

Draft Wellington Regional Growth Framework

SEPTEMBER 2020



30-year spatial plan for the
Wellington-Horowhenua region

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This draft document presents a summary of a large amount of work undertaken by partners and stakeholders in the Wellington Regional Growth Framework.

Further information on the Framework, including background documents such as the Framework's Foundation Report, can be found at www.wrgf.co.nz.

This draft Framework will be subject to partner sign-off, continued stakeholder engagement and public consultation before it is finalised in the first half of 2021.

Photo credit:

Carterton District Council, Horowhenua District Council, Kāpiti Coast District Council, Hutt City Council, Masterton District Council, Porirua City Council, South Wairarapa District Council, Upper Hutt City Council, Neil Price and Justine Hall, Wellington City Council and Waka Kotahi (NZTA).

Executive summary

Ka ora te wai *If the water is healthy*
Ka ora te whenua *the land will be nourished*
Ka ora te whenua *If the land is nourished*
Ka ora te tangata *the people will be provided for*

Mo te iti – mo te rahi *For the little – for the large*

The Wellington Regional Growth Framework (the Framework) is a spatial plan that has been developed by local government, central government and iwi partners in the Wellington-Horowhenua region¹ to provide councils and iwi in the region with an agreed regional direction for growth and investment, and deliver on the Urban Growth Agenda objectives of the Government.

It is one of several spatial plans being developed across the country, with other plans being completed for the Hamilton to Auckland corridor, metropolitan Hamilton-Waikato, Tauranga/Western Bay of Plenty and Queenstown.

The region is facing a number of housing and urban development, transport and resilience challenges for the future. These challenges are regional issues that are best dealt with together and not individually. Many of these challenges cross local council boundaries and the maximum benefits can be had from tackling these together.

In developing the Framework we have taken into account and included planning and analysis already undertaken in work such as city- and district-scale spatial plans (including Wellington City's Planning for Growth), district plan changes (for instance in Porirua City and Hutt City), iwi management plans and central government policies such as those in the Climate Change Response (Zero Carbon) Amendment Act 2019.

The Framework identifies how the Wellington-Horowhenua region could accommodate a future population of 760,000 and an additional 100,000 jobs in the next 30 years. This would represent an additional 200,000 people living in the region.

The scenario of 200,000 people has been developed to understand what would be required to accommodate this level of growth, and consider potential infrastructure needs beyond the 30-year growth scenario. Population projections for the region suggest new homes may be needed for 91,000 to 151,000 additional people, over 30 years.

To put this potential growth in a regional context, 151,000 is more additional people than currently reside in the Hutt Valley and 200,000 is slightly less than the current population of Wellington City.

While there is no certainty about when, how or at what rate the region's population might reach this size, the Framework has been developed based on this scenario to give a good understanding of what would be required to support this level of growth. It is important to note that this is not a policy target.

The proposed changes to urban form for the region are a mix of development in both Urban Renewal Areas (brownfield) and Future Urban Areas (greenfield)². Both are expected to have higher density development than we see at present, throughout the region, and include improved access to bus and rail services, which are expected to increase in frequency, capacity and reach over time.

Approximately two-thirds of the housing growth shown in the Framework is expected to occur in Urban Renewal Areas, in existing urban areas through infill, urban renewal and intensification. Approximately one-third of the growth will be in Future Urban Areas, extending the current urban footprint of the region.

Our current understanding is that, regionally, 88% of housing growth in the Framework is expected to come from areas we have identified in the Framework and 12% is expected to be through 'business as usual' infill throughout the region, with just over half of this infill being in Wellington City.

¹ For the purpose of the Framework the region includes the territorial authorities of Masterton, Carterton, South Wairarapa, Upper Hutt, Lower Hutt, Wellington, Porirua, Kāpiti Coast and Horowhenua.

² For definitions of Urban Renewal Areas and Future Urban Areas, see the Glossary and Reference section of this report.

Of the 88% housing growth from areas identified in the Framework:

- One-quarter is expected to be accommodated in Wellington City (excluding Tawa in the western corridor), including the Let's Get Wellington Moving corridor.
- Nearly one-third is expected to be accommodated in the eastern corridor from Lower Hutt to Masterton.
- The remainder (just over 40%) is expected to be accommodated in the western corridor from Tawa to Levin.

The Framework identifies improving west-east connections as an opportunity to unlock growth, improve resilience and improve regional accessibility to economic and social opportunities. The potential housing and urban development capacity of any future west-east multi-modal corridor(s) has yet to be determined and will need consideration alongside potential transport interventions.

The following diagrams and maps identify the key elements of the Framework, being:

- A growth corridors view – outlines a corridor approach to growth.
- An Objectives to Initiatives diagram – outlines the objectives, challenges, key moves and initiatives in the Framework.
- Key spatial plan maps – a series of maps is provided here and in later parts of this document.

These key elements of the Framework are outlined in more detail in this report. All aspects of the Framework have been developed collectively with partners and stakeholders during an extensive series of workshops and meetings.

Diagram 1: A growth corridor view of the Future Urban Development Areas

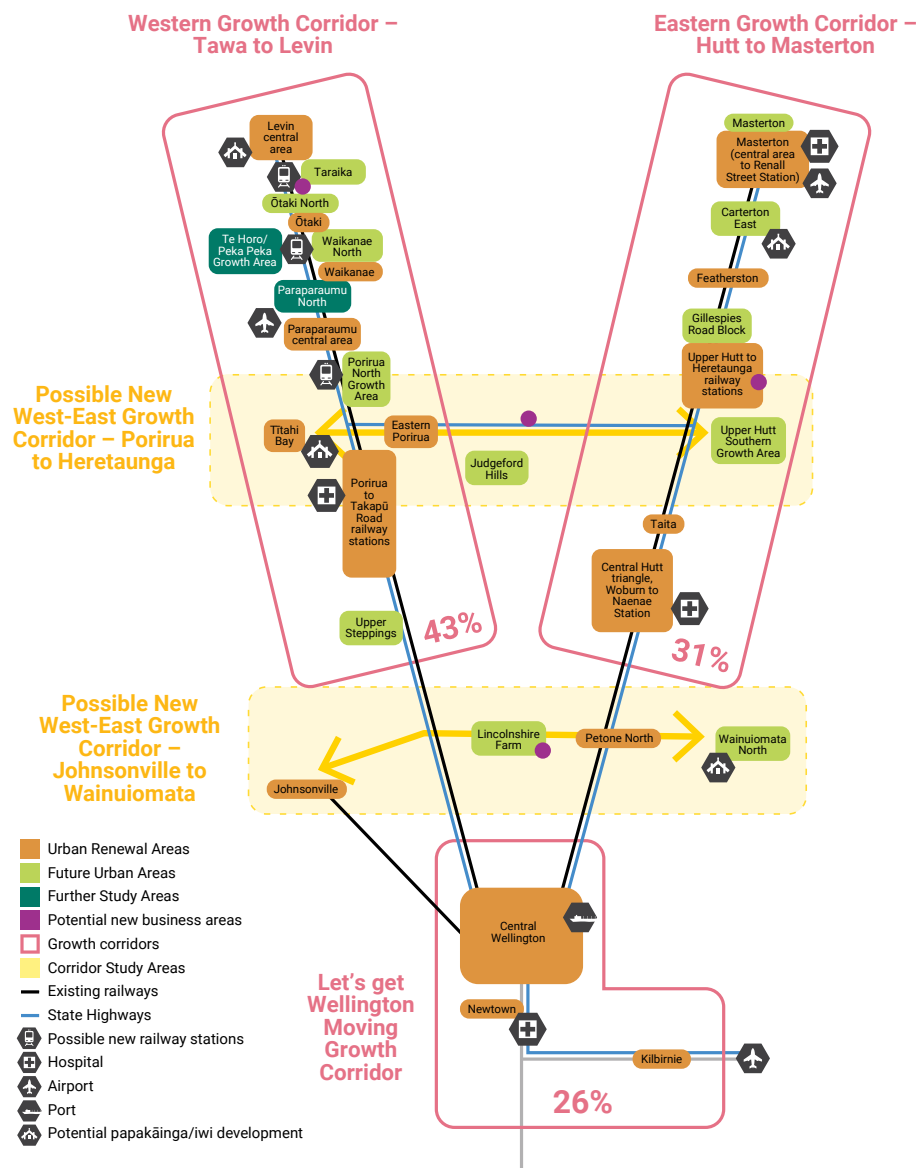
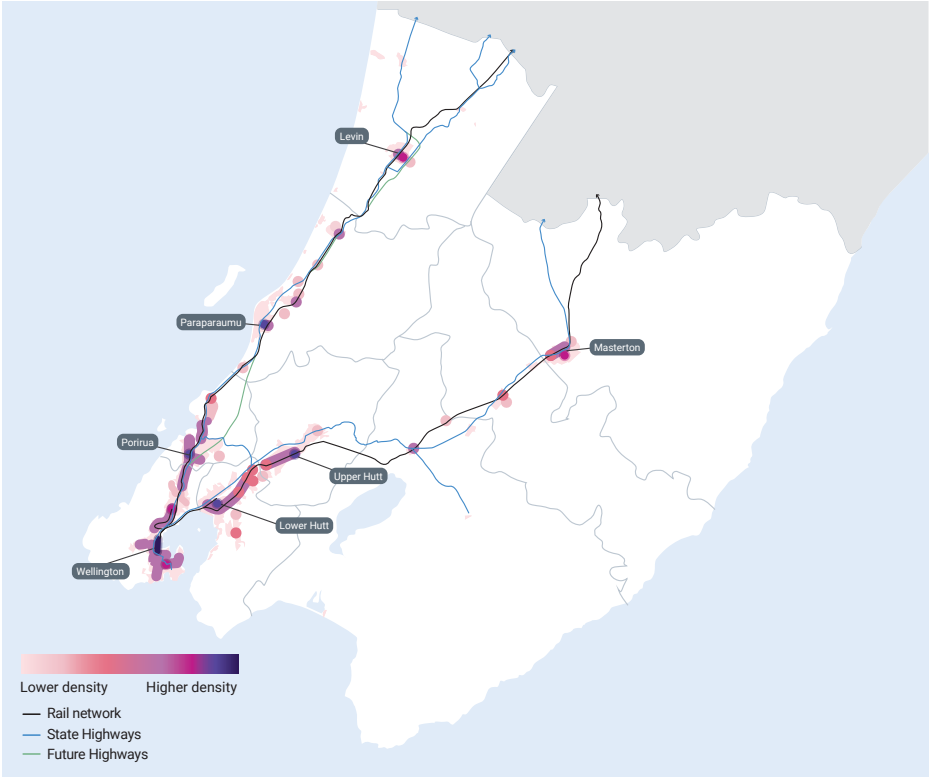
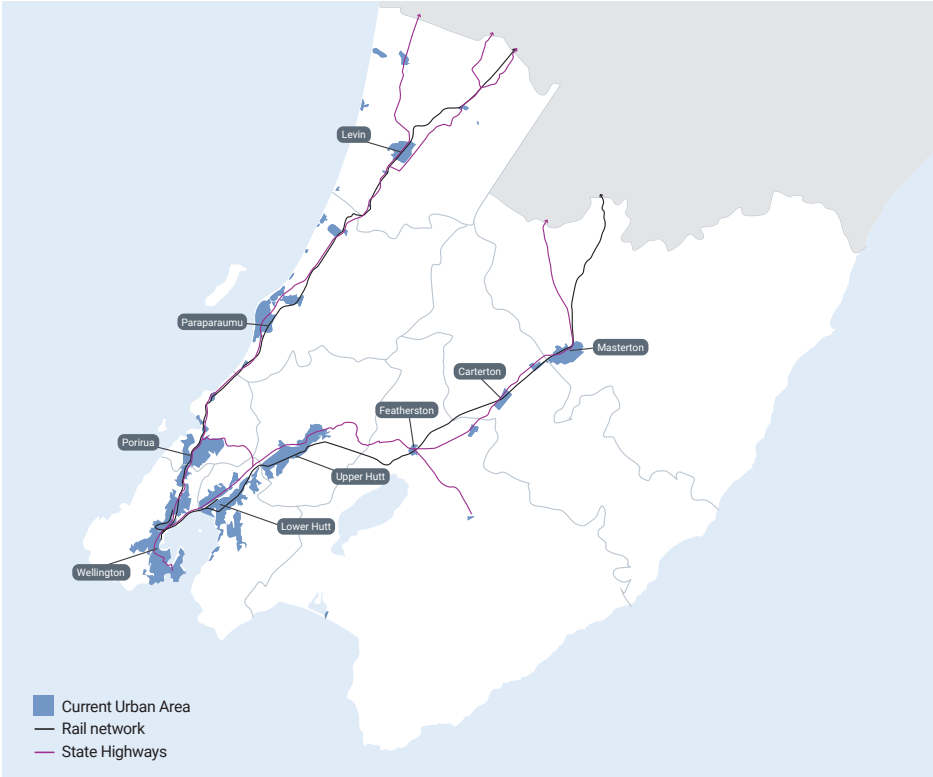
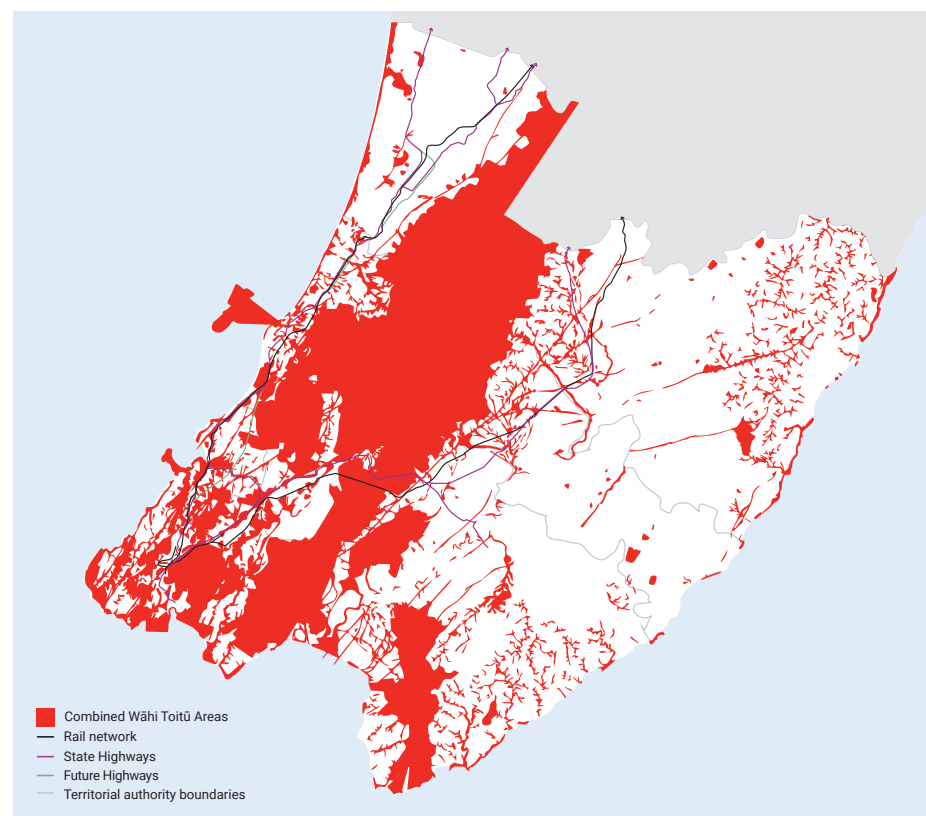
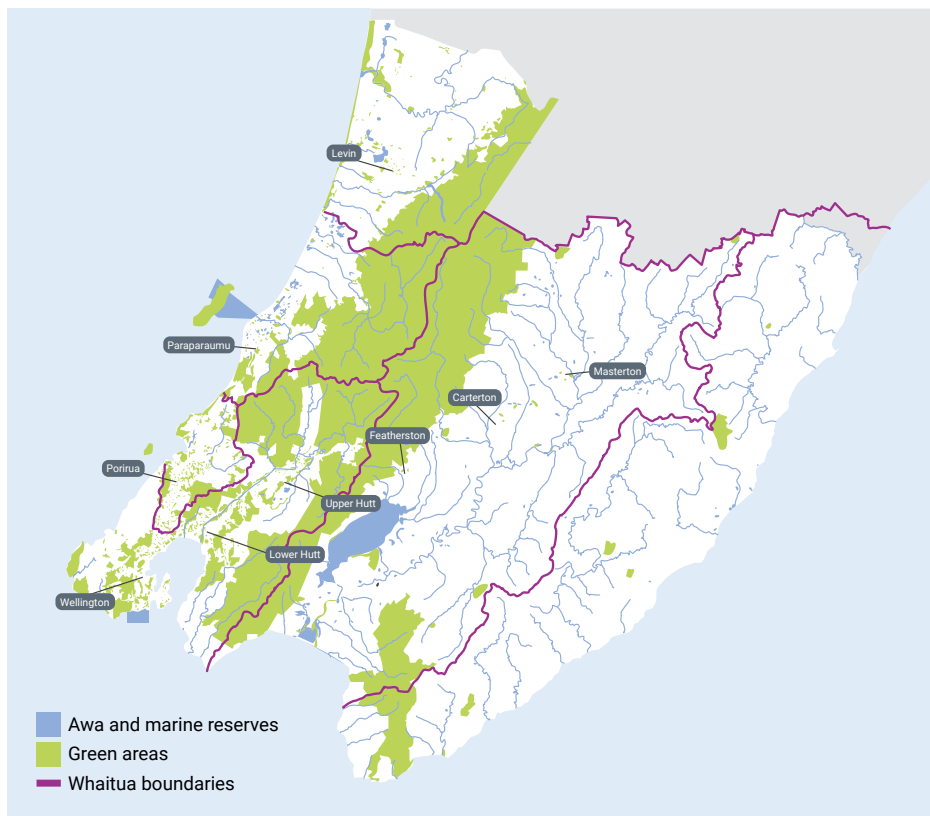


