

Foundation Report

Wairarapa-Wellington-Horowhenua Draft Future Development Strategy

AUGUST 2023



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Introduction

Ka ora te wai
Ka ora te whenua
Ka ora te whenua
Ka ora te tangata
Mo te iti – mo te rahi

*If the water is healthy
the land will be nourished
If the land is nourished
the people will be provided for*
For the little – for the large

This Foundation Report provides a collective summary of the context for the Future Development Strategy as developed by the Wellington Regional Leadership Committee (WRLC), and the background to the Future Development Strategy.

It includes the strategic and policy context and the opportunities and challenges facing the Wairarapa-Wellington-Horowhenua region¹ now and into the future. The report is based on the Foundation Report produced for the Wellington Regional Growth Framework (2021) (WRGF) and has been updated to reflect current thinking and data.

It is a key milestone in the development of the Future Development Strategy.

The report has been developed using readily available data. However, some parts of the report do not have complete or consolidated information that extends to Horowhenua (as they may be based on the Greater Wellington Regional Council area). We expect that more up-to-date data will become available following the development of the Future Development Strategy, and additional work may be commissioned.

Section 1 of this report provides a background to the Future Development Strategy for the Wairarapa-Wellington-Horowhenua region, the spatial planning document for which the Foundation Report provides information.

Section 2 of this report highlights the current and expected future performance of our region in a number of areas relevant to the Future Development Strategy. These areas include the natural environment, people and communities, homes and places, economy and jobs, access and mobility and the values of mana whenua.

Section 3 of this report outlines the challenges and opportunities for the Wairarapa-Wellington-Horowhenua region that are relevant to the Future Development Strategy.

¹ In most cases in this report, references to 'region' mean the Wairarapa-Wellington-Horowhenua region. Where this is not the case the geographical area of the region is stated.

1. Background to the Future Development Strategy

1.1 The context for an updated spatial plan for our region

The context for growth in the Wairarapa-Wellington-Horowhenua region has changed significantly in recent years and is likely to continue to change, creating significant uncertainty for planning.

The purpose of this Foundation Report is to identify the key issues facing the region as we grow in the next 30 years, and to provide an evidence base for challenges and outcomes that are then tested through an evaluation of hypothetical future scenarios for the locations and types of urban development growth in our region over time.

The recent rapid population growth in the region appears to be slowing. House prices are dropping as interest rates rise. New medium-density planning rules have created a more responsive platform for supply, particularly in the metropolitan parts of the region. However, despite these changes the region is still facing a shortage of housing in some places and mortgage serviceability remains challenging, particularly for first-time home buyers.

Our regional transport context has also changed significantly in the past year, with new state highway projects (Transmission Gully and Ōtaki to Peka Peka) coming on line and creating a more resilient and responsive regional roading network.

Significant capacity and reliability issues affecting the public transport system have emerged in recent times, affecting the service levels of rail and buses, although these issues seem to be reducing and services are now back to normal or near normal. These issues, while part of a wider national context, limit our ability to achieve necessary transport system shifts, such as improving safety and access, reducing emissions and reducing our reliance on private-vehicle travel. The need to consider our travel is increasingly evident.

The national-level Emissions Reduction Plan, released in 2022, has a clear expectation for all emissions, and particularly transport emissions, to be sharply reduced.

Other issues facing the region include the projected sea-level rise, the severity of weather events, the biodiversity decline and its exposure to natural hazards. All these issues create challenges and uncertainty when it comes to planning for the future.

There is an increasing urgency to replace aging infrastructure. Social and community infrastructure also needs a more coordinated investment to accommodate growth, including open spaces, community facilities, schools and health care facilities.

A significant investment in housing, transport and the three waters infrastructure and services, as well as regional and district planning and policy changes, is needed to support future growth. We will not be able to afford everything we want to invest in, so difficult decisions on prioritisation need to be made.

The Future Development Strategy will primarily be a spatial plan that describes a long-term vision for how the region will grow, change and respond to key challenges and opportunities. Its ambit will be much broader than simply looking at where and how we develop more housing and business land. We need to resolve all the above-mentioned challenges for the benefit of our future as a region.

The challenges we face are regional issues that are best dealt with by working together. Many cross local council and iwi boundaries (e.g. investments in water or transport). Maximum benefit from our investments can be gained by taking a collective approach to planning and investment that includes working together with WRLC iwi member organisations and central government agencies.

1.2 Who has developed the Future Development Strategy?

The local councils and iwi leaders in the Wairarapa-Wellington-Horowhenua region and central government agencies have established the WRLC (an Urban Growth Partnership) to formalise their relationships.

Urban Growth Partnerships are being progressed as part of the government’s Urban Growth Agenda. These partnerships provide a forum for central government, local government and iwi members to align decision-

making processes, collaborate on the strategic direction for New Zealand’s high-growth urban areas, and improve coordination in housing, land-use and infrastructure planning. Spatial planning is an important tool for driving joint action.

The WRLC members in our region are represented in Figure 1.

Figure 1: WRLC members and partners. We are also working with other central government partners such as the Ministry of Education. Te Ātiawa ki Whakarongotai Charitable Trust were a member of the committee and participated in the WRLC until April 2023.



1.3 The strategic context for the Future Development Strategy

The Future Development Strategy is being developed to give effect to the National Policy Statement on Urban Development 2020 (NPS-UD). The Wairarapa-Wellington-Horowhenua region currently has the WRGF, which was nearly complete when the NPS-UD became operative in August 2020. The WRGF contains many elements of a Future Development Strategy but was not intended to be one. An analysis has been undertaken to identify what is required to adapt the WRGF so that it complies with the requirements of a Future Development Strategy.

The Future Development Strategy will build on the extensive work already undertaken to consider the future of the Wairarapa-Wellington-Horowhenua region. Since the WRGF was published, the regional context has changed:

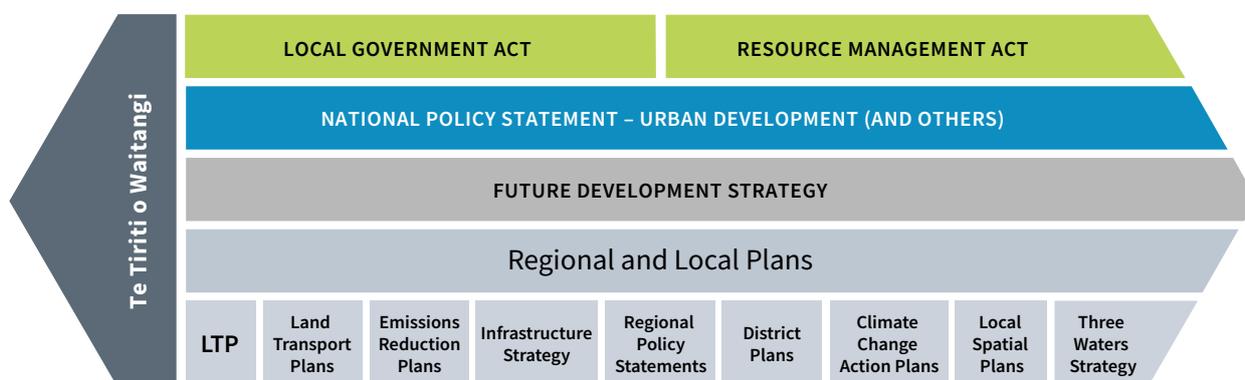
- Our region has recently released plenty of development capacity through increasing medium-density housing opportunities, as required by the NPS-UD.
- The first proposed change to the Greater Wellington Regional Policy Statement (RPS) (Proposed Change 1) has been notified. It addresses issues related to fresh water, biodiversity, climate change and urban development.

- The Wairarapa councils are notifying a new Combined District Plan in mid-2023.
- We have a new national directions – the National Policy Statement for Freshwater Management 2020 (NPS-FM) and the National Policy Statement for Highly Productive Land (NPS-HPL).
- We have a national Emissions Reduction Plan and National Adaptation Plan to consider.

The Future Development Strategy takes into account the emerging directions from the resource management system reforms, especially the Spatial Planning Bill, which indicates that the development of long-term regional spatial strategies will be required.

It draws on the comprehensive planning work undertaken by partners, including as part of district plans, growth strategies and iwi plans. It provides a shared view of our region’s future that will enable partners to undertake more detailed planning at a local level. The next time we need to prepare a Future Development Strategy it may actually be the Regional Spatial Strategy under the Spatial Planning Act (once enacted).

Figure 2: Legislative context of the Future Development Strategy



The Future Development Strategy is being developed in partnership with our six WRLC iwi members. The WRLC recognises the role of mana whenua as kaitiaki of our region and as leaders and experts in the development and implementation of the Future Development Strategy.

The WRLC also acknowledges the rights and interests of mana whenua, the whakapapa links they hold with the whenua, and the mātauranga and intergenerational wisdom they possess.

PARTNERING WITH WRLC IWI MEMBERS ON THE FUTURE DEVELOPMENT STRATEGY

The NPS-UD includes the following requirement for the content of a Future Development Strategy: *“Every FDS must include a clear statement of hapū and iwi values and aspirations for urban development”*.²

The NPS-UD neither stipulates how this statement should be structured nor gives any further detail on the content of the statement. This allows for some flexibility in how each region determines what will be included in its statement and how this information should be presented. The content of the statement is an important input to and measure of the way in which future scenarios for our region are assessed. This is emphasised in the NPS-UD statement that “every FDS must be informed by Māori, and in particular tangata whenua, values and aspirations for urban development”.³

There are other objectives and policies in the NPS-UD that relate to urban environments and Treaty of Waitangi (Te Tiriti o Waitangi) responsibilities and including Te Ao Māori perspectives and aspirations in the process of planning for urban environments:

- Objective 5 of the NPS-UD states that “planning decisions relating to urban environments, and FDSs [Future Development Strategies] take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).”
- Policy 1(a)(ii) states that “planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum: [...] enable Māori to express their cultural traditions and norms.”
- Policy 9 sets out the ways in which local authorities must, in taking account of the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) in relation to urban environments, involve iwi and hapū.

² See Section 3.13.

³ See Section 3.14(d).

1.4 Regional Policy Statements

The geographical extent of the Future Development Strategy covers two regional council boundaries – those of Horizons Regional Council and the Greater Wellington Regional Council. We need to consider the planning context in both areas equally.

PROPOSED CHANGE 1 TO THE GREATER WELLINGTON REGIONAL COUNCIL POLICY STATEMENT

Change 1 was notified in August 2022 to address four significant and urgent resource-management issues:

- Lack of urban development capacity.
- Degradation of fresh water.
- Loss and degradation of indigenous biodiversity.
- The impacts of climate change, through the inclusion of a new Climate Change chapter.

Change 1 implements the NPS-UD and the NPS-FM in an integrated way. The change is also intended to recognise some aspects of the WRGF in the RPSs to ensure alignment, which was identified in the framework’s three-year work programme.

While the NPS-UD is largely implemented through district plans, there are three issues that the RPS needs to cover:

- Providing for a well-functioning and liveable urban environment.
- Enabling and managing urban intensification.
- Providing for responsive planning through introducing criteria for “adding significantly to development capacity”.

In the context of a strong national direction to enable intensification, Change 1 is intended to provide an ‘integrating frame’ and direction to enable housing and business development that:

- occurs in locations and uses approaches that prioritise the health of water bodies and freshwater ecosystems
- is resilient to the effects of climate change and accounts for a transition to a low/no carbon future
- protects areas of significant indigenous vegetation and significant habitats of indigenous fauna.

Change 1 proposes amendments to the existing Objective 22 on regional form to articulate the qualities and characteristics of well-functioning urban environments under an integrated framework, and to provide for housing and business development while also maintaining and/or enhancing the quality of the natural environment. Change 1 also includes an overarching objective for the integrated management of the region's natural and built environments, guided by Te Ao Māori. The provisions and direction of travel of Change 1 are therefore directly relevant to the Future Development Strategy.

HORIZONS ONE PLAN

Horowhenua District Council is part of the Horizons Regional Council rohe. The council's One Plan has identified the 'big four' challenges facing the region – surface water quality degradation, increasing water demand, unsustainable hill-country land use and threatened indigenous biodiversity.

Horizons has recently notified Plan Change 3 to the One Plan, which is intended to give effect to the NPS-UD.

Horizons is also implementing a freshwater protection and enhancement programme called 'Our Freshwater Future', which will result in some changes to the RPSs that will further give effect to the NPS-FM in 2024.

1.5 What is the scope of the Future Development Strategy?

The Future Development Strategy addresses how our housing and business areas will change in the next 30 years and beyond, the infrastructure we need, and the policies, investments and other tools required to support the transition from our current urban form.

Future urban form scenarios have been developed that consider the implications of different settlement patterns, natural-hazard and climate-change constraints, and transport interventions for the performance of our future urban form. The scenarios have been evaluated to help us understand how they contribute to the desired objectives of the Future Development Strategy and determine a preferred spatial strategy.

The Future Development Strategy identifies the timing and sequence of key actions to support the growth of our towns and cities in the short, medium and long term and create well-functioning urban environments.

It does not rezone land under current district plans or change existing commitments under respective council Long-Term Plans. Rather, the Future Development Strategy will inform them.

The Future Development Strategy takes a high-level view of the Wairarapa-Wellington-Horowhenua region to show the general locations of main infrastructure corridors and broad locations for future growth in the next 30 years. The vision has been agreed with the WRLC to ensure we keep in mind our children and their children (mokopuna) when we make our decisions.

VISION

Let's be responsible ancestors. The Wairarapa-Wellington-Horowhenua Future Development Strategy will provide for growth that is sustainable by meeting the needs of the present without compromising the ability of future generations to meet their own needs.

A future for the Wairarapa-Wellington-Horowhenua region founded on Te Tiriti and realised through the tino rangatiratanga of mana whenua – *Ko te Tiriti o Waitangi te tūapapa o ngā rautaki hapori tirohanga whakamua hei huhua te rangatiratanga o tēnā o tēnā o ngā iwi.*

THE OBJECTIVES FOR OUR FUTURE DEVELOPMENT STRATEGY

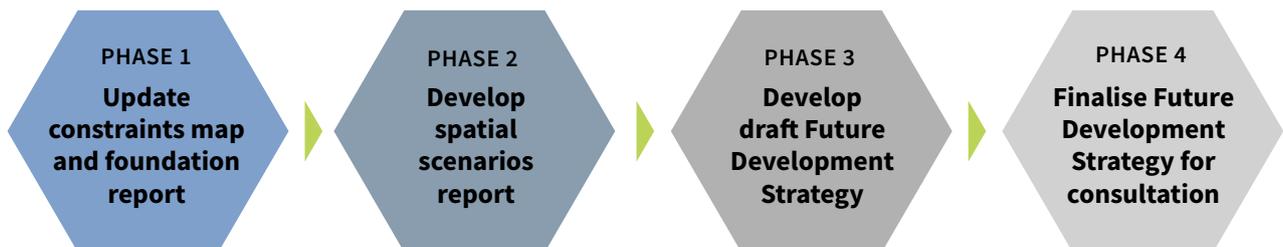
-  Increase housing supply, and improve housing affordability and quality, and housing and tenure choice.
-  Enable growth that protects and enhances the quality of the natural environment.
-  Enable growth that protects highly productive land, safe-guarding food production for future generations.
-  Improve multi-modal access to and between housing, employment, education and services.
-  Ensure development is integrated and efficiently uses existing built, social and community infrastructure or can be readily serviced by new infrastructure.
-  Plan development for a zero-carbon future, creating change to rapidly reduce emissions (including emissions from transport) and meet our regional climate change objectives.
-  Ensure development minimizes the impacts of and is resilient to climate change and natural hazards and avoid creating new risks.
-  Create local sustainable employment opportunities.
-  Align with mana whenua housing and other aspirations.

1.6 How have we developed the Future Development Strategy?

Our approach to developing the Future Development Strategy demonstrates good policy-development practice by evaluating the benefits of different scenarios according to how the Wairarapa-Wellington-Horowhenua region could grow and change. It requires us to have robust evidence to underpin the analysis and direction of the Future Development Strategy. The Foundation Report identifies the key challenges and outcomes for the region, and was used to develop the evaluation framework that was used to assess the scenarios.

Our approach is guided by the requirements of the NPS-UD for preparing a Future Development Strategy for the Wairarapa-Wellington-Horowhenua region. There are four phases of work in our approach to developing the Future Development Strategy, as shown in Figure 3.

Figure 3: Phases of development of the Future Development Strategy



2. Our current state

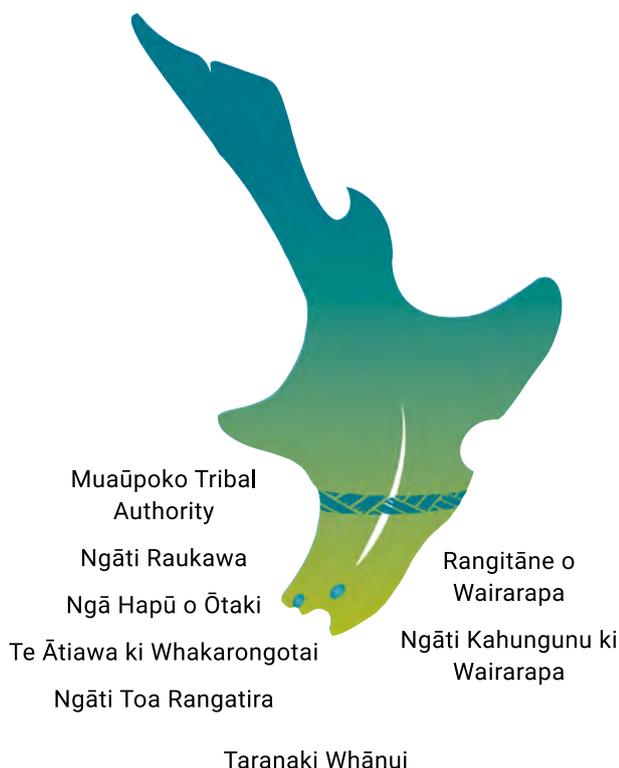
2.1 Tangata Whenua

Our region is in an important location for Aotearoa and New Zealanders. Wellington/Te Upoko o Te Ika is the head of the fish of Maui, the harbours – Te Whanganui-a-Tara and Wairarapa Moana – are the eyes of the mythical fish, and the great bay between them is the fish’s mouth.

Māori have lived in Te Upoko o Te Ika since the time of Maui, Kupe and Whātonga – and more than 80,000 live in our region today, constituting more than 14% of the region’s population.

Our region has strong cultural connections, with more than 20 marae and 39% of Māori adults speaking some te reo. Māori-owned entities have a key role in commercial property, housing and social developments, and Māori in business have a strong presence in the screen, technology, business services and food and fibre sectors. Mātauranga Māori knowledge and Te Ao Māori perspectives have increasing and important roles in sharing knowledge and supporting better outcomes for all.

Figure 4: Iwi ki Te Upoko o te Ika – Iwi of the region History



HISTORY

Our region is the ancestral home of generations of Māori tribes, with areas such as Wellington Harbour being centres of local Māori life. Tangata whenua in our region have strong whakapapa links with the whenua in their rohe and possess intergenerational mātauranga and wisdom.

Wellington’s earliest name, Te Upoko o Te Ika a Māui, is based on the Māori story of how Aotearoa New Zealand was created. According to Māori, the legendary navigator Maui hooked a giant fish that, when pulled to the surface, turned into the landform now known as the North Island, or Te Ika a Maui.

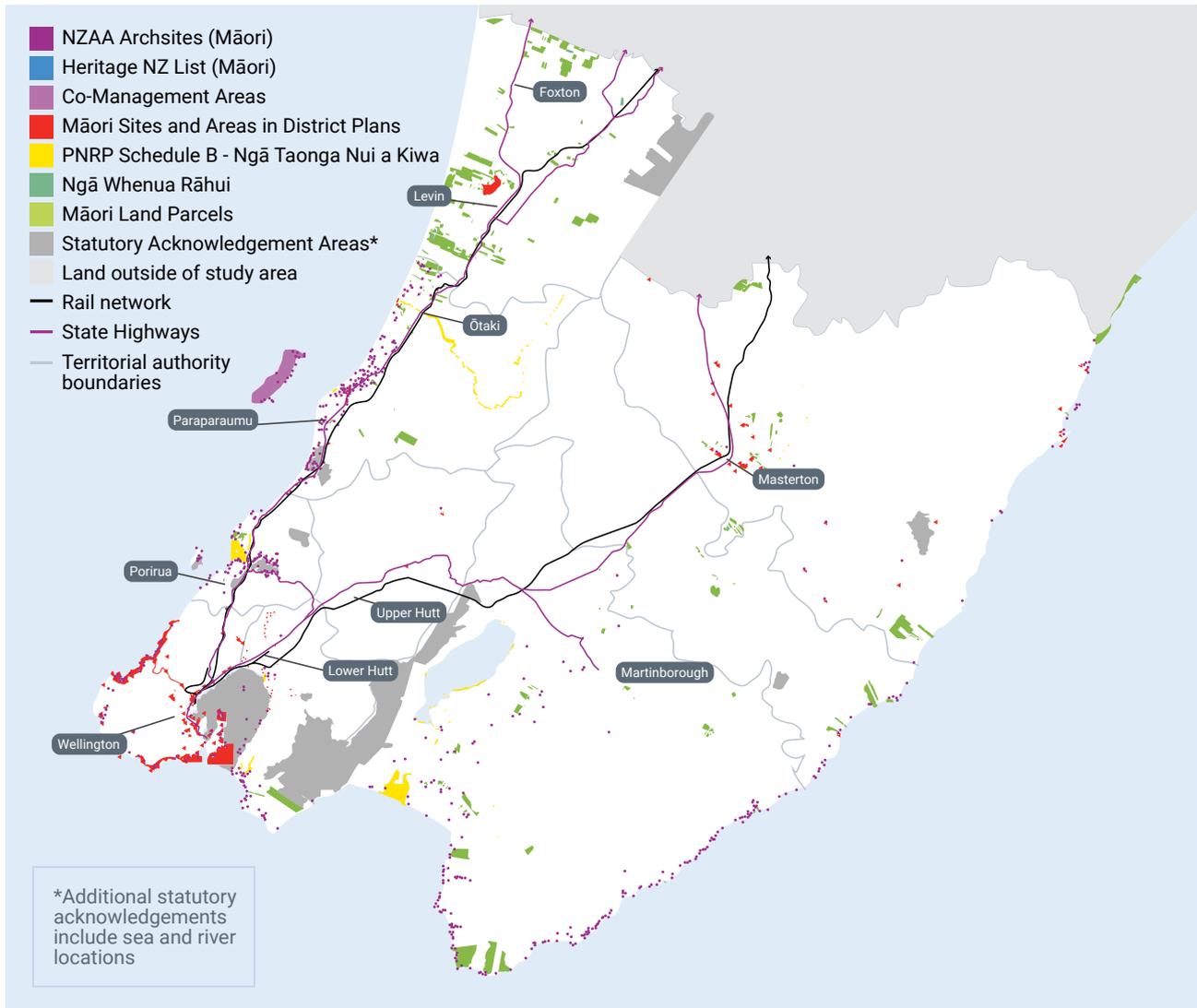
Wellington Harbour and Lake Wairarapa are referred to as the eyes of the fish (Ngā Whatu o te Ika a Maui). Palliser Bay, on the south coast of Wairarapa, is the mouth of the fish (Te Waha o te Ika a Maui) and Cape Palliser and Tūrakirae Head at the extremes of the bay are the jaws. The Remutaka, Tararua and Ruahine mountains make up the spine of the fish, as shown in Figure 4.

Modern archaeology has confirmed that sites found in the Palliser Bay area of South Wairarapa, along the southern Wellington coastline and on Kāpiti Island are some of the oldest recorded in New Zealand, dating back some 650 years.

Further north and before the 1820s, the principal tribes of the Manawatū and Horowhenua region were Rangitāne, Muaūpoko and Ngāti Apa. Rangitāne were primarily based in Manawatū, Muaūpoko in Horowhenua and Ngāti Apa along the Rangitikei River.

