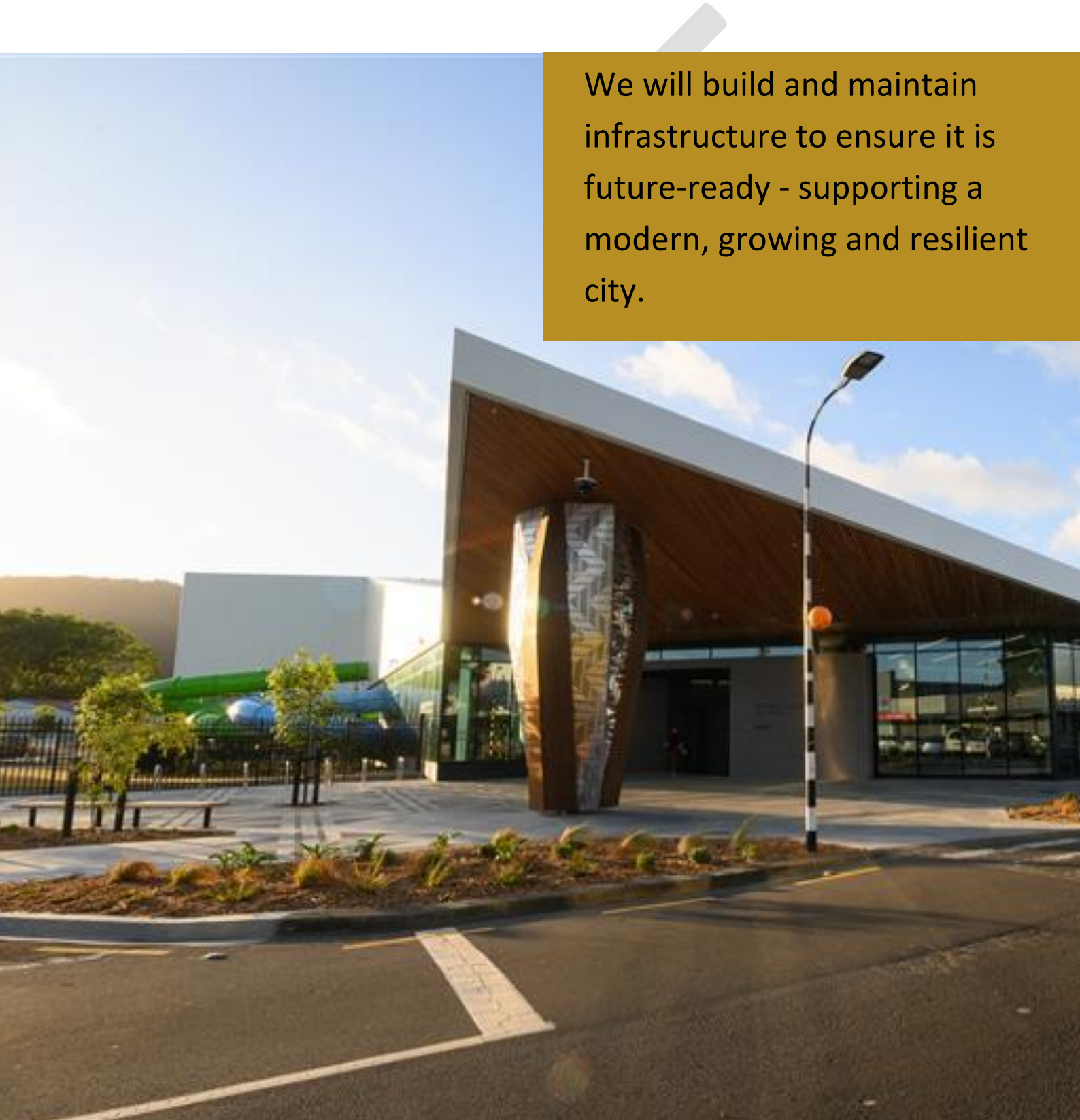


# SMART INFRASTRUCTURE

We will build and maintain infrastructure to ensure it is future-ready - supporting a modern, growing and resilient city.