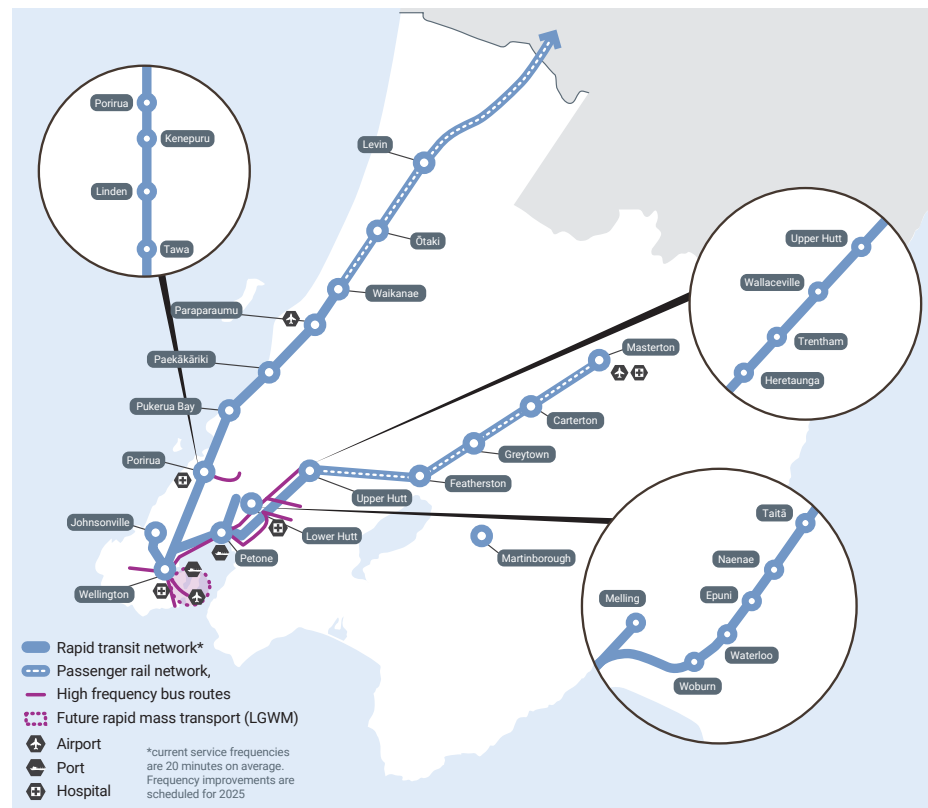
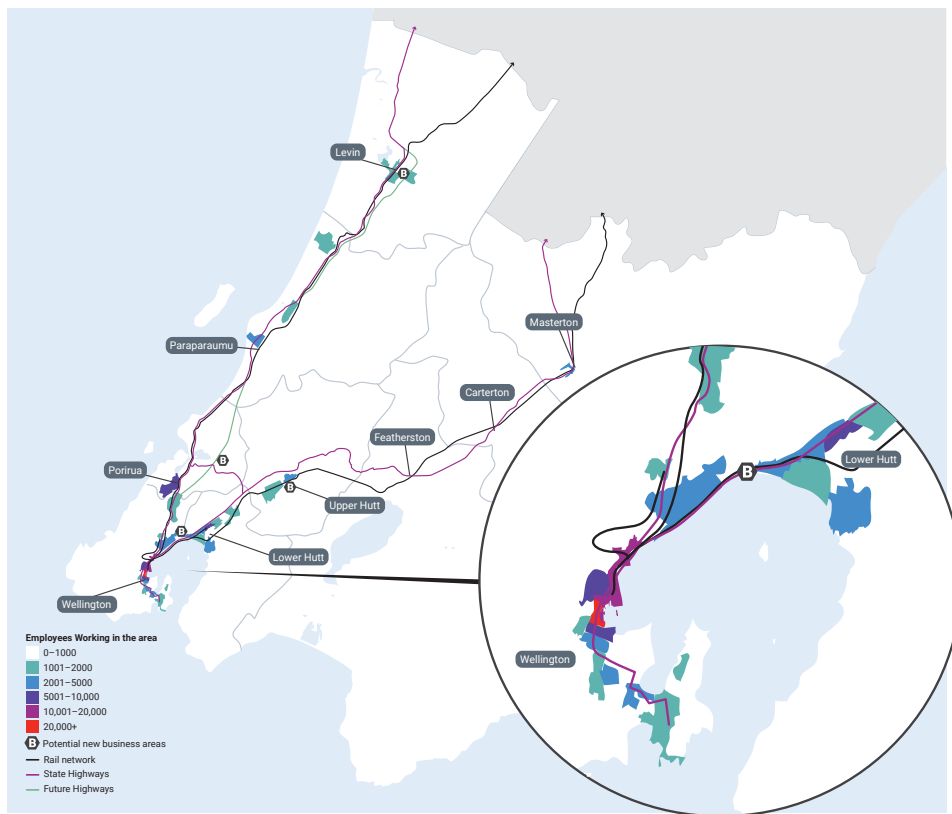
Diagram 2: Objectives to Initiatives diagram

Objectives	<ul style="list-style-type: none"> • Increase housing supply, and improve housing affordability and choice • Enable growth that protects and enhances the quality of the natural environment and accounts for a transition to a low/no carbon future • Improve multi modal access to and between housing, employment, education and services • Encourage sustainable, resilient and affordable settlement patterns/urban forms that make efficient use of existing infrastructure and resources • Build climate change resilience and avoid increasing the impacts and risks from natural hazards • Create employment opportunities.
Challenges	<ul style="list-style-type: none"> • The region lacks sufficient and affordable housing supply and choice, housing affordability is declining and a significant investment in infrastructure is needed to enable enough housing and quality urban environments • 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 • There is inequitable access to social, educational and economic opportunities across the region • Mana whenua and Māori in the region have poor access to affordable housing choices
Key Moves	<ul style="list-style-type: none"> • Harness growth to make the region's housing and urban areas more affordable and liveable and provide more housing choice – 'walkable neighbourhoods' • Make better use of the region's limited supply of well-located greenfield land • Fully unlock the urban development potential of current and future rapid transit orientated corridors particularly the Let's Get Wellington Moving corridor • Unlock new areas for housing and urban development and deliver greater regional resilience with a major west-east multi-modal corridor • Deliver transformational housing and development outcomes for iwi/Māori • Address the urban development challenges of climate change and transitioning to a zero-carbon economy at a regional scale
Key Initiative Areas	<ul style="list-style-type: none"> • Transport – multi modal • Urban planning • Iwi – housing, spatial planning, capacity building • Three waters infrastructure • Social Infrastructure • Employment, education/training • 8 key spatial initiatives

Diagram 3: Key spatial maps







The Framework is presented in six parts:

- **Part 1** outlines the current state of and identifies the key challenges facing the region.
- **Part 2** outlines information about iwi in the region.
- **Part 3** outlines the key moves that will individually and collectively make a difference in the region.
- **Part 4** outlines the region's future growth scenario as well as outcomes and indicators to take advantage of the region's opportunities and address its challenges.
- **Part 5** describes the spatial plan for the region for the 30-year period. It includes sections on:
 - Urban form.
 - Transport.
 - The blue-green network.
 - Constraints.
 - Employment.
 - The three waters infrastructure.
 - Community infrastructure.
- **Part 6** outlines the key initiatives, projects and governance required to implement the Framework.



The Wellington Regional Growth Framework and the Urban Growth Agenda

Why are we developing the Wellington Regional Growth Framework?

The region is growing faster than it has done for many decades, and is facing immediate and longer-term housing supply and affordability, urban development and infrastructure challenges.

The immediate issues relate to a lack of housing supply, a limited range of housing options and declining housing affordability, particularly for first-home buyers. In the next 30 years, up to 66,000 new homes may be needed for up to 151,000 additional people in the region. This is equivalent to accommodating more than another Hutt Valley of people and housing in the region.

A significant investment in housing, urban development, transport and the three waters³ infrastructure and services, as well as regional and district planning and policy changes, will be needed to support future growth.

Beyond the forecast population and dwelling growth there are a number of other challenges facing the region. Projected sea-level rises, the severity of weather events, environmental stewardship pressures, barriers to mana whenua in fulfilling their role as kaitiaki, and natural hazards are creating challenges as well as uncertainty.

An increasing number of vehicles on the roads, capacity and reliability issues associated with buses and trains, and network resilience issues are straining the regional transport system and may not result in the necessary transport system shifts that we are seeking, such as improving safety and access, reducing emissions and reducing reliance on private vehicle travel.

Community infrastructure will also need more coordinated investment to accommodate growth, including in open spaces, community facilities, schools and health care facilities.

All these challenges will need to be resolved for the future and are regional issues best dealt with together and not individually. Many also cross local council and iwi boundaries, and maximum benefits can be had from tackling them together.

It is important that we take a region-wide approach and develop a partnership between central government, local government and mana whenua (and the private sector) to respond to our regional challenges so that we can address community expectations.



³ Drinking water, wastewater and stormwater.

Urban Growth Agenda

The Wellington Regional Growth Framework (the Framework) has been developed by local government, central government and iwi partners to deliver on the Urban Growth Agenda objectives of the Government⁴, which adjusts the approach to urban development and infrastructure planning and introduces new instruments and levers.

Cabinet has recently endorsed the Māori and Iwi Housing Innovation Framework for Action, which will deliver, at pace, a system-wide response to Māori housing stress. This direction will also be important for this partnership given the challenges identified in the Framework.

Spatial planning is one pillar of the Urban Growth Agenda and is focused on successful growth management. Its core proposition is that well planned and managed urban growth should result in improved environmental, employment, transport and housing outcomes for communities.

The benefits of spatial planning include:

- Better coordination between planning and funding agencies to identify and respond to the planning challenges affecting the Wellington-Horowhenua region.
- Identifying the regional investment pipeline for infrastructure and services and providing increased certainty for all levels of government and the private sector.
- Providing an easy-to-understand story to the outside world to optimise external investment and jobs.
- Creating a long-term and agreed approach to growth to avoid changes in policy from one electoral cycle to another, which could deter private investment.

This Framework is one of several spatial plans being developed across the country, with other plans being completed for the Hamilton to Auckland corridor, metropolitan Hamilton-Waikato, Tauranga/Western Bay of Plenty and Queenstown.