By 1864, European settlement had resulted in the alienation of the majority of Māori land in the region. Only a small proportion of the region comprises Māori freehold land today, and the land is predominantly located in rural areas. According to the Māori Land Court there are 12,529 hectares of Māori freehold land, in 526 property titles, in the Wellington region (excluding Horowhenua). This represents just 1.56% of the land in the Wellington region. Figure 5 shows our current mapped areas that are important to mana whenua (at the time of the WRGF). Future work will look at updating this as our partners wish.

Figure 5: Sites of significance for mana whenua, co-management areas and Māori land in the region



MĀORI VALUES AND ASPIRATIONS FOR URBAN DEVELOPMENT

It is important that the values and aspirations of tangata whenua are recognised and reflected in our urban landscape and future growth. A foundational part of the Future Development Strategy is the development of Te Tirohanga Whakamua, a statement of iwi aspirations for urban development. The creation of the statement recognises that mana whenua have some shared values and aspirations for the future of our region, including in the areas of culture and language, housing, transport, protection of land, water, hauora and health, climate change and natural disaster planning, food sovereignty and the development of economic opportunities.

Treaty partnership is fundamental to the successful implementation of Te Tirohanga Whakamua, which sets out a vision of a future for the Wairarapa-Wellington-Horowhenua region founded on te Tiriri and realised through the tino rangatiratanga of mana whenua. The statement has four pou – Rangatiratanga, Mātauranga Māori, Kotahitanga/Ōritetanga/Mana taurite and Kaitiakitanga.

With regard to the future development of our region, it is important that the environmental, economic, social and cultural values and aspirations of iwi and hapū in the region are central to growth planning. The urban landscape often favours colonial settler histories, narratives and cultures⁴ and we want to ensure that Māori stories and identities are present and reflected in the design of the urban environment.

2.2 Our region today

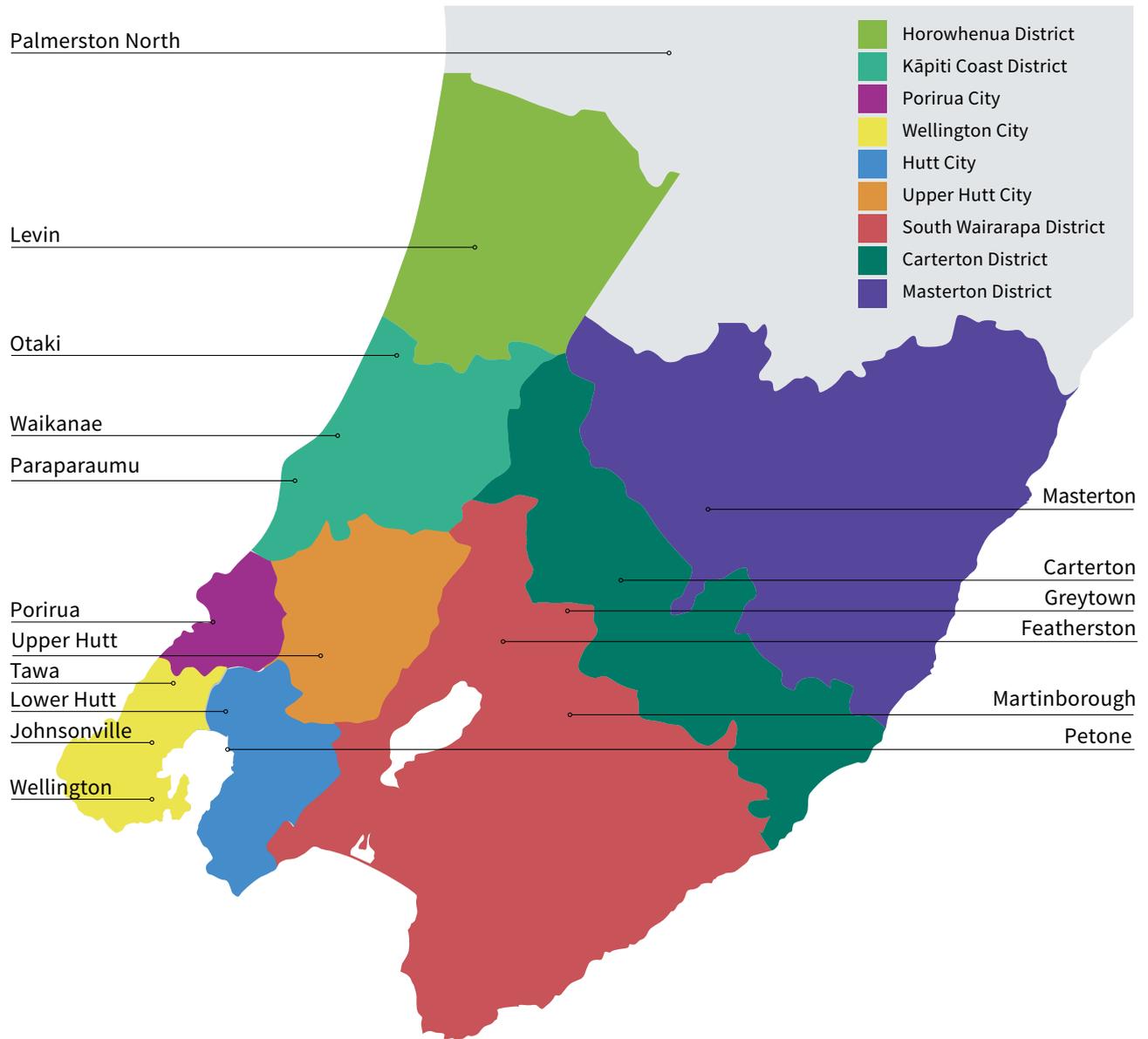
Today the region is an interdependent network of cities, towns and rural areas. It is the seat of government and an emerging centre for economic enterprise, knowledge and skills, creative and cultural pursuits, and lifestyle. It has a vibrant and diverse economy set within a unique and challenging natural environment. The residents in the region enjoy a high quality of life relative to other parts of New Zealand. In 2022 Wellington's Gross Domestic Product (GDP) per capita was the highest in New Zealand,⁵ and in the 2022 Quality of Life Survey 89% of residents reported that they had a good quality of life, while 3% expressed dissatisfaction.

As the location for New Zealand's Parliament and many government agencies, the region is important to the country as a whole. Nine councils govern the region covered by this strategy (Figure 7).

⁴ Māori identity in urban design <https://www.buildmagazine.org.nz/index.php/articles/show/maori-identity-in-urban-design#:~:text=Maori%20values%20in%20design%20outcomes&text=kaitiakitanga%20%E2%80%93%20how%20the%20natural%20environment,depicted%20in%20the%20urban%20design>.

⁵ Regional gross domestic product: Year ended March 2022 | Stats NZ.

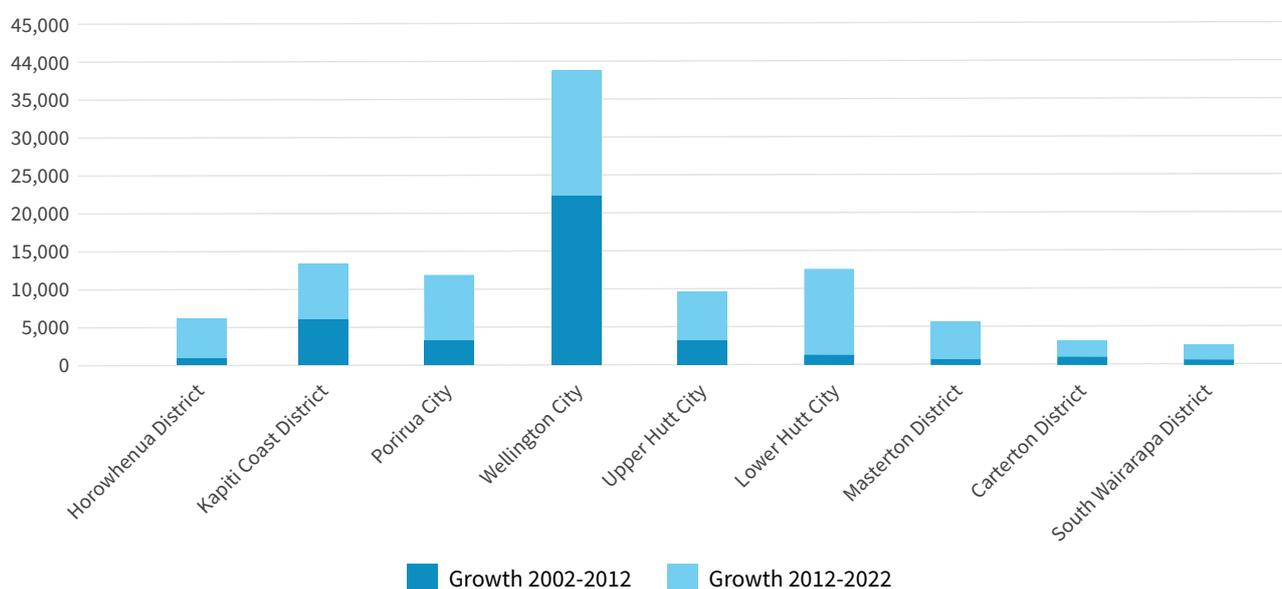
Figure 7: Geographic boundaries of the territorial authority partners



As with the rest of New Zealand, the region experienced significant challenges due to COVID-19 that have had direct impacts on the economy and growth. Growth has occurred in all council areas in the region in the past 20 years, with Wellington City growing more than any other council area in this period. However, the significant increase in population growth experienced between 2014 and 2020 has

largely been accommodated outside Wellington City, which grew less between 2012 and 2022 than it did in the decade before (2002-2012). The Kāpiti Coast District and Carterton District have grown slightly more in the past decade, while in all other council areas population growth rate has at least doubled in the past decade when compared to the decade earlier (Figure 8).

Figure 8: Population growth by council area. Source: Stats NZ



Much of the region has a constrained and challenging topography. This has to a large extent dictated housing and business development patterns and resulted in two main, north-south urban development and movement corridors – with limited east-west connections.

There are several statutory acknowledgement areas within the region, and numerous sites that have been vested in iwi as part of their settlement redress; these have included the Parangarahu Lakes, the Wellington harbour islands (Mātiu/Somes, Makāro and Mokopuna) and Kāpiti Island. Some areas of the region, such as Whitireia Park and the Wairarapa Moana and Ruamāhanga River catchment, are covered by co-management arrangements between mana whenua and government agencies.

Large areas of the region are protected in Department of Conservation and regional council reserves. They provide opportunities for recreation, and in many parts of the region also contain and frame housing and urban development current and future footprints. Wairarapa and Horowhenua also have important areas of highly productive land, where the balance between primary production and urban development will need to be determined in the future.

2.3 Our natural environment – Te Taiao

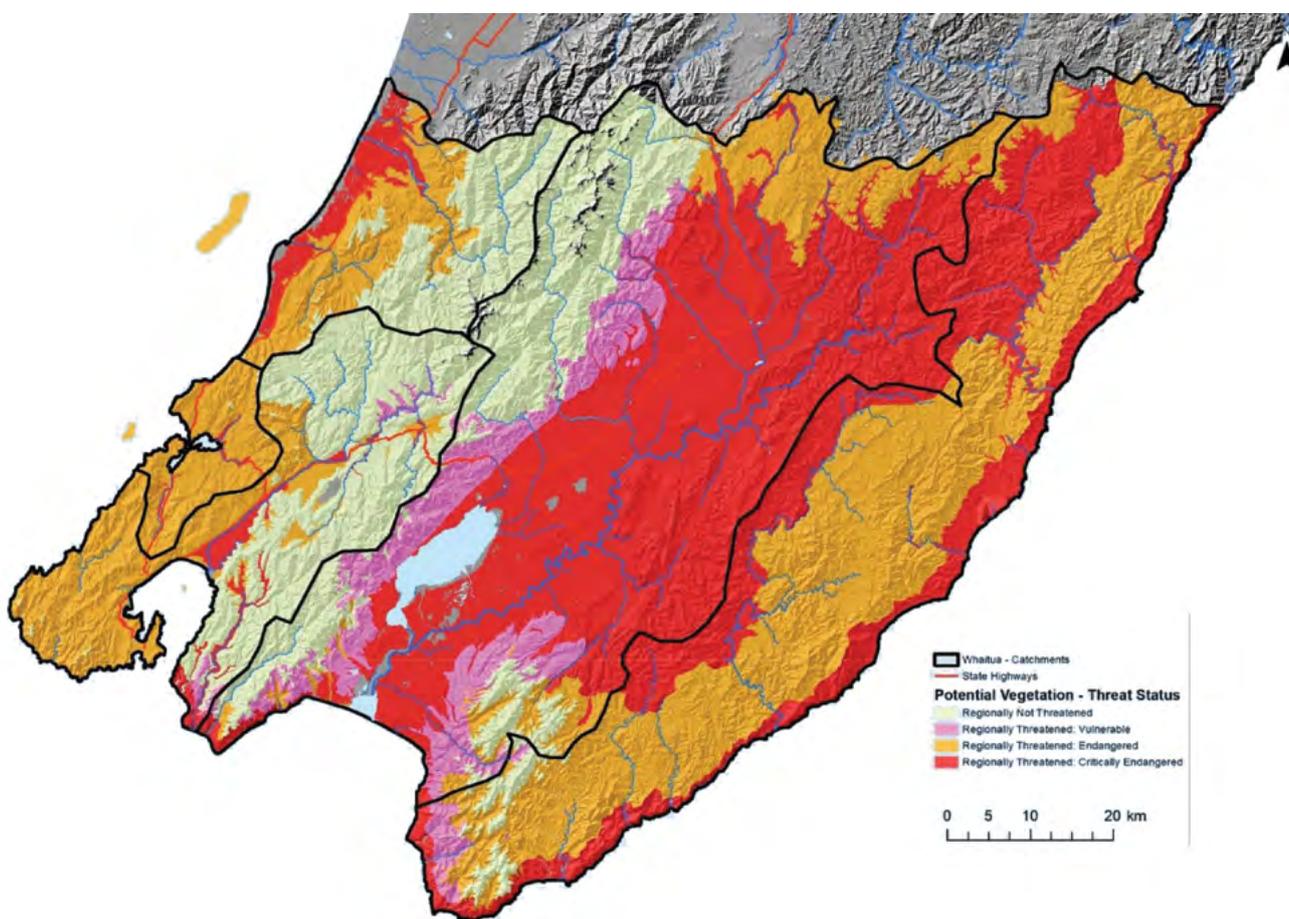
The Wairarapa-Wellington-Horowhenua region has a wide range of natural environmental features with many interconnected parts, including the coastal environment, water bodies, mountains and hills, wetlands, terrestrial habitats and landscapes and urban and rural environments.

Since European settlement began in the region, land use and development has had significant effects on the natural environment. Current land-use and development practices continue to jeopardise the natural environment, degrade ecosystems and affect the ability of natural systems to support climate change mitigation and adaptation. This impacts include vegetation clearance, disturbance of landscapes, discharges of contaminants to water bodies (including sediment from earthworks), increased water takes, wastewater overflows and the loss of streams and wetlands.

Before human arrival, forests covered about 98% of the landscape, while other natural ecosystems, such as wetlands and streams, covered a greater extent of the land. Today in the Wellington region, 27% of the original forest cover and less than 3% of the region's natural freshwater wetlands remain. Many of the region's native species are nationally threatened, critical or at risk.

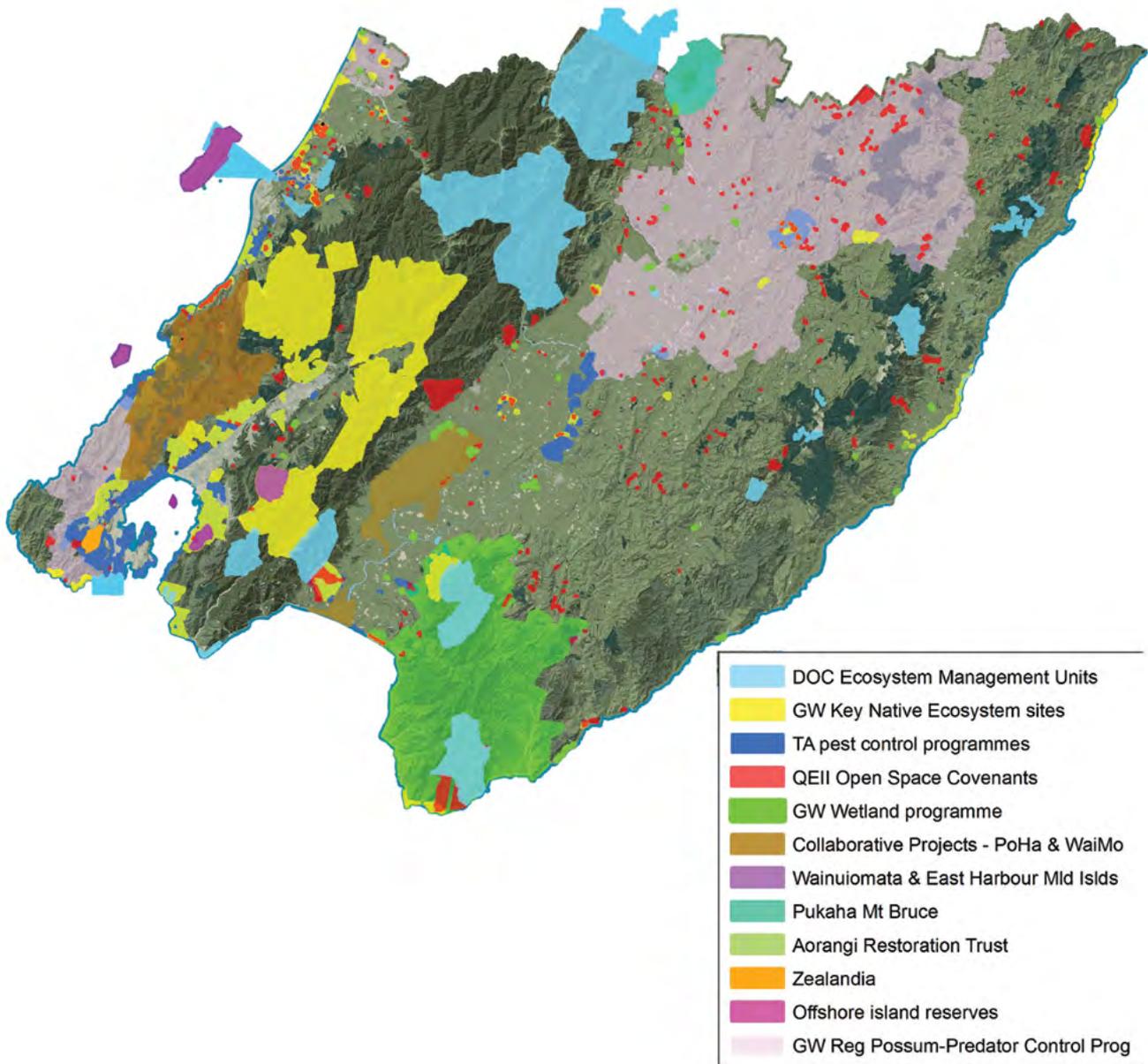
A Greater Wellington Regional Council report, Forest Ecosystems of the Wellington region – 2018, identified the potential vegetation threats for various forest ecosystem types (see Figure 9). It noted vegetation using a four-scale system, being regionally not threatened, critically endangered (less than 10% remaining), endangered (less than 30% remaining) and vulnerable (less than 50% remaining).

Figure 9: Forest ecosystem threat status



Vegetation in the Wellington region is now dominated by grassland (and other herbaceous vegetation), comprising about 46% of the land area. Forests cover about 36% of the region, and scrub/shrubland covers a further 12%. Urban areas, cropland and water bodies make up the remaining land area. In recent years exotic forests, croplands and urban areas have expanded at the expense of indigenous forest and scrub and exotic scrub and grassland.

Figure 10: Conservation sites and activities in the region



The natural environment is highly valued and enjoyed by communities for its biodiversity, recreation value, mahinga kai and cultural values. There are 33,000 hectares of regional parks, and 150,500 hectares of the Wellington region is legally protected by the Department of Conservation, regional councils, the QEII National Trust or Ngā Whenua Rāhui. In addition to the areas of land with formal protection, a wide range of conservation initiatives is undertaken in the region, as can be seen in Figure 10.

The 2022 Quality of Life Survey⁶ provided information on the extent to which residents in the region perceived certain environmental issues to be of concern. The results showed that 65% of residents surveyed in the Wellington region felt that water pollution had been a problem in their local areas. 40% also felt noise pollution had been a problem and 21% felt that air pollution had been a problem.

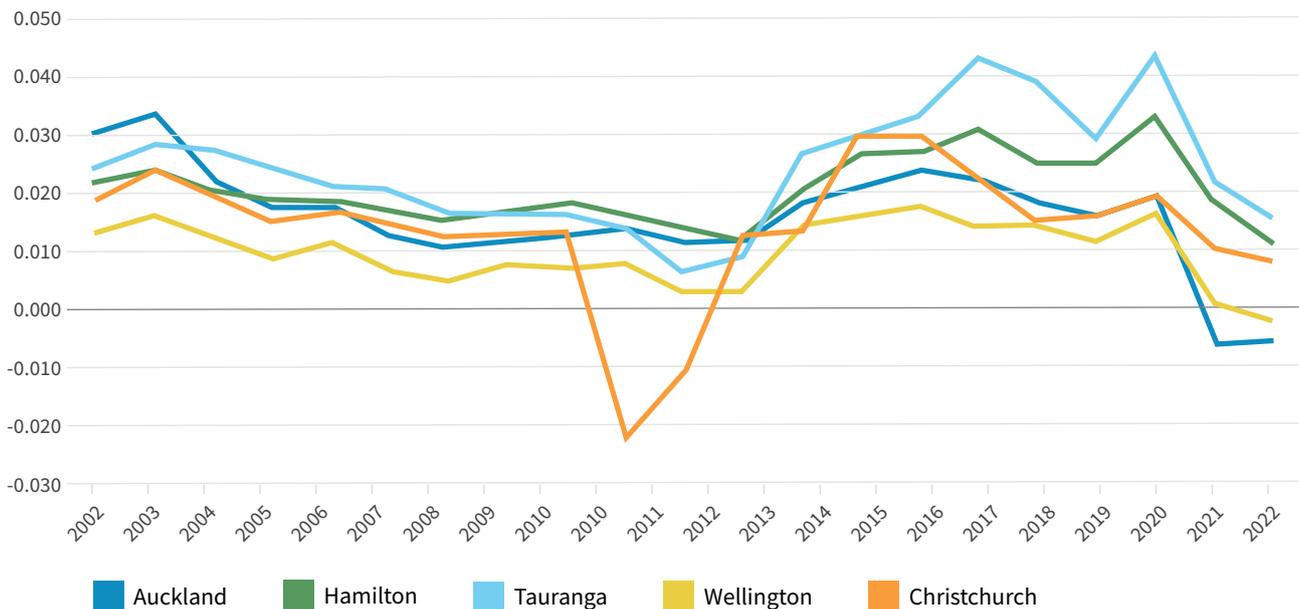
⁶ The 2022 Quality of Life Survey is a partnership between the Auckland, Hamilton, Tauranga, Wellington, Porirua, Hutt, Christchurch and Dunedin City Councils and Wellington Regional Council. These are large urban areas and account for over half (57%) of New Zealand's total population.

The NPS-HPL requires land that is suitable for food production to be protected from development. The direction in the NPS-HPL requires the protection of Class 1-3 soils. The Constraints Report developed as part of the Future Development Strategy has taken a conservative approach and classed these areas as Wāhi Toitū (places to be protected from urban development).

