a major flood followed in 1858, in which several people lost their lives.

Over time, Te Awa Kairangi ki Tai Lower Hutt changed.

The population grew from 2,000 people in 1840, to 20,000 in 1940, and reached a population of 111,800 in 2020. By 2048, the population has the potential to nearly double in size.

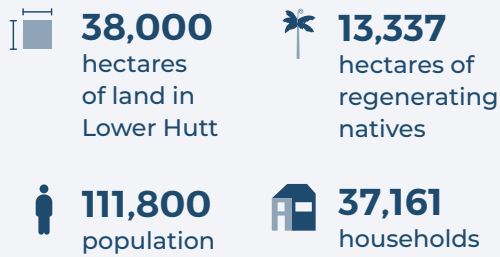


The valley's forests were milled for timber to make way for farming and market gardening. Then forests were cleared to provide land for housing and industry despite revegetation of the hills. The wetlands were drained to turn swampy land into a more suitable area for a settlement.

Throughout the world, similar transformations have occurred. Human development has altered the natural environment, with devastating effects on ecosystems, biodiversity and our earth's climate.

We now face even more change, as the earth continues to warm.

Lower Hutt today



Valuable natural resources



Ngā huringa āhuarangi

Climate impacts we face

Our city needs to respond to the adverse effects of climate change that are already happening in Te Awa Kairangi ki Tai Lower Hutt, and prepare for future impacts.

Throughout the world and in Aotearoa, the average sea-level is already around 0.2 metres higher than in 1960. We are experiencing more frequent and more extreme 'unprecedented' weather events, and these will become more severe in the future with associated effects such as supply line disruptions.

Community impacts

Vulnerable areas

Petone and Seaview are our city's most vulnerable coastal areas. They both have a significant area which would be severely affected by a one-metre sea-level rise combined with a major storm, and both have a large population, with infrastructure, housing and businesses at risk.

People and property

Climate impacts will put whenua and billions of dollars of infrastructure and property at risk, impacting people's lives and wellbeing. It also poses a risk to sites of cultural significance, including marae and historic sites which are built near the coast or river.

Climate impacts

Sea-level rise

We are guaranteed at least half a metre of sea-level rise this century, and storm surge inundation (flooding by the sea during storms) will occur more often and be more severe due to sea-level rise. The sea-level is currently rising about 3mm per year in the Wellington region, and small increases in the sea-level will have a disproportionate impact.

[Find out more](#)

Storm surge

NIWA has also assessed how Lower Hutt would be affected by storm-tides. At half a metre of sea-level rise, **Marchbank Street and Port Road** in Seaview near the mouth of the Hutt River would be flooded by storm surge. At 1.5m rise, large areas of **Seaview, Moerā, Waiwhetū, Petone and Alicetown** would be inundated.

[Find out more](#)

Flooding

Te Awa Kairangi ki Tai Lower Hutt is the most densely populated flood plain in Aotearoa. If we reach two degrees of warming, major floods would happen three times more often than they do now. Rising sea levels will push up the water table, making it harder for Te Awa Kairangi/Hutt River to drain the flood waters away.

[Find out more](#)



Kia whakakorengia ngā tukunga waro

Reducing emissions to zero

Reducing our emissions to zero and preparing for the impacts of climate change requires transformational change. We can do this if we all step up and work together.

Aotearoa's targets

New Zealand has a target of net zero carbon dioxide emissions by 2050. There is a separate target for agricultural emissions – to reduce methane emissions by 24-47% by 2050. At COP26, our country also committed to cut greenhouse gas emissions by 50% (below 2005 levels) by 2030. [Find out more](#)

But New Zealand's emissions are continuing to rise – net emissions increased by 34% between 1990 and 2019.¹

In 2021, the Climate Change Commission released *Ināia tonu nei: a low emissions future for Aotearoa* which details paths Aotearoa might take to meet its climate targets. In response to the Commission's advice, the government is developing New Zealand's first Emissions Reduction Plan to set a direction for climate action through to 2035. The final Plan is to be released in 2022.

Te Awa Kairangi ki Tai Lower Hutt targets



The New Zealand Government targets are also the de facto targets for Lower Hutt. Hutt City Council (HCC) has also joined the "Cities Race to Zero" climate initiative and set a target of halving city-wide emissions by 2030. This climate action pathway is about how our city can move toward achieving these targets.

Hutt City Council has declared a climate emergency and set an organisational goal of zero emissions by 2050. The *Interim Carbon Reduction and Climate Resilience Plan for Hutt City Council 2021-2031* outlines the first stage of reducing HCC's organisational emissions to net-zero by 2050, and the Council's efforts in helping to reduce city-wide emissions and support Te Awa Kairangi ki Tai Lower Hutt to achieve climate resilience.

Both the Council's Interim Plan and this climate action pathway will feed into the development of the Council's City Strategy.

¹ [New Zealand's Greenhouse Gas Inventory 1990-2019 Snapshot | Ministry for the Environment](#)

Hō mātou tukunga waro horipū

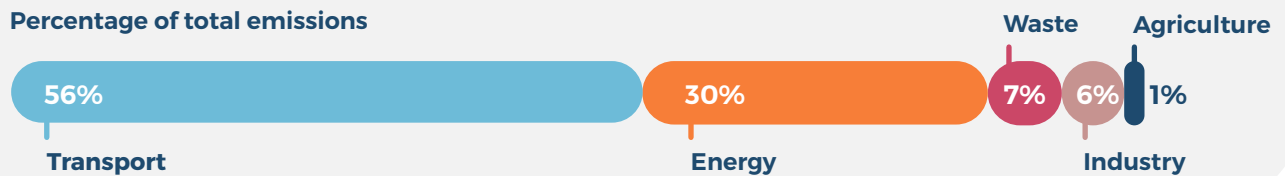
Our city's direct emissions

Reducing our emissions – we all have a part to play

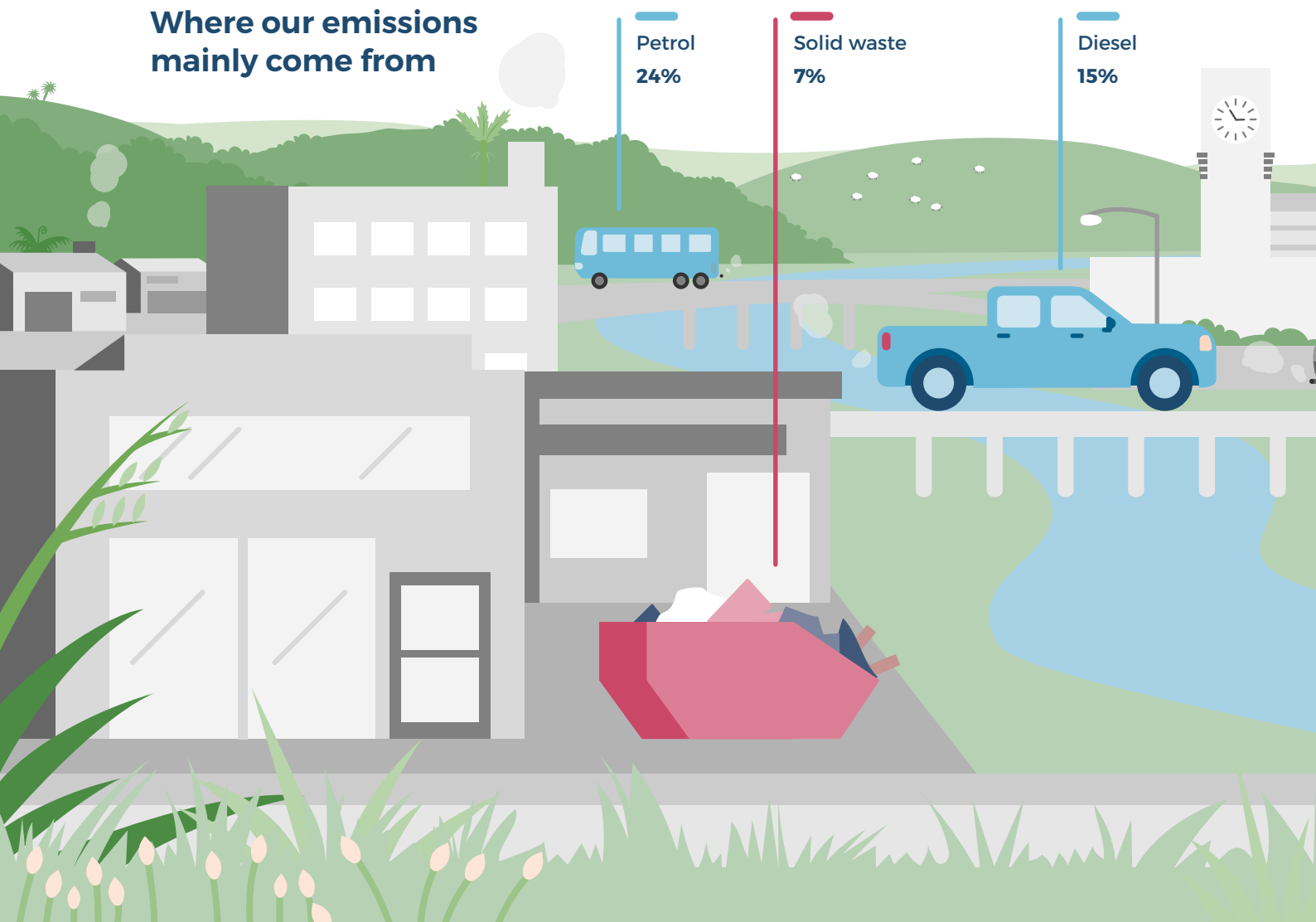
As a community we must accelerate our efforts to halve Lower Hutt's direct emissions by 2030 and reach net zero by 2050. Lower Hutt's main source of greenhouse gas emissions are transport, stationary energy and waste. Industry and agriculture are minor sources of emissions.

Lower Hutt total direct emissions

Percentage of total emissions



Where our emissions mainly come from



Our annual emissions

As a community we are collectively responsible for direct gross emissions of:

532,339 tCO₂-e

Forests in Lower Hutt absorb:

- 52,000 tCO₂-e

This means our current net emissions are:

= 480,834 tCO₂-e

Our city



90,000 registered vehicles
(~1% of vehicles are electric)



37,161 households



10,623 businesses



Electricity consumption
13%

Jet Kerosene
10%

Natural gas
10%

Industrial
6%

Hō mātou tukunga waro autaki

Our city's indirect emissions

Activities of Lower Hutt's businesses and residents also make an indirect contribution to the city's overall greenhouse gas footprint.

What's the role of consumption?

Most of our food, energy, supplies for construction and manufacturing and consumer goods and services come from outside the city.

There is carbon involved in the extraction, production, manufacturing, storage, retail and transport of everything we consume. Only our energy is accounted for in our direct emissions. The rest of our emission footprint is 'embedded' and we do not currently measure this 'indirect' carbon consumption. Previous international and New Zealand studies have shown that indirect emissions are of the same order of magnitude as direct emissions.

Do you know your carbon footprint?

Households are the largest contributor to New Zealand's carbon footprint, which includes both direct and indirect emissions.

The NZ average is 6.0T per person.

What's yours? Find out today:
genless.govt.nz



2

He urupare haponi

A community response

It starts today, with us.

We're building on climate action already underway across our city – moving further and faster together.



Kia whakaritea tō mātou rautaki huringa āhuarangi

Planning for our climate change response

The Lower Hutt Community Climate Change Response was initiated by Hutt City Council in 2019. It is led by a group of community leaders, working in partnership with mana whenua to develop community-led initiatives.

In 2021, the group was involved in 38 public engagements with around 750 people. We met with communities in Petone, Wainuiomata, Eastbourne, Korokoro, Central, Northern, Western, Eastern, as well as mana whenua, rangatahi, environmental groups, ethnic communities and businesses.

Through these engagements we aimed to:

- Understand concerns about climate change voiced by our communities
- Find out what climate action was already underway in Te Awa Kairangi ki Tai Lower Hutt
- Understand who was responsible for initiating and delivering specific actions
- Develop a shared awareness of key areas for future action.

Turning insights into action

The depth of community engagement generated a rich volume of information. Major engagements produced a report which details what the groups told us about their priorities for action.

More information on the input and voices of our community can be found [here](#)

- Lower Hutt Engagement Report
- Community workshops, hui and co-lab capture/reports

60% of people surveyed in Lower Hutt said it would be **easier to get involved in climate action** if they knew **which actions would have the most impact.**

General Survey Lower Hutt April – July 2021

Mā te pūtaiao me te mātauranga Māori e arahi

Informed by science, guided by te ao Māori

Our approach to climate change follows scientific advice and is guided by te ao Māori.

The principles of wairuatanga, kotahitanga and manaakitanga were gifted to the programme by Te Āti Awa to guide Te Awa Kairangi ki Tai Lower Hutt's Community Climate Change Response.

“Mātauranga Māori and science are not mutually exclusive. They can support each other.”

Weavers & Waka Ama
rōpū Hui



Wairuatanga

We're all connected and are interrelated to everything – people are of the land and not on the land.



Kotahitanga

The concept of togetherness, unity and collective action – lifting each other up and identifying as one.