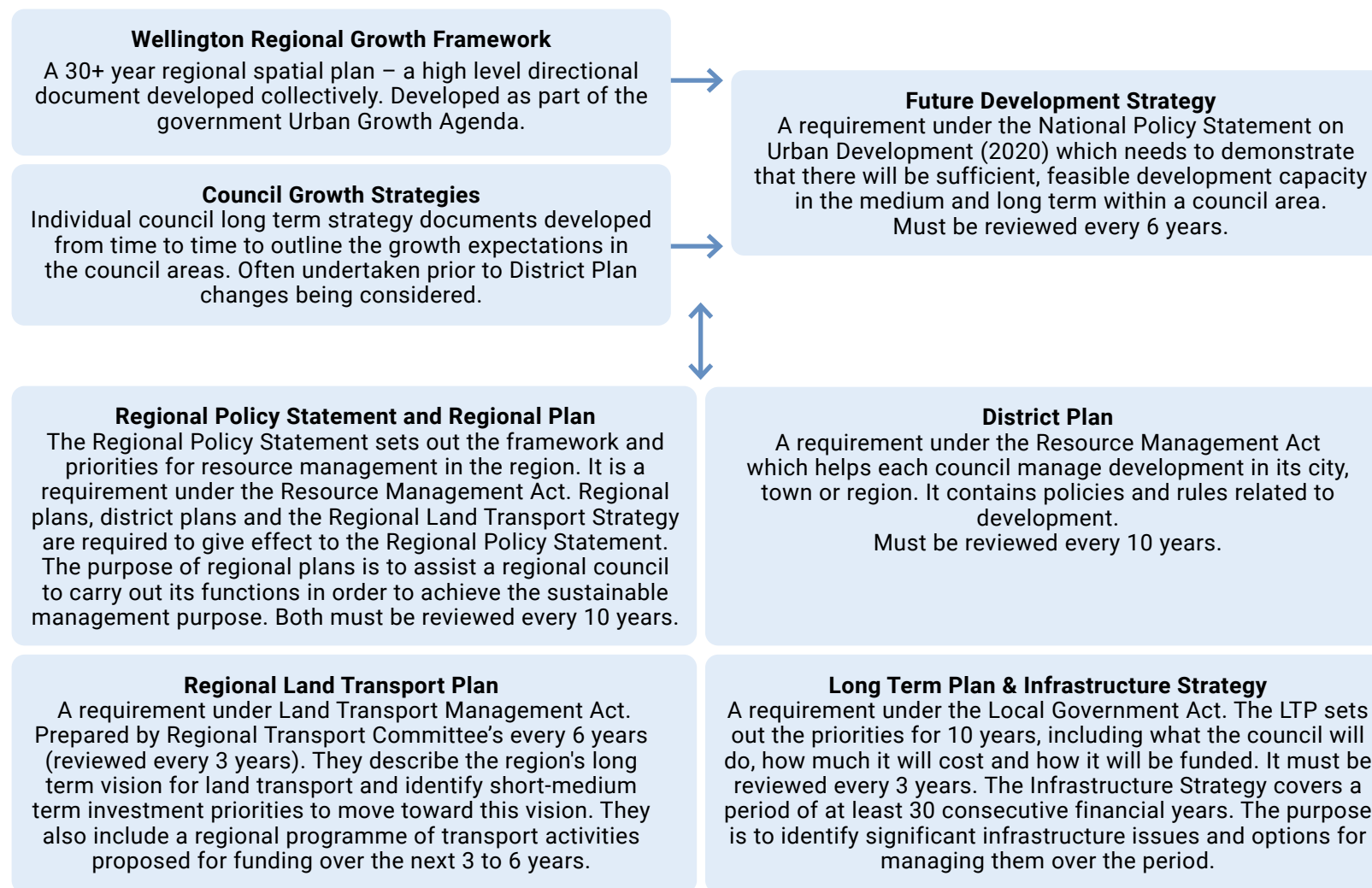
This document is not a Future Development Strategy as required under the National Policy Statement on Urban Development (NPS-UD). However, it has been developed with this in mind and with the expectation that the next iteration of the Framework will meet the NPS-UD requirements.

Diagram 4 shows the relationship between the Framework and other statutory and non-statutory documents. It demonstrates that we have taken current growth strategies and plans into account when developing the Framework and that the Framework will set the direction for plans going forward.

For example, a key initiative covered later in this document is to 'Review council zoning and other levers to enable higher densities within existing and new urban areas in appropriate locations identified in the Framework'. This initiative will see changes to district plans, which being 10-year planning documents should support the longer-term strategy outlined in the Framework in their objectives and policies, noting that the district plans in the region differ in their timing.

⁴ <https://www.hud.govt.nz/urban-development/urban-growth-agenda/>

Diagram 4: Relationship between the Framework and other documents



Part 1 – The current state and our challenges

Part 1 of the Framework outlines what we are as a region, including the current state, and explains the key challenges identified during the development of the Framework.



1.1 What we are as a region

Regional context

The Wellington-Horowhenua region has an important role in the prosperity and governance of New Zealand. It is home to the capital, is the country's second-largest metropolitan economy, and links the North Island and South Island for most freight movements and high-voltage electricity transmission. It includes the core metropolitan areas of the Hutt Valley, Wellington, Porirua and the Kāpiti Coast, and the less urbanised regions of Horowhenua and Wairarapa.

Today the region increasingly functions as an integrated employment and housing market. It is an interdependent network of cities, towns and rural areas, with a modern urban economy paired with a quality natural and built environment. As the home of the capital the region is important to New Zealand as a whole and as an international partner and connector.

Large areas of the region are protected in Department of Conservation (DoC) and Greater Wellington Regional Council parkland. They provide opportunities for recreation, and in many parts of the region also

contain and frame the housing and urban development footprint – current and future. The ability to move easily from the urban areas where people live and work to the natural 'blue-green' environment is one of the things that people who live in this region value highly.

Wairarapa and Horowhenua also contain important areas of highly productive land, where rural values such as soil protection, food production and water quality have to be provided for and balanced against urban development. This will need to be carefully considered into the future.



Current urban area

Map 1 shows the current urban footprint in the region. It highlights the concentration of the footprint in the southern part of the region and the concentration of towns and cities around the two north-south transport corridors, with limited west-east development and connections.

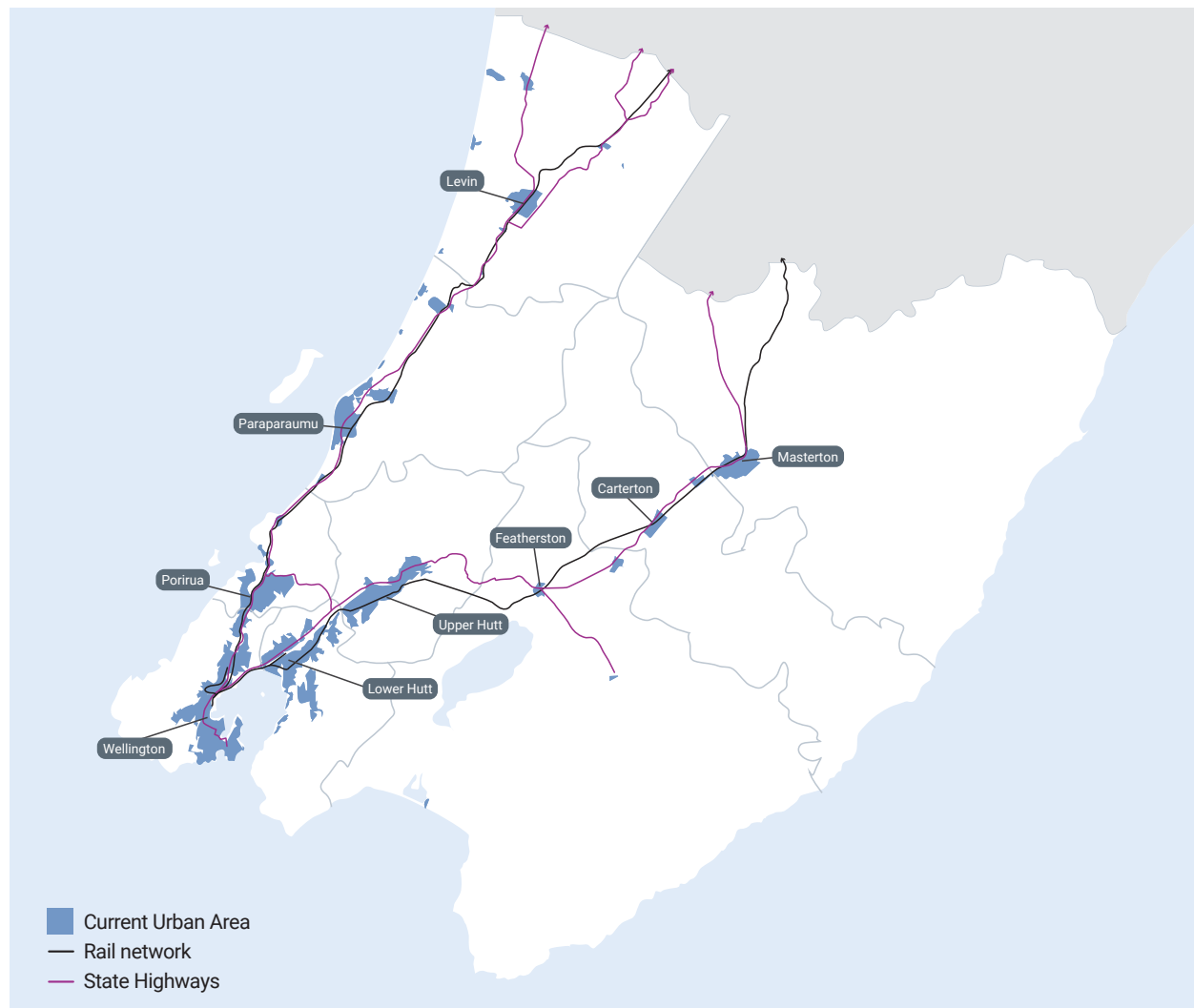
This urban footprint has been well established for many decades and growth has generally followed this pattern. The population of the region has continued to grow in the past 20+ years, and in the past five years it has grown more quickly. The current population of the Wellington-Horowhenua region is 562,790, compared with 457,690 in 1996.

After a long period when population growth was primarily concentrated in Wellington City and on the Kāpiti Coast, most parts of the region are now experiencing population growth significantly higher than long-term averages. Levin, Carterton and Porirua, for instance, have experienced growth rates of 2% or more in the past three years.

The current-day urban footprint extends over many sites of significance to mana whenua (including pā and kāinga).

The area in the middle of the region where there is no development tends to be constrained by hills, mountains, hazards and natural resources such as rivers and lakes (as can be seen in the maps in Section 5.4) and also by the limited west-east transport connections and access.

Map 1: Current urban area



The region today

Diagrams 5 and 6 provide information on the Wellington-Horowhenua region that is relevant to this Framework. For a more comprehensive understanding of the region, see the Framework's Foundation Report at <https://wrgf.co.nz/reports>.

Diagram 5: Urban growth context

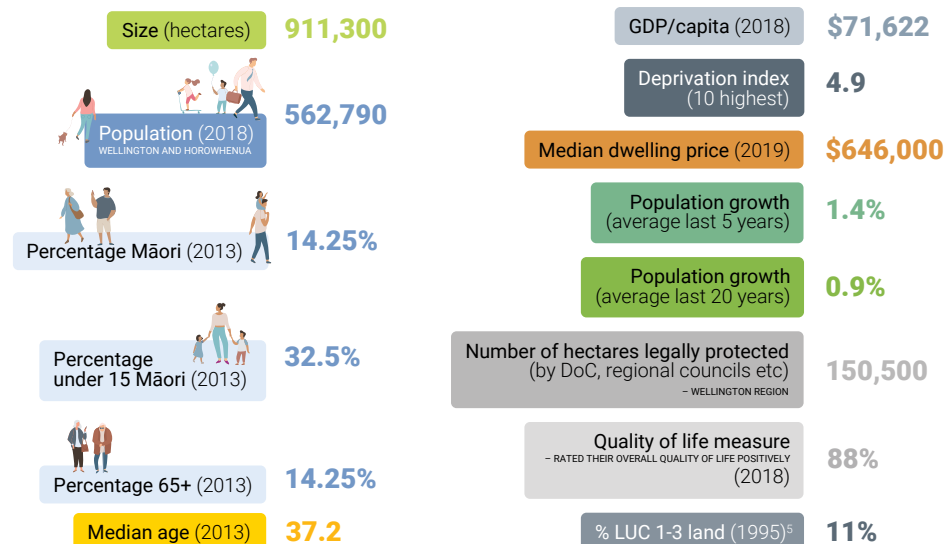
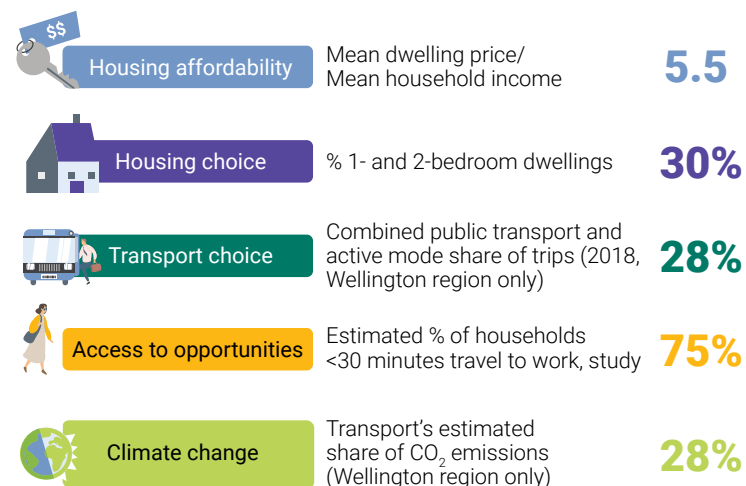


Diagram 6: Growth management performance



⁵ LUC refers to the Land Use Capability system, which classifies land into eight classes according to its long-term capability to sustain one or more productive uses. LUC 1-3 is the land with the most versatile soils.

1.2 The region's challenges

The Framework is a response to the Wellington-Horowhenua region's current state – its existing transport network and urban form, environmental impacts, natural hazards, social and economic inequities, and growth pressures. All these have been identified as critical challenges for the region to address if it is to position itself for success in the second half of this century and realise the direction set by the Framework.



The region lacks sufficient and affordable housing supply and choice, housing affordability is declining and a significant investment in infrastructure is needed to enable enough housing and quality urban environments

In more and more areas of the region, housing is unaffordable for many people. For instance, across the region the average rent per week increased by 90.3% between 2000 and 2018 and the average house price increased by 74.8% between 2006 and 2018. A lack of supply and a limited choice of housing types and locations are limiting options.

The lack of affordability for renters and homeowners has become much more of an issue in the past five years. In 2019 the average house price in Wellington City was nine times the average wage.

This is increasingly contributing to homelessness, overcrowding and poor health and educational outcomes; for example, the percentage of people in the region in severe housing deprivation increased by 31.2% between 2001 and 2013. At September 2019 more than 1600 people had registered for social housing in the region compared with 300 people five years prior – a five-fold increase.

The lack of affordability is also changing the distribution of demand for housing across the region, pushing more residential growth to outer areas such as Levin and Wairarapa, and causing the displacement of communities. A major investment in infrastructure, particularly for three waters and transport, will be required to enable large-scale housing development in the region.



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

Most of the region, including its existing urban areas, has a significant exposure to multiple natural hazards, and there is continuing demand to build in coastal and/or natural hazard-prone areas.

Sea-level-rise impacts are expected to be felt most significantly in the highly populated areas along the region's coastline, including key commercial and industrial areas.

Striking the balance between accommodating urban development and avoiding and reducing current and future risks from hazards, including the impacts of sea-level rise and earthquake building resilience, is a key challenge.

Although the region has many large areas of green open space (including regional parks, the DoC estate and water catchment areas), many of its urban waterways are significantly degraded.

The natural environment of the region is increasingly under pressure from urban development. With high community and regulatory expectations of better environmental outcomes (including moving to net zero emissions by 2050), greater protection of highly productive land and lower greenhouse gas emissions, the region will need to make significantly faster progress, especially in emission reductions.



There is inequitable access to social, educational and economic opportunities across the region

While the region overall has a highly productive workforce with high average household incomes (when compared to the rest of New Zealand), there are communities across the region where this is not the case. In these places poor access to employment and social opportunities imposes additional transport costs on households experiencing some of the region's highest levels of deprivation.

The ability to access social and economic opportunities is constrained by many factors. These include the affordability of travel, the lack of well developed, multi-modal west-east transport connections, the lack of significant concentrations of jobs outside central Wellington, the jobs that are difficult to access by public transport (such as shift work or where people work in multiple locations), and the location of social infrastructure such as hospitals in places with limited public transport services.



Mana Whenua and Māori in the region have poor access to affordable housing choices.