## IN 2055, LOWER HUTT'S INFRASTRUCTURE IS EFFECTIVE, RELIABLE AND RESILIENT

Our city infrastructure plays a vital role in the future of Te Awa Kairangi ki Tai Lower Hutt. Transport networks move people and goods, pipes carry water, and transmission lines provide power to our homes and businesses. Flood protection protects our city, schools provide a place to educate our ākonga (students), and hospitals are where we care for people who are unwell.

As our city's population grows, we need to both build and maintain infrastructure. However, we face significant challenges, including rising costs, ageing water infrastructure and a rising risk of extreme weather events, amplifying existing flood risks in low-lying built areas. We need to minimise the impact on the environment, decarbonise the economy and keep costs affordable for households.

To sustain high quality infrastructure, we need to make smart, durable investment decisions, utilise technology, and deliver strong asset management, to maintain as well as build infrastructure.

As Lower Hutt's population grows, we must ensure our infrastructure is future-ready, and resilient for generations to come. We will

develop water and waste systems that are clean, efficient and cost-effective.

We will also increase shared and public transport services and connections, and develop a connected transport network that makes it easy and safe to bike, walk, or scooter.

Major future projects include Te Wai Takamori o Te Awa Kairangi (RiverLink) – a \$1.5b infrastructure investment in the city centre, transport improvements such as Tupua Horo Nuku shared path, modernising water infrastructure and upgrading Seaview Wastewater Treatment Plant.

This chapter outlines key initiatives to help realise our vision for future infrastructure in Te Awa Kairangi ki Tai Lower Hutt by 2055. It concludes with a "What You Can Do" section, offering practical ways you can support and contribute locally to building Tō Tātou Tāone 2055– Our City 2055.

### INDICATORS

LOWER HUTT CITY WILL TRACK PROGRESS OF THE FOLLOWING INDICATORS:

INDICATOR	LATEST DATA	TARGET
ANNUAL NUMBER OF PIPES RENEWED	14.5km 2022-2023	30km

## BACKGROUND

Infrastructure is critical to our city, including:

- Schools, hospitals, social services and emergency services
- Utilities – electricity, and telecommunications
- Transport network of rail corridors, state highways, city streets and roads, shared paths and cycle ways, public transport
- Community facilities such as libraries, halls, hubs, swimming pools and playgrounds
- Water supply, wastewater (sewage treatment), stormwater
- Flood protection, coastal management and emergency management
- Landfill facilities, waste management and resource recovery.

Our city currently provides essential infrastructure that supports the wider region:

- A significant proportion of Wellington region's freshwater supplies (around 40% from Waiwhetū aquifer)
- Seaview Wastewater Treatment Plant which serves residents in Upper Hutt and Lower Hutt
- Seaview Wharf and pipeline which are vital to the fuel supply for Wellington and the lower North Island
- Silverstream Landfill (owned and operated by HCC), which services Lower Hutt and Upper Hutt
- Hutt Hospital which provides secondary level care to communities in Lower Hutt and the wider region
- State Highway 2 and rail network which run through the city, connecting Upper Hutt and the Wairarapa to Wellington.

## The broader context

Like cities across Aotearoa New Zealand, Lower Hutt faces a complex infrastructure landscape.

Persistent underinvestment in infrastructure has become a major challenge for our city, and we are experiencing asset failure. Over 40% of water (throughout the wider region) is estimated as being lost to leaks.

The cost to build and maintain infrastructure is rising - and funding the infrastructure gap is a long-term challenge for our economy and productivity. Wellington Water estimates \$1 billion each year is needed for the next 10 years to fix the region's water system.