2.4 Our people and communities

The population of the region has grown steadily in the past 20 years, with a significant spike between 2014 and 2022. However, growth has slowed recently in line with national trends (Figure 11). The current population of the region (including Horowhenua) is estimated to be 580,500 compared to 457,700 in 1996.⁷

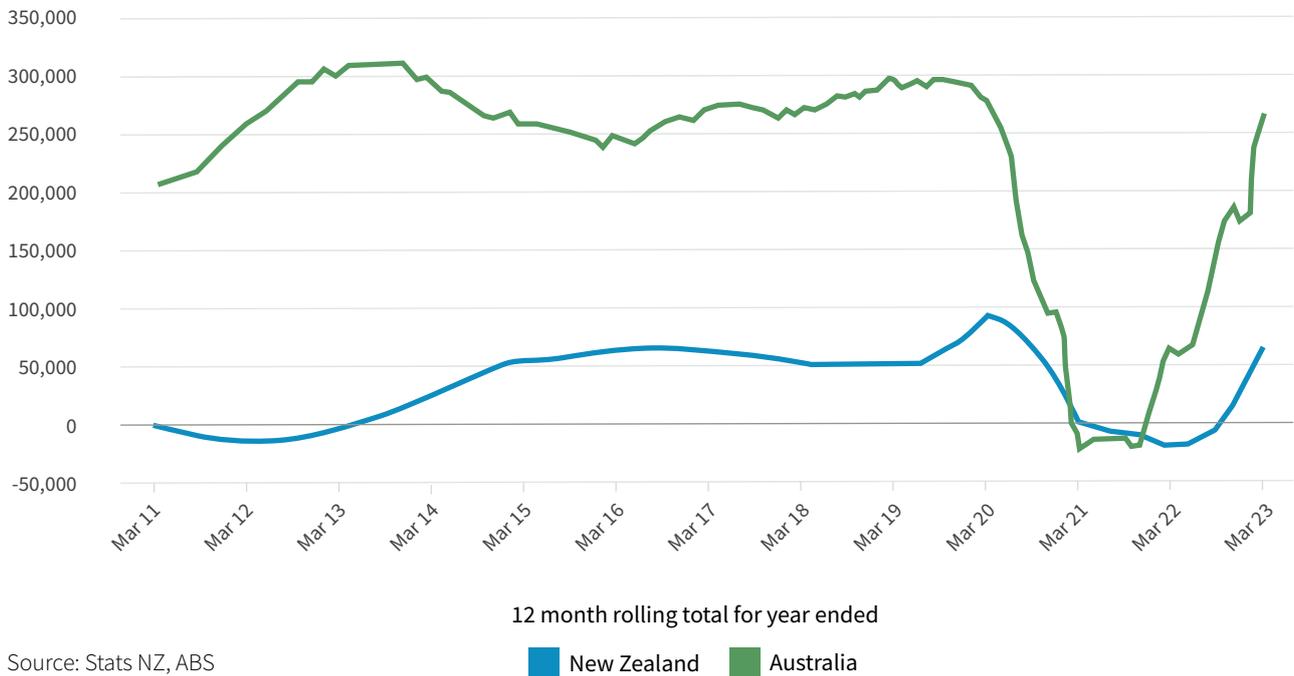
Figure 11: Annual population growth rate of New Zealand major cities (Tier 1 urban areas).
Source: Stats NZ



Previously it was expected that all parts of the region, including regional towns, were going to see significant growth with high rates of international migration, leading to the consideration of large-scale growth scenarios. During COVID-19 migration ceased, but it has now picked up to pre-COVID-19 levels (Figure 12).

⁷ <https://www.stats.govt.nz/information-releases/national-population-estimates-at-30-september-2022>.

Figure 12: Net migration – permanent and long-term overseas arrivals and departures



Source: Stats NZ, ABS

In 2020 Sense Partners forecast a population increase for the region of around 250,000 by 2051; however, it is now not certain that growth will reach pre-COVID-19 projected expectations. The latest (2023) Sense Partners projections suggest growth of around 184,000 by 2052.⁸

Stats NZ projections suggest a more modest population increase, with the median projection at about 79,000 between 2018 and 2048.⁹ The extent of the divergence between projections highlights the uncertainty of predicting the future, and how much growth relies on international migration. It suggests that the region should continually monitor growth and allow for flexibility when considering ways to plan for the future.

Demographic projections show that the population in the region is aging, as illustrated in Figure 13. The aging demographic change is more pronounced in the Wairarapa and Kāpiti and Horowhenua Districts.

Wellington City is projected to continue having the largest proportion of the 'working age' population. The spread of ages 0-9 and 10-19 is projected to become more consistent across the region, making up to between 21% and 24% in all areas compared to the current spread of 21% to 30%.

⁸ Sense Partners Population Forecasts: GWRC Demographic Forecasts (sensepartners.nz).

⁹ Stats NZ: Subnational population projections: 2018(base)-2048 update | Stats NZ.

Figure 13: Projected regional age demographic change 2018-2038

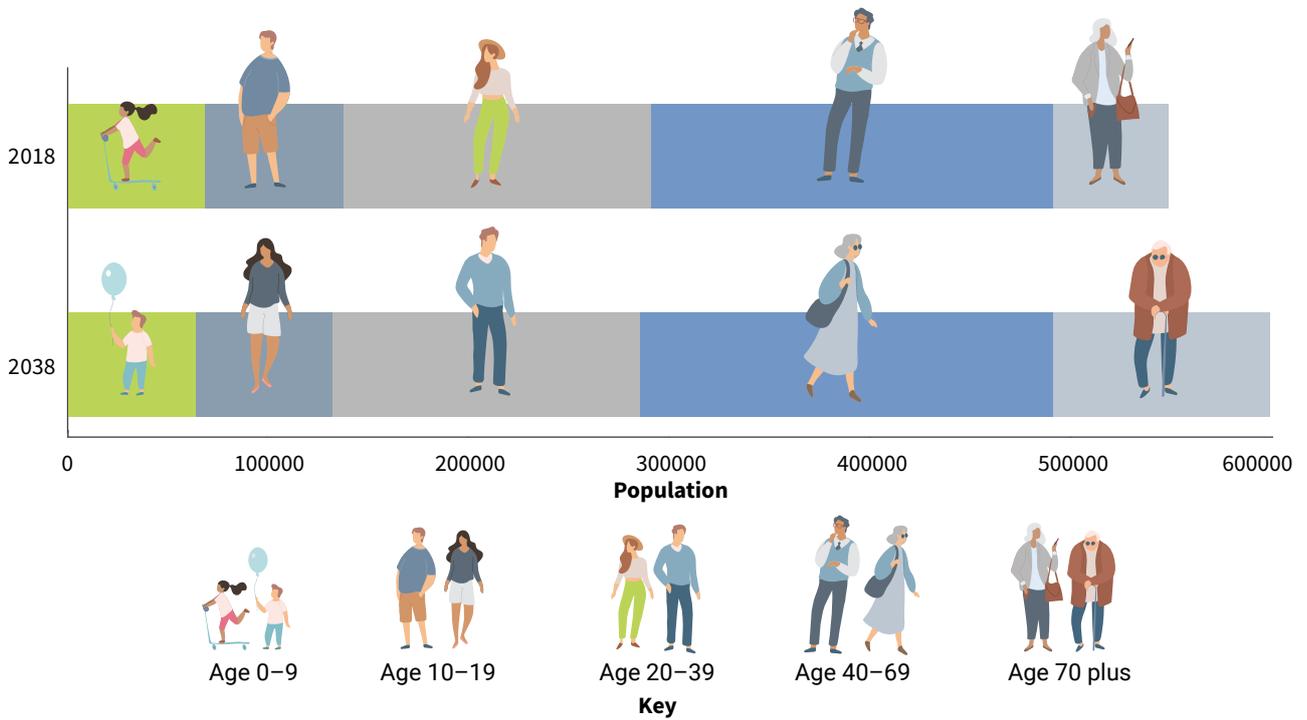
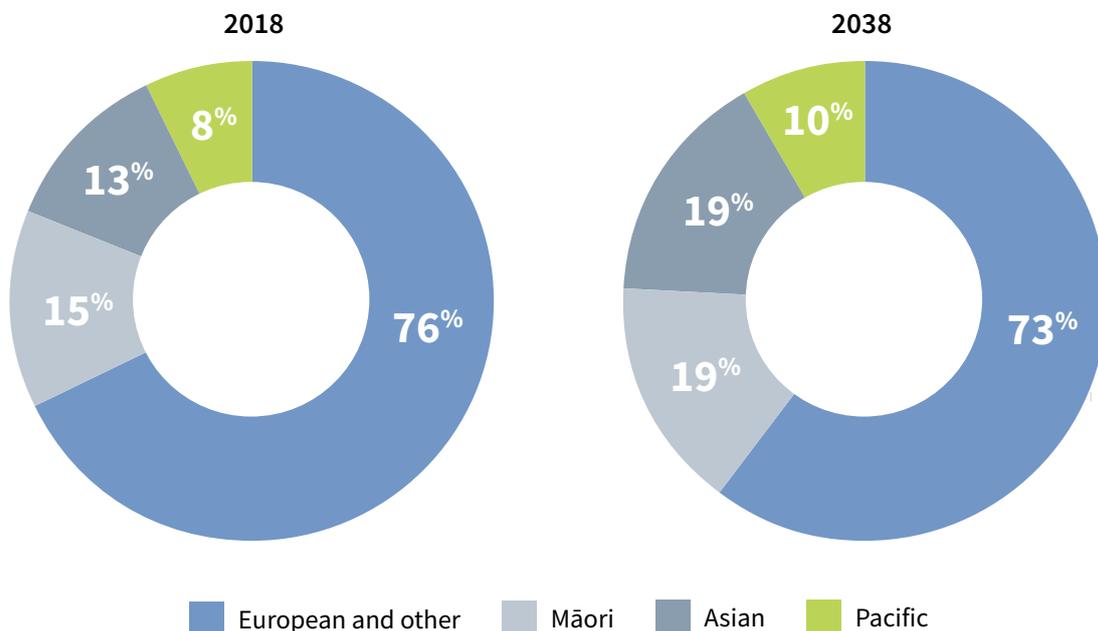


Figure 14 shows ethnicity demographic information about people currently living in the region and the projected change by 2038. The 2018 Quality of Life Survey revealed that 63% of respondents in the Wellington region thought that increasing cultural and lifestyle diversity made their local areas better places to live.

Ethnicity and age projections for 2038 are that 53% of Māori will be under 30 years old, while only 31% of the rest of the population will be under 30 years old.

Figure 14: Projected regional ethnicity demographic change 2018-2038



2.5 Our economy

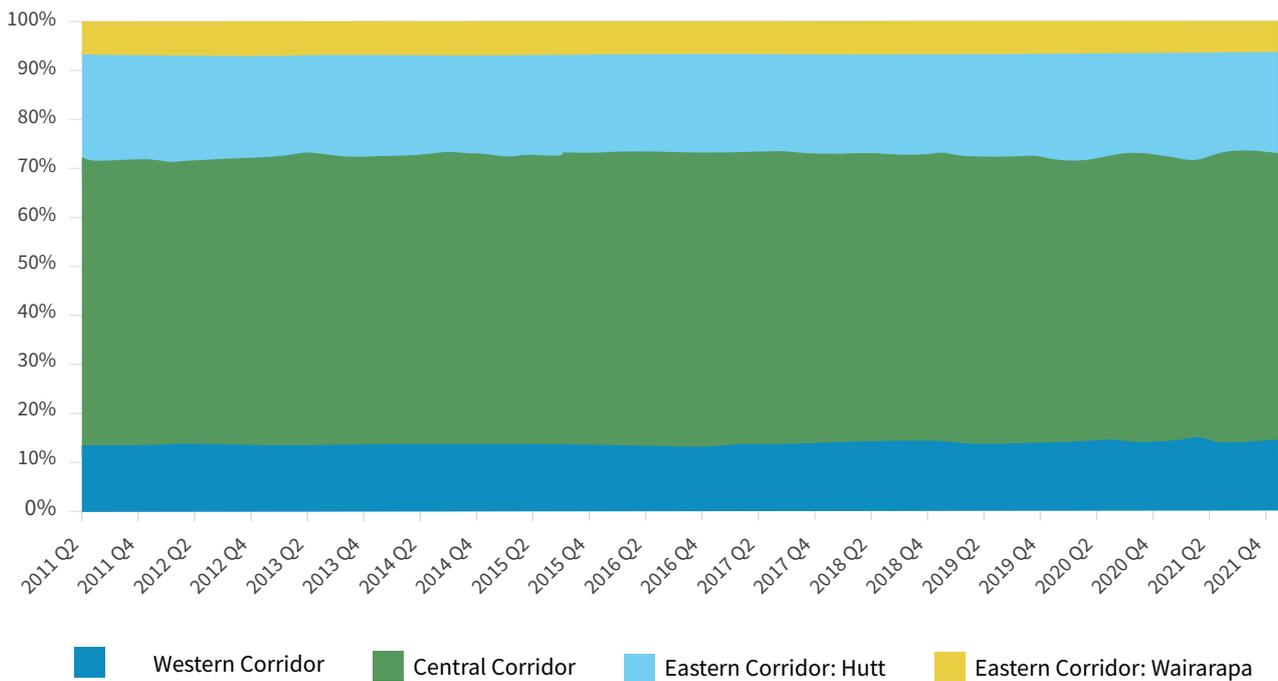
Communities require economic wellbeing and development to thrive. A resilient and diverse economy is one where community members have choices, access to decent jobs and wages, and employment prospects in the long term.

Employment growth patterns in the past two decades have been analysed and show the region experiencing steady growth in the long term, with some variance in employment growth on an annual basis. The share of the region’s jobs located in each of the WRGF corridors and council areas has been relatively constant in the past decade (see Figure 15).

Approximately 60% of jobs are in Wellington City, 15% in the Western Corridor, 20% in the Hutt Valley and 5% in Wairarapa. The share of jobs by sector within each corridor has not changed notably in this period either. There is a very significant concentration of jobs at the northern end of central Wellington, with three adjoining SA2¹⁰ areas located around Wellington Railway Station accounting for approximately 30% of the total jobs in the region. However, the increase in the frequency of some employees working from home since the COVID-19 pandemic is not represented in these statistics.

The need for business land has recently been assessed as part of the 2023 Housing and Business Development Capacity Assessment (HBA). More information on this is provided in Section 3.2.

Figure 15: Employment by workplace location, WRGF corridors, 2011-2021. Source: Stats NZ



¹⁰ SA2 is an output geography that provides higher aggregations of population data than can be provided at the statistical area 1 (SA1) level. The SA2 geography aims to reflect communities that interact socially and economically. In populated areas, SA2s generally contain similar-sized populations.

THE MĀORI ECONOMY

The Māori economy in Aotearoa

Māori economic values and aspirations vary by individual, whānau, hapū and iwi and are inseparable from other aspects of their emotional, physical, social and spiritual wellbeing.¹¹ This way of thinking is in alignment with the *Living Standards Framework*, which is used by the government to measure the wellbeing of New Zealanders and to assess the implications of decisions on government policy and the national budget.

The Māori economy is important, not only for Māori but for the overall economic performance of our region and New Zealand as a whole. Māori contribute to the New Zealand economy through, for example, the primary sector and the natural resources, enterprise, digital, tourism and creative industries. It was reported in 2022 that the value of the Māori economy had increased from \$16 billion per annum to \$70 billion in 20 years. Despite large-scale inequities in health, education, housing and employment, the Māori economy has a projected growth rate of 5% per annum, and is expected to have \$100 billion in assets by 2030.¹²

According to the report *Te Matapaeroa 2020: More insights into pakihi Māori*, published by Te Puni Kōkiri,¹³ in New Zealand there were:

- 23,364 Māori-owned businesses (50% of shareholder wages went to Māori partners or businesses flagged by Stats NZ as Māori-owned businesses)
- 38,280 Māori sole traders
- 10,143 significant employers of Māori (those employing at least 75% Māori).

The Māori economy in our region

The Wellington Regional Economic Development Plan (REDP) of August 2022-2032 states, “*Many iwi have significant assets and are actively engaged in land development, employment initiatives, training for rangatahi, and iwi development. Māori are traversing new territory, revealing unseen pathways and pushing boundaries. Today, it is as digital warriors, investors and operators in numerous aspects of the value chain, business, economic and social development.*”¹⁴

Te Matarau a Māui,¹⁵ the regional Māori economic strategy, emerged with a purpose to bring together an economic vision for Māori in our region, *Te Upoko o Te Ika*. It speaks to the opportunities available to develop fresh ideas within collaborations that resonate with Māori aspirations, world views and values. *Te Pae Tawhiti*,¹⁶ a strategy for Māori economic development in the Manawatū-Whanganui region, was released in 2016 and updated in 2021.

Regional statistics on Māori businesses, set out in *Te Matapaeroa 2020*, are as below. We note that while statistics for Taranaki are provided, the WRLC only covers Horowhenua District.

¹¹ Roskrige, M., Meade, R., Le, T., McLellan, G. & McDermott, J. (2022). Understanding the Economic Value of Māori Taonga: A scoping study. Retrieved from <https://sites.massey.ac.nz/teaurangahau/about-te-au-rangahau/tuhinga-publications>.

¹² Los'e, J., “The Māori economy is booming and will be worth \$100 billion by 2030, says Willie Jackson”, *New Zealand Herald*, 16 November 2022. <https://www.nzherald.co.nz/kahu/the-maori-economy-is-booming-and-will-be-worth-100-billion-by-2030/L73MCPZMUFGREVXWQTXL7XC62Q>.

¹³ *Te Matapaeroa (2020)*; Wellington, New Zealand. <https://www.tpk.govt.nz/en/o-matou-mohiotanga/maori-enterprise/te-matapaeroa-2020>.

¹⁴ <https://wrlc.org.nz/project/regional-economic-development-plan>.

¹⁵ <http://www.tematarau.co.nz>.

¹⁶ <https://www.accelerate25.co.nz/te-pae-tawhiti>.

	Wellington Region	Taranaki Region (including Horowhenua)
Number of significant employers of Māori	768	384
Percentage of businesses that are significant employers of Māori	4.8%	7.4%
Average indicative margin of Māori-owned businesses in 2010 (\$million)	\$0.29	\$0.79
Average indicative margin of Māori-owned businesses in 2020 (\$million)	\$0.57	\$0.54

REGIONAL ECONOMIC DEVELOPMENT STATISTICS

The information in this section links our REDP 2022–2023 to the Future Development Strategy. The data was sourced from Wellington Regional Economic Development Plan Independent Review and Advice Report by MartinJenkins, prepared in April 2022. The report included Horowhenua in the data and commentary wherever possible, but there were some areas where this was not possible due to data only being available at regional levels and Horowhenua not able to be identified alone.

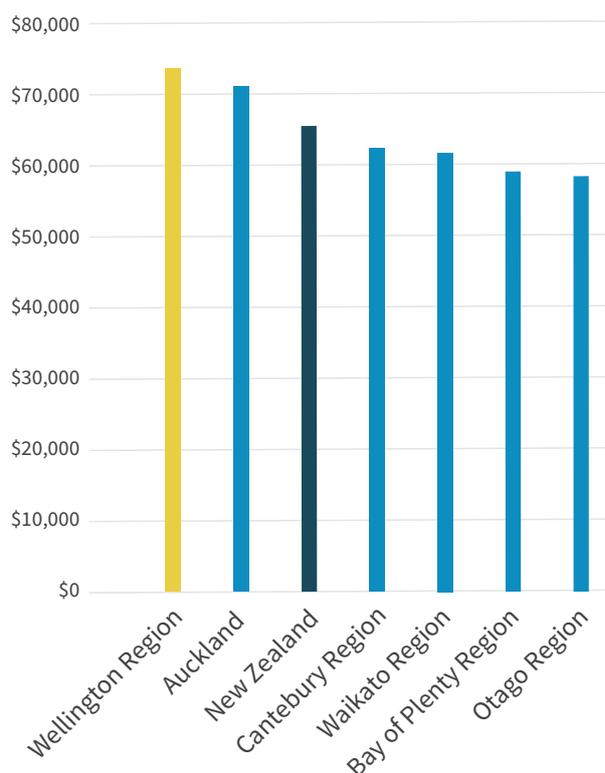
Our region has a strong base of innovation and technical skills, with 47% of our workforce employed in knowledge-intensive occupations compared to a national average of 33% in 2021, and the largest research, science and innovation workforce in the country. Our industry make-up and relatively high levels of education mean we are well placed to adapt to changes in the future of work.

In 2021 our regional GDP was estimated at \$44.87 billion, about 13.7% of the national economy, and our region provided around 310,000 jobs or 12.1% of national employment numbers.

We have high productivity levels, at about \$143,500 compared to \$124,900 nationally (based on 2021 estimates of GDP per employee). Rural areas including Carterton, South Wairarapa and Horowhenua have experienced the strongest productivity growth in recent years. These areas are also important food bowls for our region and country.

Our income levels are also high, with mean annual earnings of \$73,500 and a mean annual household income of \$128,800 in 2021, compared to the national averages of \$65,900 and \$113,700 respectively.

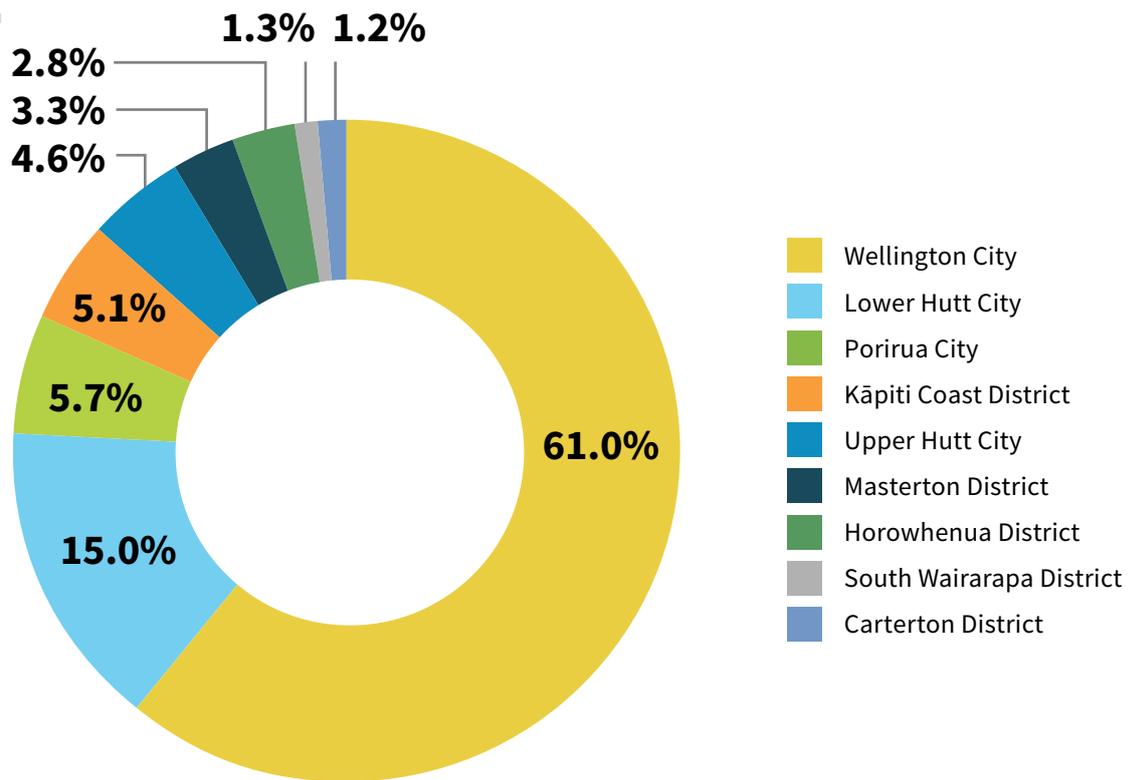
Figure 16: Mean earnings for Wellington region, New Zealand and comparable regions, 2021^{17 18}



¹⁷ Source: Infometrics regional database. Note: Wellington excludes Horowhenua.