Māori home ownership rates are lower than those of the overall population of the Wellington-Horowhenua region. In 2013, 28% of Māori owned their own homes compared to 50% of the overall population of the region.

Data from 2013 also shows that severe housing deprivation was being experienced by 15 people per 1000 for Māori compared to four people per 1000 for Pākehā.

When the analysis of the 2018 Census is completed it is expected to show that rates of home ownership among Māori have continued to decline as housing has become less affordable in the region, and that the rate of Māori experiencing severe housing deprivation has increased since 2013.

Opportunities to improve Māori housing outcomes are being developed in a range of emerging partnerships between iwi, the Crown and councils in the region, but a much greater focus will be needed if housing disparities are to be addressed.

Part 2 – Iwi in the region

Part 2 of the Framework outlines information about iwi in the Wellington-Horowhenua region.



Tuakiri

The entire region is a cultural landscape, with the rohe of mana whenua overlapping to cover the whole region. There are eight project partner iwi, as indicated in the diagram. The rohe of two other iwi, Ngāti Apa and Rangitāne o Manawatū, also extend over parts of Horowhenua.

Wellington's earliest name, Te Upoko o Te Ika a Māui (the head of the fish of Māui) comes from the story of how Aotearoa was created. Legendary navigator Māui hooked a giant fish, which turned into the landform now known as Te Ika a Māui.



Tāhuhu korero

The region is the ancestral home of generations of Māori tribes, with archaeological sites dating back 650 years. Kupe is generally considered to have been the first Polynesian explorer to come to this area, followed by the Kurahaupō waka (ancestors of Ngāi Tara, Rangitāne, Muaupoko, Ngāti Apa and Ngāti Ira) and the Tākitimu waka (Ngāti Kahungunu). Migrations of Tainui and Taranaki tribes to the region followed.

The arrival of Europeans saw increasing conflict and resulted in the alienation of the majority of Māori land in the region by 1864. The current-day urban footprint extends over many sites of significance to mana whenua (including pā and kāinga). As a result, many mana whenua sites are now inaccessible for or unusable by iwi for their traditional purposes. Identified Māori heritage and archaeological sites are represented on Map 2.

Te taiao

Te Ao Māori recognises the holistic and interconnected relationships between people and te taiao (the environment). Whakapapa connects the people to maunga, moana, awa and marae. These connections to ancestral lands create tribal identities and rohe.

Māori relationships with the environment are governed by the direct identification of the physical world as being fundamental to and synonymous with human identity and wellbeing. Physical and natural elements, such as the central mountainous spine and key lakes, islands and harbours, also play a strong part in wairuatanga. Some of these can be seen in Map 2.

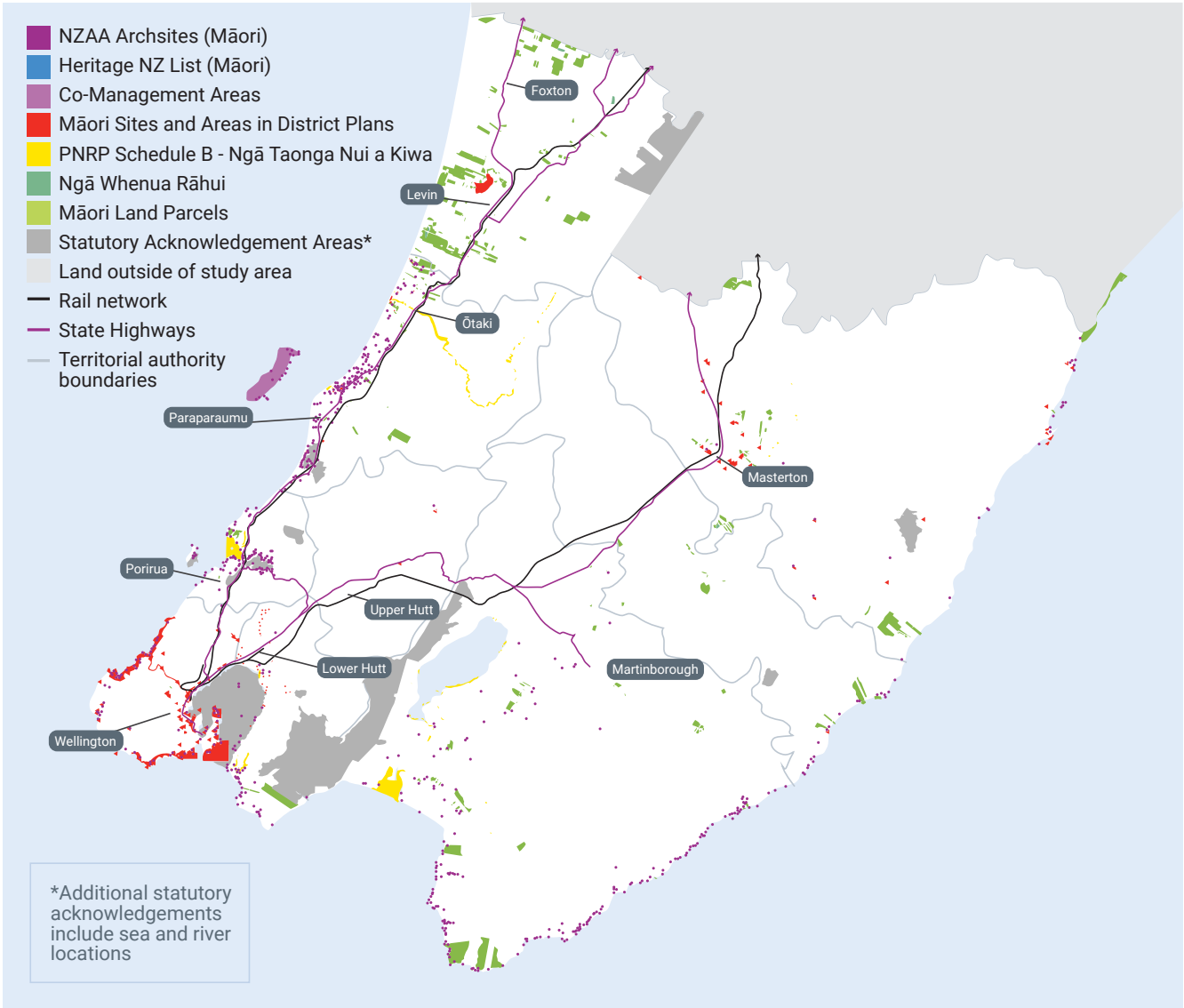
Four partner iwi, plus Ngāti Apa and Rangitāne o Manawatū, have reached Treaty settlements with the Crown. These iwi are:

- Taranaki Whānui ki Te Upoko o Te Ika in 2008.
- Ngāti Raukawa in 2012.
- Ngāti Toa Rangatira in 2012.
- Rangitāne o Wairarapa and Rangitāne o Tamaki Nui-ā-Rua in 2016.

However, there are a number of outstanding Waitangi Tribunal claims that relate to public land in the region. The distribution of statutory acknowledgements is represented on Map 2.

The Framework recognises the special relationship that tangata whenua have with the environment and their role as kaitiaki.

Map 2: Sites of significance for mana whenua, co-management areas and Māori land in the region



Te tangata

Iwi, hapū and whānau have distinctive histories and values that contribute to our region's rich cultural heritage. The region is home to a thriving Māori economy and mana whenua, as kaitiaki, work in partnership with local and central government to co-manage several areas in the region.

Māori communities in the region are relatively young and face a number of challenges. These include lower rates of housing ownership, lower average earnings and qualifications held, and higher levels of unemployment compared to the non-Māori population, as well as less access to tertiary education facilities and/or employment opportunities. More than half of Māori adults in the region do not speak te reo Māori.

Ngā wawata me te mahitahi

Kaupapa principles of ki uta ki tai, wairuatanga, kaitiakitanga, tō mātou whakapono and mahitahi have informed the development of the Framework.

Working in partnership with iwi across the region, a number of mana whenua aspirations have been highlighted. These are summarised in Diagram 7.

This dialogue has taken place alongside other work involving the project partners in the region, including Ruruku (a partnership to develop a Māori economic development plan for the region).

It is recognised that each iwi has its own priorities and perspectives, and that ongoing work is needed to reflect the perspectives of all mana whenua.

A key initiative identified in the Framework is the development of an iwi spatial plan, to bring together mana whenua values and knowledge to determine their collective aspirations in relation to the spatial form of the region. This will directly inform future updates of the Framework.

Other key initiatives include:

- Supporting the implementation of the Ruruku report 'Te Matarau a Mauī: Collaborative Pathways to Prosperous Māori Futures'.
- Establishing capacity-building training to strengthen iwi involvement in regional and local planning.
- Partnering to deliver improved housing, urban development and economic development outcomes for iwi/Māori housing – including papakāinga and affordable housing options.
- Planning and undertaking projects regionally to address the urban development impacts of climate change, including the impacts on coastal heritage.
- Enabling marae to play a strong role in walkable neighbourhoods.

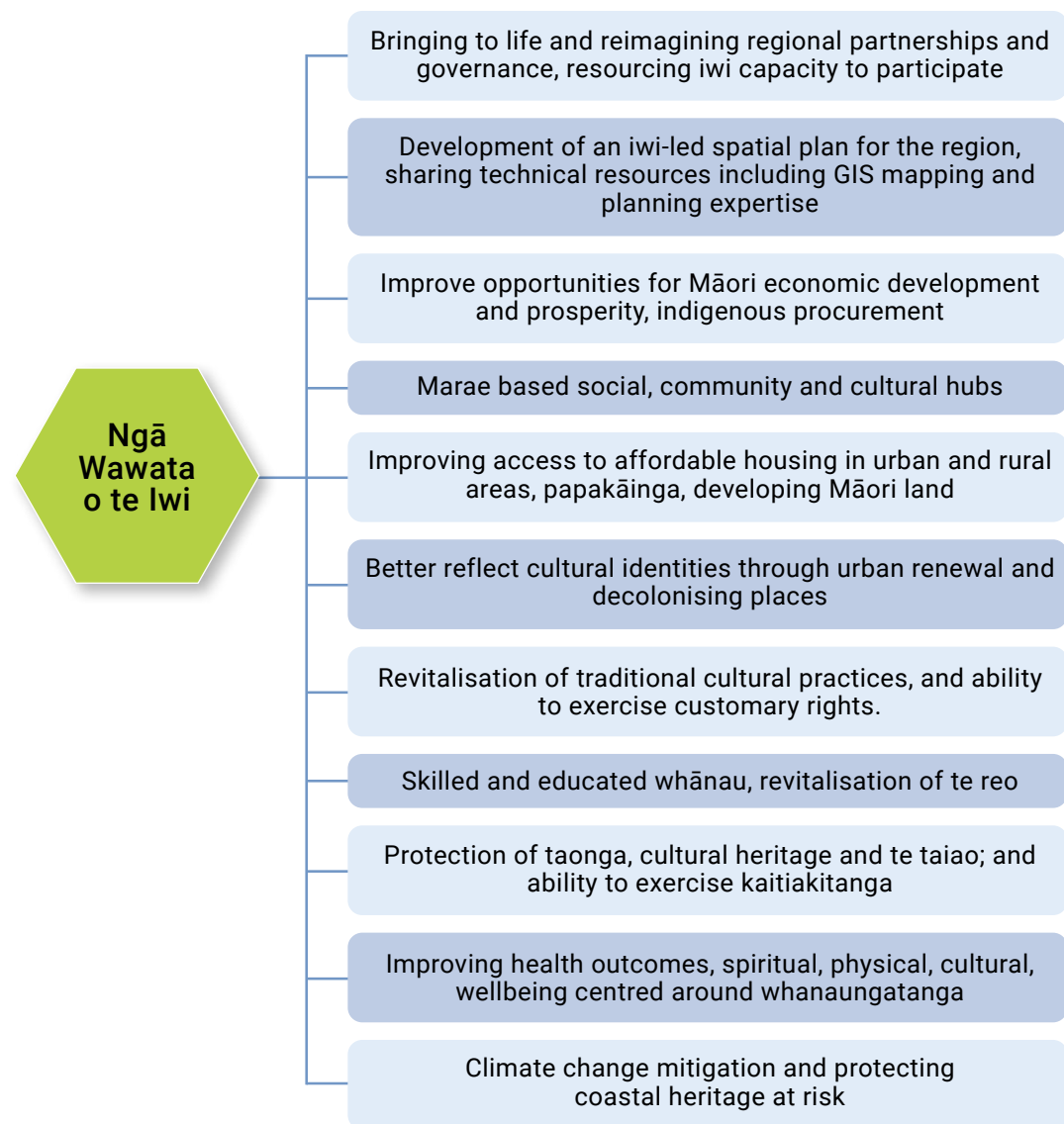
Mahitahi

The Framework has built on established relationships and partnerships in the region. The Framework partnership team is actively including mana whenua in regional spatial planning, reflecting mana whenua perspectives and giving life to the aspirations of iwi. Some of these aspirations are presented in Diagram 7.

Active engagement and collaboration with project partners has been central to the development of the Framework. However, further work is required to ensure all mana whenua are represented as the Framework evolves.

Through the key initiatives and projects, the Framework seeks to support new ways of doing things and thinking that improve the outcomes for tangata whenua, address the challenges facing the region's Māori communities and support the rich cultural identities in the region.

Diagram 7: Mana whenua aspirations regarding this Framework



Part 3 – Key moves

Part 3 of the Framework outlines the key moves that will individually and collectively make a difference in this region.



3.1 The region's key moves

The Wellington-Horowhenua region's key urban development opportunities in the next 30 years are to:

- Increase housing supply and improve housing affordability and choice in walkable neighbourhoods.
- Increase housing density in high-quality urban environments to support community wellbeing.
- Partner with iwi and Māori across the region to deliver improved housing and economic outcomes.
- Enable growth that protects and enhances the quality of the natural environment and accounts for a transition to a zero-carbon future.
- Improve multi-modal access to and between housing, employment, education and services, with a particular focus on a significant step change in mode share for public transport and active modes.
- Encourage a more sustainable, resilient and affordable urban form that makes efficient use of existing infrastructure and resources.
- Build climate change resilience and avoid increasing the risks and impacts of natural hazards.
- Create more easily accessible employment opportunities.



What isa walkable neighbourhood?

This is also sometimes referred to as a 10-20-minute village or neighbourhood. The concept is about “living locally” – where people can access most of their daily needs within a walkable distance from their home. Walkable distances can also be accessed by other transport modes such as safe cycling routes and local public transport options.

Not every walkable neighbourhood in the region will be the same or have all the same services but they will be high quality environments.

Examples of services people might be able to access within a walkable neighbourhood are – your local primary school, a local park, some health services, some community facilities and retail that is more than a dairy.

What is.. multi modal?

You may see this term used in this and other reports such as the Wellington Regional Mode Shift Plan. 'Multi-modal' refers to the transport system addressing the needs of all roads users, including pedestrians, cyclists, people using public transport (bus or train), freight vehicles and private passenger vehicles. The term 'active modes' generally refers to walking and cycling, but can also include scootering, skateboarding etc.

What is.. zero carbon?