Manaakitanga

Extending aroha, love and compassion to others.

“As mana whenua and as all people of the valley, our response to climate change is one we must face together. Our challenge is to look at the world from a different perspective.

This is about who we are and indeed for Māori it is about looking after Papatūānuku, whenua tapu, our taonga.”

Liz Mellish, Chairperson at Te Raukura, Te Wharewaka o Pōneke

Ngā whakaarotau hāpori

Community priorities

Understanding ‘what is real’ for our people

Lower Hutt has a diverse community, with a wide range of ethnicities, ages and income levels.

Making changes in how we live, work, learn and play requires us to make conscious choices – choices that have ‘invisible’ benefits and won’t be realised for years to come.

We often heard that many of our residents don’t have the **luxury of choice**. Putting food on the table or shoes on their children’s feet are their daily priorities.

Our residents with disabilities also raised awareness of their limited choices about how they move around.

Importance of a ‘just transition’

If we want all people to be able to participate in climate action, we need to develop a range of viable options. Our approach also needs to ensure that those most at risk are not further disadvantaged by climate change impacts or the measures taken to address them. For example, if we want to encourage people to reduce their use of fossil fuel vehicles, then convenient and affordable alternatives must be available.

Other priorities

The community identified a number of other priorities that are fundamental to the success of our climate action and which cut across all areas of activity:

- Importance of the Treaty partnership
- Raising awareness and educating our communities about climate change
- Value of community-led action, and building on what’s already underway
- Seeking local government leadership

“We need to make it easy for people to do the little things they can do.”

Weavers & Waka Ama rōpū Hui

Kia whakawhanaketia te ara oranga

Evolving the way we live, work, learn and play

Four key principles have guided our community climate change response.



We need to change how we move around - now

Fundamentally rethinking how we move around and connect across our city will have the biggest impact on emissions. Enabling this change relies on more connected and integrated infrastructure – providing more options, enabling seamless and convenient journeys and a just transition for all our communities.



We need more connected communities

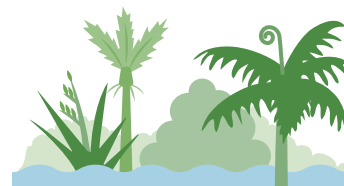
We want to build strong, connected, resilient communities. We can improve our wellbeing through good engagement, creating a sense of belonging and supporting simple and clear actions for the benefits of individuals, whānau and community. By connecting activities and building awareness we can reduce emissions and prepare for the future.



We can make big impacts in our everyday lives

There are so many positive actions we can take every day – and most of us are not even aware of our impact. Making it easy, raising awareness and encouraging a shift in mindset on the decisions we make in personal lives and business is crucial.

We all have a part to play.



We must reconnect with our natural world, wairuatanga

Changing our mindsets, to recognise that people and the environment are interconnected.

Wairuatanga recognises that we are **of the land** and not on the land. Humanity is part of the climate system – we can affect the climate, and the climate affects us.

Te Ara Whakamua o Te Awa Kairangi ki Tai

Lower Hutt Climate Action Pathway

Where we are heading

Net zero emissions by 2050. Building community resilience

This climate action pathway provides direction on where we need to target our future effort to reduce our transport, energy and waste emissions. It also focuses on wairuatanga – connecting with our natural world and preparing for the adverse effects of climate change.

2022–2024

Act now and connect what's underway

As a community we are clear about where we are going and what we need to do to get there. We acknowledge the climate crisis, take responsibility for our contribution and understand the strength of our collective response.

Collective Focus and Community Response

Transport

Walking and cycling

- Expand the walking and cycling network
- Improve access to bikes and bike parking
- Support tamariki to safely walk, cycle or scooter to school
- Encourage people to walk and cycle short trips

Electric Vehicles

- Develop a low carbon public transport network
- Encourage government and large businesses to switch to EV fleets
- Expand the electric charging network

Public Transport

- More reliable and frequent services
- Improve access to public transport
- Make it easier to connect to different forms of public transport

Reduce Car Use

- Remote working at home and local co-working spaces
- Encourage businesses to support reduced vehicle use
- Support innovative new ways of moving around
- Investigate how we can reduce driving in urban centres

Energy

Energy generation and use

- Encourage actions to reduce energy use
- Support lower carbon building practices
- Transition out of fossil fuels
- Explore local renewable energy generation



Percentage of total emissions

56%

30%

Immediate action on reducing carbon emissions



2030
50% reduction in city emissions, 30% reduction in biogenic waste emissions (methane)



2050
Net zero carbon emissions and a climate resilient city

2025-2029

Accelerate Action

We will continue to challenge the status quo, accelerate climate initiatives and measure our collective impact. Our firm action will ensure we are on track to halve our emissions by 2030. As a future focused and innovative city, our courage and effective climate action will lead Aotearoa.

Delivering for the future

We are on the Race to Zero with climate action delivering a steady and substantial reduction in emissions. We will be prepared for the impacts of climate change, with connected and resilient communities. Our connection to the natural world is a part of our everyday lives; Papatūānuku and Ranginui are acknowledged and celebrated throughout the city.

Consumption & Waste

Refuse, reduce, reuse, recycle

- Support the development of a circular economy
- Embed and improve HCC's kerbside rubbish and recycling
- Reduce food and green waste
- Improve methane capture at landfills

Te Taiao

Connect with our natural world - Wairuatanga

- Strengthen our connection with te Taiao
- Restore biodiversity and improve carbon sequestration
- Develop nature-based solutions to tackle the impacts of climate change

Future City Design

Living well locally

- Encourage living well locally
- Strengthen communities through connected neighbourhoods
- Ensure Papatūānuku is acknowledged through the city

Climate Adaptation

Preparing for the future

- Improve our understanding of risks of sea-level rise and flooding
- Plan and continuously adapt
- Build community resilience



7%

Ngā tūranga matua i tō tātou rautaki

Critical roles in our response

It's important that we understand the different roles that are needed in our response and who does what.

We must connect to our natural environment with indigenous knowledge and a holistic approach

Tangata whenua

Mana whenua are intrinsically connected to Te Awa Kairangi ki Tai. They have strong historical knowledge of changes to the local environment over time and linkages between each generation to those before and after. Te ao Māori shows the critical connection of people to the natural world and helps frame our thinking and approach to climate change.

We all have a part to play

Individuals

Individuals and their whānau can make changes to their everyday lives which will have a real impact. As people are most likely to be influenced by those they know, role modelling positive change to friends, family or workmates is critical.

Community sectors must lead with connection, innovation and challenge the status quo

Community groups

Community groups such as marae, environmental associations, places of worship, schools and other local organisations can motivate, inspire and facilitate climate action. A wide range of actions are carried out by community groups, such as tree planting, predator control, food rescue and community gardens.

Business and industry

The business sector plays an important role through following sustainable business practices, reducing their own company carbon footprints and helping to facilitate staff climate action. When manufacturers produce better products, recycle, and reduce packaging, they help to reduce our city's waste.



Local and regional government can lead us in the right direction, coordinate action and support community-led initiatives

Hutt City Council

Through regulation, incentives, urban design and the construction and maintenance of infrastructure such as roads, cycleways, and Silverstream landfill, HCC influences the city's emissions. Efforts to reduce the council's own emissions role models climate action to others.

Greater Wellington Regional Council

GWRC is responsible for Metlink – Greater Wellington's public transport network. GWRC also has a key role in managing regional biodiversity, flood protection and emergency management.

Integrated government planning and central system thinking is needed to enable change

NZ Government

The government develops strategies, policies, regulation, and can provide funding. Different agencies have specific responsibilities – the Ministry of Transport and Waka Kotahi are focused on reducing transport emissions and the Ministry for the Environment is the lead agency for climate change adaptation.

International agreements

Under the Paris Agreement (2015), 196 countries committed to keeping global temperatures well below 2°C and preferably to 1.5°C, compared to pre-industrial levels.

Ka hīkina te mānuka

Our city is taking action

Climate action is already
underway across our city...



Naenae

A Free Ride bicycle
scheme is underway



Randwick, Maungaraki & Avalon

Schools are generating
their own solar power



Seaview

An electric ferry has been built

Photo credit: Southlight Studios



Region wide

Metlink's core service bus fleet will be electric by 2030



Waiwhetū

PET plastics are being recycled



Wainuiomata

A Pātaka Kai and urban farm been developed

3

Me mahi tahi tātou

What we need to focus on - together

We all have the power, we just need to use it

Even small actions can make a huge difference if everyone makes the changes we need.



Ngā aronga matua

Targeting key areas

Transport

More walking, cycling and use of public transport, less private vehicle use

Energy & Buildings

Improving energy efficiency, using and generating renewable energy, and constructing low carbon buildings

Consumption & Waste

Reducing the amount that we consume, reducing waste and recycling

Te Taiao

Connecting with our natural world, planting forests and protecting biodiversity

Future City Design

Shaping our city for accessible and low carbon neighbourhoods

Adaptation

Planning for sea-level rise and flooding, and building community resilience

Ngā Waka Transport



To reduce transport emissions, we need to break our habit of car use, and try different ways of moving around, including more walking or cycling, and taking public transport.

Transport is the main source of emissions. The petrol and diesel that we use in our vehicles create carbon emissions – so even if we’re just taking a short trip, we’re releasing carbon into the atmosphere, which will stay there for thousands of years.

Changing the way we move around will not only reduce emissions, but also have health benefits – we’ll be healthier and happier with cleaner air to breathe. This will reduce the impact on the health system, reduce congestion, and increase efficiency of freight and people movement.

This is going to require some big changes, as people mainly drive within Lower Hutt. During the morning peak, over 75% of trips are in a private vehicle.

“We need to turn the whole transport system on its head.” (Transport Alignment Hui)

People will switch to walking, cycling or taking public transport if these options are convenient, affordable, safe and attractive options.

Reducing transport related emissions will require switching our remaining vehicles to electric and a major shift in our thinking and behaviours to reduce our overall levels of travel, get out of cars and onto buses, trains, bikes or go by foot.

This will be a huge challenge, but with government, business and the community working together, we can all take steps forward to reduce emissions from transport.



How transport will contribute in the long term

Connecting what's underway

2022-2024

HCC is developing an Integrated Transport Strategy and has committed to a \$88 million investment in micromobility, shared pathways and resilient transport links.

Accelerating action

2025-2029

RiverLink transport improvements will be delivered, including better walking and cycling links in the CBD. Metlink's core service bus fleet will be electric by 2030.

Delivering for the long term

2030-2050

We will continue to develop a safer and more connected walking and cycling network, and develop an accessible and reliable public transport network. Petrol and diesel fuelled vehicles will be replaced by electric vehicles.

Wellington Region targets²

- 35% less carbon emissions from transport by 2030
- 40% increase in the share of trips by active travel (cycling, walking) and public transport by 2030

Aotearoa targets³

- Increase zero emissions vehicles to 30% of the light fleet by 2035
- Reduce vehicle kilometres travelled (VKT) by cars and light vehicles by 20% by 2035

(Note – Targets not yet finalised as part of New Zealand's Emissions Reduction Plan)

² [Greater Wellington Regional Council – Wellington Regional Land Transport Plan 2021 \(gw.govt.nz\)](#)

³ [Transitioning to a low-emissions and climate-resilient future: emissions reduction plan discussion document | Ministry for the Environment](#)

More walking and cycling

Travelling on foot, scooter or bike is fantastic for your fitness, mental wellbeing, and wallet, as well as helping the planet.

Te Awa Kairangi ki Tai Lower Hutt has great potential for cycling and walking – much of our city is flat and our streets are wide. Innovations like e-bikes can help us tackle the wind and hills of places like Korokoro.

Cycling is increasing across the city, but from a low base – less than 2% of people travel to work by bike and 4% walk to work.

What our community would like

- ✓ More and safer cycleways
- ✓ Cyclists off footpaths
- ✓ Bike parking near work and shops
- ✓ More bike racks on buses
- ✓ Better footpaths to train stations





What we're aspiring to achieve

We will expand Te Awa Kairangi ki Tai Lower Hutt's walking and cycling network

Over the next few years, our city's network of key walking and cycling routes will be expanded, which will make it easier and safer to get around the city and travel to Wellington. Beltway cycleway, Tupua Horo Nuku Eastern Bays Shared Path, Te Ara Tupua, RiverLink and HCC's Cycling and Micromobility programme will support a larger, more connected network.

We will improve access to bikes and bike parking

Community initiatives such as the Recycled Rides community bike library are leading the way. Metlink has also been investing in Bike and Ride to enable people to cycle and safely store their bikes at most train stations. Locky Dock by Big Street Bikers has introduced its first secure bike racks in Lower Hutt.

We will support tamariki to walk, cycle or scooter to school

Lower Hutt has a low rate of children that cycle to school (just 3% of students). We need to make it safer and encourage our tamariki to use foot and pedal power. We will improve safety with speed limits and crossing infrastructure. We will also support initiatives that offer access to bikes, bike skills training and promote the benefits of walking, scootering and cycling to school, such as Biketec and Pedal Ready.

We will encourage people to walk and cycle short trips

A lot of transport emissions are produced through people driving short trips, which in many cases could be walked or cycled. Efforts to create more people-friendly spaces, such as the Knights Road Connection and low traffic areas can encourage more people to bike and walk.