However, there are wide disparities in our sub-regions and ethnic groups. Wellington City contributes more than 60% of our region's GDP and has high mean annual earnings of \$82,700. Our other local government areas having lower mean annual earnings than the regional and New Zealand means.

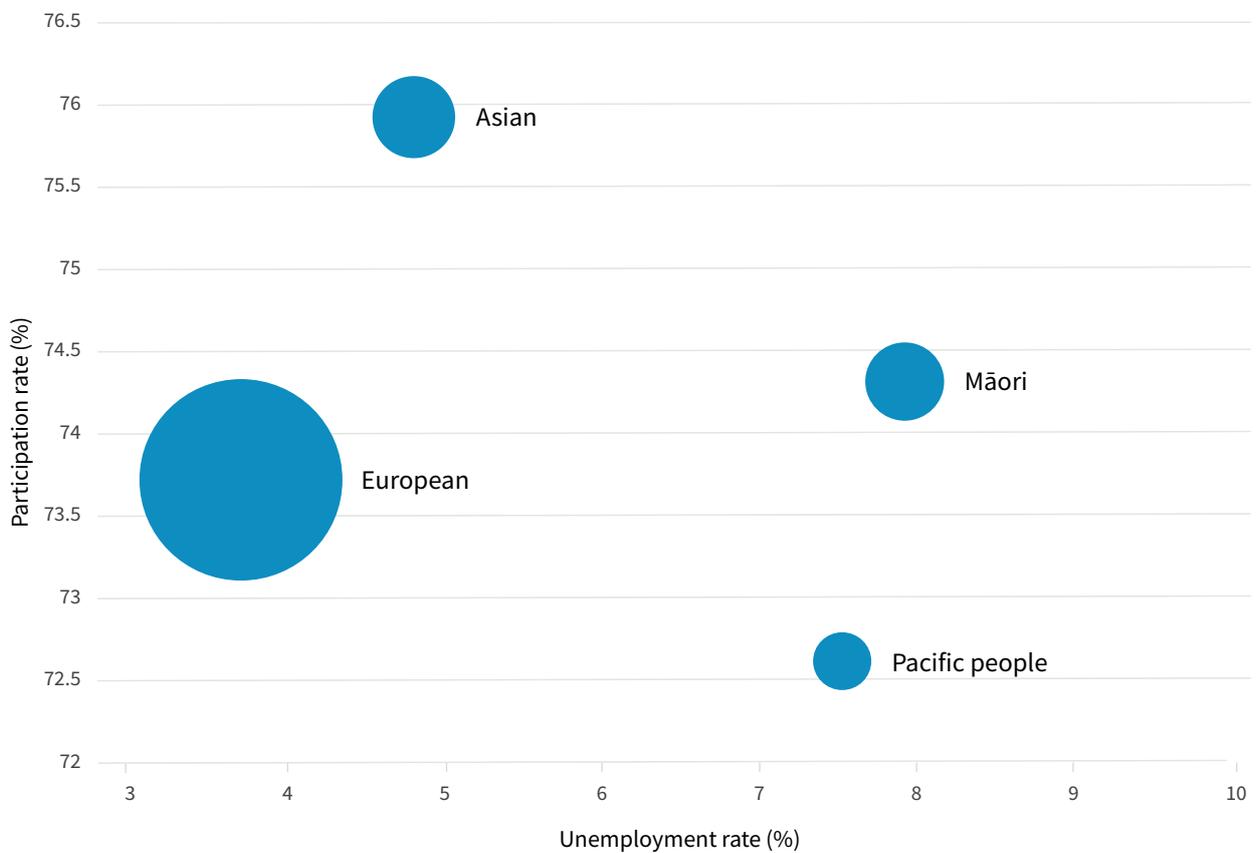
Figure 17: Contribution of Wellington local authority areas to the supra-region's GDP, 2021¹⁹



In 2021 our unemployment rate of 4.5% was below the New Zealand rate of 4.7%. Unemployment represents unfulfilled potential and varies considerably across the region, with Māori and Pasifika experiencing higher levels of unemployment than others. For example, in 2021 our unemployment rates were 7.9% for Māori and 7.5% for Pasifika compared to 3.7% for European and 4.8% for Asian. Horowhenua, Porirua and Wellington City have relatively high unemployment rates compared to other territorial authorities in our region.

¹⁹ Includes Horowhenua. Source: Infometrics regional database.

Figure 18: Labour participation, unemployment and employment size by ethnic groups in the Wellington region²⁰



Estimates indicate that our region’s real GDP growth in 2011-2021 was 2.1% per year, an increase of \$8.38 billion in the decade. This was below the national growth rate in the same period of 2.6% per year, although some sub-regions, including Porirua, Carterton and South Wairarapa, experienced stronger growth than others. Our regional employment growth has also been relatively low in the past decade, at 1.5% per year, or a total increase of 43,100 jobs, compared to 2% per year nationally.

REGIONAL ECONOMIC DEVELOPMENT PLAN

Deliberate action is required to address the disparities faced in our region, create new decent jobs for our growing population, and improve quality of life by supporting our region to be more productive, resilient, inclusive and sustainable with thriving Māori and Pasifika communities. We need to enable successful, innovative and high-value enterprises within our region so that it continues to flourish, while supporting start-ups to establish and grow into market leaders.

²⁰ Sources: Stats NZ, Household Labour Force Survey and Infometrics Regional Economic Profile. Note the sizes of bubbles represent employment numbers.

To support this, WellingtonNZ, our regional economic development agency, recently developed the REDP on behalf of the WRLC. The REDP was created in partnership with central and local government, iwi and businesses. Its vision is “to build a future-focused, creative, sustainable and thriving Wellington region for all to be proud of”.

The REDP focuses on accelerating the key sectors and enablers that can be influenced to shape our diverse regional economy. The following key sectors have been identified because of their potential growth and the likelihood of their generating opportunities for skilled employment and contributing to our regional identity:

- Screen, creative and digital.
- Science, technology, engineering and high-value manufacturing.
- Visitor economy.
- Primary sector, food and fibre.

The following key enablers have been identified because they unlock, leverage and build resilience in our businesses, iwi and communities, creating solid foundations for our regional economy:

- Māori economic development.
- Skills, talent and education.
- Water accessibility and security.
- Resilient infrastructure.

The REDP outlines issues and opportunities for these sectors and enablers, as well as 37 initiatives that will address them and make a difference from regional and sub-regional perspectives. The REDP will evolve and adapt as conditions change, relationships are built and new initiatives come to the surface, helping to create prosperity and wellbeing for all.



3. Our challenges and opportunities

This section covers the context and challenges of, and the opportunities we have for, the Wairarapa-Wellington-Horowhenua region, relevant for the Future Development Strategy.

The challenges of the Future Development Strategy, which have been updated from the challenges in the WRGF, are below and explained in more detail in this section.

Topic area	Challenge
Climate change and emissions	<ol style="list-style-type: none"> 1. The current trend of growth becoming more dispersed in the region poses challenges for achieving transport outcomes and emission-reduction targets 2. Many of the urban areas in the region are vulnerable to the impacts of natural hazards and climate change, and as the region grows and becomes more densely settled it will become increasingly important to improve resilience and protect and enhance the region's natural environment
Our homes and places	<ol style="list-style-type: none"> 3. The region lacks an affordable and quality housing supply and housing tenure choice, and affordability is declining 4. Mana whenua and Māori in the region have poor access to affordable housing choice
Our transport system	<ol style="list-style-type: none"> 5. There is continuing inequitable access to social, educational and economic opportunities within the region
Our other infrastructure	<ol style="list-style-type: none"> 6. A significant investment in infrastructure is needed to enable enough housing and quality urban environments, however, we have limited capacity to fund and deliver everything the region needs and wants.

The context and challenges described in the sections below also present opportunities for our region. The links between our objectives/opportunities and challenges are detailed below.

Table 1 identifies how the Future Development Strategy objectives and challenges relate, that is if the identified challenges are resolved, which project objectives will be met.

Table 1: Relationship of Strategy Objectives and Challenges

OBJECTIVES/OPPORTUNITIES	CHALLENGE					
	1	2	3	4	5	6
 Increase housing supply, and improve housing affordability and quality, and housing and tenure choice.	✓	✓		✓	✓	
 Enable growth that protects and enhances the quality of the natural environment.			✓			
 Enable growth that protects highly productive land, safe-guarding food production for future generations.			✓			✓
 Improve multi-modal access to and between housing, employment, education and services.	✓			✓	✓	✓
 Ensure development is integrated and efficiently uses existing built, social and community infrastructure or can be readily serviced by new infrastructure.		✓		✓		✓
 Plan development for a zero-carbon future, creating change to rapidly reduce emissions (including emissions from transport) and meet our regional climate change objectives.		✓	✓			✓
 Ensure development minimizes the impacts of and is resilient to climate change and natural hazards and avoid creating new risks.			✓			✓
 Create local sustainable employment opportunities.	✓			✓	✓	✓
 Align with mana whenua housing and other aspirations.	✓	✓	✓	✓	✓	✓

3.1 Climate change and emissions

The region is exposed to a wide range of natural hazards, including earthquakes and tsunamis, and weather-related events such as flooding, landslides and slips. The effects of many natural hazards, particularly flooding and coastal hazards, will be exacerbated by climate change. With more than 12,300 kilometres of rivers and streams and more than 500 kilometres of coastline, the region is exposed to significant risks from climate change impacts. Some of these, such as storm surges and increased flooding, are being experienced at present and are expected to increase in number and intensity.

The key messages for the Wellington region in a recent report by NIWA include that, if global carbon emissions are not significantly reduced by 2090, the region will experience:²¹

- annual temperature increases of at least 2°C, and up to 3.5°C in Masterton
- annually more hot days (above 25°C) – increases of 20 for the west of the region, 29 for Wellington and 70 for Wairarapa. The number of extremely hot days (above 30°C) in Masterton will increase by 20
- rainfall reductions in the east, by 10% in spring, summer and autumn²²
- increased drought risk in Wairarapa
- rainfall increases in the west in all seasons and by up to 15% in winter²³
- more frequent extreme rainfall events, particularly in coastal locations
- declines in frost numbers in the Tararua Range, from 30 per annum to near zero
- sea-level rises of 0.28-0.98 metres.²⁴ However, this could increase significantly depending on the speed at which the Antarctic ice sheets melt.

The impacts of a changing regional climate will include increased coastal erosion and inundation, landslides, drought, water shortages, more frequent and intense storms, new pests and diseases and impacts on biodiversity and ocean acidification. Some of these, such as storm surges and increased flooding, are being seen at present and are expected to increase in the region. Large areas of our region, for example central Wellington, Kilbirnie, Miramar, Petone, Ōtaki, Waikanae and east of Lake Wairarapa, are at risk of inundation.

A greater recognition of the risks of natural hazards is having an impact on insurance discussions and premiums. For instance, some insurance companies decided to limit home and contents policies in Wellington following the Christchurch and Kaikōura earthquakes, and recently there have been significant increases in insurance premiums to recognise the real risks of climate change.²⁵

The region's exposure to this range of natural hazards without mitigation leaves it vulnerable to widespread and catastrophic damage. Therefore, we have prioritised projects identified in the WRGF to both mitigate and adapt to climate change impacts in the next 30 years.

1. The region's councils have come together through the WRLC to commission the first Climate Change Impacts Assessment for the region. The assessment will help the region to better understand where and when key vulnerabilities will emerge. It is the starting point for developing the Regional Adaptation Plan, which focuses on coordinating opportunities for embedding climate resilience into the region's future development.

²¹ NIWA, 2019, Wellington Region climate change extremes and implications.

²² Compared to 1995.

²³ Compared to 1995.

²⁴ Note this statistic is for 2100 compared with the 1986-2005 average.

²⁵ <https://www.stuff.co.nz/business/132317530/insurer-iag-tells-investors-house-insurance-premiums-rising-at-20-to-30>.

2. We are preparing a Regional Emissions Reduction Plan that will provide a framework for us to take a coordinated approach to climate mitigation in the Wairarapa-Wellington-Horowhenua region. The gross greenhouse gas emission measure for the Wellington region in 2019 was 2.55 million tonnes of carbon dioxide equivalent (Mt CO₂-e). Most of our emissions are from the transport (39.5%) and agriculture (34.2%) sectors. The regional greenhouse gas inventory was updated in 2023. As can be seen in Figure 19, there was a 9% reduction in net annual emissions, mostly because of COVID-19 lockdowns and consequently fewer transportation emissions from driving. Despite this reduction, total gross emissions (Figure 20) were up 51% from 2.55 million tonnes in 2019 to 3.85 million tonnes in 2022. The gross emissions in Horowhenua in 2018-2019 totalled 0.82 MtCO₂-e. The largest sources of greenhouse gas emissions in Horowhenua (not included in the Wellington region inventory) are agriculture and transportation.

3. Alongside these two projects we are developing a Regional Food Systems Strategy to create a sustainable, equitable and locally based regional food system for the health of our people and our environment.

Figure 19: Greater Wellington region – 2018-2019 to 2021-2022 – 9% decrease in net annual emissions

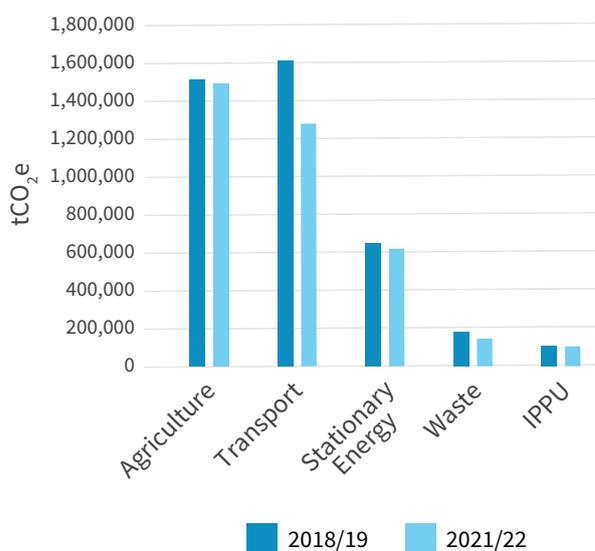
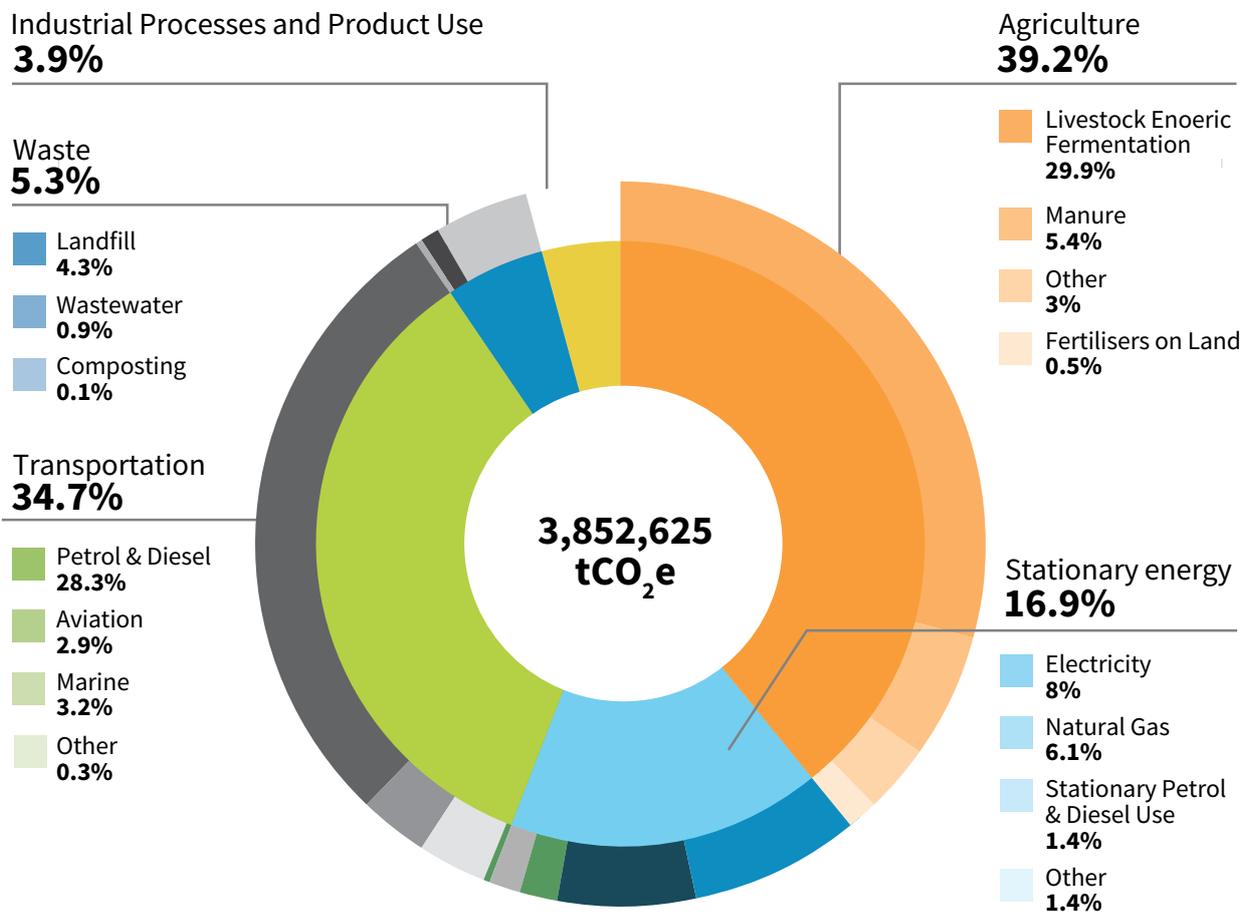


Figure 20: Wellington region gross greenhouse gas emissions 2021-2022 by source



3.1.1. CHALLENGE – URBAN FORM AND CLIMATE CHANGE

The current trend of growth becoming more dispersed across the region poses challenges for achieving transport outcomes and emission-reduction targets

To meet our regional climate emissions objectives (the Regional Land Transport Plan [RLTP] set a target of a 35% reduction in transport emissions by 2030) and to make our fair contribution to national emission-reduction targets, we need to shift people’s reliance on private vehicles towards public and active transport.

Alongside ensuring land development in the right locations, supported by public transport, a well-designed urban form will be critical to enabling and supporting a mode shift in the medium to long term.

A redesign of the region’s urban form to protect and restore rather than degrade natural features such as wetlands and coastal environments will also help to make our region more resilient to climate change.

The areas in central Wellington that offer public transport and active mode travel options have recently seen a decline in population. The percentage of the region’s growth occurring in Wellington City has fallen from 50% a decade ago to just over 25%. This trend of population growth occurring in areas further from urban centres and some distance from public transport nodes, and the decline in central locations, will work against achieving mode shifts and reductions in vehicle kilometres travelled (VKT). People living some distance from urban centres or public transport nodes are more likely to drive to work and services than those who live in more central locations, and also to travel further to work and other activities.

Background

In the past 50-70 years, urban planning practices in New Zealand have prioritised private vehicles as transport modes. This has coincided with rapid population growth, urbanisation and urban expansion, beginning in the latter half of the 20th century. Consequently, New Zealand cities and towns have tended to sprawl outwards rather than grow upwards. A feature related to this urban form has been a historical preference for stand-alone homes on large sections rather than apartments or townhouses. Additionally, homes have until recently been getting bigger, with the average home size increasing from just over 100 square metres in the 1970s to a peak of 210 square metres in 2010.

This has meant that in the past decades our cities have spread out and people have become increasingly dependent on private motor vehicles to move around.

As a consequence, New Zealand now has the fourth-highest rate of per-capita car ownership in the world. This is not only having harmful impacts on our environment through localised air pollution and global climate change; an over-dependence on private vehicles rather than active transport has serious implications for our health. Today, one in every three adults in New Zealand is obese – one of the highest rates in the world – and the rate is still rising, at least for women.

Moving our population away from private vehicle use and towards more sustainable transport modes would likely prove challenging, and various policy and infrastructure initiatives would be needed to facilitate this shift in behaviour.

Medium Density Residential Standards (MDRS)

New Medium Density Residential Standards (MDRS) were introduced through an amendment to the Resource Management Act in 2021. The standards require tier 1 territorial authorities to incorporate the MDRS into all residential zones in their district plans, as well as those zones that are in the process of being rezoned as residential. The MDRS allows for up to three residential dwellings with a maximum three stories to be built on residential sites without the need for resource consent. This requirement applies to all tier 1 councils in the Wellington region and became operative on the notification of the respective plan changes in August 2022.

The MDRS policy provides an important lever in the push towards fewer car-dependent towns and cities and reducing our emissions. An outcome of the MDRS is likely to be more intensification in central Wellington and the Hutt Valley in areas with good access to public transport and active modes. The implementation of similar policies in Auckland has led to a significant increase in development in the existing urban area and a slowing in greenfield development.

While issues with the blanket approach of the MDRS have been identified, it is likely to bring net benefits in terms of outcomes, particularly with respect to transport emissions.

²⁶ <https://www.stats.govt.nz/news/new-homes-around-20-percent-smaller>.

²⁷ <https://www.auckland.ac.nz/en/news/2021/02/18/nz-car-ownership-culture-cant-be-future.html>.

²⁸ <https://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/obesity-statistics>.

²⁹ Tier 1 councils are defined in NPS-UD. They are fast-growing councils and in our region are Wellington City, Porirua City, Kāpiti Coast District, Hutt City and Upper Hutt City.

Emissions Reduction Plans and VKT targets

In the first national Emissions Reduction Plan released in May 2022, the government set four transport targets to support the transition to a low-emissions economy. The two most relevant to the regional focus are:

- Target 1 – Reduce VKT in the light fleet by 20% by 2035 through improved urban form and providing better travel options, particularly in our largest cities
- Target 3 – Reduce emissions from freight transport (trucks, rail and ships) by 35% by 2035.

It is important to note that the 20% reduction in light fleet VKT is against a hypothetical baseline (where no interventions are made) for 2035 rather than against a historical baseline. Compared to 2019 emissions this will mean a 1% reduction overall. Even a 1% reduction is considered ambitious based on the assumption that both our population and our economy will grow. For example, the Ministry of Transport estimates that the light vehicle fleet VKT in the Wellington region will increase by 19% against the 2035 baseline “without further interventions”.

In contrast, the regional target for emission reductions as set out in the Wellington RLTP 2021 is a 35% reduction in all transport emissions by 2030, against a 2018 baseline. This represents a much more ambitious target and will guide our VKT-reduction plans.

Tier 1 councils must produce VKT-reduction programmes by December 2023. Our region is doing this as part of the overall transport-emission-reduction planning through the RLTP review and the WRLC Regional Emissions Reduction Plan.

3.1.2 CHALLENGE – PROTECTING OUR NATURAL ENVIRONMENT AND MANAGING HAZARDS

Many of the urban areas in the region are vulnerable to the impacts of natural hazards and climate change, and as the region grows and becomes more densely settled it will become increasingly important to improve resilience and protect and enhance the region’s natural environment.

One of the challenges for the region is how to balance the existing built form and a continuing demand to build in coastal and/or hazard-prone areas with the risks – both current and future – of the impacts of sea-level rise. 81% of residents in the Wellington region are worried about climate change, and many expect central and local government to take lead roles in climate action.³⁰

A 2019 report, *Wellington Lifelines Project: Protecting Wellington’s Economy Through Accelerated Infrastructure Investment – Programme Business Case*, analysed the economic costs of the region not being prepared for “the big one”, then analysed the savings to the nation if the region were prepared with infrastructure that was sufficiently resilient to maintain services or recover rapidly. Scenario testing has found that a coordinated investment of \$3.9 billion would save New Zealand \$6 billion after a magnitude 7.5 earthquake on the Wellington Fault.