The Wellington City Council "Te Atakura- First to Zero" plan defines zero carbon as - that we can balance the activities that do produce carbon emissions against the activities that capture carbon. This effectively means our overall impact on the climate is zero.

What is... 'rapid transit?'

The National Policy Statement on Urban Development defines a 'rapid transit service' as any existing or planned frequent, quick, reliable and high-capacity public transport service that operates on a permanent route (road or rail) that is largely separated from other traffic.

What is ... housing density?

This refers to the number of houses or dwellings in or on a certain area, often expressed as the number of dwellings per hectare or a density related to m². The higher the number of dwellings per hectare, the higher the density.

Medium-density housing for instance is defined by the Ministry for the Environment as a density of less than 350 m² per unit. It can include standalone dwellings, semidetached or duplex dwellings, terraced housing or apartments. For more on this see the National Policy Statement on Urban Development 2020.

What is ... typology?

The classification of building, space usage and design features. Housing typology is the classification of house designs, sizes and styles. This application could be general (e.g., ranches, split levels, colonials, etc.) or specific to an area/city/town (e.g., in this city, the majority of houses are in one acre plots and built as one storey).

The region can capitalise on these opportunities by implementing the following key moves:

1 Harness growth to make the region's housing and urban areas more affordable and liveable and provide more housing choice – 'walkable neighbourhoods'

By providing for, and when appropriate actively partnering (Urban Development Authority powers) to deliver quality and more intensive vibrant mixed use urban development – where people can get a large percentage of their daily needs met locally (walkable neighbourhoods), in locations with good access to rapid transit or high frequency public transport in both Future Urban Areas (greenfield) and urban renewal areas (brownfield).

2 Make better use of the region's limited supply of well-located greenfield land

By undertaking future urban area development differently we can ensure that more housing is delivered at medium and higher densities (such as terraced housing or apartments), and that new development is built to support multi-modal transport options for residents, with an emphasis on being rapid transit orientated where it is easy to access rapid transport services.

3 Fully unlock the urban development potential of current and future rapid transit orientated corridors particularly the Let's Get Wellington Moving corridor.

By leveraging our existing rail network and new investment in rapid transit, particularly on the Let's Get Wellington Moving corridor, to deliver transformational urban development including density changes and more affordable housing choices.

4 Unlock new areas for housing and urban development and deliver greater regional resilience with a major west-east multi-modal corridor

Explore the potential for a major multi-modal west-east corridor (or corridors) that unlocks new areas for housing and urban development, improves access to social and economic opportunities across the region (including employment and freight movement) and significantly improves resilience.

5 Deliver transformational housing and development outcomes for iwi/Māori

By partnering with iwi, the Crown and councils to deliver transformational housing, urban development and economic development outcomes for iwi/Māori.

6 Address the urban development challenges of climate change and transitioning to a zero-carbon economy at a regional scale

By planning and undertaking projects regionally to address the urban development impacts of climate change, particularly impacts on infrastructure and where people live and work and work to transition to a zero-carbon economy.

Part 4 – Going forward

Part 4 of the Framework outlines the region's future growth scenario as well as outcomes and indicators in order to take advantage of the region's opportunities and address its challenges.



4.1 The growth scenario

Wellington-Horowhenua is growing

The Wellington-Horowhenua region is growing faster than it has done for many decades, and is facing immediate and longer-term housing supply and affordability, urban development and infrastructure challenges.

The Framework has been developed by considering:

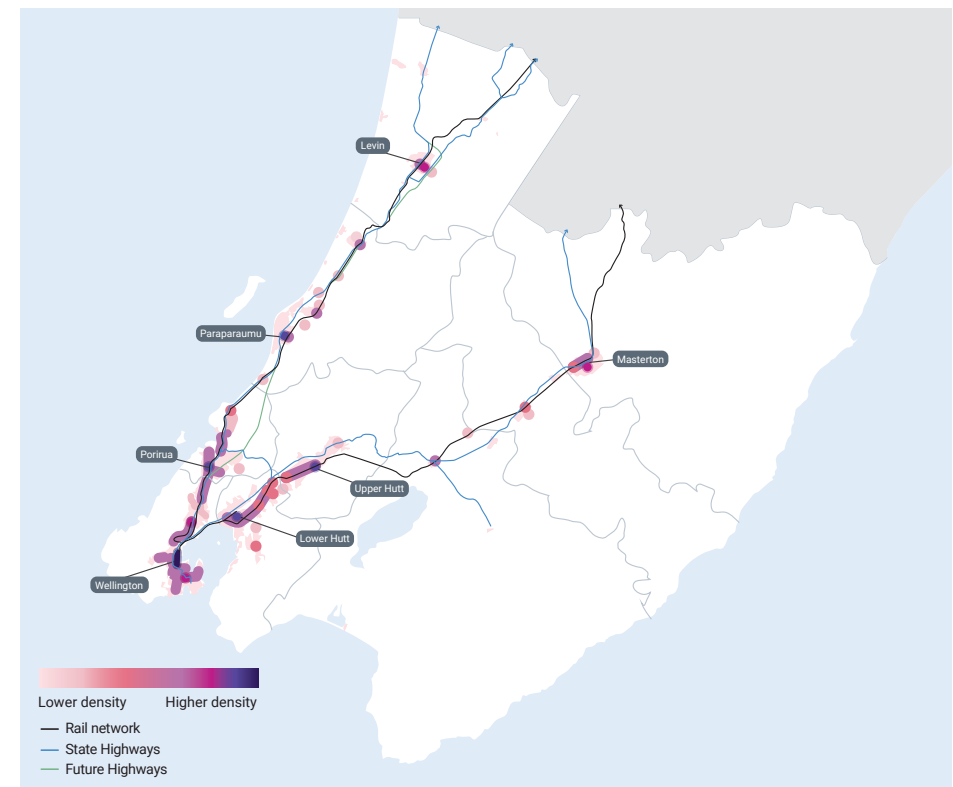
- The population projections for the region, which suggest a population increase of 91,000-151,000⁶ in the next 30 years.
- A growth scenario where there is a future regional population of 760,000. This is 200,000 people on top of the current population.
- An increase of 100,000 jobs in the 30-year period.

While there is uncertainty as to when, how and at what rate the region could reach this population figure, the Framework is intended to provide for an urban structure for this population size. It is important to note this is not a growth target for the region.

Map 3 is a conceptual view illustrating the gradual transition of residential development and density across the region under this scenario over time. The higher-density development is clustered around development locations supported by passenger rail and/or future rapid transit, with intensification occurring along existing and planned transport corridors.

The map shows the envisaged growth scenario across the region, with greater density (more dwellings per hectare) represented by a darker blue and areas with lower density shown in a paler red.

Map 3: Conceptual illustration of residential density and development



⁶ These numbers have been derived from a combination of Stats NZ forecasts and Housing and Business Development Capacity Assessments – see https://planningforgrowth.wellington.govt.nz/_data/assets/pdf_file/0020/3287/Wellington-Regional-HBA-Chpt-1-Regional-Summary.pdf for more information on the Housing and Business Development Capacity Assessments.

Elements of the growth scenario

The proposed urban form for the region is a mix of both high-density growth in and around key centres and in the walkable catchments of future rapid transit stops and other railway stations and bus hubs across the region, and increased densities in Future Urban Areas.

Approximately two-thirds of the growth is expected to occur in Urban Renewal Areas in existing urban areas through infill, urban renewal and intensification. Approximately one-third of the growth will be in Future Urban Areas, extending the current urban footprint of the region. While Future Urban Areas can be expected across the whole region, a large proportion of this type of growth will be in the western corridor in areas from Porirua to Levin.

Our current understanding is that, regionally, 88% of housing growth will come from areas we have identified in the Framework, and 12% will come through business-as-usual infill (including incremental, smaller-scale Future Urban Areas – greenfield developments) throughout the region, with just over half of this infill being in Wellington City.

Of the 88% of housing growth coming from areas identified in the Framework:

- One-quarter is expected to be accommodated in Wellington City (excluding Tawa), including the Let's Get Wellington Moving (LGWM) corridor⁸.
- Nearly one-third is expected to be accommodated in the eastern corridor from Lower Hutt to Masterton.
- The remainder (just over 40%) is expected to be accommodated in the western corridor from Tawa to Levin.

The potential housing and urban development capacity of any future west-east multi-modal corridor(s) has yet to be fully determined.

The Framework outlines spatially where growth might occur, but also focuses on the type of growth envisaged, for instance the density and urban design aspects.



⁸ See <https://lgwm.nz>.

4.2 Building communities and neighbourhoods

The Framework sets out critical spatial elements that will help to create well-functioning and 'liveable' urban environments – places where people want to live, work and play, and where people have easy and affordable access to housing, services, amenities, open space and jobs. We describe these as walkable neighbourhoods.

Liveability and placemaking

Liveable urban areas can make a major contribution to people's quality of life. A well-planned urban development can meet housing needs, provide affordable housing choices, improve access to employment, education and services, and support healthy, connected and cohesive communities. Liveable areas are resilient and can adapt to changes over time.

Placemaking contributes to liveability by creating great places that strengthen local character and diversity and develop a sense of place for each area. Prioritising a people-friendly public realm, open spaces and walkable neighbourhoods can support major centres and nodes, improve access to social infrastructure and amenities and result in improved health outcomes.

Placemaking includes creating communities that are easy to navigate on foot and by cycle (or other micro-mobility means). This helps to create neighbourhoods that are safe, comfortable and interesting. Walkable neighbourhoods support more prosperous local businesses and healthier communities by making it easy and safe to be active.

Placemaking applies as much to enhancing existing communities as it does to new ones. This is important in the context of this Framework given that we are expecting approximately two-thirds of growth to occur in existing urban areas.

The Framework seeks to ensure that developments contribute to liveability and placemaking through spatial elements such as:

- Providing for a high-quality public realm and open spaces as core spatial features – including the blue-green network that supports local and regional sustainability and wellbeing e.g. water-sensitive urban design elements.
- Planning for a future where all new developments are focused on active mobility and access to public transport, so there is easier access to jobs, services and amenity.
- Ensuring Wāhi Toitū areas⁹ are considered in all new developments as a way of creating resilient communities where the risk of hazards is reduced and where the local context, such as culturally and historically important features, is respected.

⁹ For information on this, see the Constraints – Wāhi Toitū and Wāhi Toiora section of the report.

Housing affordability and choice

Providing housing for all people will be critical to creating a liveable region. This includes meeting people's housing needs, including through affordable housing choices and avoiding the negative impacts of gentrification and displacement.

The Framework has a strong focus on improving housing outcomes. Enabling increased urban densities in existing communities is not intended to displace existing residents.

At present there is a lack of sufficient housing choice and diversity in the right locations. Demographic changes, such as projected increases in the number of single-person households, mean that housing needs will change over time. It is important to consider aspects such as ensuring young people can afford to live in the neighbourhoods in which they grow up.

Enabling a range of locations for housing, at a range of densities and providing for different types, will increase the diversity of the housing stock, enabling more people to access the homes they need in existing neighbourhoods. Enabling papakāinga housing and other housing options through which Māori can express their cultural traditions and norms is another key element in providing for housing choice.

4.3 The benefits of urban development and a denser urban form

Benefits of urban development

The majority of New Zealanders and those in the Wellington-Horowhenua region live in towns and cities. As growth in urban areas is expected to continue, it is important to get our towns and cities to look and feel right. Ensuring that this long-term growth produces benefits for existing and future residents is critical to the prosperity, sustainability and liveability of this region.

A 2019 report prepared for the Ministry for the Environment investigated the costs and benefits of urban development. It found that urban development generates significant agglomeration benefits that support higher productivity and incomes and a greater variety of consumption opportunities.

The Framework is a tool to help facilitate these positive urban growth benefits in the long term. It identifies a range of opportunities to enhance competitive land markets. Future Urban Renewal Areas are located in places where the current and future transport infrastructure will provide a high-quality public transport network with a compact urban form that accommodates long-term growth and provides high-quality social, cultural, economic and environmental outcomes.

Benefits of a denser urban form

Government policy supports increased density in urban areas in certain locations. The NPS-UD requires councils to provide for more intensive developments around urban centres and in locations where

accessibility by public or active transport is high and where there is demand for housing and business use.

The Framework has been prepared taking these requirements into account. The benefits of a denser urban form can be maximised if it is located where there is demand for housing and good accessibility to public and active transport and jobs and services.

Doing Density well

Providing for density is not just about providing for more housing but also ensuring this is done well and with people and communities at the forefront of planning. For the Framework this is about providing places where people want to live and be part of a community. This requires thought about how to connect people to the places they live and work through good design of both housing and the open and urban spaces.

If all the benefits above to the transport system, business and the environment are achieved but we don't build density well for people who live in it, then this is not a great outcome.

Apart from some locations in Wellington City, the region does not currently have many areas of significant medium or higher-density housing. There are some great examples, but not at scale.

Good compact urban forms place homes close to social and economic opportunities and support them with multi-modal transport options. Encouraging high density around public transport stops is necessary to support improvements in the frequency of public transport services offered and new investment in infrastructure.

Delivering denser urban forms in locations with easy options for walking and cycling and good access to rapid transit can ease pressure on the wider transport system, reduce emissions and encourage more physical activity – realising physical and mental health benefits. Well-planned mixed-use and compact cities generally offer higher levels of wellbeing with lower resource use and greenhouse gas emissions.

Creating a more compact urban form requires a focus on redeveloping existing urban areas to higher densities where appropriate, as well as ensuring the Future Urban Areas we create use land efficiently and are more self-supporting with local employment and community facilities.

Locating high-density developments in and around neighbourhoods supports local businesses, services and facilities by increasing the number of potential customers. It also can help reduce the need for clearance of native ecosystems in that it generally reduces the need for development on vacant land.

Increasing the range of housing types in a given neighbourhood provides greater choice, increasing the opportunities for first-home buyers to enter the market and helping older residents to 'age in place'.

In 2005 the Ministry for the Environment researched the value of urban design and the 'value of density', and found that high-density developments (in conjunction with other conditions such as mixed use, good building design and adequate open space) can:

- Provide cost savings in land, infrastructure and energy.
- Reduce the economic costs of time spent travelling.
- Help concentrate knowledge and innovative activity in the core of the city.
- Be associated with lower crime rates and greater safety.
- Help preserve green spaces in conjunction with certain kinds of urban development.
- Reduce run-off from vehicles to water, and emissions to the air and atmosphere (although air emissions may be more locally concentrated).
- Help encourage more physical activity, with consequent health benefits.
- Promote social connectedness and vitality.







4.4 Measuring our success

Suggested indicators for the Framework are outlined in Table 1. These are mainly consistent with the other spatial plans being jointly developed through urban growth partnerships, but also reflect local spatial plan objectives.

Monitoring progress towards achieving these outcomes is important not only for understanding the effectiveness of the Framework but also to inform the Government's Urban Growth Agenda. The indicators provide the areas against which the success of the Framework will be measured.

It will be necessary to further refine the indicators below and develop and agree targets if we are to understand if we are being successful. This will be an implementation action for the Framework.