What is already being done

Check out what actions our local community and government already have underway.

[See page 70](#)



What else we need to do

- Provide sufficient secure bike stands at schools
- Support the use of school 'walking buses'
- Explore a community co-design wayfinding trial to encourage people to explore their neighbourhood in a different way
- Prioritise connecting new cycleways and shared paths to schools, hospital and main centres
- Make shared paths safe for all users – prams, dog walkers, scooters, e-bikes (eg. demarcation line, 'be considerate' signs)
- Employers – offer an e-bike purchase support scheme
- Increase secure bike parking throughout the city

Kiwis make more than a **billion car trips under 2km per year**. If every New Zealand household switched their car for a climate friendly way of moving around (such as cycling, scootering and walking), our country could **save around 100,000 tonnes of carbon dioxide emissions each year**.

genless.govt.nz

Increasing use of public transport

Using public transport rather than driving your car is one of the most effective climate actions that you can take.

Public transport reduces carbon emissions, cuts down pollution and reduces traffic congestion.

Our city is connected to Wellington, Upper Hutt and the Wairarapa by bus, train and ferry services. Buses are the main form of public transport for travelling around Te Awa Kairangi ki Tai Lower Hutt, and a large number of people commute by train.

What our community would like

- ✓ More regular and reliable public transport
- ✓ Low cost/free and flexible public transport
- ✓ Incentives to move away from private vehicles to public transport
- ✓ Better integration between public transport connections





What we're aspiring to achieve

We will put in place more reliable and more frequent services

Metlink is aiming to increase rail timetable frequency to ten minutes (where practicable) by 2030. New trains and infrastructure will help to increase capacity on trains. Metlink is increasing service frequency on core and targeted routes, and improving accessibility to train stations and bus shelters. New 'on demand' services will be trialled in Tawa in 2022. Key transport hubs will be redeveloped, including Waterloo station. Hutt City Council is putting in place bus priority measures at key intersections in Petone.

We will improve access to public transport

Metlink and Hutt City Council are working to improve access to public transport hubs, including key train stations – Petone, Ava and Woburn. Affordability remains an ongoing issue for our community. There is a plan to extend electronic ticketing across the metropolitan rail network in the coming 2-3 years including in the Hutt Valley.

We will make it easier to connect to different forms of public transport

National ticketing and integrated fares will make it easier for people to travel between buses, trains and ferries using one card or ticket rather than different ticketing systems. Upgrading Real-Time information will help passengers to track their bus and train in real time. Bike and Ride and Park and Ride facilities help people connect to public transport for part of their journey.



What is already being done

Check out what actions our local community and government already have underway.

[See page 72](#)



What else we need to do

- Improve East-West connections between Te Awa Kairangi ki Tai Lower Hutt and Kāpiti/Porirua
- Improve services for hill suburbs, Stokes Valley and Wainuiomata
- Set fares to ensure that all people can access services
- Improve capacity and ease of taking bikes on public transport
- Accelerate cycling and walking connections with public transport stops

“If a Māori or Pasifika patient is going to a hospital appointment they'll probably travel with several member of their whānau which soon adds up on bus fares.”

Transport Alignment Hui

Increasing electric vehicles

Electric vehicles are one of the most significant technological innovations for reducing transport emissions.

In late 2021, about 1% of motor vehicles in Lower Hutt were electric. This needs to change significantly over the next 5-10 years, so that by 2030, most new vehicles are electric.

The Government has introduced incentives such as the Clean Car Discount and Road User Charges (RUC) exemptions to encourage people to buy an electric or low-emission vehicle.

In community hui, it became clear that the upfront cost of EVs is still a major barrier for small businesses and many households. EVs will become more affordable as Aotearoa's secondhand market for electric vehicles grows, and due to any further central government interventions on cost.

What our community would like

- ✓ Reduce cost of electric vehicles
- ✓ End driving of fossil fuel cars
- ✓ More EV charging stations





What we're aspiring to achieve

We will develop a low-carbon public transport network

A key action is switching Metlink's bus fleet from primarily diesel to electric, with 100 electric buses planned by 2023, and decarbonisation of the fleet by 2030. Our region's first electric passenger ferry was built in Seaview and began operating in late 2021. The Hutt and Melling lines are already electrified and Metlink is exploring ways to further decarbonise the rail and ferry fleet.

We will encourage government and large businesses to switch to electric vehicle (EV) fleets

A significant shift is underway by the central government to support a carbon neutral public service by 2025 by replacing the sector's 16,000 light vehicles with electric vehicles. Some of these are located at public sector offices around Lower Hutt. Hutt City Council is also working towards a fully electric corporate vehicle fleet by 2030, with 32% of its fleet already fully electric. Several large businesses such as The Warehouse, NZ Post and Countdown are transitioning to electric vehicle fleets. Government and large businesses leading EV uptake is essential to 'flipping our fleet'.

We will expand the electric charging network

Hutt City Council is rolling out 20 additional electric charging stations by late 2022. Several businesses, such as PAK n SAVE and Z Energy also have electric charging stations in Te Awa Kairangi ki Tai Lower Hutt. The Government's Low Emission Transport Fund provides up to \$25m a year in funding, including for public charging infrastructure.



What is already being done

Check out what actions our local community and government already have underway.

[See page 74](#)



What else we need to do

- Introduce electric buses on some Lower Hutt services by 2023
- Continue to decarbonise the rail and ferry fleet
- Promote businesses leading the switch to electric fleets and encourage others to follow
- Encourage further roll-out of EV charging stations, including hyper-chargers that enable vehicles to charge up within minutes.

EVs emit **80% less CO₂** than an equivalent petrol vehicle when being driven in New Zealand. Battery EVs emit **60% fewer** climate-changing emissions over their full lifecycle than petrol vehicles.

[genless.govt.nz](https://www.genless.govt.nz)

Reduce vehicle use

We need to shift away from private vehicle use and prioritise the movement of people, rather than cars.

As well as encouraging more cycling, walking and public transport use, we also need people to take fewer trips in their cars and reduce the total of kilometers they travel.

Personal car use can be discouraged (by making driving less attractive than other options), and we can also make people more aware of alternative options and encourage them to try something new.



What our community would like

- ✓ Increase remote working/working from home
- ✓ Support access to car-share
- ✓ Improve digital connectivity

Regional target of
**60% reduction in
public transport
emissions** by 2030.



What we're aspiring to achieve

We will use technology to work and study remotely

As COVID-19 lockdowns have demonstrated, emissions drop when people work remotely (where feasible) and minimise the use of travel. Businesses can also reduce their carbon footprint by meeting online. But, we need to ensure that all households are digitally connected, with devices and internet access.

We will encourage businesses to support reduced vehicle use

In a survey of businesses in Lower Hutt, 28% were enabling employees to use active modes or public forms of transport. 33% of travel within Te Awa Kairangi ki Tai Lower Hutt was to employment areas (Hutt central, Petone, Gracefield). Employers can create real impact by developing travel action plans, supporting employees to cycle, scooter or walk to work, subsidising bus fares, encouraging car-share and providing facilities at work for locking bikes and taking showers.

We will support innovative new ways of moving around

Car sharing provides an alternative to private car ownership and can help reduce single person journeys. Research demonstrates that each car share vehicle can replace about 10 vehicles. Mevo and Cityhop are currently based in Wellington CBD, and there is interest from providers to set up operations in Te Awa Kairangi ki Tai Lower Hutt. Ridesharing is another option to private car ownership that can help reduce single person journeys.

We will investigate how we can reduce driving in urban centres

Pedestrian only zones and creating restrictions such as increasing costs for parking are all ways that can reduce driving in urban centres. Parking management in Te Awa Kairangi ki Tai Lower Hutt is an area of focus in the Regional Mode Shift Plan for Wellington, and potential initiatives could be explored in the future.





What is already being done

Check out what actions our local community and government already have underway.

[See page 76](#)



What else we need to do

- Explore establishing a remote working hub in Te Awa Kairangi ki Tai Lower Hutt for central government employees
- Support initiatives to ensure all households have devices and internet access
- Employers explore developing travel action plans for employees
- Help people to more easily organise ride sharing (engaging with employers and individuals)
- Explore and implement ways to reduce driving in the city centre
- Make the cost of cars more visible through publicity and effective information





Pūngao me ngā whare

Energy and buildings



All of us use energy in our daily lives – to wash our clothes, take a shower, watch TV, cook our meals and light our homes. Energy is also used in the business sector – in heating and lighting, powering machines and computers.

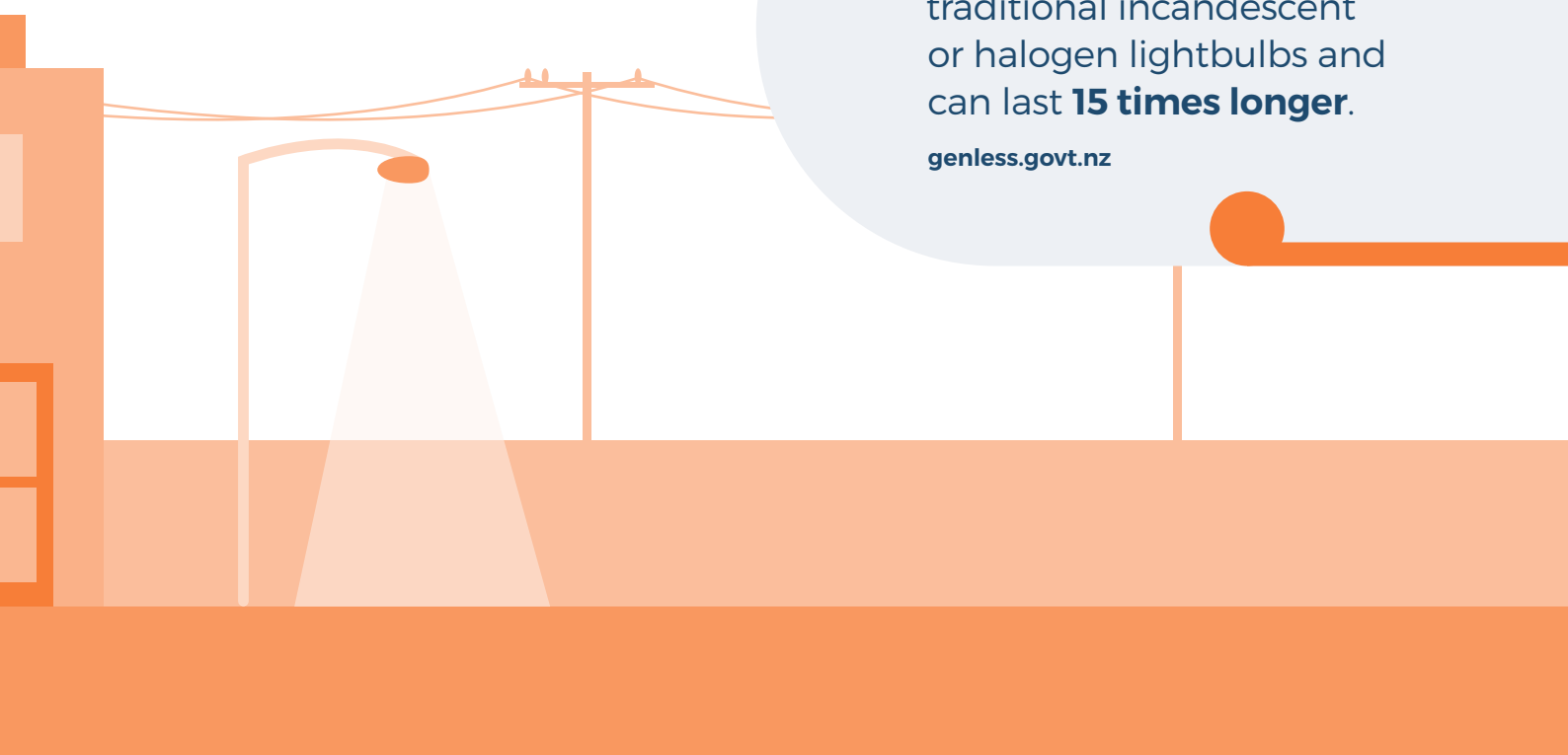
Around one-third of our city-wide emissions are from the energy we use.

When thinking about energy – sustainability, affordability and security are all important. We need to reduce emissions, while ensuring that there is a resilient supply of energy, and that power remains affordable.

Te Awa Kairangi ki Tai Lower Hutt relies on New Zealand's electricity grid for most of the city's energy, which is currently around 80% renewable. But we also produce energy through fossil fuels which emit high levels of carbon dioxide, such as through using gas boilers for heating water. Switching from fossil fuels to lower carbon alternatives will reduce these emissions.

By taking climate action in areas like heating, water, appliances, insulation and lighting, we can all reduce emissions and save money. Actions to ensure our whānau live in healthy, energy efficient homes also lead to healthier communities.

Te Awa Kairangi ki Tai Lower Hutt currently generates very little of its own electricity. Lifting local generation of renewable energy may include installing solar panels on houses and buildings or potentially establishing local wind or solar farms to power our city.