When the WRGF was prepared, the councils were at different stages of maturity in developing and implementing climate change programmes. Some councils in the region had announced climate change emergencies and had emission-reduction targets in place, while others had or were developing strategies and plans to reduce emissions and adapt to climate change impacts. Given that climate change will affect the region, three region-wide projects were prioritised and are currently underway (as mentioned above). They are the:

- Regional Emissions Reduction Plan, which will focus on cross-region opportunities and take a coordinated approach to fast track the take-up of emission-reduction actions. This is due for completion in March 2024 and will result in a regional plan and the identification of priority actions, opportunities and pilots
- Regional Climate Change Impacts Assessment, which is due for adoption by the WRLC in late 2023, and a Regional Adaptation Plan, which will commence in late 2023/early 2024
- Regional Food Systems Strategy to create a sustainable, equitable and locally based regional food system for the wellbeing of our people and our environment.

³⁰ Colmar Brunton NielsenIQ. (2022). *Quality of Life Survey 2022: topline report*.

The Preparing Coastal Communities for Climate Change – Assessing Coastal Vulnerability to Climate Change, Sea Level Rise and Natural Hazards report shows that the issue of sea-level-rise impacts will be the most significant in the highly populated settlements along the region’s coast, especially where key commercial and/or industrial areas are located, such as Porirua and Petone/Seaview.

A number of vulnerability heat maps were developed as part of that report.³¹ The two most vulnerable coastal units for each district in the study area were found to be:

- Paraparaumu and Raumati (Kāpiti Coast District)
- Porirua and Pāuatahanui (Porirua City Council)
- Seaview and Petone (Hutt City Council)
- Palliser and Whakataki (for the joint Wairarapa districts).

Assets at risk

Several organisations have undertaken work on the value of assets at risk in the region based on various sea-level-rise scenarios. The high-level results of those studies are shown below. Note that given the dates on which these reports were prepared, the costs indicated are highly likely to have increased.

- For the Wellington region, the total replacement values of all exposed infrastructure at MHWS (mean high water springs) +0.5 metres and +1.5 metres are \$90 million and \$850 million respectively.³²
- In relation to buildings, there are some large jumps in value across elevation increments. The Wellington region has a nine-fold increase between the 0.5 metre and 1.0 metre scenarios, with the value increasing from \$36 million to \$320 million.³²
- The impacts of a sea-level rise of 0.6 metres on Wellington City include \$0.4 billion of assets being affected and 150 residents potentially displaced. At a sea-level rise of 1.5 metres, \$6.5 billion of assets would be affected and 2,000 residents potentially displaced.³³

Some of the region’s three waters infrastructure resides in areas that are already being, and are likely to become, more affected by climate change than others. They include three waters assets along coastal corridors, in flood-prone areas and in areas of increasing storm surges. Estimates are that 3,453 kilometres of three waters pipelines and 73,053 three waters nodes are at risk of flooding.

The three waters infrastructure is also at risk from seismic events. The Wellington Water Three Waters Strategy 2018 notes that the three waters networks within the region cross numerous fault lines, including the Ōhāriu and Wellington Faults, making them vulnerable to seismic events. Assets noted are the bulk water supply pipelines from the Te Marua treatment plant to Porirua and Wellington, which cross the Wellington Fault in three places, the Waterloo bore field and treatment plant, and the wastewater trunk pipelines.

The movement of residents, visitors and freight is at significant seismic and resilience risk due to the heavy reliance on the western and eastern road and rail corridors to connect people and goods with employment centres, services and key hubs including the port and airport. These transport corridors (road and rail) and CentrePort are located on a series of major fault lines as well as potentially within areas susceptible to future sea-level rise and more frequent storm and flooding events.

Analysis by NIWA has identified that 1,515 kilometres of road, 37 kilometres of railway, 43,360 buildings, 93 kilometres of National Grid electricity transmission lines and 138 National Grid transmission structures within the Wellington region are exposed to coastal and fluvial (river) flood hazards.³⁴ Within the Manawatū-Whanganui region there are 1,680 kilometres of road and 234 kilometres of railway at risk. The region includes Horowhenua and other areas within that region.

³¹ <https://www.gw.govt.nz/assets/Documents/2019/06/Wellington-Regional-Coastal-Vulnerability-AssessmentJune-2019Final.pdf>.

³² LGNZ, 2019, *Summary of Vulnerable: The Quantum of Local Government Infrastructure Exposed to Sea Level Rise*.

³³ Wellington City Council, *Sea Level Rise Options Analysis*.

³⁴ NIWA, 2019, *Exposure to Coastal Flooding*, and NIWA, 2019, *Exposure to River Flooding*.

Key parts of the transport system, as seen in Figure 21, have been assessed as extremely, very or highly vulnerable to earthquake, tsunami and storm risks. These include SH2 Petone to Ngāūranga, SH1 Ngāūranga Gorge and coastal sections, rail infrastructure such as the Remutaka rail tunnel approaches and the northern rail overbridge and other local road bridges. In the event of a major seismic event or a very large landslip, some of these corridors could be closed for several weeks, even months.

The opening of Transmission Gully and improvements to SH1 north of Ōtaki have improved the resilience of the network. The resilience benefits of Transmission Gully were realised in 2021, shortly after its opening, when storms caused large landslips on the former SH1 road near Pukerua Bay.

Figure 21: Resilience criticality rating of transport corridor³⁵



The heavy reliance on a limited number of corridors, and a lack of viable alternative routes in many areas make the Wellington region's transport system highly susceptible to disruption. In addition, the close physical proximity of road and rail corridors to each other exacerbates resilience risks, as unplanned events can adversely affect the operation of both road and rail networks, with significant impacts for customers, particularly at peak times.

Following a significant event, the land transport system will play a critical role in the roll-out of emergency lifeline services in the short term, as well as enable social and economic recovery in the medium to long term. For example, following a major seismic event, the outage times for SH2 (Ngāūranga and Petone) and SH1 (Ngāūranga Gorge) are predicted to be 6-12 months.

³⁵ Criticality is a metric used to appraise the overall resilience risk of a corridor, considering the combination of route importance, the level of disruption and the presence of rail or utilities within the corridor. Criticality ranges from 'low' to 'extreme' and is used to prioritise resilience risks.

Buildings, including earthquake-prone buildings, provide another challenge for the region. This is with regards to the physical nature of the impacts during and after an earthquake event. There is the potential for adverse economic effects for business owners in relation to their having the confidence to operate in the region and potentially not being able to re-establish their businesses in the short term after an event. Business owners may choose to move elsewhere due to these effects.

Natural environment

The region's natural environment is facing increasing pressures from development. Expectations for better environmental outcomes and reductions in greenhouse gas emissions from legislation like the Climate Change Response (Zero Carbon) Amendment Act, the NPS-FM, the NPS-UD, RPSs and the proposed Natural Resources Plan are driving the integration of urban development with maintaining the quality of the natural environment, reducing emissions and improving resilience to climate change.

Housing must be provided in a way that is no longer at the expense of the natural environment. The region will need to navigate the tension between enabling development to provide for residential and economic growth, ensuring development does not increase risks to communities from natural hazards and climate change impacts, and protecting the natural environment from the adverse effects of development and climate change. While this tension exists around the country, it is particularly acute in the Wairarapa-Wellington-Horowhenua region due to its geography and extensive coastline.

This context presents a significant opportunity for an integrated and ecologically sensitive approach to urban development that achieves multiple benefits. We can increasingly adopt nature-based solutions to support the resilience of communities and ecosystems as our climate shifts. In urban spaces, integrating green space in our urban environment provides an opportunity to develop thriving natural environments within our communities, improve the water quality in our streams, and benefit our health and wellbeing.

The NPS-FM provides a national direction for fresh water to which councils must give effect. Its fundamental concept, Te Mana o Te Wai (the mana of

the water), represents a significant shift in freshwater management, requiring an integrated approach that applies the hierarchy and principles of Te Mana o Te Wai.

Within the region there are numerous competing demands for water; we use it for drinking, agriculture and horticulture, stormwater and wastewater disposal, transport and recreation and cultural activities. In order to achieve the objectives of Te Mana o te Wai as directed by the NPS-FM, a significant shift in freshwater management is required. It presents an opportunity for freshwater management to become an integral part of land use and development in the region.

The Wellington Water Three Waters Strategy 2018 identifies that the water quality in the Wellington metropolitan area is variable. It notes that degraded freshwater bodies include the upper and lower reaches of the Porirua stream, the Waiwhetū stream and the Karori and Kaiwharawhara streams, and that these streams often contain elevated *Escherichia coli* concentrations, nutrients and poor water quality. The Wairarapa Water Resilience Strategy 2021 highlights the water infrastructure challenges and notes that the progressive and cumulative impacts of climate change, among other stressors, require a shift in approach to water in Wairarapa.

Whaitua processes undertaken with communities and in partnership with mana whenua in Ruamāhanga, Te Awarua o Porirua and Te Whanganui-a-Tara have identified specific trends and freshwater issues in each area. Whaitua committees develop community visions for water by combining mātauranga Māori, citizen science, community knowledge and expert information to fulfil the requirements of the freshwater national direction, which includes the NPS-FM. Te Whaitua Te Whanganui-a-Tara Whaitua Implementation Plan was most recently published in late 2021, and the Kāpiti and Wairarapa Eastern Hills Whaitua processes are underway. The processes for the Ruamāhanga and Te Awarua-o-Porirua Whaitua are complete.

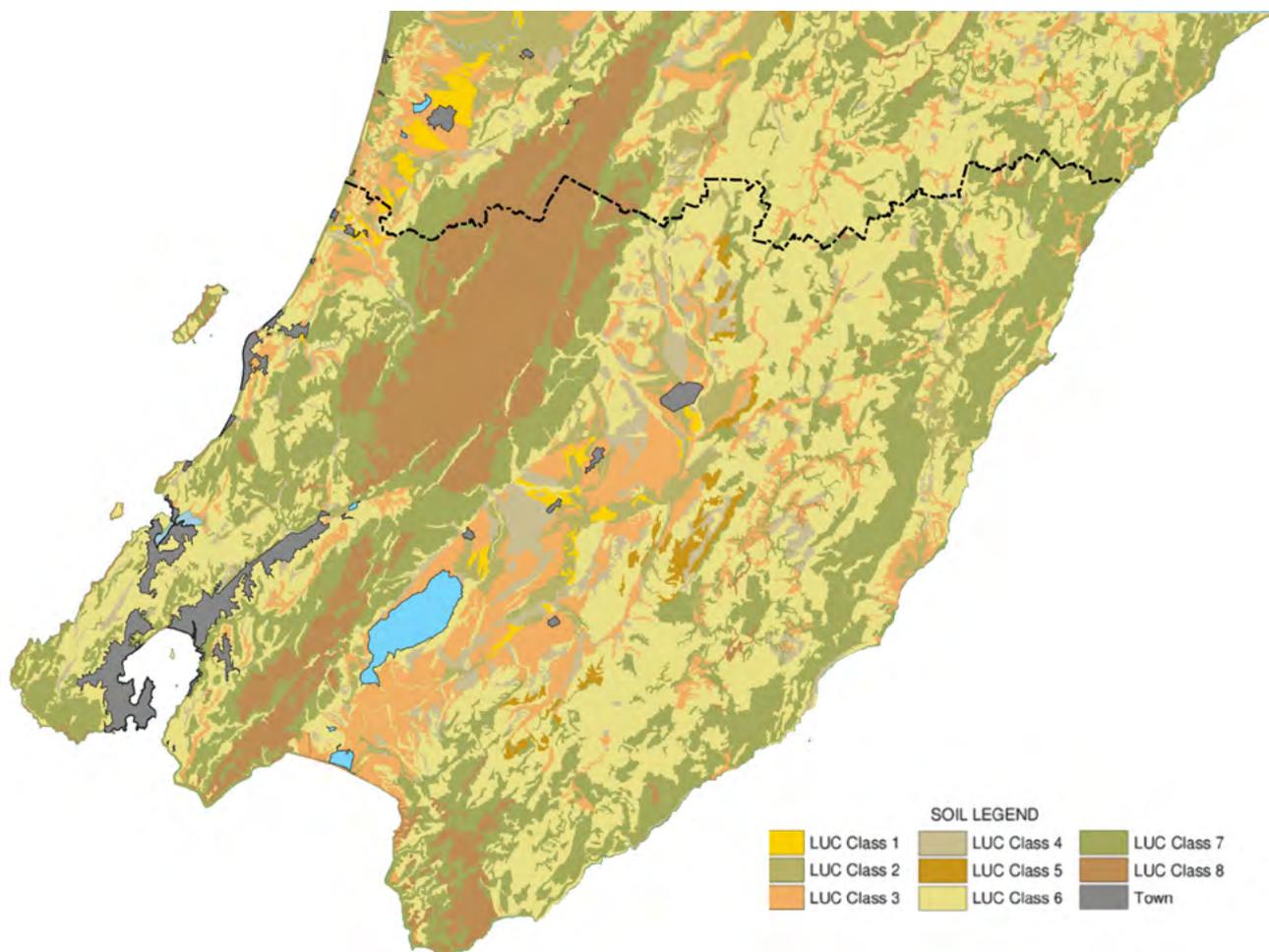
The recently released NPS-HPL protects highly productive land for use in land-based primary production, including by avoiding the zoning of highly productive land as urban unless certain criteria are met.

This is to prevent the loss of more of the region's productive land and promote its sustainable management. The NPS-HPL will affect where housing can be developed in the region, particularly in

Horowhenua, the Kāpiti Coast and Wairarapa. Figure 22 identifies land by Land Use Capability (LUC) ratings. The land with LUC ratings of 1-3 comprises the region's most versatile soils that may meet the criteria for highly productive land. The mapping of highly productive land as required by the NPS-HPL was not completed in time for this Future Development Strategy. In the interim, land that is LUC Class 1, 2 or 3 rural land not already identified for urban development must be treated as highly productive land. This means new greenfields in these areas will be restricted.

Within the region we need land use and development to occur in an integrated, ecologically sensitive and resilient way, embedding Te Mana o Te Wai and considering natural hazards, the impacts of climate change, the preservation of highly productive soils and the protection of biodiversity, wetlands and streams.

Figure 22: Land-use capability ratings for the region



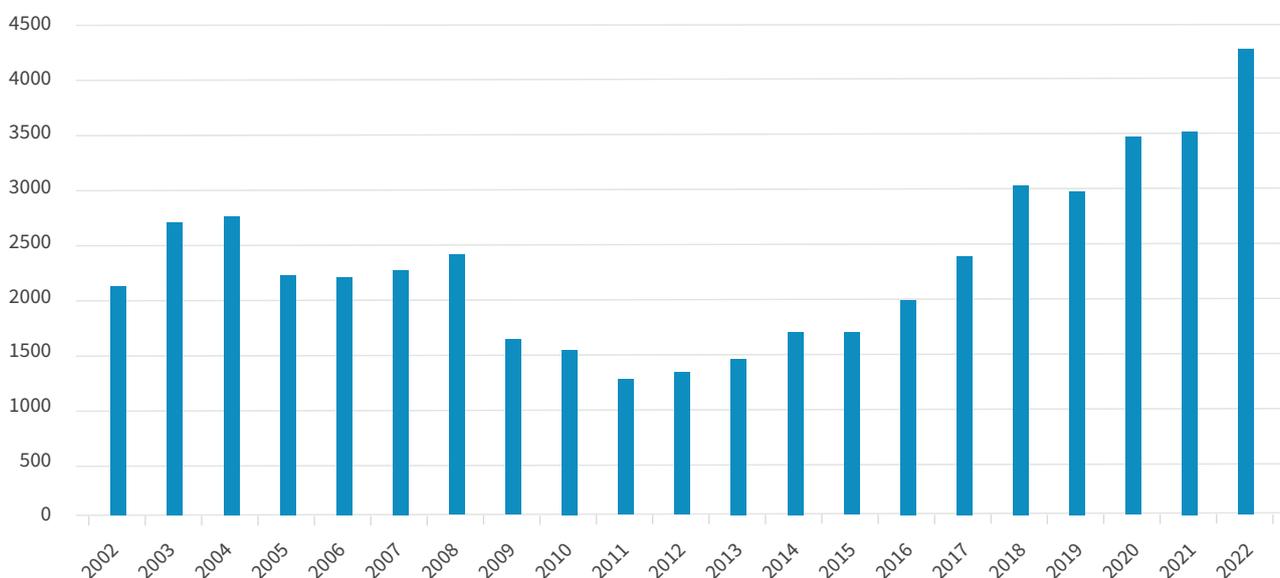
3.2. Our homes and places

The region's population is predicted to increase by around 200,000 in the next 30 years. This growth will require 85,000-99,000 more houses across the region. For planning purposes, we are using the figure of 89,000 more houses in the next 30 years, and this is consistent with the WRGF.

The 2023 HBA concludes that as a region we have a realisable housing capacity for over 206,000 homes. This means we have more than sufficient housing capacity in our region.

Reflecting general population growth trends, the number of dwellings consented per year has increased steadily throughout the region in the past decade (Figure 23). Just over 3,800 dwellings were consented in 2022 compared to the 1,000 dwellings consented in 2012.³⁶ The number of building consents issued per capita increased to 7.0 per 1,000 residents in 2022. This compares to Auckland at 12.8, Waikato at 9.4, Bay of Plenty at 6, Canterbury at 13.5, Otago at 10 and the New Zealand average at 9.8. The region remains at the lower end of consents per capita when compared to other regions.

Figure 23: New dwellings consented between 2002 and 2022 (June). Source: Stats NZ



Despite the increase in new dwellings consented, the rate of housing growth has slowed compared to the 2020-2021 numbers and is showing signs of a further slowdown. The current economic conditions facing New Zealand's construction industry include high levels of inflation, material supply issues and labour shortages. These are expected to continue to affect demand for housing and the ability of the construction sector to deliver houses on the ground.

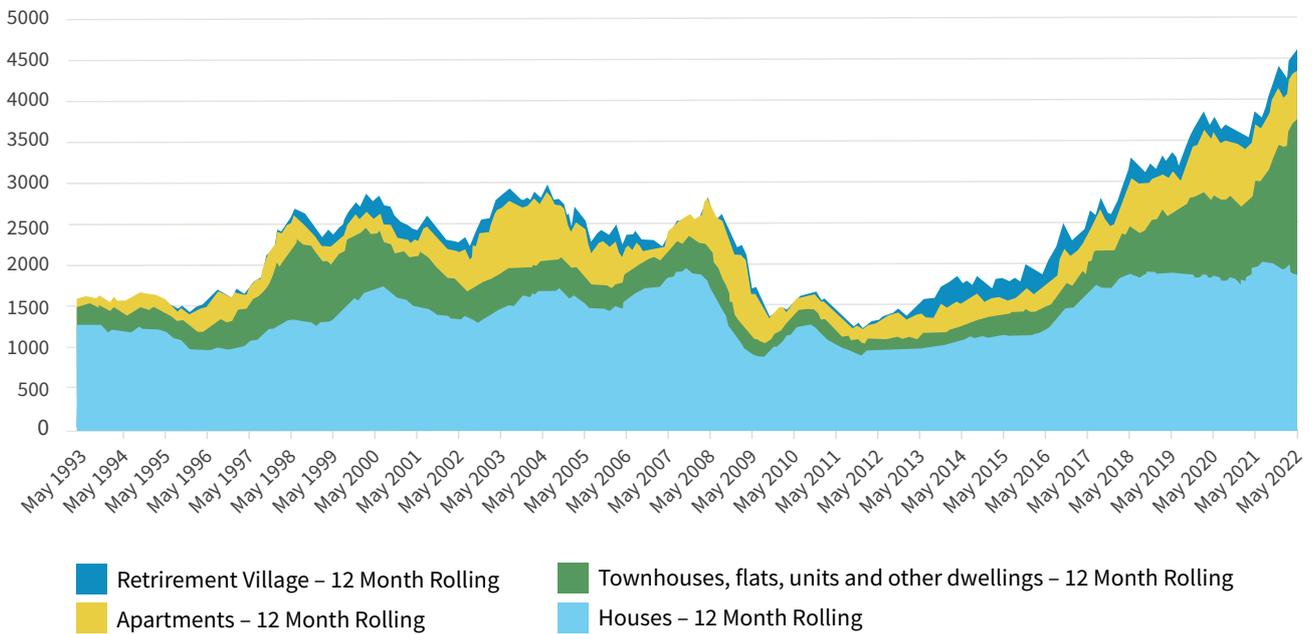
However, the house types the development sector is delivering are becoming more diverse to suit current and future demands (Figure 24). In 2021 around 54% of the dwellings consented in the region were multi-unit

buildings, with Lower Hutt and Wellington City having the highest rates of building consents for multi-unit buildings. Multi-unit building consents were at 2,502 per annum as of November 2022, showing a steady increase from 1,137 per annum in 2018. This increase was likely a result of district plan changes that enabled more medium-density development and associated financial incentives.

Concurrently, building consents for single detached dwellings dropped in this same period, to 1,303. Prior to that drop, building consents for single detached dwellings were steady at around 1,500- 1,600 per annum between 2018 and 2021.

³⁶ Building Consents (Stats NZ): Building consents issued: December 2022 | Stats NZ.

Figure 24: Residential building consents by type, 12-month rolling total 1993-2022.
Source: Stats NZ



The planning context has changed significantly in the past few years. A new national direction and legislation changes have focused on providing for greater urban density within Aotearoa to address the growing housing shortage. Changes to the Resource Management Act have applied MDRS to all tier 1 urban areas in New Zealand. The NPS-UD requires all councils to provide at least sufficient development capacity to meet the expected demand for housing, and all tier 1 councils to realise as much development capacity as possible in certain zones and enable up to six storeys in areas located within walking distance of mass rapid transit services. Tier 2 and tier 3 councils are also required to allow for greater density within existing urban environments.

This region has yet to see the impacts of the MDRS. However, we know that in Auckland, following the adoption of the unitary plan (which is similar in effect to the NPS-UD/MDRS) the amount of multi-unit development went from 50% of building consents in 2018 to just under 77% in 2022 – so we could see a similar shift in this region as these changes come into effect. The approach in Auckland has also resulted in a significant slowdown in greenfield developments and an increase in infill development. This has important implications for sequencing growth in the Wairarapa-Wellington-Horowhenua region.

Our commercial centres and business land

Commercial centres and business land in the Wairarapa-Wellington-Horowhenua region aim to provide vibrant, safe and cohesive environments that enhance business activity. The region has a strong corridor pattern, yet is generally compact. The corridor pattern is a strength for the region. It reinforces local centres, supports passenger transport, reduces energy use and makes services more accessible. The key centres in the region and their hierarchy are set out in the table below.

Centre	Purpose	Location
Regionally significant central business district	Is the centre of employment, government, arts and cultural facilities for the region	Wellington City centre
Other regionally significant centres	Provide district-level services for citizens' daily needs, some employment and district-scale arts and cultural facilities	Lower Hutt, Upper Hutt, Porirua, Paraparaumu
Locally significant centres	Have an agglomeration of business activities that supports the cities	Petone, Kilbirnie, Johnsonville, Waikanae
Regionally significant rural centres	Are larger rural centres that provide for the daily needs of those in the wider sub-region	Levin, Masterton
Sub-regional important rural towns	Are larger rural towns that provide for their local communities	Ōtaki, Carterton, Featherston, Greytown, Martinborough
Major industrial areas	Are important for our region	Seaview, Kaiwharawhara, Levin, Waingawa, Elsdon

The demand for business land was assessed in the 2023 HBA. Several challenges are influencing the uptake and suitability of business land in the region.

Since the 2018 HBA was prepared, the impacts of COVID-19, including increasing construction costs and labour force shortages, the demands of population growth and change and the recent investment in the state highway network have been identified as key factors driving a change in the take-up and suitability of business land across the region. While understanding the full impacts of these factors requires further and detailed economic analysis, the stakeholder engagement undertaken as part of the HBA provides evidence of the impacts that these wider changes are having on business growth.