Table 1 Suggested indicators for the Framework

OUTCOME	MEASURE	INDICATOR
Housing 	Housing affordability	Ratio of average income to average dwelling purchase price/rent
	Housing choice	Increasing range of housing sizes, types and locations
Inclusive access 	Access to opportunities	Proportion of the population living within 30 minutes of work, education and other services ⁹
	Active travel and public transport journeys	Mode share of all trips by walking, cycling and public transport
Environmental sustainability 	Emissions reductions (e.g. transport, waste)	Reducing emissions per capita Transport generated CO ₂ emissions (per capita and absolute)
	Impact on land and biodiversity	Total quantity of open space consumed for development Quantity of versatile rural land consumed for development Quantity of indigenous vegetation protected from development
Climate change 	Climate change resilience	Population/employment located in areas vulnerable to sea level rise

⁹ This may be by any travel mode including car.

Part 5 – The spatial plan

Part 5 of the Framework sets out the spatial framework for the Wellington-Horowhenua region. It identifies areas for growth, development and improvement, including areas to protect, uses and activities, transport, the blue-green network and infrastructure.



5.1 Urban form

Future Urban Development Areas

Councils and iwi in the region have a range of city- and district-level urban growth plans, spatial plans, housing plans and district plans that outline and shape growth in their areas. Many of these are currently underway or have only recently been completed. The Framework has drawn on this work and sought to incorporate much of the intent of each of the plans and strategies to ensure appropriate alignment between city-, district- and regional-scale spatial/district planning.

This Framework outlines the Future Urban Development Areas in the next 30 years that require regional identification, assistance and recognition. In many cases this aligns with developments identified in current council and iwi plans, and in some cases areas identified in the Framework are new region-wide spatial elements.

The Future Urban Development Areas are all subject to further testing that includes:

- Completing the due diligence needed to decide on exact locations and forms (i.e. to a property scale); rigorous testing in line with NPS-UD requirements; considering other national directions and the regional policy statement and plan; reviewing the Housing and Business Development Capacity Assessments; and undertaking district plan changes.
- Assessing how well they deliver on multi-modal access and reduce emissions, and considering the optimal timing for any enabling infrastructure investment.

The Framework includes developments with regional scale only:

- **Future Urban Area** (greenfield) developments, generally over 1000 new dwellings.
- **Urban Renewal Areas** (brownfield) developments, including high-density developments in all seven major centres¹¹ in the region and medium-density developments at nodes.

This is in alignment with the requirements of the NPS-UD.

These locations have been identified as Future Urban Development Areas for a number of reasons (although not all reasons apply to each area), including:

- District plan provisions are already in place or underway to enable higher densities in a location.
- Some of the current housing in the area is already medium or high density.
- Land ownership sits with a limited number of owners and has a fair amount of central government, local government and/or iwi ownership. This applies more in nodes than in major centres.
- The location is at or alongside a rapid transit stop.
- The location is close to a major employment centre.
- The location is in an area that is less affected than others by natural hazards.
- Can leverage off a large public-sector investment either underway or imminent.
- The location is close to or includes a local high school, primary school or intermediate school.
- The location has three waters capacity or a

current programme of three waters renewal.

- The location has development potential and the ability to strengthen the node to provide more services.

The development areas can be seen in Diagrams 8 and 9. We expect that all these development areas (or similar) will need to occur to accommodate the regional growth scenario of 200,000 additional people.

The diagrams show:

- The western growth corridor from Tawa to Levin, with a heavy focus on Urban Renewal Areas closer to Wellington City from south of Tawa to central Porirua. It also has sizeable Future Urban Areas in Porirua, the Kāpiti Coast and Levin, of which some need further exploration.
- The eastern growth corridor from the lower Hutt Valley to Masterton, with almost all housing growth from Urban Renewal Areas in the Hutt Valley. There are both Urban Renewal Area and Future Urban Area developments in Wairarapa.
- The LGWM corridor is all Urban Renewal Area development.

The highlighted 'yellow' west-east corridors are possible new/strengthened corridors that could deliver housing, resilience and improved multi-modal access to economic and social opportunities for the region. For instance, if corridors of this kind were established, you could live in Titahi Bay and travel by frequent public transport to your work in Upper Hutt along a west-east housing and transport corridor.

¹¹ Masterton, Upper Hutt, Lower Hutt, Wellington, Porirua, Paraparaumu and Levin.

Diagram 8: A growth corridor view of the Future Urban Development Areas

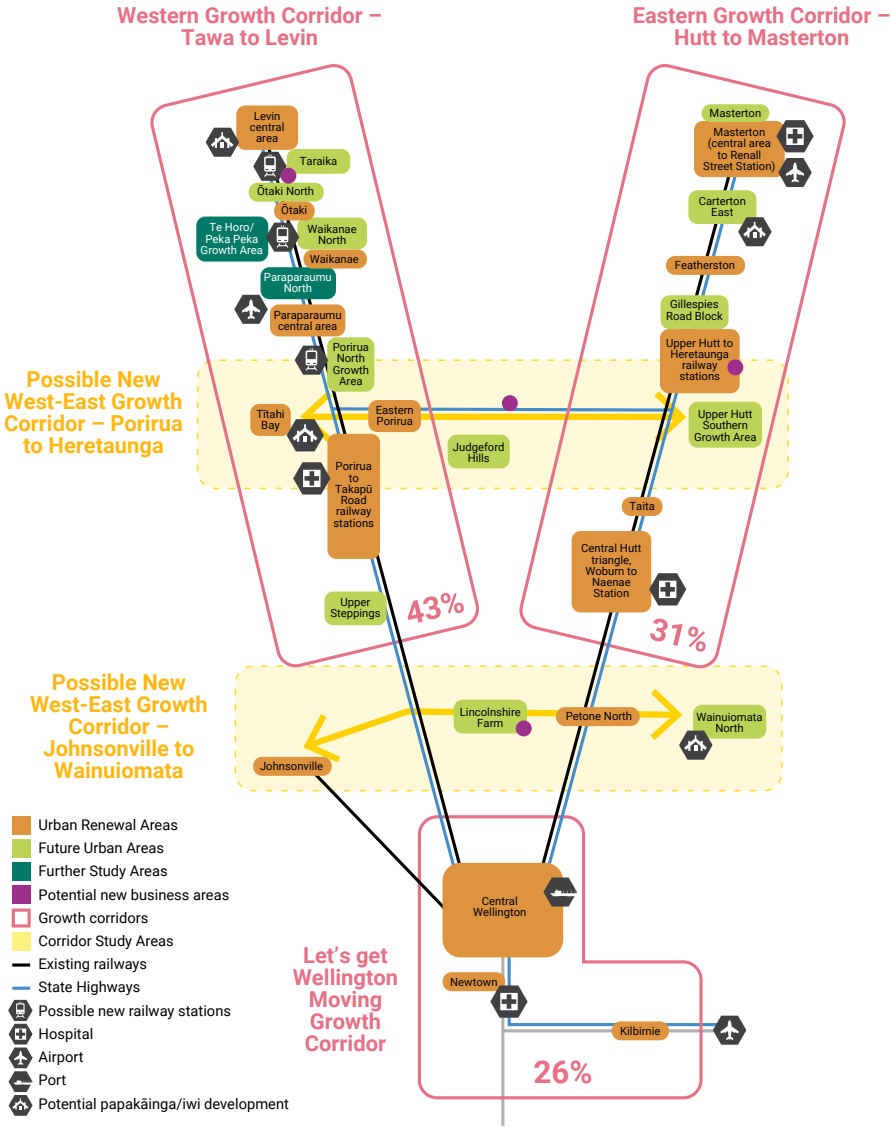
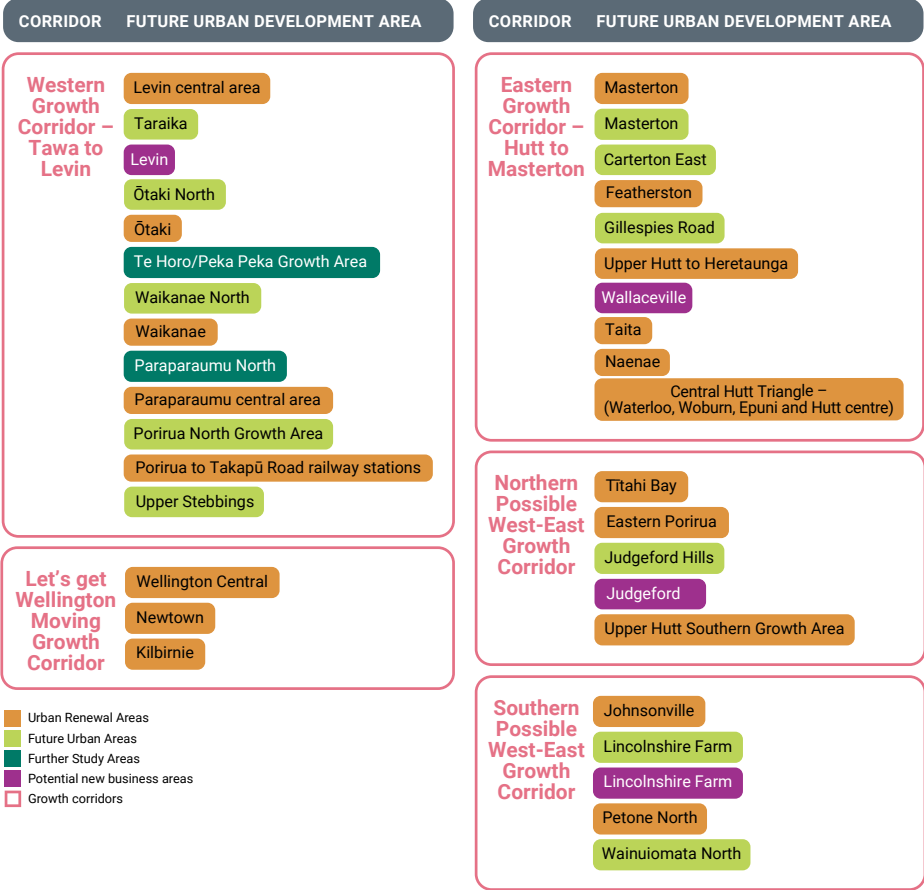
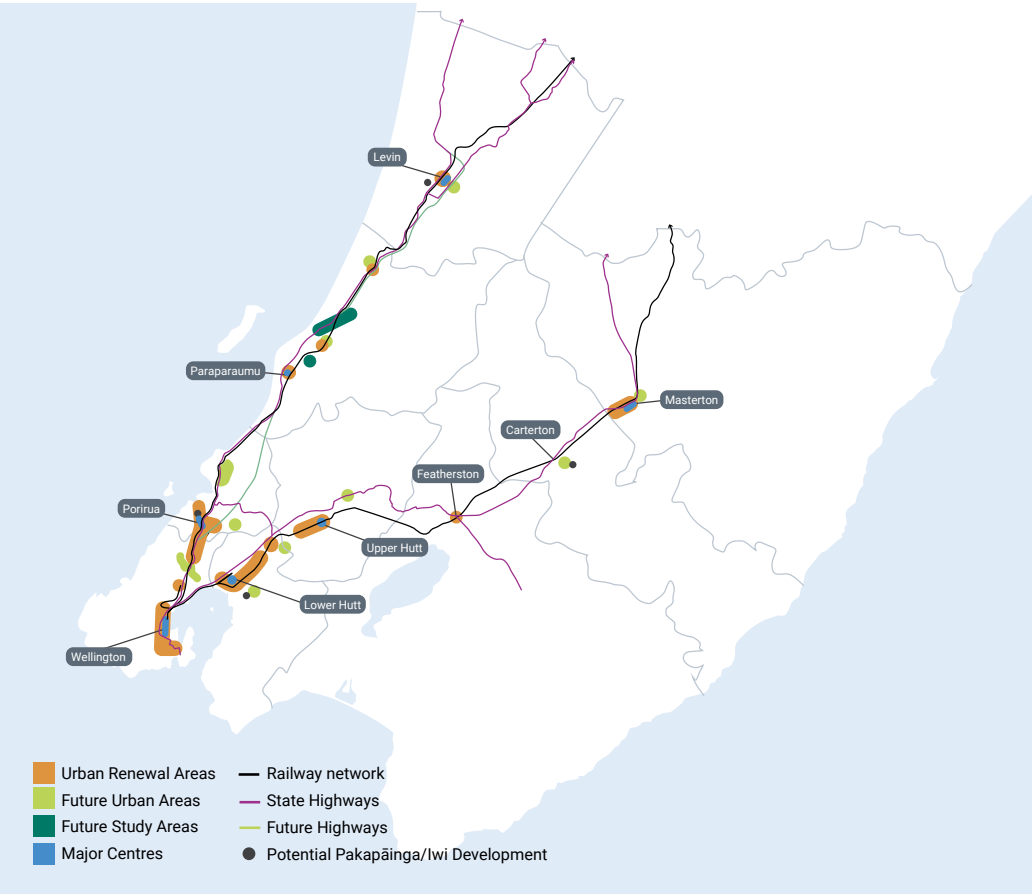


Diagram 9: Future Urban Development Areas by corridor



Maps 4 and 5 provide spatial views of the Future Urban Development Areas from regional and metro perspectives.

Map 4: Future Urban Development Areas – regional scale



Map 5: Future Urban Development Areas – metro scale



Iwi aspirations

In working with iwi across the region we have identified the opportunity for marae-based urban developments. This is about putting the marae at the centre of a community and planning for and developing both housing and community infrastructure to support local people and their aspirations around the marae. This could include papakāinga, cultural services, social services and employment centres and may require a new way of thinking about the planning policies and rules for marae-based locations in both urban and rural areas in the region.

Marae can play a strong role in walkable neighbourhoods for tangata whenua, providing all the benefits outlined in earlier sections of this report.

A number of possible marae development areas are identified on the maps in this section, in areas where iwi have expressed an interest in this type of development. Not all project partner iwi have contributed to this mapping to date. Further work is required with project partner iwi to understand more and to get a true regional view of the number and scale of possible developments. This work will continue under the evolving partnership approach developed during the development of this Framework.

In some geographical areas in the region, iwi are landowners in current urban areas and would be partners in urban development activity in those areas, along with entities such as councils, transport organisations and the private sector.

Accommodating 200,000 more people

To achieve the level of housing capacity required to accommodate an additional 200,000 people, the following developments will be required:

1. Infill and incremental housing development to continue as is – for example, converting existing houses into multiple units, replacing single houses with two and undertaking two- to three-dwelling developments. This is business as usual for the region, and it is expected to be further enabled by changes being made by many of the councils to lift general densities in their cities and districts. The locations where these types of development are enabled are not explicitly identified in the Framework, but they are nonetheless an important part of the region's growth capacity. We expect them to provide up to 11,400 dwellings in the 30-year period, of which just over half are expected to be in Wellington City.
2. Transformational change in Urban Renewal Areas that are on frequent public transport corridors, at rapid transit stops and in major centres. This is more than a business-as-usual approach to growth and will require both planning changes and a proactive and more integrated use of new urban development approaches.
3. Widespread medium-density developments in Future Urban Areas (greenfield) where topography makes them possible, with fewer traditional stand-alone housing types being built. This is a change from current development patterns and is needed to fully utilise the limited amount of well-

located greenfield available in the region. It will require planning changes and a different and more integrated approach to development.