At the same time, our networks are increasingly exposed to natural hazards, including earthquakes, flooding, landslides and rising groundwater. Extreme weather events are becoming more frequent and damaging, while cybersecurity risks pose new threats to digital infrastructure and critical services. Most of our city's existing stormwater infrastructure was originally designed to accommodate a five-year "average recurrence interval" rainfall event. It can be overloaded in more severe rainfall.

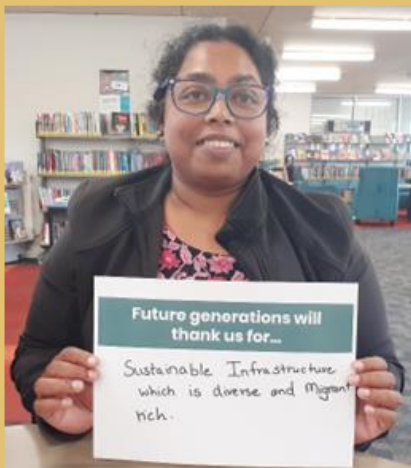
Population growth adds further urgency. Over the next 30 years, Lower Hutt will need to accommodate tens of thousands of new residents—requiring more housing, cleaner energy, and expanded services for a population that is both growing and ageing.

In recent years, Lower Hutt has made considerable progress, investing in stormwater upgrades, Hutt River flood protection, and active transport connections. But there is still significant renewal and investment required. An average of four kms of water pipes used to be replaced annually – which increased to 14.5km in 2022-23, but we

need to renew 30kms a year to address the backlog.

## WHAT WE HEARD FROM THE LOWER HUTT COMMUNITY

Many residents expressed gratitude for Lower Hutt's existing infrastructure such as The Dowse, swimming pools, schools, and public transport, while also voicing concern over ageing water systems and insufficient long-term planning. Some worried the infrastructure would "not support possible population growth," though others remained hopeful that "we'll have a functioning water supply (with fewer leaks)" and swimmable waterways. Active and public transport were recurring themes, with praise for the developing cycleways and calls to "Make this city more walkable!" and for a city that "prioritises people – not cars!!!" While traffic congestion and accessibility were concerns, many envisioned a more connected, inclusive, and sustainable transport future.



### FUTURE FOCUS

We need to make infrastructure future-fit. That means prioritising renewal investment in existing assets as well as building new infrastructure, exploring innovative funding and financing mechanisms, and planning longer-term for a growing population and changing climate.

Emerging technologies—like smart water meters, real-time traffic management, and renewable energy systems, provide

opportunities to reduce emissions, and use resources more efficiently.

We will focus on clean, efficient and cost-effective water and waste systems, increasing shared and public transport, and making it easy and safe to get around the city on bike, foot or scooter.

There will be significant future investment in infrastructure. At \$1.5 billion, Te Wai Takamori o Te Awa Kairangi will be Wellington region's largest infrastructure investment since Transmission Gully. Other key projects include:

- Water Infrastructure (\$1.6bn in HCC's 2024 Long Term Plan)
- Te Ara Tupua shared path (\$400 m)
- Waterloo Integrated Transport Hub

In the following pages you will see the initiatives that will help us realise our goals.



Our goal to achieve Smart Infrastructure supports SDS for clean water and sanitation, sustainable cities and communities, industry, innovation and infrastructure, and climate action.



## INITIATIVE: 29

### DEVELOP WATER AND WASTE SYSTEMS THAT ARE CLEAN, EFFICIENT AND COST-EFFECTIVE

As climate change, population growth and ageing infrastructure place increasing pressure on water and waste systems, we must invest in modern, efficient solutions that deliver better outcomes for people and the environment. This includes upgrading pipes and plants, reducing leakage and supporting reuse and recycling.

#### Modernise water infrastructure

Much of our water network is nearing the end of its useful life. To support smart investments in water infrastructure and more efficient and reliable services, a new water services entity will be established which is jointly owned by Wellington's metropolitan councils. We will continue to support the rollout of smart water meters, identify and fix leaks, and promote water conservation to reduce the impact on freshwater sources. This could include safer use of 'recycled' water. There will also be investment in water storage, including the Eastern Hills reservoir.