LED lightbulbs use up to **85% less energy** than traditional incandescent or halogen lightbulbs and can last **15 times longer**.

genless.govt.nz

How energy and buildings will contribute in the long term

Connecting what's underway

2022-2024

The NZ government's Emissions Reduction Plan and HCC's District Plan Review signal immediate changes on our way to carbon zero.

Accelerating action

2025-2029

Phasing out fossil fuels, retrofitting and constructing lower carbon and energy efficient buildings and reducing energy use.

Delivering for the long term

2030-2050

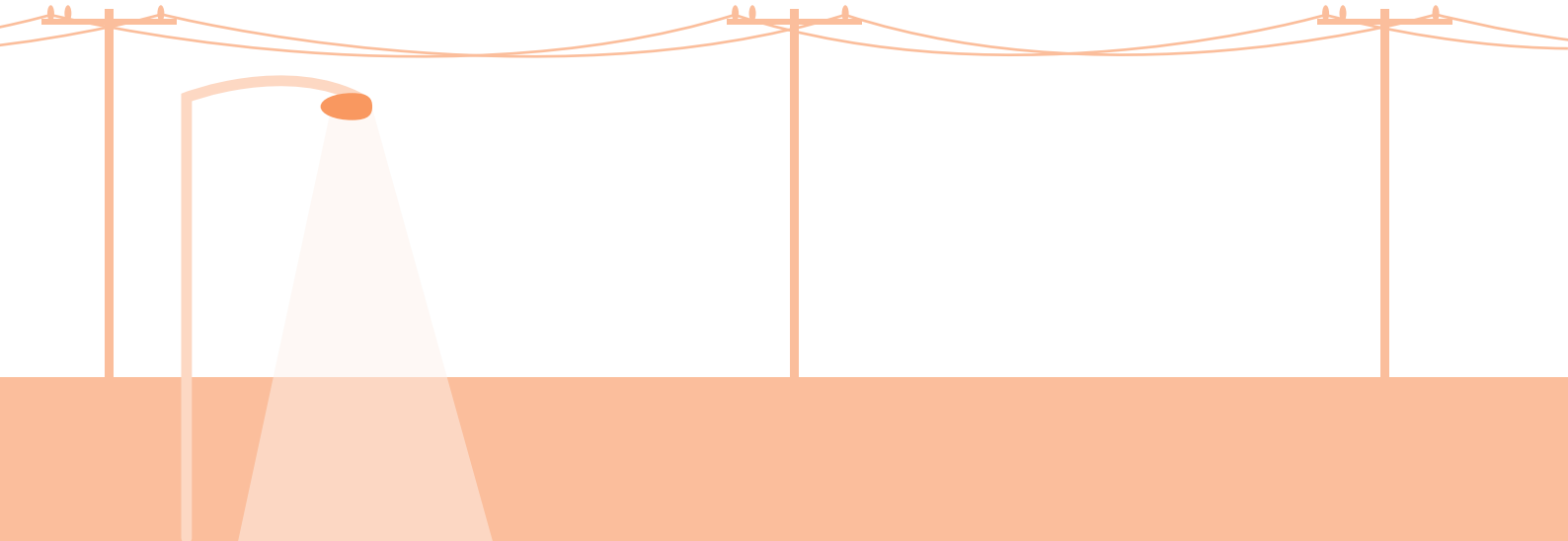
Local renewable power generation will be expanding rapidly. Consumers will be healthier and safer as a result of better built houses.

Lower Hutt target

- Reduce energy emissions at HCC facilities by 50% by 2030.

Aotearoa targets

- Achieve 100% renewable electricity generation by 2030.



Energy generation and use

Energy is our city's biggest contributor to emissions after transport. So, we need to focus our efforts on reducing our energy use, getting out of fossil fuels, creating lower carbon buildings and increasing renewable energy.



What our community would like

- ✓ Reduce personal carbon footprint
- ✓ Subsidise cost of transition to low carbon energy
- ✓ Improve access to solar
- ✓ Explore wind and solar farms





What we're aspiring to achieve

We will encourage actions to reduce energy use

We will encourage people to use energy efficient technology including home appliances and office equipment, and learn new low-energy behaviours, such as charging EVs off-peak. At a city wide level, Hutt City Council will upgrade the city's lighting to LED, and will continue to audit Council facilities to identify energy saving opportunities.

We will support lower carbon building practices

It's important that our homes and workspaces minimise the amount of energy which is wasted. Initiatives such as Healthy Home Standards are improving insulation and stopping draughts in rental units. Kāinga Ora has recently retrofitted 200 homes in the Hutt Valley. HCC eco-design advice is available to community members on how to make their homes warm, dry, healthy and energy efficient.

We also need to design and build for a low carbon future. HCC is looking to achieve a Green Star rating of 5, or equivalent, for Naenae Pool. Urban Plus Ltd builds all their new housing developments to HomeStar6 requirements, and Kāinga Ora's Hutt Valley Build Programme is constructing fully insulated and double glazed homes in Epuni, Naenae and Petone.

We will transition out of fossil fuels

Government-funded efforts are underway to replace coal-boilers in some parts of the country. Hutt City Council will be phasing out natural gas at Council facilities such as the Dowse and swimming pools, with a plan to achieve a 50% reduction in energy-related emissions by 2030. As part of this climate action pathway, we've been exploring how to work with Te Awa Kairangi ki Tai Lower Hutt developers to encourage them to avoid locking in new gas connections.

We will explore local renewable energy generation

As the price of solar panels and battery storage drops, solar power is becoming a more viable option. It can also help make energy more affordable. For example Wainuiomata marae is working in partnership with Kāinga Ora to build affordable rental homes, with MBIE funding solar power for homes and the marae. Some Lower Hutt schools have already installed solar panels, such as Naenae Primary, Muritai and Pukeatua, and other schools could be encouraged to follow. While establishing a wind or solar farm in Lower Hutt is not currently being actively explored, this should be a focus for the future.



What is already being done

Check out what actions our local community and government already have underway.

[See page 78](#)



What else we need to do

- Explore how we can support businesses and organisations in understanding and implementing energy savings opportunities
- Retrofit all existing building stock up to healthy home standard by 2030
- Promote building to passive house standard
- Build community expectations around what we can expect from new housing development in terms of reducing energy use in construction and ongoing use
- No new gas connections in new buildings from 2025 at the latest
- Support all schools in Lower Hutt to install solar panels by 2030
- Explore community suggestion of a wind or solar farms at Belmont Regional Park, or another site by 2030



Whakapeto pūngao me te para

Consumption
and waste



Every one of us is responsible for producing a huge amount of waste – through what we eat, buy, wear and use every day. Across our community, innovative actions are underway to refuse, reduce, reuse and recycle.

Most of our city’s waste ends up at the landfill. If we don’t dispose of waste properly, then rubbish may end up polluting our streams, rivers and oceans. Wairuatanga is important, as our actions have a direct impact on the environment, which in turn affects us.

Products that we use and then throw out, such as plastic, glass and tin, take energy and resources to produce. By creating a more circular approach, emissions can be avoided.

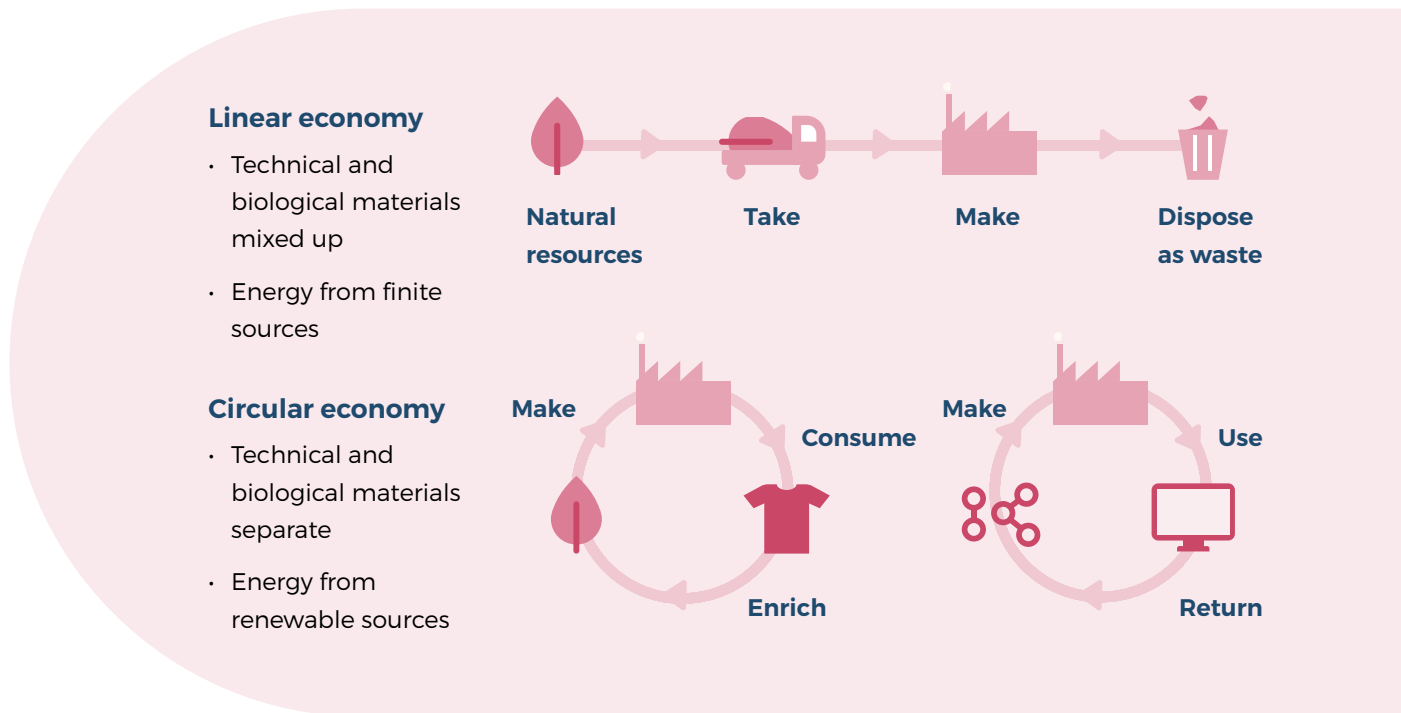
Individuals, community groups, businesses and government are taking action to help build a circular economy in Te Awa Kairangi ki Tai Lower Hutt. A circular economy involves keeping resources in use for as long as possible, then

regenerating products and materials. This creates good ‘green’ jobs, as resources are used again, instead of being used once and then thrown in the landfill.

Emissions are also produced when disposing of organic waste in a landfill, where organic waste rots and produces landfill gas, including methane. Those emissions can be minimised by taking an alternative path, such as composting that waste.

The emissions from landfills make up about 7% of Lower Hutt’s total emissions each year. This makes waste the third biggest single emitter in the city, after transport and energy.

Connecting what’s



How consumption and waste will contribute in the long term

underway

2022-2024

Embedding HCC's kerbside service and reducing emissions from waste.

Accelerating action

2025-2029

Widespread changes in mindsets, systems and behaviour, and optimising resource recovery.

Delivering for the long term

2030-2050

Businesses and consumers will be better supported in taking a whole of life approach to materials and products to minimise waste and pollution. Waste will be 'designed out' of New Zealand products.

Reduce personal waste target

- Recycle an extra 13.5kg per year by 2026
- Divert 34.5kg of food waste per year
- Reduce household waste generated by 9kg per year.

Wellington Region targets⁴

- Reduce total waste to landfill from 600 kgs per person each year to 400kgs per person by 2026.

Aotearoa targets⁵

- Reduce the country's biogenic waste methane emissions by at least 30% by 2030
- Reduce litter by 60% by 2030

(Note – proposed targets)

⁴ [Wellington Region Waste Management and Minimisation Plan 2017-2023](#)

⁵ [Taking-responsibility-for-our-waste-snapshot.pdf \(environment.govt.nz\)](#)

Refuse, reduce, reuse, recycle

Reducing what goes to landfill is not just a matter of recycling better, it is also about considerably reducing what we consume. Supporting businesses to take responsibility for the whole lifecycle of their products and reducing our individual waste will help in lowering emissions.

What our community would like

- ✓ Phase out unnecessary packaging
- ✓ Compost all organic waste
- ✓ Teach people how to recycle properly
- ✓ Be clear about the carbon 'cost' of products.

“Two hours of work and two cups of tea can make a kete kai. This will last you eight years.”

Weavers and Waka Ama rōpū Hui





What we're aspiring to achieve

We will support the development of a circular economy

Through making environmentally conscious choices and holding businesses to account, people can play an important role in building a circular economy.

Our businesses can support a circular economy through:

- **repurposing products**, such as Noho which creates chairs out of recycled fishing nets
- **creating alternatives**, such as Naturepac which manufactures compostable and biodegradable packaging
- **selling used products** at Lower Hutt's second hand retailers
- **recycling** – a lot of products are recycled right here in Lower Hutt, including at Flight Plastics, which recycles PET packaging to reuse locally

New Zealanders are some of the highest waste generators in the world. Every week we throw away **over 1kg of plastic waste per person.**

We will embed and improve the Council's kerbside rubbish and recycling collection service

HCC's new weekly kerbside service makes recycling easier. As the service is paid for via targeted rates, all households can easily participate in the service – whether they are renters or homeowners. HCC is working on the establishment of a new resource recovery park to improve the ability to separate materials, such as metals, repairable goods and construction and demolition waste.