4. More affordable housing options right across the region.
5. Partnering with iwi to both continue and introduce further housing options that work for Māori, including papakāinga and marae-based housing developments.
6. In the longer term, urban development along the west-east corridor(s) that may already exist as a transport corridor but has yet to be established as a housing and urban development corridor and/or may be a new corridor.

The two current north-south corridors and the LGWM/Wellington City corridor are expected to accommodate the growth in dwellings shown in the Table 2, assuming that the necessary density plan changes are put in place and more proactive urban development approaches are used.



Table 2: Growth potential by corridor

CORRIDOR	NUMBER OF DWELLINGS IN FUTURE URBAN	INDICATOR
Western corridor (Tawa to Levin)	38,100	43%
Eastern corridor (Lower Hutt to Masterton)	27,200	31%
LGWM/Wellington City corridor	22,700	26%
TOTAL	88,000¹¹	100%



If one or more west-east urban development and transport corridors are also developed, some of this growth plus additional growth would likely be redistributed across the new corridors.

Early staging – developing a better understanding

The Eastern Porirua and LGWM corridor Future Urban Development Areas are already underway, with each being developed through a local government, central government and iwi partnership to provide transformational change in that area.

Table 3 identifies the Future Urban Development Areas and spatial initiatives for the first staging of projects. It involves initially gaining a better understanding of what the opportunity is and whether the level of housing and community development identified through the Framework can be fully realised, and at what cost.

As with the Eastern Porirua and LGWM¹³ corridor, these are areas where local government, central government, iwi and the private sector can work together to make a big difference.

The six Future Urban Development Areas of Eastern Porirua, LGWM, Lower Hutt Triangle, Levin, Upper Hutt and Johnsonville are expected to enable up to 29,000 new dwellings in the next 30 years.

While these have been identified for an early focus, it is recognised that circumstances might change from time to time (for instance through Treaty settlements or a focused approach from the private sector), requiring a reassessment of this list. The implementation of the Framework will be developed to be able to respond to and take advantage of any changes.

¹¹ Using 2.2 people per household in Urban Renewal Areas and 2.5 people per household in Future Urban Areas, this results in just over 200,000 additional people excluding infill developments, and more than 227,000 including infill developments.

¹² The LGWM website <https://lgwm.nz/> defines the geographical area of the LGWM project as from Ngāūranga Gorge to Wellington Airport, encompassing the central city, the Wellington Urban Motorway, Wellington Hospital and connections to the eastern and southern suburbs

Table 3: Early staging spatial initiatives

FUTURE URBAN DEVELOPMENT AREA	WHY?
Eastern Porirua	This project is underway and will provide 2000 additional homes (both state houses and affordable and market homes) as well as great neighbourhoods and resilient communities. The project will help to improve the wellbeing of Eastern Porirua residents including new employment opportunities for local people and businesses. See https://porirua-development.co.nz/
Let's Get Wellington Moving (LGWM)	This project is underway and is intended to move more people with fewer vehicles. It will provide attractive travel choices and reshape how people live. It will make the city and region more accessible, compact, sustainable and deliver a better place to be. See https://lgwm.nz/
Lower Hutt Triangle-City centre and Woburn to Naenae stations	This opportunity can capitalise on the large scale Kainga Ora ownership in this area along with a District Plan that currently provides for higher density, a council owned housing Council Controlled Organisation, the large range of community and social infrastructure already in place and the relative lack of hazards. It leverages rail and bus assets and services as well as other recent and planned investments including RiverLink (see https://haveyoursay.gw.govt.nz/riverlink), the Beltway cycleway, Naenae pool and station access.
Levin rail and state highway leveraged development and Taraika	This opportunity can shape different growth patterns and manage increasing growth in this area whilst retaining this as a relatively affordable location and constraining outward growth to protect the surrounding highly productive soils and blue-green network. It leverages the major new transport investments in road and rail and Taraika, the proximity to both Palmerston North and Wellington employment markets and tertiary education providers and the lower hazard profiles in this area.
Upper Hutt rail orientated development – centre and Upper Hutt to Heretaunga stations	This opportunity can increase housing density in this area with a District Plan change underway along an already established rail corridor and in an area with a lower hazard profile than other parts of the region. It leverages identified key development opportunities around stations, including changes in housing density at Trentham, potential for office development in Wallaceville, the development of a sports hub in Heretaunga and development opportunities in Upper Hutt centre as well as rail and road (SH58 and Transmission Gully) investment.

FUTURE URBAN DEVELOPMENT AREA	WHY?
Johnsonville	This opportunity can maximise the mixed-use and residential opportunities in Johnsonville (required by the NPS-UD). Wellington City Council is progressing Johnsonville as a key suburban centre within its Draft Spatial Plan and through its District Plan review that will likely result in District Plan policies, infrastructure investment and a suburban centre investment plan that will incentivise and enable the high levels of growth required. It leverages the already regionally significant centre connected by infrastructure and public transport (rail and bus) that serves a number of adjacent suburbs.
West-East corridor possible Future Development Areas	Travelling west-east on public transport or using active modes is problematic at present, limiting the ability for people to move using these modes for work or leisure reasons. The current corridors are simply roads or do not exist. This project will explore the potential for significantly improving west-east access and resilience and unlocking areas for housing and urban development and social and economic activities across the West-East access by investigating the options for enhanced/new west-east growth corridors.
Assessment of public transport and social infrastructure requirements to support the increase in population in the Kāpiti/Horowhenua area	There is a significant amount of Future Urban Area development projected to occur in Kāpiti and Levin over the period of the Framework. In addition to this is the increase in dwellings expected in Urban Renewal Areas. This project will look at the projected growth, timing and type of development and collectively identify the public and active transport, future health and education provision requirements so that these are considered together and support the type of growth outlined in this Framework.

What will growth look like?

It is important for growth in the region that we establish the amount of growth and where it might be as well as the principles underpinning the types of development the region is looking for.

The partners in the Framework are interested in developing communities where people can get many of their daily needs locally, not just more housing.

Urban Renewal Node developments

Walkable neighbourhood developments around rapid transit stops/railway stations will comprise medium-density housing and provide for a number of daily needs within 10- to 20-minute walks from home, including local shopping centres e.g. more than dairies.

They will be close to or include significant employment opportunities, local primary schools and local parks or green spaces.

These developments will provide access to regional employment, services and education, be walkable with safe cycling and local public transport options, support multimodal travel and have some locally established social services such as community hubs and health services.

Urban Renewal major centre developments

Major centre developments will provide higher-density housing, with the specific densities determined by the local areas.

All major centres in the region will continue to develop as major activity hubs that include housing, frequent public transport/rapid transit, major employment opportunities and education services. They will also contain primary shopping areas for the district, city and/

or region and include a range of leisure and community facilities for those districts, cities and/or regions.

They are expected to have well identified and used multi-modal transport options linking to other parts of the district, city and/or region.

Wellington City is a good example of a major centre that already contains all these elements.

Future Urban Area developments

To date, Future Urban Area (greenfield) developments within the region have typically been low density, containing mainly stand-alone housing. They have often not been well serviced by public transport and have had a limited range of community services. Residents have needed to get into their cars and leave their communities to get their daily needs met.

In future this type of development will aim to create a sense of neighbourhood and community. Larger developments will have neighbourhood centres with local shopping centres, local schools (or have local schools near enough to walk or cycle to and from), and where possible local health services, community services and community green space.

These developments will deliver higher housing densities than would currently be found in greenfield developments in the region. They are likely to be medium density with housing types such as townhouses and low-level apartments, and have easy access to more frequent public transport to connect people to employment, services and education.

Some larger developments will also include business activities such as commercial or industrial parks that enable people to work closer to home.

Design elements

It is important that developments support a number of central government and other partner directions and are fit for the future. This means developments that:

1. Are built from low-emission materials (the Climate Change Response [Zero Carbon] Amendment Act).
2. Align with the NPS-UD with regard to density requirements.
3. Provide community green and public space.
4. Include water-sensitive urban design features (this is one way to achieve the water-quality requirements of the National Policy Statement for Freshwater Management).
5. Align with and include Māori urban design principles – identifying with place.
6. Have good relationships in how spaces and streets work, such as the Healthy Streets approach.
7. Fit with local landscapes and natural and historic heritage.
8. Utilise low-damage design approaches.
9. Utilise inclusive and accessible design principles consistent with universal design.
10. Are consistent with partner design guides, such as 'Bridging the Gap: NZTA Urban Design Guidelines' and 'Station Access Design Guidelines'.
11. Meet good-practice urban design principles (access to sunlight as an example).

Links to examples of these design aspects are included in the references section at the back of this report.

5.2 Transport

The transport system

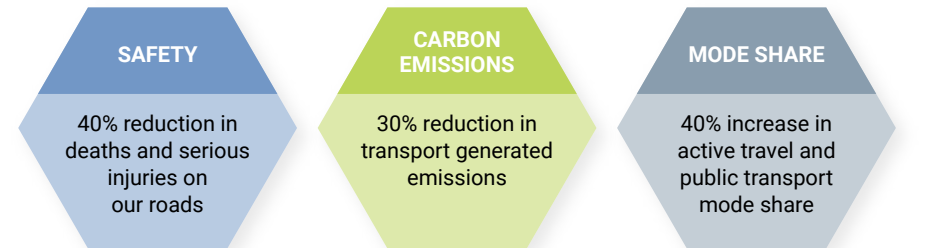
Work undertaken as part of the draft 2021 Regional Land Transport Plan has identified trends and issues relevant to this Framework:

- Demand for public transport is growing.
- Car use remains the dominant mode of travel for journeys to work.
- Congestion on key multi-modal road corridors is resulting in travel delays and unreliable journey times for people and freight.
- Transport-related carbon emissions are increasing.

To address these issues and deliver on the Framework objectives, the region will need to:

- Ensure there is sufficient public transport capacity to accommodate growing demand.
- Integrate land use and transport to support compact urban forms, liveable places and a strong regional economy.
- Provide better travel choices through improved access to public transport as well as safe and attractive walking and cycling networks.
- Ensure the transport network is well connected and resilient so people can access jobs, education and services and freight can be moved efficiently.
- Minimise the impacts of travel on the environment.

Three headline 10-year targets have been agreed to measure progress in achieving these goals and drive action and investment.¹⁴



¹⁴ These targets are drawn from the draft 2021 Regional Land Transport Plan.

Public transport network

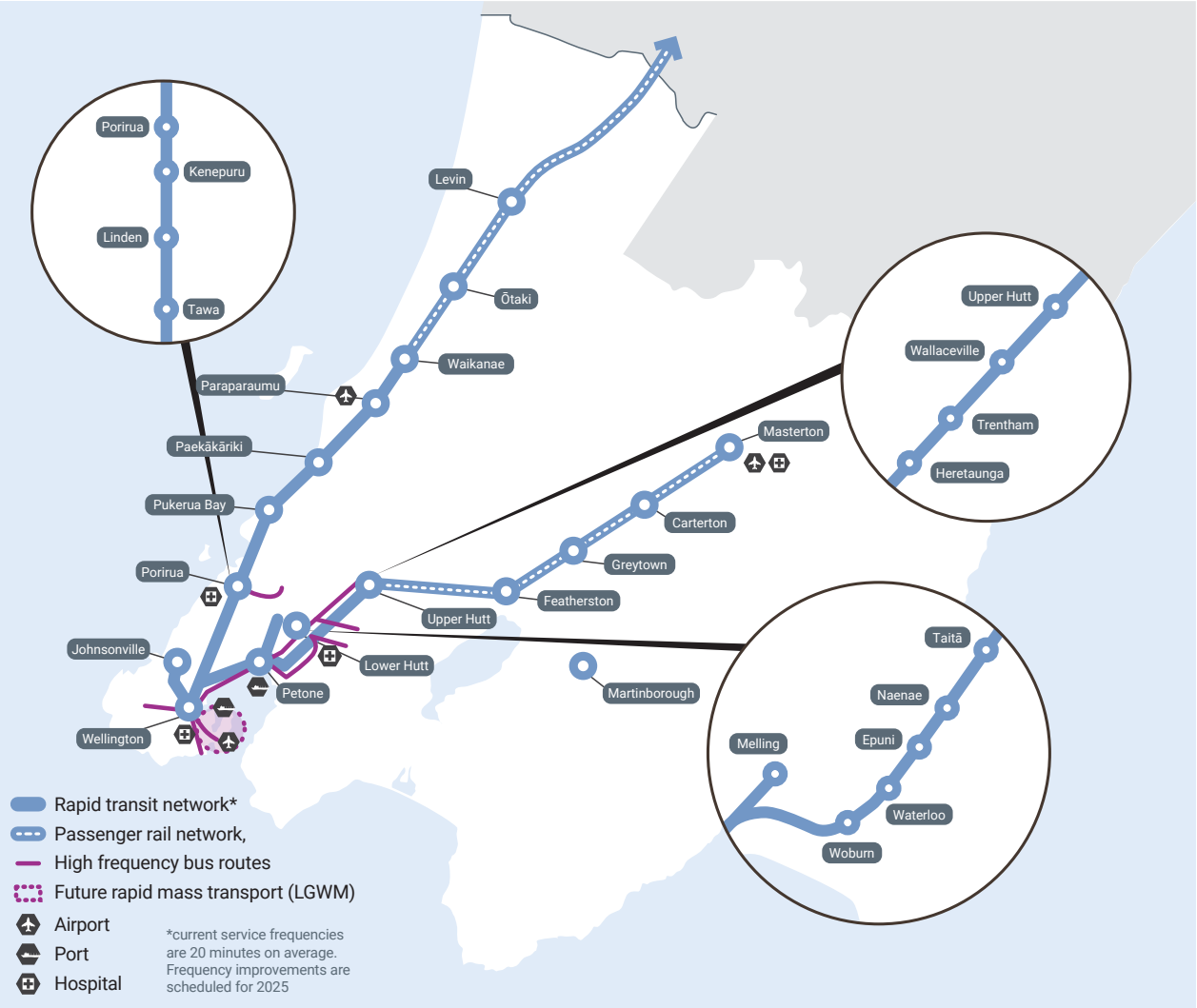
The public transport network in the region (Metlink) is an integrated network of bus, train and harbour ferry services. The network consists of four railway lines, more than 100 bus routes, more than 200 school bus services, and harbour ferry services. Through the Total Mobility Scheme, discounted taxi services provide travel support and assistance for people who have difficulty using the public transport services.

The Metlink network consists of three layers: core routes, local routes and targeted services. Of these, the core routes form the strategic public transport network. Core routes are the urban rail network and frequent bus services that form the network's backbone, linking areas of high demand with high-capacity, direct services with extensive operating hours.

Map 6 identifies frequent bus services, the passenger rail network and the parts of the rail network that could be considered rapid transit (when higher-frequency services are introduced around 2025, generally increasing service frequency to 10-15 minutes).