#### Maintain and upgrade ageing infrastructure

There will be ongoing renewal and replacement of water infrastructure, using asset condition data, digital modelling and climate risk assessments to prioritise upgrades. Over the next 30 years, we will have removed the backlog of renewals. Key future infrastructure decisions include the long-term viability of Seaview Wastewater Treatment Plant at its current location and Seaview wastewater outfall pipe renewal.

#### Build a low-waste city

Silverstream Landfill is likely to be at or near capacity by 2055. There is an urgent need to

keep resources in our city in use for as long as possible, and to recover materials as much as possible. We will strengthen our waste and resource recovery systems and pathways for reuse to reduce what we send to landfill and make better use of materials. This includes improving kerbside recycling, implementing food and green organic waste collection, a step change in commercial resource recovery opportunities (including for construction and demolition waste), and supporting infrastructure for reuse, repair and recycling. We will promote local initiatives, such as resource recovery hubs, repair cafes, and materials reprocessing. In developing new infrastructure, we will work to reduce both construction waste and carbon emissions.

#### Ensure affordability and long-term sustainability

Water and waste systems must be financially sustainable. We will plan investments through a long-term lens—balancing upfront costs with future benefits, while ensuring affordability for residents and ratepayers. We will advocate for fair and transparent funding arrangements, and ensure that Lower Hutt retains influence over how services are delivered in our communities.

STEPS TO GET THERE	OWNER
Maintain and upgrade ageing infrastructure, including modernising water infrastructure.	New water services entity, HCC
Build a low-waste city.	HCC

## INITIATIVE: 30

### BUILD AND MAINTAIN INFRASTRUCTURE THAT SUPPORTS GROWTH AND RESILIENCE

Te Awa Kairangi ki Tai Lower Hutt will invest in infrastructure that supports a growing population while building resilience to natural hazards. We will focus on targeted investment, coordinated planning and long-term thinking—ensuring that the infrastructure we build today is safe, efficient and resilient for generations to come.

#### Plan for compact urban growth

With our population projected to grow by up to 40,000 people over the next 30 years, we will focus growth in areas that are more resilient, with strong transport links — especially on the central and northern valley floor, including the central city, Woburn, Waterloo, Naenae, (Te Ngaengae) Taitā, and Avalon. We will work to ensure that three waters, transport, energy and digital infrastructure can support higher-density housing in these areas. A long-term approach is essential to address the shortage of commercial and industrial land.

#### Invest in regional transport connections

Lower Hutt's economy depends on strong regional transport connections. Potential future investments include:

- Hutt Valley Line upgrades, including Waterloo Station
- Melling Line extension to Manor Park
- Melling Interchange
- Cross-Valley Connections
- Grenada–Petone Link Road
- Upgrades to State Highways 2 and 58.

## Prioritise maintenance and renewals

We will take a strategic approach by factoring in the full costs of assets—from design and construction through to operation, maintenance and renewal. This would include maintaining detailed asset registers and using data-driven asset management plans to guide maintenance and replacement. By ring-fencing funding for renewals and prioritising proactive over reactive maintenance, we can reduce failures, extend the lifespan of infrastructure, and improve service levels.

#### Build resilience into infrastructure

Planning must consider the need to rapidly reduce emissions and long-term impacts of climate change, aligning land use and infrastructure decisions to maximise resilience and minimise future disruption - Ministry for the Environment recommends using the 'high-emissions scenario' out to 2130 for major infrastructure projects. We will build resilience by combining traditional defences like stopbanks and seawalls—with smart technologies, local knowledge and nature-based solutions (see *Climate-Ready City*).

Te Wai Takamori o Te Awa Kairangi includes raising and upgrading stopbanks and widening the river channel to increase protection from large flood events (1 in 440-year event). Tools such as flood intelligence systems and crisis mapping will improve public warning systems and emergency response. We will also invest in infrastructure that can withstand shocks, such as seismic-resistant materials in pipe networks.