Overall, during the development of the HBA, both industry stakeholders and council officers identified a current shortfall in industrial land available for development, in particular larger sites for heavy industry in the region. The compounding impact of this shortfall and the cost of construction materials was highlighted as a concern by industry stakeholders. Also identified were challenges in the redevelopment of existing

commercial and industrial spaces associated with high construction costs and challenging market conditions.

Investments in large infrastructure improvements, including Transmission Gully, have had noticeable impacts on the demand for business land (including retail, commercial office and light industrial space), as the northern areas of the region become more accessible to a larger market.

With the introduction of the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021, councils have a unique opportunity to lead and shape the nature of commercial developments in their regions by making mixed-use developments on commercial land more viable. However, there is also a demonstrated need to ensure the region supports the ongoing needs of light and heavy industry and safeguards this land from urban development.

In summary, the HBA identified the following key factors as influencing the uptake and development of business land in the region:

Limited supply of industrial land	In most areas a shortfall in the availability of industrial land has been identified – both greenfield development areas and capacity within existing industrial zoned areas
Commercial feasibility	The feasibility of new development within business-zoned land is challenging due to the changing nature of market demands, including competing demand for residential development, increasing development costs and the cost/provision of supporting infrastructure connections. In particular, the region has increasing costs associated with the addressing resilience due to hazards and climate change.
Strategic projects	The timing of strategic projects in the region, such as Transmission Gully and the Infrastructure Acceleration Fund developments, has and will affect the timing and rate of uptake of business land and affect the type of land in demand
Planning risks	The district plans and how they are applied introduces some uncertainty to developers in terms of how their resource consents will be processed (e.g. activity status and notification) and the information requirements (design guides). This has significant cost and time implications. Uncertainties are also associated with the changing national planning legislation
Developer obligations	The costs associated with providing infrastructure for sites can make the development of business land less commercially feasible.
Residential growth	Local population growth generally causes a growth in business land uptake in a city/district. Key factors affecting uptake are protecting business land from encroachment from residential activities and, where appropriate, enabling mixed-use developments

3.2.1. CHALLENGE – HOUSING AFFORDABILITY AND CHOICE

The region lacks an affordable and quality housing supply and housing and tenure choice. Housing affordability is declining.

For many years there has been a shortfall in housing in the region, leading to decreasing affordability for renters and homeowners and long wait times for social and emergency housing, with particular impacts noticed in the past five years.

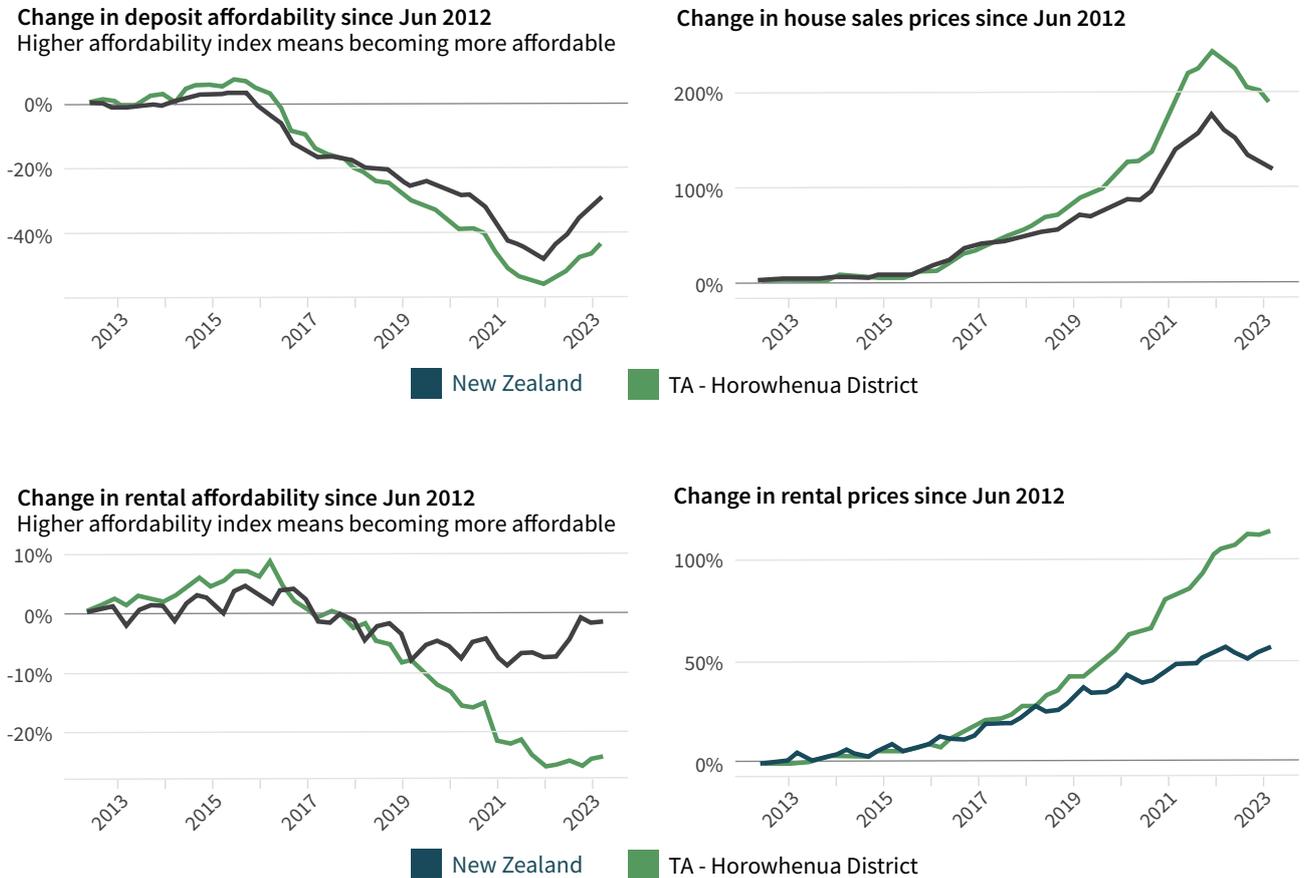
Housing affordability in New Zealand is influenced by a range of factors – both nationally and in specific regions. The Ministry of Housing and Urban Development has recently developed a new set of housing affordability indicators that measure changes over time.

Housing affordability is measured by comparing the ability to balance housing costs in relation to the available household financial resources. The new tool, ‘Changes in Affordability Indicators’ (CHAI),³⁷ shows how the affordability of renting a home, saving for a deposit and servicing a mortgage for people entering the market has changed over time. Indicators for the region show rates for ‘deposit affordability’ are beginning to improve as prices drop; however, ‘mortgage serviceability’ is becoming more difficult as interest rates rise. This is an issue for those with large mortgages and first-home buyers. Rental affordability, while less volatile than mortgage serviceability in the long run, has nevertheless been trending downwards (less affordable) in recent years. The search for more affordable housing has led to a more dispersed settlement pattern in the region.

³⁷ CHAI Tool: Affordability Indicators – Te Tūāpapa Kura Kāinga – Ministry of Housing and Urban Development (hud.govt.nz).

Figure 25: CHAI Wellington region rental market³⁸

RENTAL MARKET - Ability to save a deposit



Key points to note from the data are:

- across the region, the average rent per week increased by 52% between 2012 and 2022
- across the region, average house prices increased by 151% between 2012 and 2022
- Horowhenua District house prices increased by 215% between 2012 and 2022 – and rental prices increased by 106%
- rates in deposit affordability in the Wellington region dropped by 42% between 2012 and 2022.

The December 2022 Trade Me Rental Price Index confirmed that rents in Wellington were among the highest in the country (along with Auckland and Bay of Plenty), but the median weekly rent had dropped by 3% year on year along with a significant increase in rental supply (rental listings were up by 39% year on year in the Wellington region).

The second-largest increase in rents was in the Manawatū/Whanganui region (which includes Horowhenua), at \$45 a week or 7.3%. Given the relatively low incomes in this region, housing affordability remains an issue.

The high cost of renting in the Wellington region was also reflected in the 2022 Quality of Life Survey, which revealed that 47% of respondents in the region thought their housing costs were unaffordable. In planning for population growth paired with rising housing and living costs, it is imperative that the region provides a range of housing choices, in the right places and at the right prices.

One of the key moves of the WRGF was to develop a five-year Regional Housing Action Plan, which focuses on housing-related interventions to 2027. The plan was finalised in April 2022 and implementation is underway.

³⁸ HUD CHAI Dashboard: Compare Regions – Te Tūāpapa Kura Kāinga – Ministry of Housing and Urban Development (hud.govt.nz).

There are five key actions in the Regional Housing Action Plan to help address the regional housing issues:

- Harnessing the regional benefits of current policy and regulatory processes.
- Taking a place-based approach to resourcing regional housing interventions to make a real and tangible difference on the ground.
- Driving collaboration and partnership at all levels.
- Improving access to regional housing data and information driving housing innovation.
- Embracing innovation by introducing new technologies and smarter ways of building and providing homes and communities.

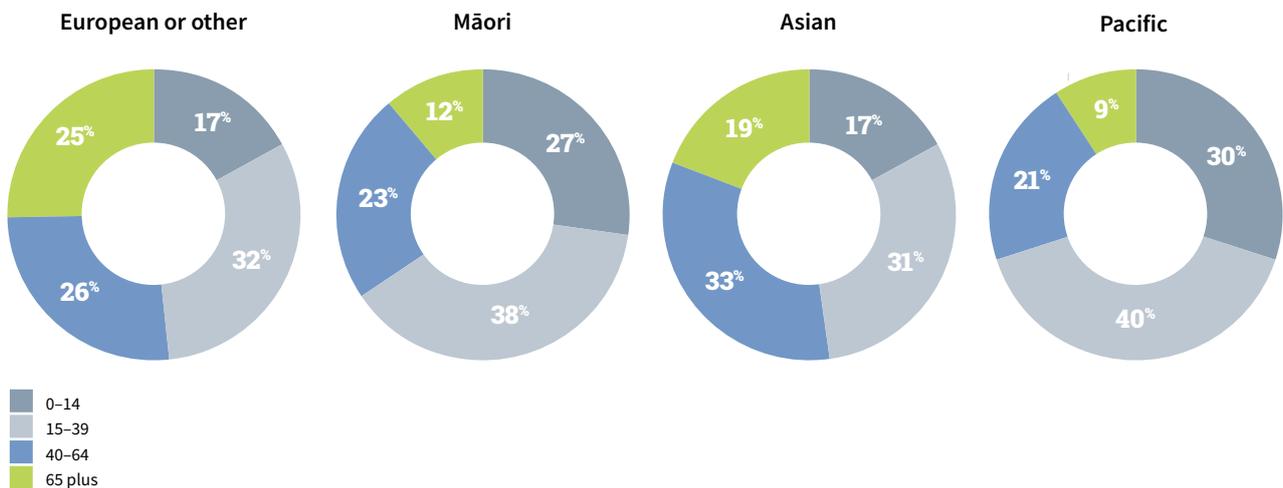
3.2.2. CHALLENGE – MANA WHENUA AND MĀORI HOUSING CHOICE

Mana whenua and Māori in the region have poor access to affordable housing choice.

The most recent census data was not available at the time of publishing, so the following statistics rely on the 2018 census. They refer to the greater Wellington region, excluding Horowhenua unless specified.

The census reported that 72,252 Māori lived in the region, and that 16% of Māori living in the region mana whenua to the region.

Figure 26: Age profile projected for 2038 by ethnicity



Nearly 60% of Māori in the region are currently under 30 years old. At the 2013 census, 35% of Māori in the Horowhenua District were aged under 15 years.

Stats NZ’s population projections for 2038 are that 53% of Māori will be under 30 years old, while 31% of the rest of the population will be under 30 years old. Figure 26 shows a higher level of 0-14 years population and 15-39 years for Māori with a similar picture for Pacific population.

Because the Māori youth population is so much larger than the regional average, the Māori share of the working-age population is projected to grow in the coming years.

The over-65-year category is projected to double for Māori from 5% in 2013 to 11% in 2038. For the rest of the population, the over-65-year category is projected to nearly double, from 15% to 26% in 2038.

To address housing inequality MAIHI Ka Ora – the National Māori Housing Strategy was developed in 2019. The Māori and Iwi Housing Innovation (MAIHI) Framework for Action provides a strategic direction that puts Māori at the heart of Aotearoa New Zealand’s housing system. The strategy is administered by the Ministry of Housing and Urban Development.

The Future Development Strategy provides an important opportunity for regional spatial planning to incorporate Te Ao Māori. It can support mana whenua aspirations and strengthen existing regional partnerships. Together with our iwi partners on the WRLC we are working on an iwi aspirations statement that will be incorporated into the Future Development Strategy.

Māori households are more likely to reside in homes that are rented than in homes that are owner-occupied. Rates of home ownership for Māori in the Wellington region are slightly higher than they are for Māori at the national level (43% compared with 42%), but lower than they are for non-Māori in the Wellington region (43% compared with 55%) (Figure 27).

Figure 27: Māori and non-Māori rates of home ownership in the greater Wellington region compared to New Zealand 2018. Source: Stats NZ

Wellington Region		New Zealand	
Māori			
Owned 43% (12,939)	Rented 57% (17,232)	Owned 42% (119,388)	Rented 58% (166,413)
Non-Māori			
Owned 55% (58,884)	Rented 44% (69,321)	Owned 53% (727,992)	Rented 47% (640,005)

Māori home ownership rates fell by over 2% between 2001 and 2013. While the overall population of the Wellington region had a 50% home ownership rate at the 2013 census, only 28% of Māori owned their own homes. Severe housing deprivation data for 2013 showed the level of severe housing deprivation for Māori at 15 per 1,000 population compared to four per 1,000 for Pākehā.

Recently there has been some improvement; Māori home ownership rates increased by 2.8% between 2013 and 2018.³⁸ However, in 2018 only 31% of Māori in the Wellington region owned their own homes.

It is estimated that the average sale price of a house in the Wellington region is 8.8 times the median Māori household income. In comparison, the ratio of average house sale price to median household income for the overall New Zealand population has increased from 4.8 to 5.1.

³⁸ Te Pā Harakeke: Māori housing and wellbeing 2021 | Stats NZ.

Māori housing development

Access to affordable housing is a significant issue for Māori. The Future Development Strategy will need to reflect the aspirations of mana whenua and the existing work being undertaken in partnership with mana whenua and the Crown, such as the management of state housing in western Porirua by Te Āhuru Mōwai (Ngāti Toa Rangātira's community housing provider). The Future Development Strategy will build on existing partnerships with central government, local government and mana whenua.

A number of papakāinga ((housing on ancestral Māori land) communities already exist or are underway within the region, including Hurunui-o-Rangi Marae Papakāinga outside Carterton, Te Aro Pā Trust papakāinga housing in Wellington City and Te Puna Wai Papakāinga Housing Project in Wainuiomata.

Through the Future Development Strategy process the partners will continue to work with mana whenua in the region to identify opportunities for housing, education and the protection of land and water and other taonga, and economic opportunities. We will continue to work with a range of people including mana whenua, Māori health providers, Māori business owners and iwi in the region and others. Ongoing consultation and participation will ensure the aspirations of iwi and hapū are taken into account through the strategy.

3.3. Our transport system

Our region relies on two road and rail north-south corridors to move people and freight. State Highway 1 (SH1) and the North Island Main Trunk railway provide connections along the Western Corridor from Wellington through Porirua, Kāpiti and Horowhenua to Palmerston North and the upper North Island. SH2 and the Wairarapa railway line provide connections between Wellington and the Hutt Valley to the towns and rural areas of Wairarapa. Both Masterton in Wairarapa and Levin in Horowhenua are nearly 100 kilometres from central Wellington.

The region also provides a gateway for road and rail trips between the North and South Islands via the Cook Strait ferries. The region has key freight hubs and destinations including Waingawa, Seaview/Gracefield, Porirua/Tawa, CentrePort and the Wellington City central business district. Access to CentrePort, and the safety and reliability of road and rail corridors north of Wellington City, are critical to supporting journeys between these destinations.

Businesses are reliant on an efficient and reliable transport system for their economic growth and prosperity. Network improvements can have positive impacts on the extent to which economic growth occurs in different parts of the region, and the time and costs associated with moving freight and/or travelling to deliver services. The RLTP contains the region's land transport objectives, policies, measures and proposed activities for the next 10 years. The current Wellington RLTP was adopted in 2021 and contains three high-level, aspirational targets for land transport in the Wellington region:

- 35% transport emission reduction.
- 40% reduction in deaths and serious injuries on our roads.
- 40% increase in active travel and public transport mode share.

Horizons' Regional RLTP 2021-2031 has the following targets for 2030:

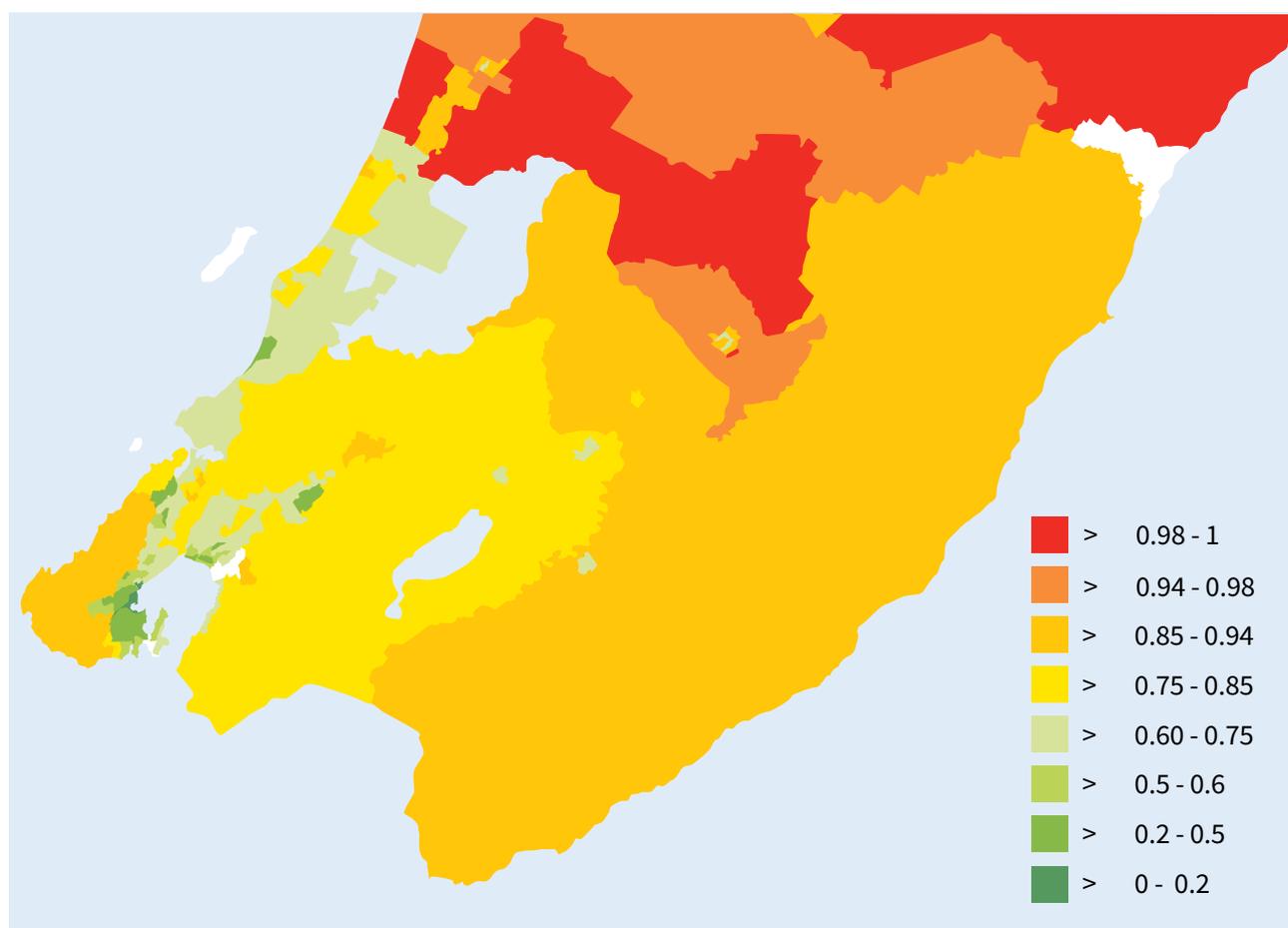
- 15% of travel to be by active and public transport modes.
- 40% reduction in deaths and serious injuries on our roads.
- 20% reduction in road closures on priority routes associated with natural hazards or unplanned events
- 30% reduction in transport carbon emissions.

Challenging topography

The region's topography has historically driven the development of a relatively compact urban form within the major cities in the region. This is particularly evident in Wellington City.

Wellington City's compact form and walkability has contributed to its having the highest rate of public transport use per capita in New Zealand (2018 Census data). Conversely, in the largely rural areas of Wairarapa, and north between Ōtaki and Levin, private vehicles are the main transport mode. This is due in part to fewer and less frequent public transport services than there are in Wellington (Figure 28). The current trend of growth becoming more dispersed is likely to reduce public transport use per capita over time and increase emissions if interventions are not made.

Figure 28: Car mode share – travel to work, 2018 census. The numbers are the proportions of people who use cars as their main modes of travel. The areas that are closer to 1 reflect a lack of public transport options.



The limited east-west connections – the Remutaka Range between the Hutt Valley and Wairarapa, and the hilly road between Porirua, the Hutt Valley and the Kāpiti Coast – make access between the residential and employment areas challenging. The historical development of car-centric, low-density suburbs has also contributed to an entrenched dependence on motor vehicles for most travel outside the central city areas.

There is a limited use of coastal shipping for freight to the region, despite much of the region being close to the coast. Further, except for the public transport ferry service between Queens Wharf in Wellington and Days Bay in Eastbourne, Lower Hutt, there are no options for people to move about the region using coastal links.

Growing focus on climate change and emissions

Emissions from land transport are increasing, and with that comes a growing urgency to act on climate change and emission reductions.

The ambitious emission-reduction-targets for transport, of 35% and 30% respectively in the Wellington and Horizons regions, will not be able to be achieved through transport-related solutions alone; they will require a response that better integrates land-use planning and transport. Future development in areas far from the existing public transport network will result in increasing emissions unless we make significant investment in appropriate new public transport infrastructure and/or services.

The existing growth patterns and plans pose significant challenges for achieving emission-reduction targets in the region. The areas in central Wellington that offer the best public-transport and active-mode travel options have accommodated a lower proportion of the region's growth in the past decade, and have recently experienced a decline in population. There has been a notable increase in growth in outer areas such as Horowhenua and Wairarapa, and significantly more growth is signalled in the Future Development Strategy and council growth strategies in these locations and the Kāpiti Coast. Better access due to recent roading improvements, such as Transmission Gully and the Kāpiti Expressway, is likely to be contributing to this trend. People living in outer areas are both more likely to drive to work and services than those who live in more central locations, and to travel further to work and other activities.

This trend of population growth occurring more in outer areas and declining in central locations will, in general, make achieving emission-reduction goals very challenging. The high levels of VKT generated by growth in these outer areas will need to be offset by a commensurate reduction in VKT from existing residents, which may be very difficult to achieve.

Focusing most growth in locations where travelling by public transport is competitive with travelling by car is likely to support VKT-reduction goals. In this region, these locations are largely in and around central Wellington and the inner suburbs of Wellington City, and in the immediate walking catchments of rail stations in the Hutt Valley, Porirua and key centres in Kāpiti.

Four key transport issues identified in Regional Land Transport Plans

1. Public transport capacity

The Wellington RLTP identified that a lack of public transport capacity puts at risk the achievement of mode shifts from private motor vehicles to more sustainable modes of travel. Even with the uncertainty relating to the ongoing impacts of changes in travel behaviours following the COVID-19 pandemic, the public transport network is likely to experience capacity constraints within the next 5 to 10 years, driven by population and economic growth.

Public transport reliability in parallel with public transport capacity is required to deliver a viable and attractive public transport system that allows people to be confident they can shift modes from private vehicles.