We will reduce food and green waste

HCC's new optional kerbside green waste collection service will divert around 2,100 tonnes of green waste per year to a composting facility. Composting turns waste into a fertiliser for gardens and helps reduce emissions. Work is planned to investigate the feasibility of a food waste collection service.

Food rescue also helps prevent food waste and provides meals for people in need of support. Kaibosh has reduced emissions by more than 600 tonnes in the Wellington region since 2008.

We will improve methane capture at landfills

Our city has been putting measures in place to reduce methane emissions, including through a power plant at Silverstream Landfill which collects and uses methane gas to generate around 13 GW of electricity per year. A supplementary flare was installed in 2021 to burn off methane before it reaches the atmosphere, and there is a continued focus on maximising gas destruction. Over the next year, HCC will be looking into the feasibility of installing a controlled flare burn-off at the closed landfill in Wainuiomata. Emissions at that landfill could potentially drop by 25-50% if a flare is viable.



What is already being done

Check out what actions our local community and government already have underway.

[See page 80](#)



What else we need to do

- Educate businesses on waste reduction and recycling
- Promote Lower Hutt businesses that are helping to develop a circular economy
- Establish a comprehensive resource recovery park in line with best practice



Photo credit: Ted Grieve (HCC Senior Comms Advisor)

Tiaki Taiao

Restoring te Taiao



Tangata whenua have long understood the importance of living in harmony with te Taiao, our natural world – for Māori it is about looking after Papatūānuku, whenua tapu, our taonga.

Our global climate is changing because of human activity, which continues to have a profound impact on our natural environment. Human impact can be seen across Aotearoa and in Lower Hutt, which was once covered in thick forest and wetlands.

Biodiversity loss is incredibly serious, because biodiversity is important for well-functioning ecosystems, which we need to produce our food and give us our air, our water and our shelter. The impacts of climate change are further threatening our native biodiversity. It is clear that we have a huge challenge ahead to reverse this biodiversity loss, which will require investment and action well beyond the scope of this document.

It's important that tangata whenua have access to te Taiao – to connect and care for it, and in turn for themselves. We also need to ensure that Māori voices are heard more clearly about how we can all better understand and value te Taiao – not only for its beauty and spiritual contribution, but also for its abundance and generosity.

If we are to address the challenges of climate change effectively, we must restore our connection with our natural world. We need to reforest and rewild what we can, increase carbon capture (sequestration) from planting trees and improve native habitat for species.

As trees absorb carbon, they help to mitigate greenhouse gas emissions. In 2019, 74,496 tCO₂-e were sequestered by forests in Lower Hutt, mainly from native forests, however, harvesting of forestry produced 22,991 tCO₂-e.

We can also work with nature in addressing problems created by damage to the environment. Natural solutions such as restoring wetlands will improve water quality, flood control and habitat. Native bush and scrub also help with water cleansing, as well as erosion and flood reduction.

Almost **two-thirds** of New Zealand's rare ecosystem is under threat of collapse, with **90% of seabirds** and **80% of shorebirds** threatened with or at risk of extinction

Environment Aotearoa 2019

How restoring te Taiao will contribute in the long term

Connecting what's underway

2022-2024

Commence work to accelerate reforestation of Belmont Regional Park, and improve existing forest land.

Accelerating action

2025-2029

Work with nature in restoring biodiversity. Focus on restoring wetlands and predator control.

Delivering for the long term

2030-2050

Mana whenua will play a guiding role in the protection of our native species which will ensure they thrive. Benefits of forest regeneration and nature-based solutions.

Re-indigenising the city through nature-based solutions

- Explore in collaboration with mana whenua the re-indigenisation of the city, drawing on mātauranga Māori to inform how and what we do

Reclothing Papatūānuku

- Explore the reinstatement of native flora and fauna across the city to support both carbon sequestration and a strong Te Awa Kairangi identity

Aotearoa Targets

- Plant one billion trees by 2028
- Halt and reverse forest loss and land degradation by 2030⁶

⁶ Glasgow Leaders' Declaration on Forests and Land Use – UN Climate Change Conference (COP26) at the SEC – Glasgow 2021 (ukcop26.org)

“Lower Hutt has been disconnected to its greatest resource – our awa.”

Restoring Te Taiao Alignment Hui

Connection with our natural world, wairuatanga

Biodiversity loss and climate change are interrelated, and we must act now and with urgency to restore our native forests, protect our indigenous species and clean-up our rivers and oceans.



What our community would like

- ✓ Restore natural areas such as wetlands, forests, river ecosystems
- ✓ Educate our community about te ao Māori including the importance of te mana o te wai and mana o te taiao
- ✓ Plant natives for biodiversity, carbon sequestration and to be used and eaten
- ✓ Build momentum around community action





What we're aspiring to achieve

We will strengthen our connection with te Taiao

We need to learn from te ao Māori and the interconnectedness of whenua (land), wai (water), āhuarangi (climate) and koiora (all living things – animal, plant and humans).

Restored nature uplifts mana, and resilient biodiversity enables cultural practices, mahinga kai and rongoā. In community hui, people spoke about the need for strategic planting of native plants that can be used and eaten, such as harakeke. They also talked about the value of learning cultural practices such as weaving.

Understanding this connection from an early age is critical, which is why Te Awa Kairangi ki Tai Lower Hutt's 33 early childhood centres and schools involved in Enviroschools are important. Community groups such as Friends of Horoeka Scenic Reserve also partner with schools to educate students on the importance of protecting biodiversity.

We will restore biodiversity in our city and improve carbon sequestration

Mana whenua, all levels of government, environmental groups and community are involved in restoring biodiversity.

Community groups such as Friends of Horoeka Scenic Reserve and Friends of Waiwhetū stream carry out actions such as planting, weeding, litter collection and education. Predator Free Hutt Valley continues to expand with backyard trapping underway across our city.

The creation of a proposed 3,000 h.a. sanctuary at the headwaters of the Wainuiomata catchment area would boost local biodiversity.⁷

Hutt City Council is planning to plant more native trees on council land to support biodiversity and improve carbon sequestration. Around 469ha of HCC-owned grassland is located on the hilltops of Belmont Regional Park. If 80% of the retired grazing land were planted in native forest by 2025, it would have carbon sequestration benefits of approx. 86,000 tCO₂-e by 2050.

We will develop nature-based solutions to tackle the impacts of climate change

In responding to climate change, building resilience into natural landscapes is important, so that our native species can adapt to the new normal. Victoria University's NUWAO project is working with the Lower Hutt community to develop nature-based urban design solutions rooted in indigenous knowledge.

Efforts like Friends of Petone Beach's and the Eastbourne Dunes Group's restoration of sand dunes helps to provide better protection from storm surge, and better habitat for shoreline plants and creatures. We need to step up our restoration of wetlands – learning from initiatives that are currently underway such as Waiū Park, Wainuiomata, which involves the community, HCC and Forest and Bird working together. RiverLink is piloting the 'Belmont Wetland Project', which is designed to test the feasibility of constructed wetlands.

⁷ Feasibility study will be formally presented to GWRC in 2022



What is already being done

Check out what actions our local community and government already have underway.

See page 82

“Planting with the ecosystem in mind is important. It supports other elements in the environment such as birds.”

Weavers and Waka Ama rōpū Hui



What else we need to do

- More strategic planting of native plants that can be used and eaten
- Encourage participation in Enviroschools
- Accelerate reforestation of Belmont Regional Park
- Explore establishing an ecological corridor through Te Awa Kairangi ki Tai Lower Hutt
- Support the establishment of an 'eco-sanctuary' in Wainuiomata
- Connect with research teams to explore nature-based solutions in Lower Hutt (HCC in partnership with mana whenua)



Whakairohia he toki, tāraia te anamata

Future city design



We need to plan the design of our city today to reduce carbon emissions, build resilience and improve our quality of life in the future.

Our city design needs to reflect wairuatanga – our connection with the natural world, and kotahitanga – bringing our communities together.

It’s important that we take a long-term view in planning our city design, as buildings and infrastructure are with us for a long time, and it is costly to make changes.

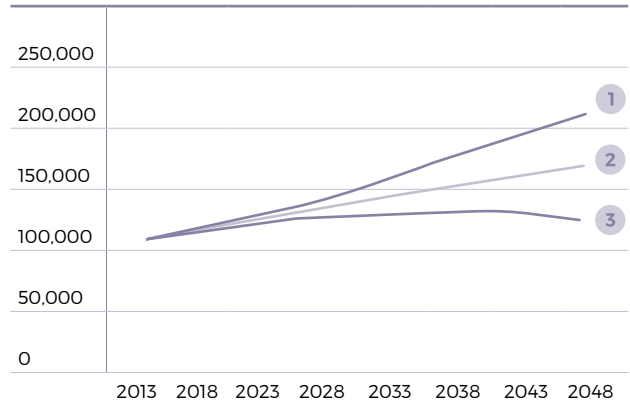
Te Awa Kairangi ki Tai Lower Hutt’s population has grown in recent years, but house building has not kept pace with this growth.

To tackle the national housing shortage and encourage more people to walk, cycle and take public transport, the government’s *National Policy Statement on Urban Development* instructs councils to allow greater density housing, including six-storey buildings, in residential areas within a walkable distance of city centres and public transport, like the train stations of Te Awa Kairangi ki Tai Lower Hutt.

Intensification is currently occurring in Petone, Hutt CBD, Wainuiomata and along the Rail Corridor, with new (greenfields) developments underway in Western Hills and Wainuiomata.

With more people living in apartments and townhouses, there is a growing need for natural spaces, such as streams, parks and gardens. These spaces deliver benefits for physical and mental wellbeing, ecosystems and wildlife. They also help us reduce the impacts of climate change (see *te Taiao section*). As we improve our understanding of risks to our city from sea-level rise, storm surge and flooding, this information needs to inform our long term planning of future development.

Forecast population growth for Te Awa Kairangi Lower Hutt⁸



- 1 95th percentile (high protection) **203,690**
- 2 50th percentile (medium protection) **158,262**
- 3 5th percentile (low protection) **120,736**

8 Sense Partners Greater Wellington Region Territorial Authorities Population & Household Projections April 2021



How future city design will contribute in the long term

Connecting what's underway

2022-2024

Te Mahere Tupu – A Te Awa Kairangi ki Tai Lower Hutt Urban Growth Plan will be developed, led by HCC, Mana Whenua and communities.

Accelerating action

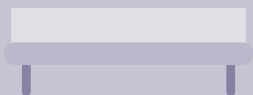
2025-2029

Urban development will be dense, particularly near transport nodes. All urban communities will have access to good amenities within walking and cycling distance.

Delivering for the long term

2030-2050

Papatūānuku and Ranginui will be acknowledged and celebrated throughout the city. Infrastructure will be planned to allow people to live locally more effectively through better connection to public transport, employment and retail.



Living well locally

The impacts of climate change provide an opportunity for us to consider how we live in our communities.

Emissions can be cut by reducing the need for travel by creating closer neighbourhoods to work, learn, shop and play in. Communities can come together around food, gardens and material reuse which also contributes to resilience.



What our community would like

- ✓ Living locally (15/20 minute neighbourhoods)
- ✓ More ways such as art, signage, storytelling, play that connect us to Papatūānuku and Ranginui and support wildlife vitality
- ✓ Local food markets and community gardens
- ✓ To be able to shop and work locally



Photo credit Rawhitiroa Photography



What we're aspiring to achieve

We will encourage living well locally

We need to allow for population growth without increasing congestion and emissions. Our city is increasing housing density near rail stations and major bus hubs, and significantly improving multimodal connections to stations. District Plan Change 43 came into force in March 2020 and supports the building of medium-density residential areas close to transport, shops and schools.

RiverLink will centre around our taonga – Te Awa Kairangi/Hutt river. It aims to build a unique place that helps shape our local and cultural identity. There are a range of street-level improvements planned as part of the RiverLink project, including creating pedestrian pathways and outdoor dining areas, improved lighting and street-based markets.

We will strengthen communities through connected neighbourhoods

It's important that people feel connected to their surroundings and others in their neighbourhood. We will build on existing initiatives such as predator free groups, Enviroschools, local environmental groups and community gardens/pātaka kai, such as Moerā, Waterloo, Stokes Valley, Urban Kai gardens at Common Unity and Kōkiri Marae's Pātaka Kai.

Home and community gardens are an important way that people can provide quality and healthy food for their whānau, as well as connect with te Taiao, bring communities together and create green spaces that absorb rainfall.

A co-design process as part of this climate action pathway proposed an innovative wayfinding trial that will share information about local history and natural taonga in our neighbourhoods such as streams, hills and forests.

We will ensure Papatūānuku is acknowledged through the city

Our future city design needs to ensure that the natural environment can thrive alongside people. Hutt City Council is looking at how it can use council land to support biodiversity, carbon sequestration and recreation. Council owns more than 5,300 hectares of land and manages around 3,000 hectares of parks, reserves, bush-clad hills, beaches, walkways, tracks, sports and playgrounds, and around 12,500 street trees.