STEPS TO GET THERE	OWNER
Plan for compact urban growth.	GWRC, HCC, Waka Kotahi
Build resilience into infrastructure, including Te Wai Takamori o Te Awa Kairangi flood protection.	GWRC, HCC

## INITIATIVE: 31

### DEVELOP A CONNECTED TRANSPORT NETWORK THAT MAKES IT EASY AND SAFE TO BIKE, WALK OR SCOOTER.

Te Awa Kairangi ki Tai Lower Hutt will develop a connected transport network that makes it easier for everyone to move around the city by walking, cycling and scootering. This will reduce congestion, support healthy, active lifestyles, and help meet our city's emissions reduction targets.

#### Improve walking and cycling routes across the city

We will deliver a connected cycleway and footpath network. Priority will be given to high-use routes, schools and town centres, as well as gaps in the existing network that make active travel unsafe or unappealing. A new City Link bridge for pedestrians and cyclists will be built to link the city centre to a relocated Melling train station. We will extend and connect key corridors, including completing the link between the Hutt River Trail and the regional shared path networks—Te Ara Tupua (Ngā Ūranga ki Pito-One) and Tupua Horo Nuku (Eastern Bays Shared Path). These high-quality walking and cycling routes will support commuting, recreation and tourism, and better connect Te Awa Kairangi ki Tai Lower Hutt with the wider region.

#### Design for safety and accessibility

We will prioritise safety improvements including upgrading crossings, improving lighting and visibility, installing protected cycle lanes and separating paths from traffic where possible. Routes will be designed to ensure accessibility to people of all ages and abilities—including children, older adults, and those using mobility devices.

### Plan for future growth and connections

We will ensure new developments are walkable, bike-friendly and well integrated with wider connections to public transport. All new housing areas, particularly in high-density zones, will be supported by high-quality infrastructure for walking and cycling. We will also future-proof our network to support new forms of micromobility, such as e-scooters and e-bikes, by ensuring paths are wide and safe.

#### Foster a culture of active travel

Infrastructure is only part of the solution. We will also support initiatives that encourage people to walk, bike or scooter more often. This includes working with schools to deliver safe routes and travel plans, supporting cycle confidence programmes, and promoting active transport through community events.

STEPS TO GET THERE	OWNER
Improve walking and cycling routes.	HCC, GWRC, Waka Kotahi
Plan for future growth and walking/cycling connections in new developments.	HCC, GWRC, Waka Kotahi

## INITIATIVE: 32

### INCREASE SHARED AND PUBLIC TRANSPORT SERVICES AND CONNECTIONS

As our city grows, we will make it easier for people to move around the city and across the region by bus, train or ferry. This will reduce congestion and transport emissions, and improve mobility across the city. Our focus is to extend services, enable easy transfers between different forms of transport, and make shared and public transport more attractive, comfortable and convenient.

#### Improve public transport routes

There will be targeted public transport investment in high-growth areas of the city. We will prioritise routes and interchanges that connect residential areas with essential destinations—such as Hutt Hospital, retail and employment centres. There will also be a focus on improving local bus services for Wainuiomata, Stokes Valley, Waiwhetū and Western Hills.

#### Deliver a more connected city

We will explore a fully accessible corridor, including Waterloo Station, Seaview Marina, key villages, marae and kura, schools, supermarkets, Queensgate, Hutt Hospital, Jackson Street and Eastbourne. There will also be planning for a city circular service focused on better linking the CBD, Hutt Hospital and Waterloo Station. Improved transport connections between Naenae (Te Ngaengae) and Taitā to essential retail and Hutt Hospital will also be investigated.

#### Strengthen regional rail services

We will support delivery of the Lower North Island Rail Integrated Mobility programme to improve rail capacity, reliability and frequency

on the Hutt and Wairarapa lines. Improving access to stations, replacing ageing rolling stock, and coordinating schedules with local buses will make rail a more viable choice for many more people.