The Horizons Regional Council rohe is not as well serviced by public transport as the Wellington region. While the Capital Connection train service provides a public transport link to central Wellington, it currently runs only once a day in each direction. Funding was recently announced to double this service and fund brand-new hybrid trains for the network within five years. There are also various existing bus services; however, overall, Horowhenua and Kāpiti lack some key transport links and/or do not provide sufficiently frequent services.

2. Travel choice and access

According to Sense Partners' 50th percentile projections (2022), the population of the Wairarapa-Wellington-Horowhenua region will grow by 200,000 in the next 30 years. This means investment in the transport system will be required to increase public transport capacity and provide more attractive travel choices to move more people with fewer vehicles.

Public transport already accounts for around 20% of all government funding on transport (about \$4.9 billion has been allocated nationally to public transport for the 2021-2024 funding period⁴⁰), this reflects the need to prioritise development in accessible locations close to existing public transport connections to effectively use limited funding.

More information on our challenges in providing equitable access is detailed in Section 3.4.1.

Horowhenua has identified that land-use conflicts, inadequate infrastructure and transport network inefficiencies are leading to less effective transport routes and user choices, requiring a focus on initiatives that prioritise connectivity, travel choice and access.

⁴⁰ 2023 Briefing to Incoming Transport Minister, available at: <https://www.beehive.govt.nz/sites/default/files/2023-03/BIM%20-%20Assoc.%20Minister%20of%20Transport%20-%20Waka%20Kotahi.pdf> – accessed 17 July 2023.

3. Safety

An increasing conflict between competing modes, poor user behaviour and inadequate infrastructure is leading to deaths and serious injuries in the Wellington and Horowhenua regions. While the number of transport-related deaths and serious injuries declined in Wellington in 2019-2022, they are not decreasing at the rate required to achieve the Wellington RLTP's safety target of a 40% reduction in transport-related deaths and serious injuries by 2030. There are different priorities for road safety in different parts of our region. Speed on rural roads and high-risk motorcycle routes are risk factors, as is conflict between people driving and people walking, cycling and using other non-car travel options. The Wairarapa-Wellington-Horowhenua region is in the process of implementing Waka Kotahi's Road to Zero programme.

4. Resilience

The impacts of climate change, natural hazards and sub-optimal maintenance/renewals are increasing network vulnerability and costs. Space constraints on road corridors and limited alternative routes mean the transport system has poor resilience to unplanned events, whether they are caused by natural events such as storms or network incidents such as crashes. While the opening of Transmission Gully and SH1 improvements in 2022 have increased resilience in the region, events since 2019 have highlighted the vulnerability of both the road and the rail networks. Key parts of the region's transport system have been assessed as extremely vulnerable to earthquake, tsunami and storm risk and the previous 10 years have shown a consistent increase in unplanned closure events, with variability in the duration of closures in those years.

There is value in continuing to investigate the potential of a new link road between SH1 and SH2 (which can accommodate a variety of transport modes, including public transport and active modes) to provide more direct and efficient access between centres in the Western and Hutt Corridors, and to contribute to more route alternatives and improved network resilience. The link road would also reduce congestion on SH1 and SH2 and may accommodate more direct east-west public transport services.

Impacts of COVID-19 on predicting future trends

Since early 2020, COVID-19 has had a significant impact on travel patterns and has disrupted many longer-term travel trends. The region, and New Zealand more generally, is still in a period of significant short- to medium-term uncertainty about the persistence of COVID-19-related changes in travel patterns, the prevalence of working from home, and migration. COVID-19-related data collection disruptions also make it difficult to predict accurately whether these trends will continue.

Counting the cost of road congestion

Prior to COVID-19, significant and concentrated peak demand occurred on the north/south roading and rail networks in the region, and on other key west, south and east routes within Wellington City. This peak congestion was exacerbated by the high concentration of regional employment in central Wellington, and the dominance of the knowledge-based sector working conventional office-based hours. This can be seen in the morning travel peak shown in Figure 29.

Figure 29: Morning peak transport by area of origin by mode, 2016

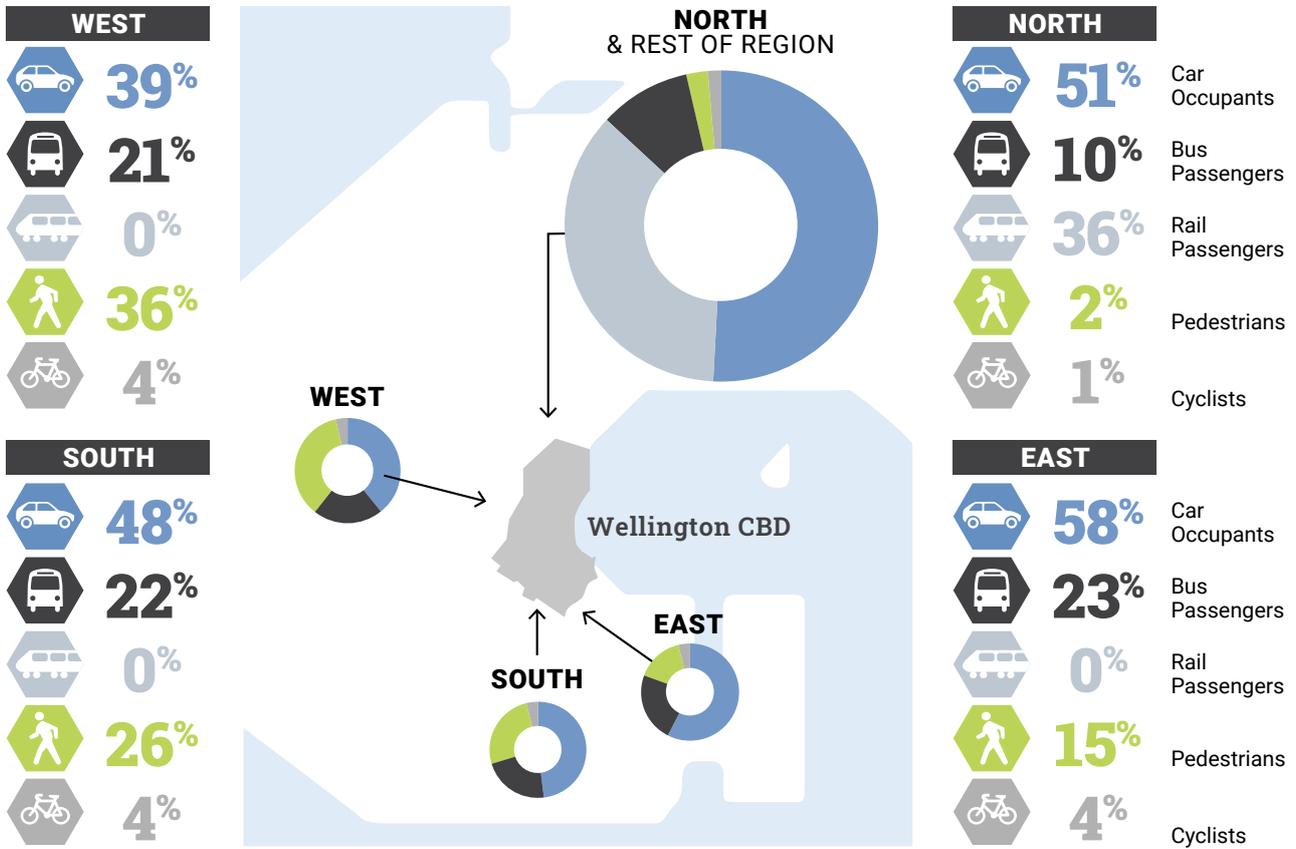
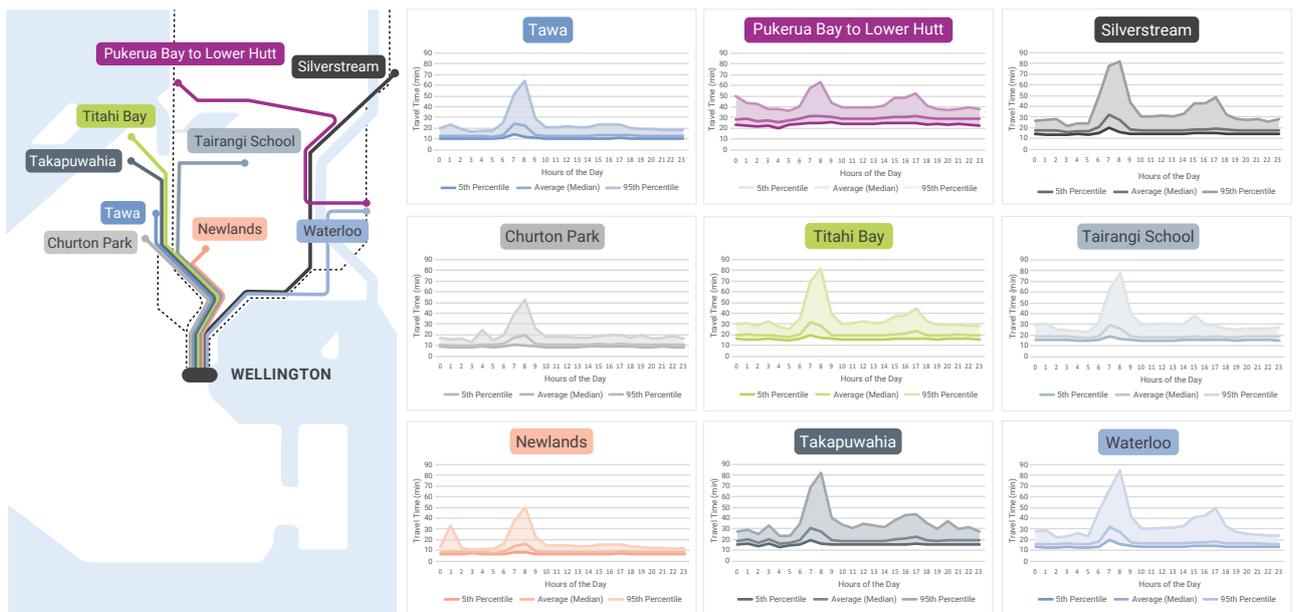


Figure 30: Travel time variability



This significant commuter peak limited east-west connectivity throughout the region, and capacity constraints on both the regional roading network and public transport services created significant travel-time delays and unreliable journey times for both freight and people travelling in private and public transport. This can be translated to a negative economic impact for the region. A 2017 report for Let's Get Wellington Moving estimated that the 2016 road congestion had imposed a cost of \$680,000 on 2017 prices. Further, it stated, "... traffic projections indicate that with no change in the Wellington region transport network, the annual cost of road congestion could increase to \$180m by 2026, with a one standard deviation band of \$133m to \$226m".⁴¹

Moving freight on our transport network

The region's transport network also has a key role in the movement of both regional and national freight and a critical role as the gateway to the 'west' section of both SH1 and the Main Trunk railway, with the Cook Strait ferries moving goods between the top of the South Island and the lower North Island. In addition, CentrePort is the third-largest port in New Zealand by tonnes across the wharf (domestic and international), as well as New Zealand's largest coastal shipping hub. Freight logistics benefit from the central location, intermodal (e.g. rail, road and ferry) connections to regions and the capacity for growth without requiring significant reclamation.

3.3.1. CHALLENGE – EQUITABLE ACCESS TO SOCIAL, EDUCATIONAL AND ECONOMIC OPPORTUNITIES

There is continuing inequitable access to social, educational and economic opportunities within the region.

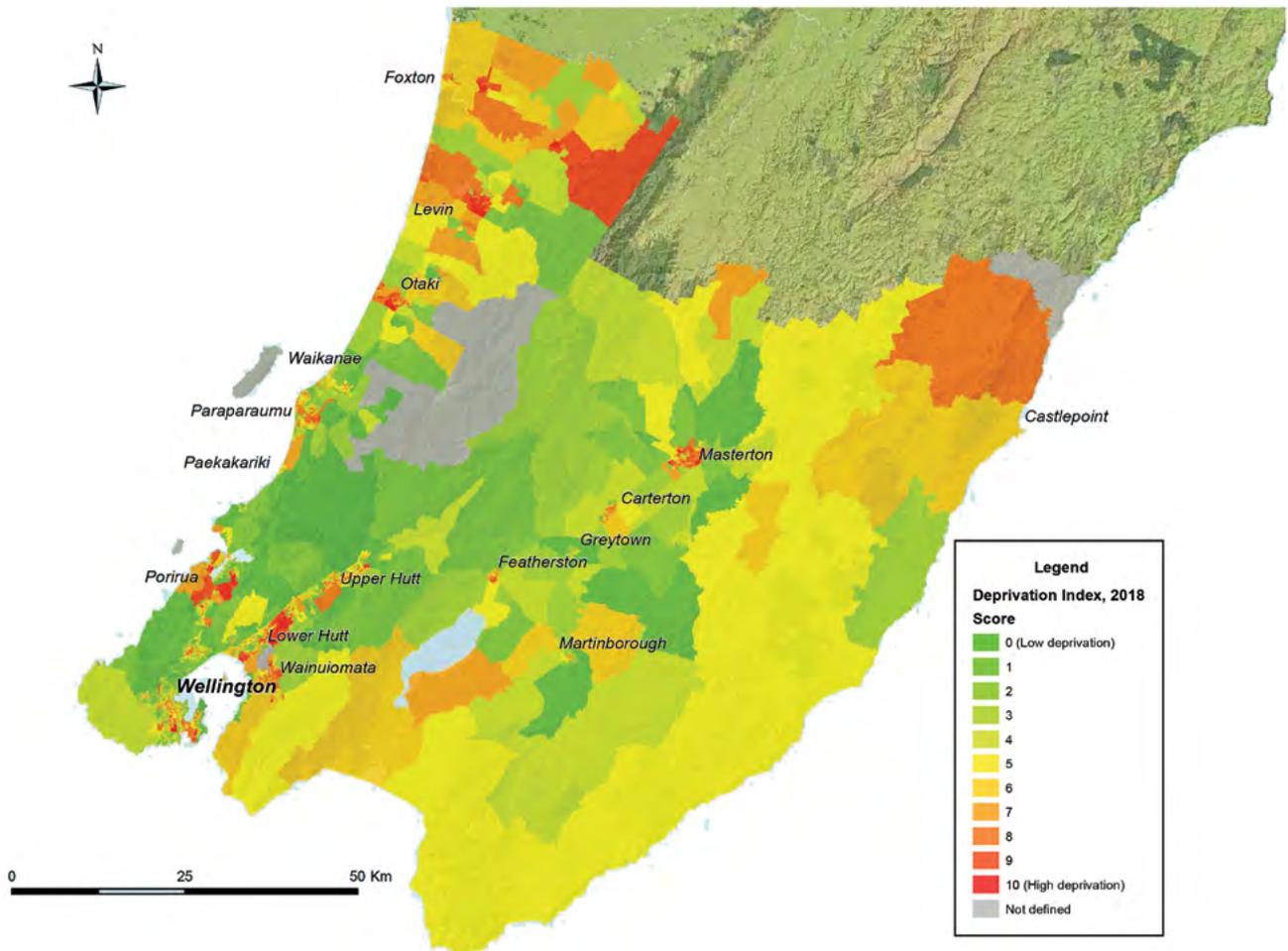
While the region overall has a highly productive workforce and high average household income, this is not consistent across the region and can be an issue in regions where wage levels are not keeping up with an increasing cost of housing.

There are communities throughout the region with high levels of deprivation, as seen in Figure 31. Some of these communities also have poor access to employment. Key areas within the region identified as having high deprivation levels are Taita and parts of eastern and western Porirua, with other notable areas being Masterton, Ōtaki, Levin and parts of Wellington City.⁴²

⁴¹ Estimates of costs of road congestion in Wellington Report V1, 2017, accessed online 28/02/2023, <https://lgwm.nz/assets/Uploads/Estimates-of-costs-of-road-congestion-in-Wellington-Report-v1.pdf>.

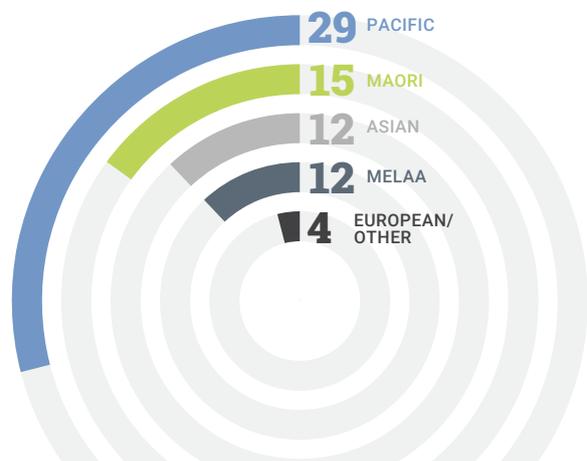
⁴² The map makes an assessment of deprivation based on meshblock boundaries rather than population, so while some areas might look large this is because the meshblock is large, not the number of people who live there.

Figure 31: Deprivation Index 2018⁴³



Social isolation, marginalisation, gentrification and displacement are all threats to community and individual wellbeing. For example, increasing housing costs are pushing long-term residents out of communities such as eastern Porirua and Ōtaki to more peripheral areas in the region. This is disrupting long-term family and community relationships and social networks, including those of iwi and hapū and Pacific communities. Figure 32 shows rates of severe housing deprivation for 2013 (the most recent data), with the highest rates being in our Pacific communities.

Figure 32: Severe housing deprivation prevalence per 1,000 population by ethnicity in the Wellington region

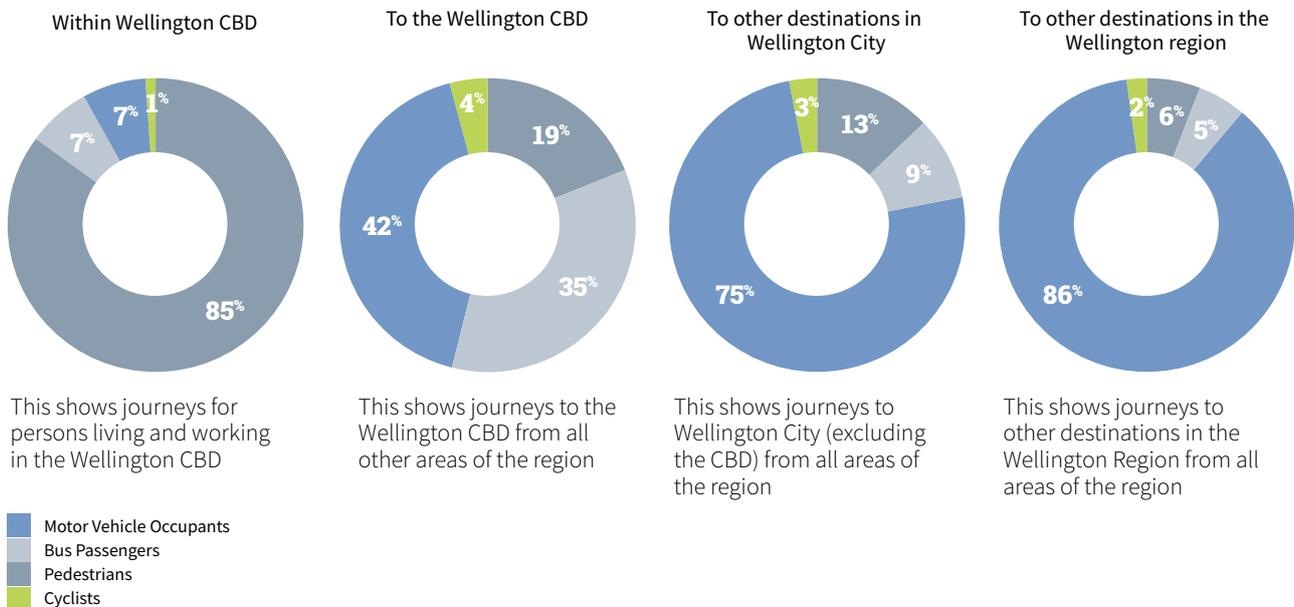


⁴³ The NZDep2018 Index of Deprivation reflects eight dimensions of material and social deprivation. These dimensions reflect a lack of income, employment, communication, transport, support, qualifications, owned homes and living spaces.

The Wellington region has the highest public transport and active transport share of any New Zealand region, with 35% of all peak and off-peak journeys being undertaken by public transport, walking or cycling (Annual Monitoring Report 2021/22). This is due in part to the walkable nature of Wellington City and the high concentration (approximately 40%) of jobs being based in central Wellington. For many people living near central Wellington or near public transport routes on the north-south corridors, public and active transport modes are the most convenient options.

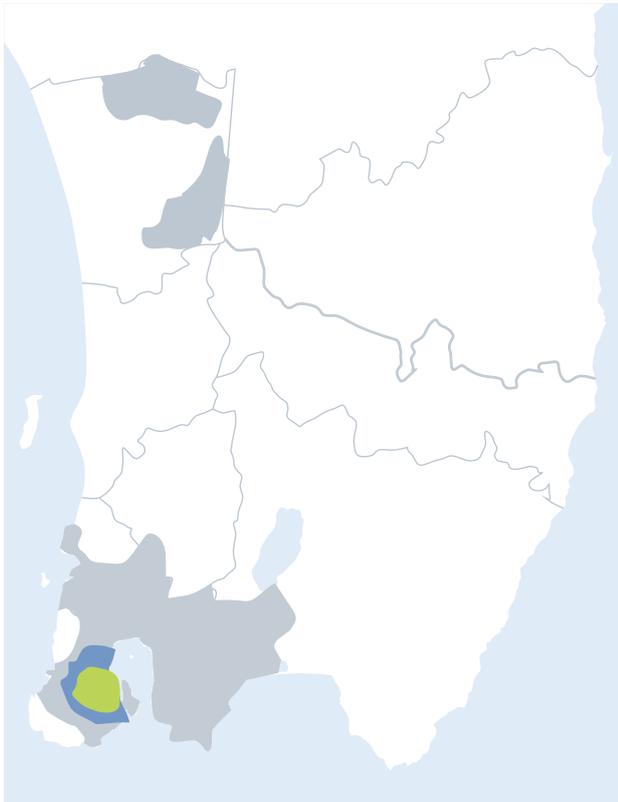
However, this is not the case for people living away from the north-south corridors or working in other parts of the region. Journey-to-work trip information from the 2013 census, as seen in Figure 33, shows that the travel choices utilised by people changes as the journey to work becomes longer and possibly more complicated. The figure shows short trips to work within the Wellington CBD, with very high levels of active transport and public transport and correspondingly very low levels of motor vehicle occupants, to longer and possibly more complicated trips to destinations in the Wellington region with very low levels of active modes/public transport and very high levels of motor vehicle use.

Figure 33: Journey-to-work trips 2013



Consistent with this, Figure 34 shows access to employment opportunities by public transport, bike and car in the wider region. It shows how those living close to employment centres have good access to jobs by public transport (bus) and slightly wider access by 30-minute bike ride, and that more jobs can be accessed by driving. However, this must be interpreted with care as it is based on door-to-door journeys and shows jobs within a certain timeframe by mode of travel, divided by total regional jobs.

Figure 34: Access to percentage of regional jobs by different modes



- 30% – 50% of regional jobs accessible by public transport within 45 mins
- 30% – 60% of regional jobs accessible by biking within 45 mins
- 30%+ of regional jobs accessible by driving within 45 mins

In some parts of the region the ability to travel to access social and economic opportunities is constrained by factors such as unaffordability of travel, the lack of east-west corridors, the predominance of jobs in central Wellington, jobs not being able to be accessed by public transport (such as shift work and where people work in multiple locations) and the location of social infrastructure in places with limited public transport.