What is already being done

Check out what actions our local community and government already have underway.

See page 84



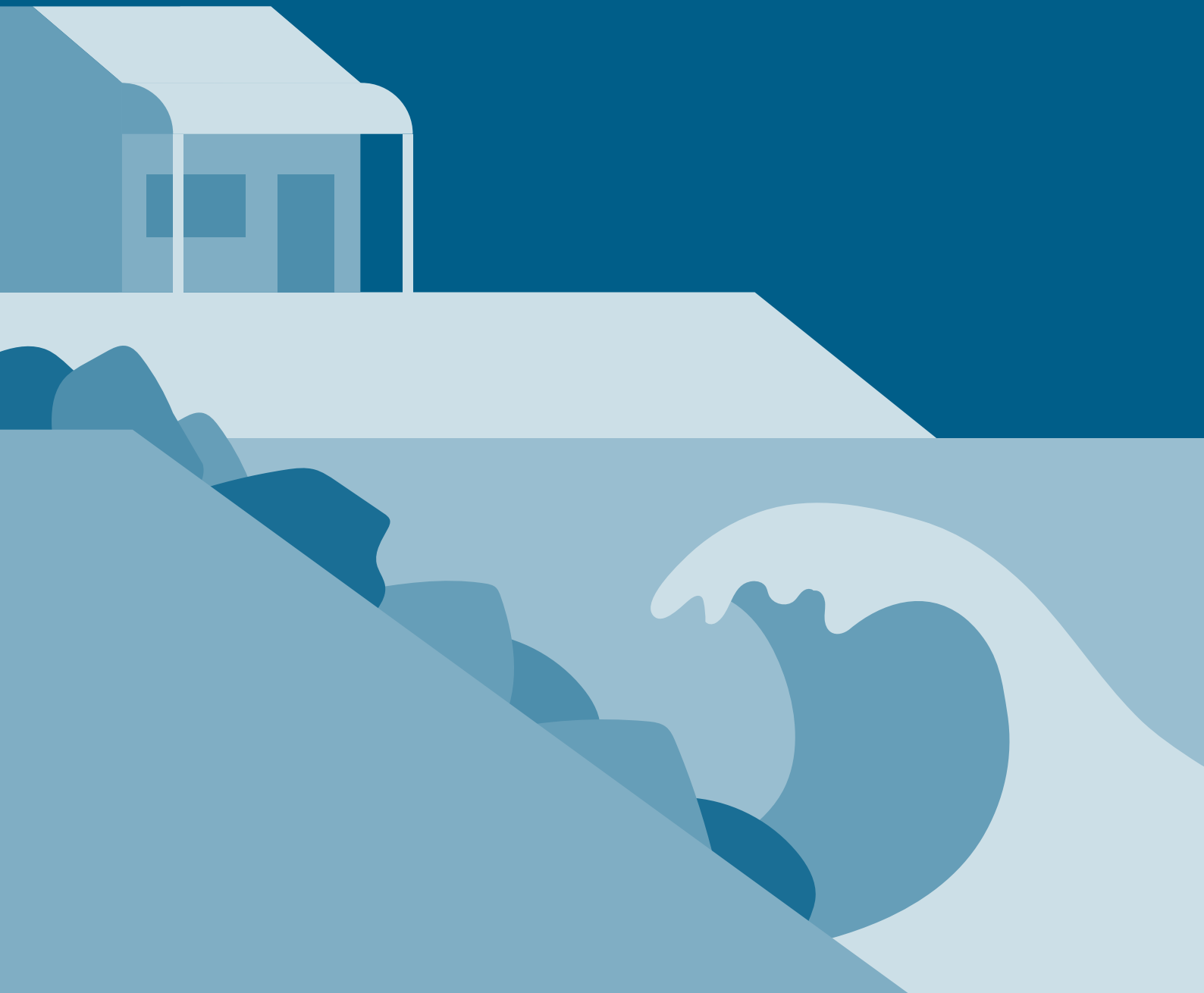
What else we need to do

- Optimise the use of our neighbourhood hubs and community spaces by the community to support and enable strong and resilient communities
- Look for opportunities to strengthen the spirit of Papatūānuku and Ranginui in public spaces across Te Awa Kairangi ki Tai Lower Hutt
- Explore urban design adaptation strategies in the most vulnerable parts of the city and in support of communities who have less choice about where they live
- Increase awareness on how the community can contribute to, and what they can expect from, Te Awa Kairangi ki Tai Lower Hutt's public spaces
- Develop local food systems to improve easy access to good quality kai



Urutaunga āhuarangi

Climate adaptation



We need to ensure that climate change features in all long-term development planning and that we plan well in advance to avoid unnecessary risks.

At the same time as working to reduce our city's emissions, we also need to respond to the adverse effects of climate change that are already happening, and prepare for future impacts.

In the future, we can expect more intense storms and heavy rainfall, with an increased risk of flooding, and more frequent dry periods, which could result in drought.

Sea-level rise in low-lying coastal areas poses increased risk of flooding to properties, affecting groundwater and drainage, as well as a heightened risk of storms surging inland, damaging infrastructure and properties and impacting on people's lives. Hazard planning, stopbanks and other engineering initiatives have improved flood management, but the risk of flooding remains, and will increase significantly in future.

We need to ensure that climate change features in all long-term development planning and that we plan well in advance to avoid unnecessary risks.

We also need to build community resilience, so that we are ready to respond to the unexpected. We must prepare for a disruption to supply lines of energy, food supplies, goods and services. These could be global (as we're experiencing in the COVID-19 pandemic), national (e.g. affecting the electricity grid) or local (if roads are cut off due to major storms).

“We need to be thinking long term and how we look after people and the environment.”

Adaptation Alignment Hui

How climate adaptation will contribute in the long term

Connecting what's underway

2022-2024

Better and wider understanding of possible and likely impacts we need to adapt to, informed by a regional climate change risk assessment. HCC is reviewing its District Plan.

Accelerating action

2025-2029

Development of adaptation plans for the city and affected localities, particularly in relation to sea-level rise, storm surge and flooding.

Delivering for the long term

2030-2050

Implementation of adaptation plans and strengthening community resilience.

Preparing for the future

As our city is vulnerable to sea-level rise, storm surge and flooding, we are identifying risks to guide local planning for adaptation. We are working to strengthen flood protection and need to build community resilience.



What our community would like

- ✓ Start adaptation actions now
- ✓ Effective use of rainwater
- ✓ Protect roads from wave erosion



What we're aspiring to achieve

We will improve our understanding of risks of sea-level rise and flooding

We have been building our knowledge of risks to Te Awa Kairangi ki Tai Lower Hutt, through research such as *Preparing Coastal Communities for Climate Change* and modelling flood hazards across urban Lower Hutt. Hutt City Council is collaborating with all the other councils in the Wellington region to develop a regional risk assessment for key climate change impacts. This project will underpin the subsequent regional approach to climate change impacts undertaken by the Wellington Region Climate Change Forum. It's important that any resulting knowledge is shared with the community in a way that can be easily understood and can help inform the choices that people make.



We will plan and continuously adapt

Our understanding of risks needs to inform our city's planning for the future. Aotearoa's National Adaptation Plan, which is to be released in 2022 will also provide direction. Latest information about risks is being considered as part of Hutt City Council's District Plan Review, which will identify areas at risk of natural hazards, including sea-level rise and extreme weather events, and may restrict use and activities in these areas.

Flood protection work is also a key part of the RiverLink project. This flood protection work is expected to safeguard Lower Hutt residents from large flood events that could affect up to 3,000 homes, 5 schools and 600 businesses, potentially causing an estimated \$1.1B in damage.

Over the next few years, our city may look to develop "Dynamic Adaptive Policy Pathways" (DAPP), to identify pathways for the future. This would consider potential measures over time, such as limits on development, elevating buildings and retreating from flood-prone areas.



What is already being done

Check out what actions our local community and government already have underway.

[See page 86](#)

We will build community resilience

It is critical that we build our community's resilience to cope with the impacts of climate change, such as sea level rise, and more frequent extreme rainfall events. "Localism" is important, so that when supplies are interrupted, local substitutes can be found, or local production can be scaled up rapidly.

Increasing Lower Hutt's own energy production can improve local energy resilience if the national supply is disrupted. Increasing local or household water storage can also provide a critical source of water if supply is damaged in a natural disaster and during dry periods. Small scale local food production is already underway in home and community gardens, but it would need a large and coordinated effort to establish food self-sufficiency for an extended period.

Community organisations can play an important role in an emergency response. For example, the Hutt Valley Emergency Kai Collective evolved out of an initial partnership between Common Unity and Kōkiri Marae during the COVID-19 Lockdown 2020, when they were providing up to 1,000 food parcels per week and has been expanded to include other like-minded organisations.



What else we need to do

- Investigate how new developments can be avoided in high risk zones and incentivise development in the right areas by 2030
- Develop adaptive pathways for the future, including for at risk infrastructure due to rising sea-levels by 2030
- Install water tanks in residential and commercial properties

4

Ngā tukanga āhuarangi a te katoa

Collective climate action

**“We must think to the future for
our mokopuna.**

Working through those belief systems
in te ao Māori and think 100, 200, 500
years out – because that is the way our
tūpuna thought.”

Liz Mellish, Chairperson at Te Raukura, Te Wharewaka o Pōneke



He rautaki hapori

Proposed community-led ideas and action

Climate action is already underway across our city. We've also been exploring six new community-led initiatives that have potential to change the game. Diverse groups of community organisers, government officials, researchers and academics came together online to explore the following initiatives.

Reducing personal car use

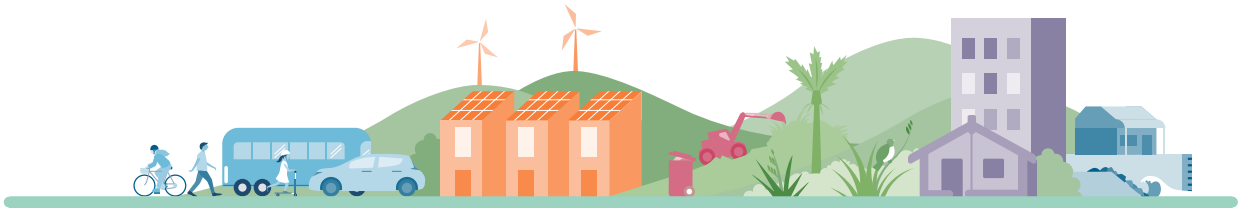
Getting people to understand the true economic, environmental and social cost of using cars – especially for short trips or when there is only one person in the car – is a big task. The Lead Group and HCC focused on three activities to take forward: help people to organise ride sharing more easily; make the cost of cars more visible; and encourage active modes.

Public transport on demand

In areas with limited access to public transport there is an opportunity to consider what an On Demand service might look like in the context of Lower Hutt. There was clear understanding that funding would need to be secured and the service would need to be supported by rate-payers. While GWRC is starting a trial in Tawa as yet there is no firm plan for a trial to begin in Lower Hutt. There is, however, interest within the community to see it happen.

Climate change education

A 'proof of concept' education module will be developed in 2022, led by the Open Polytechnic. This will help to build awareness and educate on simple, practical action for people to reduce consumption and their carbon footprint.



Live well locally

In Lower Hutt there are communities that have the potential to become 20 minute neighbourhoods, where people have access to most of their needs within a short walk or cycle, reducing the need for car travel and creating more connected communities. Suburbs including for example, Wainuiomata, has been identified as a pilot location for exploring how changes to the urban and social environment could enable living well locally. Hutt City Council will be exploring a pilot project in partnership with government agencies and Healthy Families Hutt Valley which will be co-designed with community.

Pathway for high quality urban development

A willing group of community, developers and planners are keen to pilot a process that will explore how we can raise the bar and incentivise high quality urban development. HCC will facilitate a group to develop a proof of concept for a trial.

Innovative wayfinding

Through innovative approaches to wayfinding we can make visible the need to change how we move around, appreciate our natural environment and motivate people to form new habits of walking and cycling more. The Lead Group and HCC will facilitate the development of a group to take this forward.

Ngā Waka Transport

More walking and cycling

Safer and better connected walking and cycling networks will make it easier for us to change the way we move around and reduce reliance on fossil fuel vehicles.

See page 29



We will expand Lower Hutt's walking and cycling network

Activity started	Status	What is it?
Beltway cycleway	Underway 	10km route to the east of the city, connecting Taitā to Seaview (HCC & Waka Kotahi)
Cycling and micro-mobility programme	Underway 	Completing a connected biking and walking network in the city (HCC).
Te Ara Tupua	Underway 	12km walking and cycling route between Wellington CBD and Melling (HCC, Waka Kotahi, GWRC, Wellington City Council).
Tupua Horo Nuku Eastern Bays Shared Path	Planned 	4.4km shared path route that will run along two sections of Marine Drive, Eastbourne (HCC, Waka Kotahi, COVID-19 Response & Recovery Fund).
RiverLink	Planned 	Includes a new pedestrian and cycling bridge along with transport intersection improvements relating to walking and cycling (HCC, GWRC, Waka Kotahi working with mana whenua).