Future investment includes a relocated Melling Station linking with the CBD via a new bridge, and Waterloo Transit-Oriented Development. This project would redevelop Waterloo as an integrated transport hub for the Hutt Valley, incorporating a bus interchange and train station. It would link with Lower Hutt CBD and connections to and from Wellington Central, Upper Hutt and the Wairarapa.

#### Make journeys easier, quicker and affordable

We will introduce integrated ticketing and fare capping, and maintain concessions and off-peak discounts, to make using public transport more affordable and seamless. We will also work to improve bus stop infrastructure—seating, shelters, lighting and digital displays.

Bus priority actions will be implemented to make journeys quicker and on-time. There may also be appropriate opportunities in the future to introduce congestion charging and T3 lanes to encourage car sharing and peak spreading.

STEPS TO GET THERE	OWNER
Improve public transport routes, including for Wainuiomata, Stokes Valley, Waiwhetū and Western Hills.	GWRC
Progress work on Melling Station and the Waterloo Transit Orientated Development.	GWRC

**INITIATIVE 29: DEVELOP WATER AND, WASTE SYSTEMS THAT ARE CLEAN, EFFICIENT AND COST-EFFECTIVE**

STEPS TO GET THERE	OWNER	STATUS
Maintain and upgrade ageing infrastructure, including modernising water infrastructure.	New water services entity, HCC	
Build a circular and low-waste city.	HCC	
INDICATORS	LATEST DATA	TARGET
Household resources/waste is returned, reused, recycled or composted	26%	85-90%

**INITIATIVE 30: BUILD AND MAINTAIN INFRASTRUCTURE THAT SUPPORTS GROWTH AND RESILIENCE**

STEPS TO GET THERE	OWNER	STATUS
Plan for compact urban growth.	GWRC, HCC, Waka Kotahi	
Build resilience into infrastructure, including Te Wai Takamori o Te Awa Kairangi flood protection.	GWRC, HCC	
INDICATORS	LATEST DATA	TARGET
Households and businesses that are protected from a 1 in 440 year flood event.		3,000 homes, 600 businesses

**INITIATIVE 31: DEVELOP A CONNECTED TRANSPORT NETWORK THAT MAKES IT EASY AND SAFE TO BIKE, WALK, OR SCOOTER**

STEPS TO GET THERE	OWNER	STATUS
Improve walking and cycling routes.	HCC, GWRC, Waka Kotahi	
Plan for future growth and walking/cycling connections in new developments.	HCC, GWRC, Waka Kotahi	
INDICATORS	LATEST DATA	TARGET
Proportion of Lower Hutt residents that travel to work by biking, walking or jogging.	Bike: 1.3% Walk/jog: 3.1% 2023 (census)	

**INITIATIVE 32: INCREASE SHARED AND PUBLIC TRANSPORT SERVICES AND CONNECTIONS**

STEPS TO GET THERE	OWNER	STATUS
Improve public transport routes, including for Wainuiomata, Stokes Valley, Waiwhetū and Western Hills.	GWRC	
Progress work on Melling Station and the Waterloo Transit Orientated Development.	GWRC	
INDICATORS	LATEST DATA	TARGET
% of people within 5 minutes' walk of a local stop or station	85% 2024	90% by 2053

## WHAT YOU CAN DO

**1**

**COMMUTE BY BUS, TRAIN OR FERRY.**

Leave the car at home, and take public transport to work.

**2**

**CONSERVE WATER.** Reduce shower times, turn off the tap while brushing your teeth, capture rainwater for watering your garden.

**3**

**WALK, BIKE, OR SCOOTER.** Walk, bike, push the pram, or travel by mobility scooter to the shops, work, or school.

**4**

**AVOID, REDUCE, REUSE, AND RECYCLE.** Reuse and repair belongings, donate reusable items, look for products that use less packaging, and use our city's recycling service.