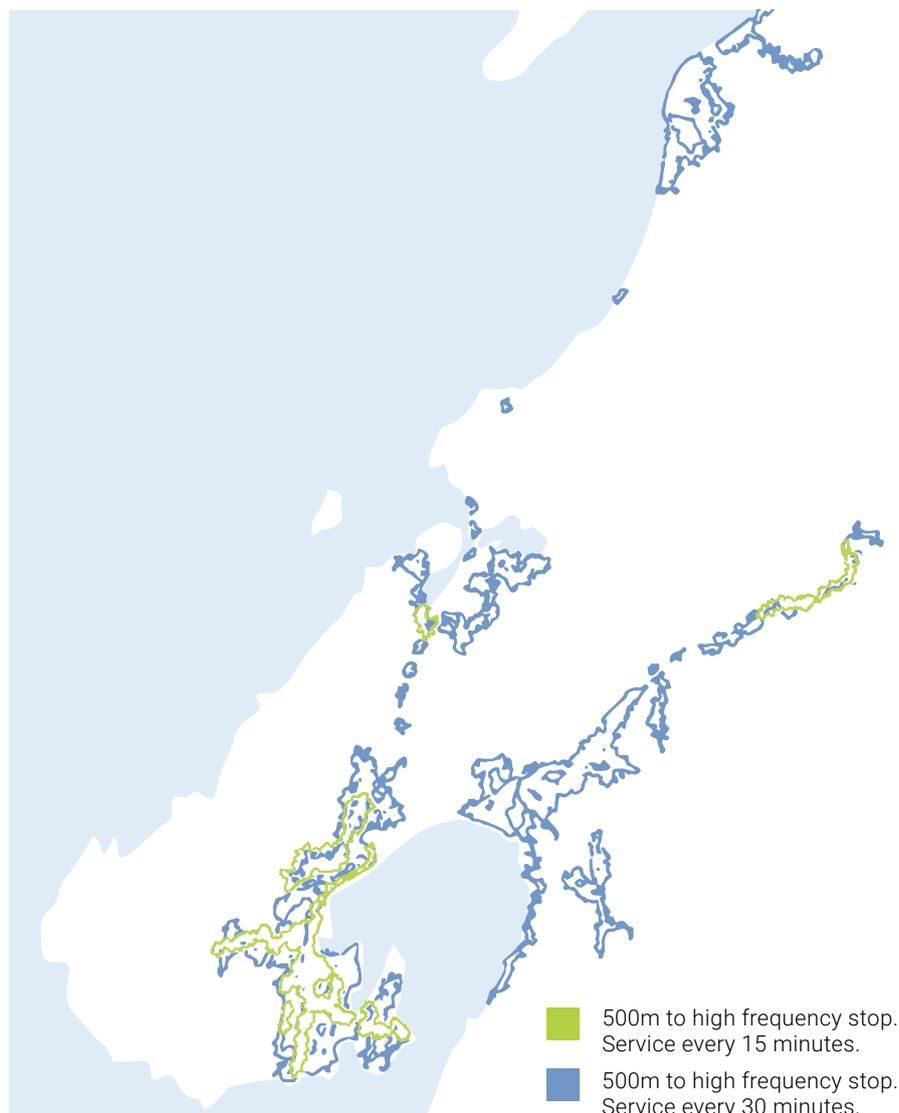
The ability to travel is also affected by aspects such as the connectedness of public transport networks in the region (e.g. between east and west, and sometimes between bus and rail), ticket system integration (e.g. train to bus) and the cost of public transport.

Across the region the predominant pattern of low-density suburban development that is not well served by public transport continues to impose a reliance on private vehicle use.

All these aspects add barriers and costs for communities marginalised on the geographical fringes.

Figure 35 shows the areas that are within 500 metres of high-frequency (every 15 minutes) bus or rail services, as well as those that are within 500 metres of services at a frequency of every 30 minutes. The high-frequency services are mainly available to those in Wellington City and where express services are offered.

Figure 35: Access to frequent public transport



These factors combine to provide inequitable access to those who do not own cars, cannot afford to operate cars or do not have licences.

The physical environment has a significant role in the health and wellbeing of communities, affecting lifestyle choices and environmental quality. Public Health Advisory Committee research demonstrates that car-dependent lifestyles in New Zealand are implicit in prevalent health issues including obesity, type 2 diabetes, hypertension, emphysema, asthma and cardiovascular disease.

A car-dependent urban form is also linked to neurodevelopment and cognitive function problems, hearing loss, sleep disturbance, poor mental health, increased road traffic injuries and deaths and social isolation. Urban forms dominated by cars typically have comparatively high levels of air, water and noise pollution and carbon emissions per capita.

The populations in New Zealand most adversely affected by car-dominated urban forms are children, the elderly, Māori, those with disabilities and persons in deprived neighbourhoods. It is interesting to note that while the region has one of the highest uptakes of public and active travel modes in the country, public space within the central city area is largely dominated by roads and car parking.

With much of the economic activity in the region occurring in central Wellington, we need to identify ways to retain this central economic strength while maximising opportunities for people to work closer to where they live as one way to improve access to jobs.⁴⁴

The concept of achieving accessibility by public transport to social, educational and economic opportunities within a 30-minute timeframe is often used internationally to guide development and enable more equitable access for all. This may be a measure that the Future Development Strategy can use.

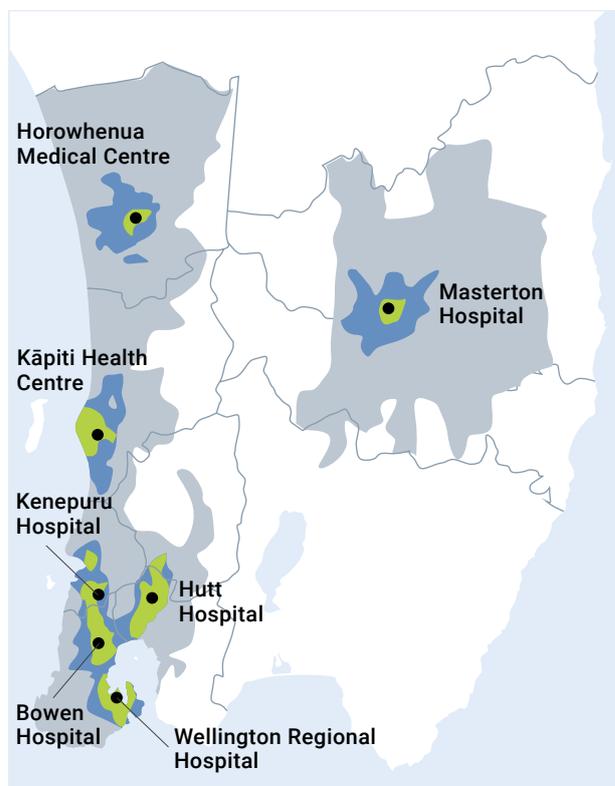
Access to social infrastructure

Both local government and central government in the region are major investors in social infrastructure such as libraries, parks, schools, universities and polytechnics, health centres, hospitals, cultural centres, marae, emergency community centres, museums and community and sporting facilities.

However, the locations of these services can limit people’s access to them, and in turn have significant impacts on how urban areas grow and change over time. For example, they may affect where, how and why people move around urban areas and the associated carbon emissions, and how socially connected they feel within their communities.

Within the region, planning and investing in this social infrastructure is often done in silos, without a consideration of the wider urban development and wellbeing outcomes. The development of the Future Development Strategy offers an opportunity to collaborate with agencies in planning for and investing in social infrastructure and embedding wellbeing into spatial planning.

Figure 36: Access to hospitals by public transport, bike and car



- Public transport access to hospitals within 30 mins
- Biking access to hospitals within 30 mins
- Driving access to hospitals within 30 mins

⁴⁴The recent *Housing and Business Development Assessment* report identified that the economic output of the Wellington CBD is expected to be \$35 billion by 2047.

Access to educational opportunities

The Wellington REDP has a focus on skills, talent and education to build our workforce as a key enabler of regional economic development and productivity. It identifies the need to address skill shortages and to think ahead about the training and education requirements of our future workforce.

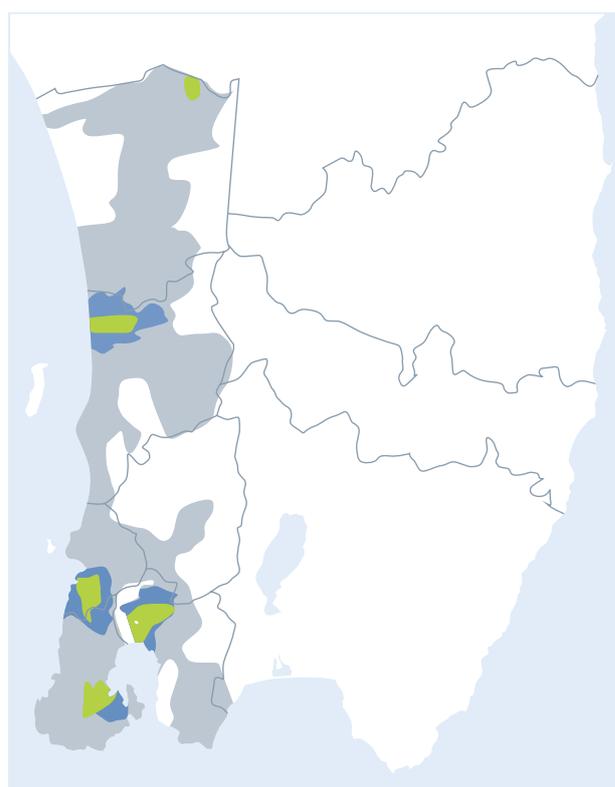
Young people’s career aspirations form at a young age and can be predictive of later study- and employment-related choices. Early interventions are needed to address equity, invest in local people including Māori and Pasifika, mitigate the risks of a reliance on skilled migrants and support the building of thriving communities. Research and education providers offer a foundation for leading in the science and technology areas, supporting the continual development and growth of the knowledge economy. This needs to be partnered with an equally strong vocational system to support development in areas such as engineering, high-value manufacturing and technology.

The region has a number and range of education and research entities in both the public and private sectors. While these opportunities exist across the region there is inequitable access to these opportunities. A solution to improve access in the future is needed to enable the region to transition to a low-carbon economy.

The percentage of youth not in employment, education or training (NEET) is 9.5% for the region, below the national average of 12.5% in 2021. However, some areas in the region have NEET rates above the national average, including Horowhenua, Porirua and Upper Hutt. NEET rates are low in South Wairarapa and Wellington City.

The availability of transport to access tertiary studies varies throughout the region, as can be seen in Figure 37. Students who live in areas where public transport stops at certain times or is limited or difficult (e.g. between the Hutt Valley and Porirua) have limited access to opportunities. The consolidation of tertiary services into Petone and central Wellington has compounded this issue and disadvantages disproportionately low socio-economic groups. The REDP includes initiatives that explore providing residents with training opportunities in the areas in which they reside and to which they have ties, for example the Kāpiti Coast and Wairarapa. The REDP recognises that enabling quality education and training for our rangatahi and access to decent jobs locally is imperative for a more equitable workforce.

Figure 37: Access to tertiary institutes by public transport, bike and car



- Public Transport access to tertiary institutes within 30 mins
- Biking access to tertiary institutes within 30 mins
- Driving access to tertiary institutes within 30 mins

3.4 Our other infrastructure

Across the region, funding and maintaining existing infrastructure as well as providing new infrastructure for growth poses a significant challenge. There are also a number of increasing pressures, especially for the three waters infrastructure. They include:

- the region growing faster than anticipated, putting pressure on current aging infrastructure
- the funding challenges for current and new infrastructure
- the need to manage urban growth within environmental limits
- the need to manage existing infrastructure and design new infrastructure to address the impacts of climate change
- the vulnerability of the three waters assets to the impacts of extreme natural hazards
- the expected changes in legislation that will affect the requirements of the water network.

Further complicating the long-term certainty of the three waters infrastructure is the new three waters reform legislation. The legislation proposes a transfer of the three waters infrastructure asset ownership from councils to 10 new water entities that will be responsible for the management and delivery of three waters infrastructure. The transition is expected to occur at different times throughout the country between 2024 and 2026.

3.4.1. CHALLENGE – INFRASTRUCTURE CAPACITY

A significant investment in infrastructure is needed to enable enough housing and quality urban environments, however, we have limited capacity to fund and deliver everything the region needs and wants.

As the region continues to grow there is a need to manage the development of the required enabling infrastructure to support it. The region has a range of challenging infrastructure issues, including those related to three waters, transport, electricity and broadband. There is a need to firstly make the most of the assets we already have (including focusing growth on areas that are well serviced by existing networks), consider fast and cost-effective solutions (such as the reallocation of road space) and take a staged approach to the bigger improvements in the network. And it is important that population growth is aligned with our investments. We cannot afford to service everywhere at once – and therefore sequencing is also important.

Enabling three waters infrastructure

The age, capacity and locations of the three waters infrastructure are all relevant to the region's ability to continue to develop. Much of the three waters infrastructure is aged, in part due to a historical underinvestment in water infrastructure. This results in an infrastructure renewal surge anticipated over the next 30 years.

In addition to this, a current challenge for councils is that housing growth in the region has occurred more quickly than was expected, meaning that in a number of cases infrastructure investment is not keeping up with housing growth. While developers will fund some forms of new infrastructure, for instance in a new subdivision, the growth also affects existing infrastructure that might already be at capacity.

The 2023 HBA included an investigation of the sufficiency of infrastructure. While the investigation was not able to quantify the impacts of the constraints on development capacity, the report did identify that there were pressures and constraints in the three waters networks of all councils.

The constraints vary in scale and significance, and the causes vary according to the water, wastewater and stormwater networks. For instance, while capacity constraints in the wastewater network are often caused by stormwater infiltration, they may also be caused by capacity constraints in pump stations and water network constraints may be caused by storage shortages or insufficient pressure to meet expected levels of service.

There may be implications in the future for three waters infrastructure and service provision due to the requirements of the NPS-FM, including a possible restriction on the amount of water take at a time when more housing growth than ever is expected. Most of the region's freshwater resources are already fully allocated under operative resource consents, and this means councils will need to invest in better wastewater and stormwater infrastructure to meet water-quality targets.

Given the current funding constraints for local government and pressures on spending for three waters infrastructure, little is being done to implement emerging technology, councils often do not have the ability to invest in new technology while focusing on their current assets. Wellington Water's strategic direction identifies a need to shift away from a business-as-usual approach towards innovative design solutions that embrace new technology.

Councils are required to update their Infrastructure Strategies every three years as part of their Long-Term Planning (LTP) processes. These strategies identify expected expenditure for three waters infrastructure.

Estimates indicate that billions of dollars of investment are required to bring three waters infrastructure in the region up to current environmental and community standards.

Enabling transport infrastructure

Decisions on how and where to increase housing supply and choice can either positively or negatively affect the transport system. People generally choose the travel options most convenient for the length of their travels.

For example, locating growth along existing transport spines with good public transport connections can reduce the need for car travel and the associated negative impacts such as emissions and congestion,

at a lower cost, while developing new public transport links alongside developments can encourage people to travel by modes other than private vehicles but potentially at a higher cost, both in the initial construction and for the annual delivery of services. Conversely, the building of a greenfield development not adequately supported by public transport links is likely to result in an increased use of private vehicles.

The Wellington RLTP identifies significant transport activities for implementation in the region in the next 10-30 years (e.g. the Let's Get Wellington Moving package), both through National Land Transport Fund (NLTF) investment and through Crown investment via the New Zealand Upgrade Programme.

Through the New Zealand Upgrade Programme, the government has allocated \$1.35 billion of Crown funding over 10 years to the region's transport-system improvements. With a focus on improving safety, resilience, public transport and travel choice options, the four projects in this package spread across the region are:

- Ōtaki to north of Levin – \$817 million
- SH58 safety improvements – \$59 million
- Melling interchange – \$258 million
- railway upgrades north of Wellington – \$211 million.

Indications suggest that future local government funding for the land transport system will be constrained as councils face significant investments in three waters and other infrastructure, particularly during the next 10 years. Funding from the central government's NLTF will be increasingly pressured as maintenance costs increase, particularly as New Zealand experiences a higher-than-average number of adverse weather events. Changes to roading funding mechanisms will need to be considered as road user charges and licensing fees reduce over time.

Shifts in transport options, and changes in the way people pay for transport because of new technology, could provide increased opportunities for network optimisation and travel demand-management activities. Greater Wellington Regional Council recently introduced Snapper card payments on trains and from 2024 will introduce a national electronic ticketing system for public transport, resulting in easier travel across regions.

While the volume of freight is presently forecast to increase (driven primarily by population growth), improvements in efficiency, the electrification of the heavy vehicle fleet and changes in travel choice could affect revenue.

A significant investment of nearly \$100 million by the Crown and \$200 million by the NLTF is being made (throughout this RLTP period and into the next) for 'catch-up' renewals and capacity and resilience enhancements as part of the Wellington Metro Upgrade Programme. In addition, the New Zealand Upgrade Programme – Transport investment of \$211 million in rail will:

- prepare the network for new dual-mode trains and increased services
- increase the capacity and safety of Wellington Railway Station
- provide for the refurbishment of existing KiwiRail-owned passenger rolling stock, including the Capital Connection carriages (to keep them operational until new units are in service).

However, despite this investment, significant further investment will be required both in rail fleet and for infrastructure improvements before the end of the decade, to futureproof the rail network in order to deliver on strategic outcomes being sought both regionally and nationally. The cost of and timeframes for these investments will depend in part on whether the investment is responding to growth or stimulating new growth and development and mode shifts towards rail. The Wellington Regional Rail Plan will provide more detail on the investment and lead-in time requirements.⁴⁵

Other large-scale regional transport projects, such as the strategic cycling network, east-west transport improvements, Let's Get Wellington Moving and RiverLink, will also be competing for Crown funding in the next 30 years.

Enabling electricity infrastructure

Electricity supply is a constraint for future growth and development in the region. Generally, serving new development will require an upgrade and reinforcement of the electrical network, with some extensions to the network required. The upgrading would be significant but would be concentrated on areas within the main centres. It will be a significant investment but it affects a smaller number of our assets than the other scenarios, so could be a more cost-efficient option.

The impacts of decarbonisation, transitioning from domestic gas to electricity and the electrification of vehicle scenarios are likely to affect regional development. As well as powering new houses and businesses an increasing demand for electric vehicles will increase demand on the electricity network. CentrePort is investigating shore power to reduce emissions from large ships and potentially, in future, feed more energy into the grid.⁴⁶ With a move to electric buses, charge points will be required and this will influence some of the upgrades.

From a resilience perspective, the Wairarapa-Wellington-Horowhenua region generates very little electricity and is reliant on the national grid. An opportunity exists to provide for more localised, smaller-scale renewable energy generation (such as the Helios solar farm in Greytown⁴⁷) to provide capacity and resilience. Also, the REDP advocates an accelerated programme to strengthen the 33-kilovolt cable network within 21 years rather than 50 years, increasing resilience in the electricity network.

⁴⁵ The Wellington Regional Rail Plan currently requires a decision on funding from Waka Kotahi.

⁴⁶ <https://www.centreport.co.nz/home/news/shore-power-at-kings-wharf-to-reduce-ferry-emissions-by-2025>.

⁴⁷ <https://heliosenergy.co.nz/projects/greytown-solar-farm>.



4. Glossary of terms/kupu⁴⁸ in this document

Term	Definition
Future Development Strategy (FDS)	a requirement under the National Policy Statement on Urban Development 2020 – updated May 2022 for tier 1 and tier 2 local authorities. https://environment.govt.nz/assets/publications/National-Policy-Statement-Urban-Development-2020-11May2022-v2.pdf . The Wairarapa-Wellington-Horowhenua region is preparing this together under the WRLC Urban Growth Partnership
GDP	Gross Domestic Product
hapū	(noun) kinship group, clan, tribe, subtribe – section of a large kinship group and the primary political unit in traditional Māori society
hauora	(noun) health, vigour; hauora includes taha tinana (the physical dimension), taha hinengaro (the mental dimension), taha whānau (the family dimension) and taha wairua (the spiritual dimension); and the interactions between these dimensions
Housing and Business Development Capacity Assessment (HBA)	Housing and Business Assessment [or Housing and Business Development Capacity Assessment – see https://environment.govt.nz/publications/guidance-on-housing-and-business-development-capacity-assessments-hbas-under-the-national-policy-statement-on-urban-development/]
iwi	(noun) extended kinship group, tribe, nation, people, nationality, race – often refers to a large group of people descended from a common ancestor and associated with a distinct territory
Land Use Capability (LUC)	Land Use Capability Classification is a system in use in New Zealand since the 1950s to try and achieve sustainable land development and management on farms. The system classifies all of New Zealand’s rural land into one of eight classes, based on its physical characteristics and attributes. Class 1 land is the most versatile and can be used for a wide range of land uses. Class 8 land has a lot of physical limitations, it may be extremely steep, and not generally suitable for arable, pastoral or commercial forestry use.
mana whenua	(noun) territorial rights, power from the land, authority over land or territory, jurisdiction over land or territory – power associated with possession and occupation of tribal land
mātauranga	(noun) knowledge, wisdom, understanding, skill – sometimes used in the plural
Medium Density Residential Standards (MDRS)	as defined in NPS-UD 2020
NLTF	National Land Transport Fund
NPS-FM	National Policy Statement for Freshwater Management
NPS-HPL	National Policy Statement for Highly Productive Land

⁴⁸ Regarding te reo Māori terms, please be aware that the expression and understanding of these are specific to and require the input of your local mana whenua: iwi, hapū, marae. For the purposes of this document we have drawn on Te Aka, Māori Dictionary, Te Ara, Encyclopedia of New Zealand and Te Mana o Te Taiao – Aotearoa New Zealand Biodiversity Strategy.

Term	Definition
National Policy Statement on Urban Development 2020 (NPS-UD)	a national policy statement under the Resource Management Act 1991 that recognises the national significance of: <ul style="list-style-type: none"> • having well-functioning urban environments that enable all people and communities to provide for their social, economic and cultural wellbeing, and for their health and safety, now and into the future • providing sufficient development capacity to meet the different needs of people and communities
REDP	Wellington Regional Economic Development Plan Wellington-Regional-Economic-Development-Plan.pdf (bynder.com).
Regional Emissions Reduction Plan	a WRLC regional project under development to produce a plan to transition to a zero-carbon region that meets community needs and aspirations. It will identify the key shifts and priority actions needed at a regional level to reduce carbon emissions
RLTP	Regional Land Transport Plan
SA2 area	an output geography that provides higher aggregations of population data than can be provided at the statistical area 1 (SA1) level. The SA2 geography aims to reflect communities that interact socially and economically. In populated areas, SA2s generally contain similar-sized populations
te Ao Māori	the Māori world; a Māori perspective/world view
Te Tiriti o Waitangi	a phrase often used as a direct translation of the Treaty of Waitangi. However, it is important to acknowledge that the meaning of te tiriti (the treaty) in Māori differed from the meaning of the treaty in English, and most Māori signed the document in te reo Māori
Te Tirohanga Whakamua	the name for WRLC iwi members selected for the statement of hapū and iwi values and aspirations for urban development (a requirement for the Future Development Strategy under the NPS-UD)
tino rangatiratanga	(noun) self-determination, sovereignty, autonomy, self-government, domination, rule, control, power.
Urban form	three-dimensional shape of a city. It is the result of the shape of the land, plus the shape of the built environment on it.
VKT	Vehicle kilometres travelled
whakatauki	(noun) proverb, significant saying
whānau	(noun) extended family, family group, a familiar term of address to a number of people – the primary economic unit of traditional Māori society
whenua	(noun) land
Wellington Regional Growth Framework (WRGF)	Previous regional spatial planning document and the basis of this work. The Wellington Regional Growth Framework is a blueprint for regional growth in the Wellington region (including the Wairarapa) and the Horowhenua over the next 30+ years and envisages a region that could accommodate another 200,000 people.
Wellington Regional Leadership Committee (WRLC)	a union of councils, iwi and central government in the Wairarapa-Wellington-Horowhenua region, formed to work together to positively shape the future of the region. For more information, see Wellington Regional Leadership Committee (wrlc.org.nz)



wrlc.org.nz