We will support tamariki to safely cycle, scooter or walk to school





Activity started	Status	What is it?
Biketec	Ongoing 	Builds and maintains bikes for schools.
Pedal Ready	Ongoing 	Provides cycling skills training for students and adults in the Wellington region (GWRC and HCC).





Every little bit helps

- ✓ Leave your car at home and walk/bike scooter short trips
- ✓ Teach tamariki how to ride a bike
- ✓ Donate used bikes
- ✓ Employers – provide secure bike storage for staff

We will improve access to bikes and bike parking

Activity started	Status	What is it?
ReCycled Rides	Underway 	A 'bike library' which is part of the community organisation, Common Unity.
Free Ride	Underway 	A programme that recycles bikes and gives them away to local community members in Naenae (<i>HCC and Healthy Families Hutt Valley</i>).
Locky Dock	Underway 	Secure parking has recently been introduced by Big Street Bikers.
Two-Wheeled Public Transport e-bike trial	Proposed 	A transport equity initiative, providing free access to e-bikes for whānau to use (<i>Healthy Families Hutt Valley, Kōkiri Marae, Big Street Bikers</i>).

We will encourage people to walk and cycle short trips

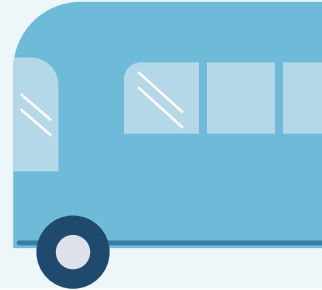
Activity started	Status	What is it?
Innovative wayfinding	Proposed 	Explored as part of this pathway, with a trial to be developed.
Bike the Hutt	Underway 	Hutt Valley's annual festival of cycling.

Ngā Waka Transport



Increasing use of public transport

Building a reliable, integrated and accessible public transport network that people feel safe to travel on will encourage more people to take public transport. This could be enhanced by targeted subsidies on fares.






See page 31



We will put in place more reliable and more frequent services

Activity started	Status	What is it?
Rail improvements	Planned 	New planned Wairarapa trains will improve capacity and frequency for the Hutt line (<i>Metlink</i>).
Bus priority	By 2023/24 	Measures at key intersections to enable buses to travel more efficiently (<i>HCC</i>).

We will make it easier to connect to different forms of public transport

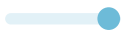

Activity started	Status	What is it?
Integrated ticketing	2023 	Trial on the Johnsonville line from November 2021, and integrated ticketing planned to be widely launched in 2023 (<i>Metlink</i>).
Bike and Ride	Ongoing 	Provides bike racks at stations, with increased capacity at Waterloo (74 spaces) and Woburn (32 spaces) (<i>Metlink</i>).
Park and Ride	Ongoing 	779 Park and Ride spaces at Waterloo Station and 448 spaces at Petone Station. Dedicated carpool spaces are also being developed to encourage mode shift (<i>Metlink</i>).
Micromobility connections	Ongoing 	Improving connections to public transport stops (<i>HCC</i>).
Placemaking	Planned 	HCC is planning placemaking and centre re-developments that make taking public transport more attractive.



Try something new!

- ✓ Take the bus, train, or ferry
- ✓ Work flexible hours, so that you can walk kids to school, then catch public transport to work
- ✓ Employers – provide staff with a snapper card or offer a public train pass

We will improve access to public transport

Activity started	Status	What is it?
Access to public transport hubs	By 2023/24 	Measures to improve access including to key train stations – Petone, Ava and Woburn (<i>Metlink & HCC</i>).
On demand trials	Early 2022 	To be carried out in Tawa in early 2022, using small buses and an app service.

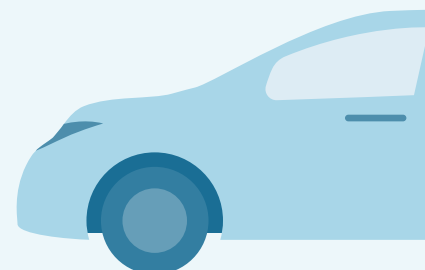


Ngā Waka Transport




Increasing electric vehicles

A mass adoption of electric vehicles (EVs) is predicted in the future and will significantly reduce emissions. Our city can expect decarbonisation of the bus fleet by 2030 and more electric charging stations by late 2022.




See page 33



We will develop a low carbon public transport network

Activity started	Status	What is it?
Building electric ferries	Ongoing 	Wellington Electric Boat Building in Seaview has built the first fully electric high performance passenger ferry in the Southern Hemisphere.
Electric passenger ferry	Ongoing 	East by West ferries launched New Zealand's first electric passenger ferry in late 2021 (<i>Metlink</i>).
Electric bus fleet	By 2030 	Planned to be fully electric by 2030 (22% electric in 2021) (<i>Metlink</i>).

We will encourage government and large business to switch to EV fleets

Activity started	Status	What is it?
Hutt City Council's rubbish and recycling kerbside	By 2024 	Collection service will be run with fully electric trucks by 2024.
Council's electric fleet	By 2030 	Hutt City Council will have a fully electric corporate vehicle fleet by 2030.
Electric business fleets	Ongoing 	Local businesses such as Countdown, Tall Poppy Real Estate and The Warehouse are transitioning to electric vehicle fleets.



What about...

- ✓ Electrify your transport – e-bike or electric car
- ✓ Use electric taxis/ubers/ shared cars
- ✓ Charge electric vehicles off-peak (overnight)

We will expand the electric charging network

Activity started	Status	What is it?
Businesses electric charging stations	Ongoing 	Businesses with electric charging stations include PAK n SAVE, Z Energy and The Warehouse in Lower Hutt.
Electric vehicle retailers	Ongoing 	Provide a local place to buy electric vehicles, such as Coventry Cars with its electric and hybrid vehicle dealership.
HCC electric charging stations	Late 2022 	20 additional Council electric charging stations will be rolled out by HCC by late 2022.

Ngā Waka Transport



Reduce vehicle use

Reducing vehicle use is a priority. Making alternatives convenient and affordable, making the true cost of using cars more visible and understood, encouraging employers to enable employees to work from home or use alternatives and providing disincentives to car use will make a significant difference.

See page 36



We will use technology to work and study remotely

Activity started	Status	What is it?
Co-working spaces	Ongoing 	Co-working spaces include The Settlement in Petone and Love to Connect in central Lower Hutt.
Hutt City Libraries	Ongoing 	Offer public access to computers, free WIFI, free Stepping Up computer classes and Skinny Jump for those who find cost is a barrier to accessing broadband.










You know you can!

- ✓ Plan ahead for how you can get to places without a car
- ✓ Explore carshare services or carpool to sports, work or events
- ✓ Work remotely when you can (either from home or at a local co-working space)
- ✓ Organise on-line meetings rather than travelling by plane or car

We will encourage innovative new ways of moving around

Activity started	Status	What is it?
Car pooling	TBD 	Car pooling is used informally but there may be opportunities in the future to partner with a car pooling company.
Car sharing	TBD 	Car sharing is available in Lower Hutt, to complement the existing services provided by Mevo and Cityhop in Wellington City.

We will investigate how we can reduce driving in urban centres

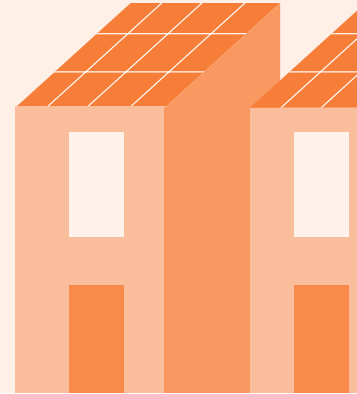
Activity started	Status	What is it?
Reduce traffic speeds and volumes	Underway 	Work is underway to reduce traffic speeds and volumes in urban centres and local neighbourhood streets (<i>HCC</i>).
Investigate parking management	TBD 	Investigate parking management – price and availability of parking (<i>HCC</i>).
Make the cost of cars more visible	TBD 	Help community understand the real costs of personal car use, and encourage a reduction in unnecessary journeys and distances travelled.

Pūngao me ngā whare Energy


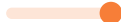
Energy and Building

Energy is our city's biggest contributor to emissions after transport. So, we need to focus our efforts on reducing our energy use, getting out of fossil fuels, creating sustainable buildings and increasing renewable energy.



See page 43

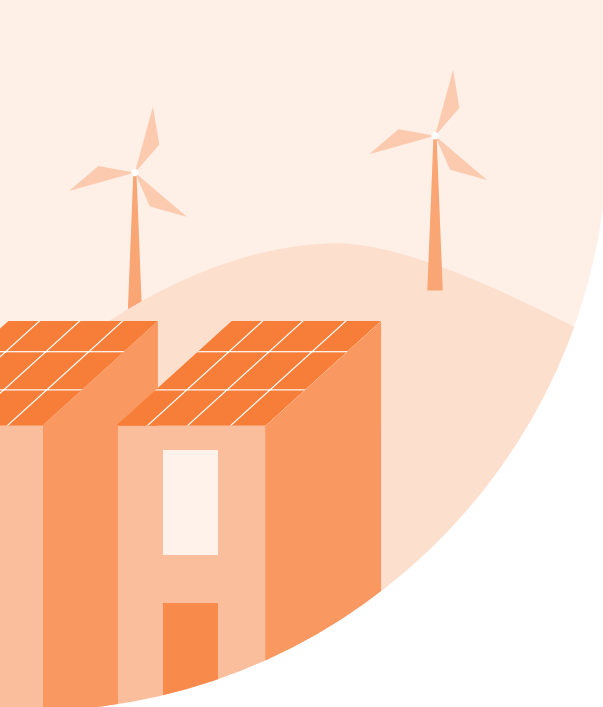


We will encourage actions to reduce energy use

Activity started	Status	What is it?
Eco-design advice	Ongoing 	Advice on how to make a home warm, dry, healthy and energy efficient is available as a free service for Lower Hutt residents (HCC).
LED streetlights	Late 2022 	Lower Hutt's Street lighting will all be converted to energy efficient LEDs by late 2022 (HCC).

We will support lower carbon building practices



Activity started	Status	What is it?
Kāinga Ora retrofit and build programmes in Lower Hutt	Underway 	Kāinga Ora successfully piloted a retrofit of 200 social houses in Hutt Valley to make them warmer, drier and healthier. The Hutt Valley build programme is constructing fully insulated and double glazed homes in Naenae, Epuni and Petone East.
Sustainability of new council buildings	Underway 	Incorporating sustainability into the rebuild of Naenae Pool – HCC is looking to achieve a Green Star design and build rating of 5, or equivalent, with all energy coming from low-carbon energy sources.







Save money and the planet

- ✓ Assess your household or organisation’s carbon footprint (toitu.co.nz; futurefit.nz)
- ✓ Turn off devices and appliances rather than leaving them on standby
- ✓ Choose energy efficient items such as LED light bulbs
- ✓ Switch from gas to electricity

We will transition out of fossil fuels

Activity started	Status	What is it?
Phasing out natural gas at Council facilities	By 2030 	Energy emissions at Council facilities are expected to reduce by 30% by 2024 and 50% by 2030, primarily by changing heating systems to run on electricity (HCC).
Urban Plus	Ongoing 	Urban Plus can no longer install gas for cooking/heating/water in any of their new developments and new developments will have to achieve a HomeStar rating of at least 6.

We will expand local renewable energy generation

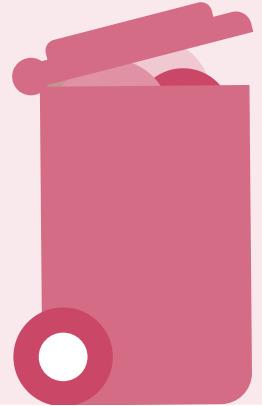
Activity started	Status	What is it?
District Plan Change 34	Ongoing 	Provides for renewable energy generation in Lower Hutt.
Solar energy suppliers	Ongoing 	Available throughout the Wellington region, including Pacific Solax in Lower Hutt.
Solar schools	Ongoing 	Randwick, Maungaraki, Muritai, Naenae Primary, Avalon Intermediate and Pukeatua schools have installed solar panels.
Wainuiomata marae – solar	Planned 	Wainuiomata marae is working in partnership with Kāinga Ora to build affordable rental homes, with MBIE funding solar power for homes and the marae.

Whakapeto pūngao me te para Consumption and waste

Refuse, reduce, reuse, recycle

Many of us can make a big difference to waste by consuming less, composting more, separating out our green waste and correctly recycling. We can go beyond that to support businesses to take a whole of life approach to products and packaging.





See page 49



We will embed and improve the Council's kerbside rubbish and recycling service

Activity started	Status	What is it?
Recycling in schools	By 2022 	Roll out of free recycling to all schools in Lower Hutt
Food waste	By 2023 	Development of a business case and options for managing residential and commercial food waste in Lower Hutt
Resource recovery park	By 2023 	Establishing a new resource recovery park by 2023, upgrading HCC's transfer station at Silverstream.
World of Waste Tour	Ongoing 	World of Waste tour is delivered by Enviroschools, and provides students with the opportunity to think creatively about reducing waste.

We will reduce food and green waste

Activity started	Status	What is it?
Community gardens	Ongoing 	Community gardens/pātaka kai and composting are located throughout the city.
Foodprint App	Ongoing 	Launched in Petone and Central Lower Hutt in late 2021, redirecting fresh food from outlets before it goes to waste via a simple phone App.
Kaibosh food rescue	Ongoing 	Kaibosh is New Zealand's first food rescue organisation, and works with charities and community groups in donating quality surplus food to those in need.
Kerbside green waste collection service	Ongoing 	This service will divert around 2,100 tonnes of green waste per year to a composting facility (HCC).



Pick up the challenge!

- ✓ Use reusable cups and containers rather than single use
- ✓ Buy second-hand goods
- ✓ Use a compost bin
- ✓ Reduce packaging
- ✓ Clean and sort recycling

We will improve methane capture at landfills

Activity started	Status	What is it?
Trial of a flare	2022 	At the closed Wainuiomata landfill, HCC will test the viability of a flare in order to combust methane that is still being emitted (HCC).
Methane collection system	Ongoing 	Silverstream Landfill has a methane collection system in place, which is used to generate energy. There is also a new supplementary flare to improve methane destruction efficiency (HCC).

We will support the development of a circular economy

Activity started	Status	What is it?
CleanTech Business	Ongoing 	Callaghan Innovation is supporting CleanTech businesses, particularly in Waste to Value.
Compostable and biodegradable packaging	Ongoing 	Naturepac manufactures compostable and biodegradable packaging, which provides a sustainable alternative to plastic packaging.
Integrated PET recycling plant	Ongoing 	Flights Plastics operates a fully integrated PET recycling plant which recycles waste PET packaging that can be used locally.
Pre-loved clothing	Ongoing 	Local retail businesses are selling used clothing and products, such as Style on Jackson, She Preloved, Rebound Clothing and Helter Skelter Vintage Market.
Scrap metal recycling	Ongoing 	Macaulay Metals is New Zealand's largest privately owned scrap metal recycling business.
Transforming recycled items	Ongoing 	Noho and Earthlink kids are transforming recycled items into new products.

Tiaki Taiao Te Taiao





Care and responsibility for our natural environment

Too often our natural environment is treated as a commodity rather than an integral part of our wellbeing. We can only thrive if our land, rivers, sea, birds and animals do. Understanding wairuatanga, our interconnectedness, will help us notice and value te Taiao.

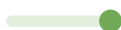
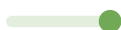
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We will strengthen our connection with te Taiao

Activity started	Status	What is it?
Community group actions	Ongoing 	Planting, weeding, litter collection, beach clean ups and education, carried out by local groups like Friends of Horoeka Scenic Reserve and Friends of Waiwhetū stream.
Enviroschools	Ongoing 	33 Childhood education centres and schools in Lower Hutt participate in the EnviroSchools Programme.
Local supply of plants and advice	Ongoing 	Garden centres and nurseries provide a local supply of plants and advice on natives, such as Kiwi Plants in Stokes Valley.
Promoting te ao Māori understandings of the environment	Ongoing 	Mana whenua are connected to the river, mountains, valley and sea, and share knowledge of te ao Māori at Marae, Kōhanga Reo and community groups.

We will restore biodiversity in our city and reduce emissions

Activity started	Status	What is it?
Accelerate reforestation of Belmont Regional Park	By 2025 	Accelerate reforestation of Belmont Regional Park – approx. 469ha of HCC-owned grassland – if around 80% was planted in native forest by 2025, it would have carbon sequestration benefits of approximately 86,000 tCO ₂ E by 2050 (HCC).
Planting more native trees on Council land	By 2025 	Planting more native trees on Council land to support biodiversity and lift the quality of some Council land to register under the Emissions Trading Scheme.



Remember nature

- ✓ Explore local nature trails, parks and reserves, listen to birds
- ✓ Encourage your school to join EnviroSchools
- ✓ Carry out predator control
- ✓ Join a community group restoring nature

Indigenous Biodiversity Grants	Ongoing	Provided by HCC to help landowners protect and manage indigenous biodiversity on their land.
Predator Free Hutt Valley	Ongoing	There are many local groups involved such as Predator Free Wainuiomata, Moerā, Koraunui Stokes Valley, MIRO Mainland Restoration Operation and ERAT (Educating Residents About Trapping).
Predator Free Hutt Valley	Proposed	The creation of a proposed 3,000 h.a. sanctuary at the headwaters of the Wainuiomata catchment area. A feasibility study has been completed by Zealandia founder Jim Lynch, in partnership with GWRC, Taranaki Whānui and DOC.

We will develop nature-based solutions to tackle the impacts of climate change

Activity started	Status	What is it?
Belmont Wetland Project	Underway	Pilot under RiverLink, which is designed to test the feasibility of constructed wetlands, including riverbank revegetation and stream improvements.
NUWAO Project	Underway	Victoria University's Nature-based Urban design for Wellbeing and Adaptation in Oceania (NUWAO) project is working with the Lower Hutt community to develop nature-based urban design solutions rooted in indigenous knowledge.
Petone Dune Restoration	Ongoing	Carried out by the Friends of Petone Beach, planting thousands of native plants, weeding and litter removal.
Restoring wetlands	Ongoing	Underway at Waiū Park, Wainuiomata, by community group, A Rocha at Waiū Park, HCC and Forest and Bird.

Whakairohia he toki, tāraia te anamata Future city design

Living well locally

How we design our city now will affect how our children and mokopuna live in years to come. By planning infrastructure to allow people to live locally, connecting our communities, protecting our beaches and our waterways and enhancing our access to nature we can make sure our children and communities thrive.

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We will encourage living well locally through future development

Activity started	Status	What is it?
RiverLink	2027 	RiverLink construction is expected to begin in 2023 and be completed in 2027. It includes a range of street-level improvements (<i>HCC, Waka Kotahi, GWRC</i>).
Urban Growth Plan	By 2025 	Hutt's City Council's Urban Growth Plan for Lower Hutt will be developed.
Knights Road Connection Project	Underway 	Trial will remain in place until July 2022, funded through Waka Kotahi's Innovating Streets for People pilot fund to create more people-friendly spaces (<i>HCC</i>).
District Plan Change 43	Ongoing 	District Plan Change 43 came into force in March 2020, and supports the building of medium-density residential areas close to transport, shops and schools (<i>HCC</i>).








We must think to the future

- ✓ Chat with people in your neighbourhood about how you can all take climate action
- ✓ Plant natives and think about how you can support local green spaces
- ✓ Join community initiatives - such as community gardens, beach or stream clean-up

We will strengthen communities through connected neighbourhoods

Activity started	Status	What is it?
Community groups	Ongoing 	Working across the city to support climate action, including School Strike 4 Climate, Zero Carbon Hutt, Transition Towns Lower Hutt
Play in the Hutt	Ongoing 	Partnership between Healthy Families Hutt Valley, HCC and Sport NZ creating opportunities to make Lower Hutt an even better place to play, including Play Streets events.

We will ensure Papatūānuku is acknowledged through the city

Activity started	Status	What is it?
Council-managed land	Ongoing 	HCC owns more than 5,300 hectares of land, manages around 3,000 hectares of parks, reserves, bush-clad hills, beaches, walkways, tracks, sports and playgrounds, and around 12,500 street trees, and continually explores improvement opportunities.





Urutaunga āhuarangi Climate adaptation

Preparing for climate impacts and how we adapt

We must plan now for the impacts of sea-level rise, storm surge and flooding. Communities are more resilient if they are well connected and have planned for disruption. Longer-term, nature-based solutions to flooding and sea-level rise will provide greater resilience than quick fixes.

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We will improve our understanding of risks of sea-level rise and flooding

Activity started	Status	What is it?
Education on impacts of climate change	Ongoing 	NIWA education and training is helping to inform the community and Council about the impacts of climate change.
Wellington Water Flood Maps	Underway 	Depict the potential flooding consequences for one in 100-year and one in 10-year floods and take into account the projected impacts of climate change out to 2120.
Regional risk assessment for key climate change impacts	By 2023 	This is being developed by all councils in the Wellington region and will underpin the subsequent regional approach to climate change impacts undertaken by the Wellington Region Climate Change Forum, and HCC's work focused on its communities adapting to climate impacts.
Vertical land movement and sea-level rise research	Ongoing 	Research has already been undertaken into understanding vertical land movement and sea level rise in the region and is ongoing.










We can choose to adapt

- ✓ Find out about risks to your home and community
- ✓ Get an emergency water tank
- ✓ Join a community garden or grow your own food at home
- ✓ Consider extreme rainfall and wind when replacing your roof, spouting, or putting in drainage
- ✓ Chat with people in your neighbourhood about how you can all take climate action

We will plan and continuously adapt

Activity started	Status	What is it?
District Plan Review	Planned 	District Plan Review is accounting for flooding maps and sea-level rise modelling and making changes to prevent future building of vulnerable uses in areas of risk (HCC).
Tupua Horo Nuku Eastern Bays Shared Path (sea walls)	Planned 	Development includes replacement sea walls for improved protection from storm events.
Floodplain management plans	Planned 	Floodplain management plans are currently in place for Te Awa Kairangi / Hutt River and being developed for Waiwhetū Stream (HCC, GWRC).
RiverLink flood protection	Planned 	Including raising and widening the stop bank and widening the river channel. A new bridge will provide additional flood flow capacity (HCC, GWRC, Waka Kotahi).
Upgrading three waters infrastructure	2021-2031 	HCC's 10-Year Plan 2021-2031 includes an investment of \$53M in healthy urban waterways, of which \$16M is for network upgrades to improve the network performance.

Kuputaka

Glossary of terms

Te reo Māori terms

Mahinga kai	Garden, cultivation, food-gathering place. Literal translation means 'to work the food'.
Mana whenua	Territorial authority over land or territory, jurisdiction over land or territory – power associated with possession and occupation of tribal land.
Papatūānuku	Earth, Earth mother and wife of Ranginui – all living things originate from them.
Rangatahi	Younger generation, youth
Rongoā	Traditional Māori medicinal practices
Rourou (Kete Kai)	A food gathering basket that is typically used to carry food from the ocean or the land. Made from flax.
Tamariki	Children, normally used only in the plural sense.
Tangata whenua	Local people, hosts, indigenous people – people born of the whenua, i.e. of the placenta and of the land where the people's ancestors have lived and where their placenta are buried. Māori people are the tangata whenua of Aotearoa.
Taonga	Treasure, anything prized – applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas and techniques.
Te ao Māori	The Māori world view which acknowledges the interconnectedness and interrelationship of all living & non-living things.
Te Awa Kairangi	Hutt River
Te Taiao	Te Taiao is the environment that contains and surrounds us. It has four major components- Whenua (soil and land), Wai (all freshwater bodies and their connections), Āhuarangi (climate across time) and Koiora (all living communities: human, plant, animal).
Whānau	Extended family, family group, a familiar term of address to a number of people – the primary economic unit of traditional Māori society. In the modern context the term is sometimes used to include friends who may not have any kinship ties to other members.
Whenua tapu	Sacred land.

Climate change terms

Adaptation	Process including actions that help manage, moderate and cope with the effects of climate change – such as avoiding building in areas likely to be affected by rising sea levels.
Carbon footprint	The amount of greenhouse gas emissions (<i>measured in the equivalent amount of carbon dioxide (CO₂e</i>) added to the atmosphere as a result of the activities of an individual, organisation or community in a given period of time.
Carbon sequestration	The process of capturing from the atmosphere and storing carbon dioxide. This can happen naturally, as growing trees and other plants turns CO ₂ into biomass stored within the plant. It can also refer to the capture and storage of CO ₂ through technical processes.
Climate change	A pattern of change attributed directly or indirectly to human activity that alters the composition of the atmosphere, affecting global or regional climate. As measured by factors such as average temperature and rainfall, or an alteration in frequency of extreme weather conditions.
Fossil fuels	Carbon-based fuels made from decomposing animals or plants. Examples include coal, oil and natural gas, which contain hydrocarbons. These fuels produce carbon dioxide when burnt.
Global warming	The steady rise in the global average temperature of earth's atmosphere, which is largely caused by increased levels of human-produced greenhouse gas emissions.
Greenhouse effect	The insulating effect of certain gases (greenhouse gases) in our atmosphere, which results in solar radiation being trapped within the atmosphere and warming the Earth.
Greenhouse gases (GHGs)	Natural and industrial gases that cause the greenhouse effect on Earth. Carbon dioxide and methane are natural GHGs, and hydrofluorocarbons are industrial GHGs.
Micromobility	The use of bicycles, scooters and similar technologies, with a given speed limit which is no higher than 45 km/h to travel shorter distances around cities.
Mitigation	Actions aiming to reduce the impacts of climate change by preventing or reducing the emission of greenhouse gases.
Net Zero	Net zero refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere, which means we are not adding new emissions to the atmosphere. Lower Hutt has a target of net zero carbon emissions by 2050.
Placemaking	An approach where people work together to 'create places' – transforming public spaces to strengthen connections between people and places.



LOWER HUTT
**COMMUNITY
CLIMATE CHANGE
RESPONSE**