Rail patronage has grown substantially in the past decade. This reflects both population growth in the region and investments to improve infrastructure, rolling stock and services, including through the Wellington Metro Upgrade Programme and as part of the New Zealand Upgrade Programme.

Map 6: Rapid transit/core public transport network



The bus network has a critical role in moving large numbers of people in Wellington City, particularly at peak times, and in connecting people to rail and other facilities around the region.

The region is in an enviable position as it already has an extensive passenger rail network on which to base future urban development. The transport part of the

Framework builds on the region's strengths, with rapid transit providing the backbone for future urban development, supported by improvements in multi-modal connections across the region. Improvements in service frequency will be introduced around 2025, with further increases in frequency delivered over time.

Similarly, the bus network will be increasingly important to support public transport mode share in key growth areas in the region. These include the northern suburbs of Wellington City and other parts of the region where bus mode share is low, including west-east connections.

Mode shift is central to LGWM, which is a significant programme of investment in the next 30 years, aiming to move more people with fewer vehicles. Mass transit and regional state highway improvements are core elements of the programme, as well as greater priority for public transport, walking, cycling and placemaking.

With approximately two-thirds of urban development proposed to occur in existing urban areas, the key transport initiatives identified through the Framework focus largely on improving levels of service for public transport and multi-modal access. Future Urban

Area developments proposed along current transport corridors and adjacent to current urban areas will also require the development of safe and convenient multi-modal connections.

For the major centres, transport initiatives will focus on enabling more short trips via active modes (walking and cycling) and improving access to rapid transit stations. This will require the implementation of current projects such as LGWM in central Wellington and making the major centres in the region much easier to walk and cycle around, with a focus on improving access to stations.

Similarly, improving multi-modal station access will be a focus in the development of nodes at rail stations and bus interchanges. A first step will be the development of master plans that incorporate the plans for urban development, increasing housing density and transport and other infrastructure needs. The master plans will also need to incorporate sufficient space to enable local bus services to operate efficiently, and provide for local trips.

Progressing regional rail improvements will be critical to support the focus on intensifying rapid transit and providing sufficient capacity to accommodate growth. Key initiatives outlined in more detail in the Wellington Regional Mode Shift Plan will be advanced through the Wellington Regional Rail Plan/National Rail Investment Plan. These include improving rail capacity into Wellington railway station, double-tracking Pukerua Bay to Paekākāriki, extending commuter services from Waikanae to Levin, and investigating the potential for new train stations.

Walking and cycling

Walking is part of almost every trip. The main issues are severance, barriers to walking and substandard design or poor urban environments.

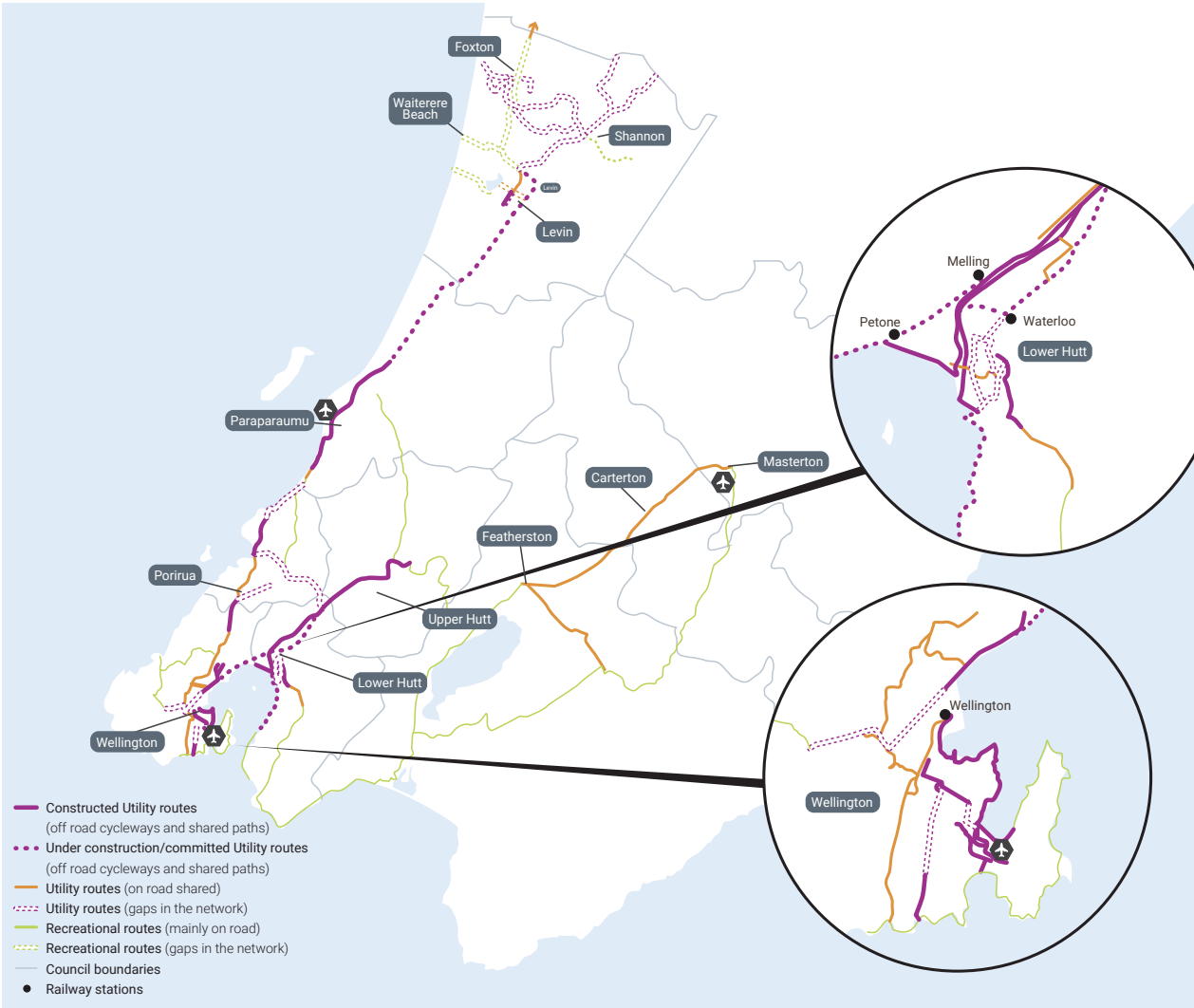
A key aspect of a 'well-functioning urban environment' is walkability. A much greater focus on walking and placemaking across the region recognises the importance of supporting the walkability of centres and neighbourhoods as part of providing a well-functioning urban environment.

The Wellington Regional Mode Shift Plan identifies a range of focus areas to make shared and active modes more attractive. This includes revitalising city/town centres in the region with a focus on walking and biking for shorter trips, through permanent changes as well as temporary interventions or trials and other initiatives such as lowering speeds around schools.

All roads in the region, excluding motorways, are used for cycling. Newly completed cycle facilities around the region have increased people's ability to cycle safely, but there are still significant gaps in the network connecting communities that affect opportunities to cycle, especially to work.

In the western corridor, between Ōtaki and central Wellington, there is a network of on-road and off-road cycleways, but gaps remain between Paekākāriki and Pukerua Bay, and Tawa to Johnsonville and Ngāūranga Gorge. Significant gaps also exist in Wellington City.

Map 7: Regional cycling network



In the Hutt/Wairarapa corridor the most significant gap is between Petone and Ngāūranga (which is to be addressed by Te Ara Tupua walking and cycling link) and Remutaka Hill. There is a gap west-east between Pāuatahanui and Plimmerton and at the State Highway (SH) 58/SH2 interchange. Further gaps exist from Seaview along the coastal bays and in Wairarapa, where narrow bridges create pinch points.

Delivering a connected regional cycling network is therefore a Key initiative of the Framework. This will include delivering transformative projects such as Te Ara Tupua (as noted above) and better connecting and improving access and opportunities for Eastern Porirua communities.

Map 7 shows the current cycling network in the Wellington region.

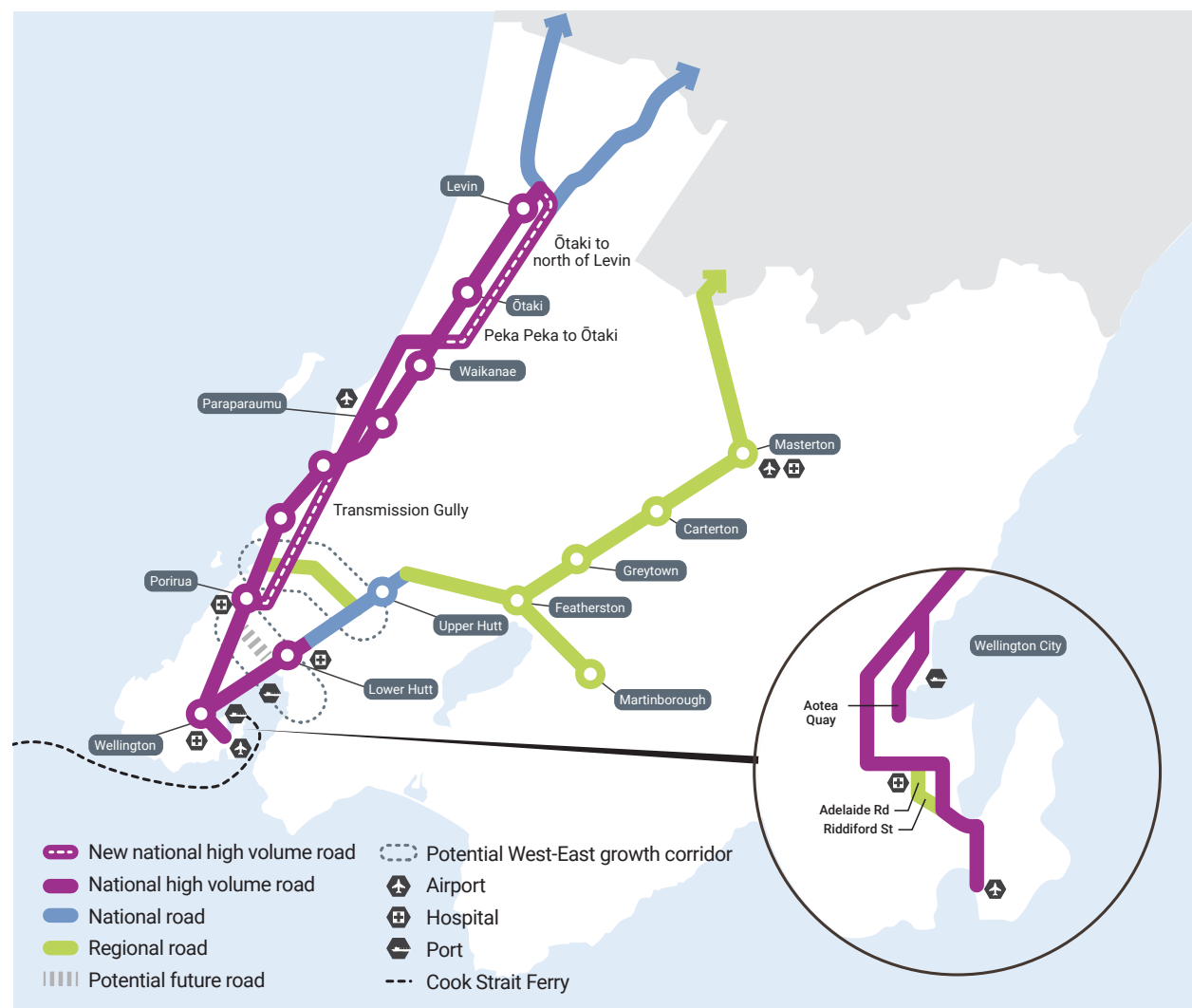
Strategic road network and the freight network

Nationally, the region has an important role in connecting North Island and South Island freight and tourism flows via road, rail and ferry networks. The current investment in SH1 north of Wellington is improving the connection between Wellington (as the lower North Island's largest consumer market) and Palmerston North (the emerging freight distribution hub for the lower North Island).

The western corridor (SH1 and the North Island Main Trunk rail line) is the main transport route for inter-regional freight movements. Intra-regional freight movements tend to be relatively short and predominantly by road between Seaview, Porirua, central Wellington and CentrePort. Light commercial vehicles such as couriers moving smaller goods are a significant part of the freight picture in the region, but these movements are currently not well understood.

The strategic road network also connects key regional destinations (such as central Wellington, hospitals and airports) and links regional centres. The network is made up of state highways and some high-volume local roads, as shown in Map 8.

Map 8: Strategic Road Network



The significant investments currently occurring in the strategic road network around the region include:

- Completion of Transmission Gully and Peka Peka to Ōtaki.
- Implementing New Zealand Upgrade Programme activities:
 - Ōtaki to north Levin – increased capacity north of Ōtaki, improved safety and resilience and travel time reliability.
 - Melling – intersection upgrade and associated works to support urban development in the Lower Hutt centre and the RiverLink development.
- SH58 – safety improvements in anticipation of increased traffic flows between Pāuatahanui and the Hutt Valley following the completion of Transmission Gully.
- Improving the reliability of freight interchange at CentrePort, integrated with efficient passenger ferry access (the Multi-user Ferry Terminal).
- Delivering the Safe Network Programme across the region with a focus on Wairarapa and Horowhenua.

The Wellington northern corridor improvements will deliver safer, more reliable connections for communities. The relocation of SH1 to a new alignment will also create opportunities to re-imagine the town centres of Paraparaumu, Waikanae, Ōtaki and in time Levin. Improving west-east multi-modal access

Improving west-east multi-modal access

A key initiative identified for the Framework is investigating how to strengthen west-east access to enable people to access social and economic opportunities across the region. Two potential growth corridors have been identified – one connecting Porirua to Heretaunga in Upper Hutt (along the existing SH58 corridor) and another connecting Johnsonville to Wainuiomata (building on work undertaken by Waka Kotahi NZ Transport Agency on Petone to Grenada and by Hutt City Council on a cross-valley connection).

Investigations into these growth corridors would build on work already done to further scope the potential for planned or envisaged Future Urban Development Areas, along with improved public transport and multi-modal access and improved resilience.



5.3 The blue-green network

Blue-green networks are a holistic approach to planning around waterways (blue) and green spaces such as parks (green). They combine elements of recreation, amenity, infrastructure and natural features, with a key feature being that they are managed together as a network, not as isolated features.

The Wellington-Horowhenua region is very fortunate to already have the components of some well-formed and recognised blue-green networks, these being areas of the city or districts in which we live that we look at, visit or use constantly without perhaps understanding how they were established in the first place. A strength of this region, and one that people who live here value highly, is that you can move very quickly from the urban area where you live or work to the blue-green network.

Key to moving forward will be ensuring that we value and protect what we have and add to this further. We could also consider managing it in a more joined-up way, to create a regional view. The indigenous biodiversity and ecosystem services provided by these networks are also important and of value to those in the region, and we need to minimise the impacts that development might have on them.

Many of the green parts of the network are there due to both the geographical nature of parts of the region (e.g. hills) and early decisions to protect those areas, which were made with great foresight and from which we benefit today.

Examples of key current parts of the blue-green network are:

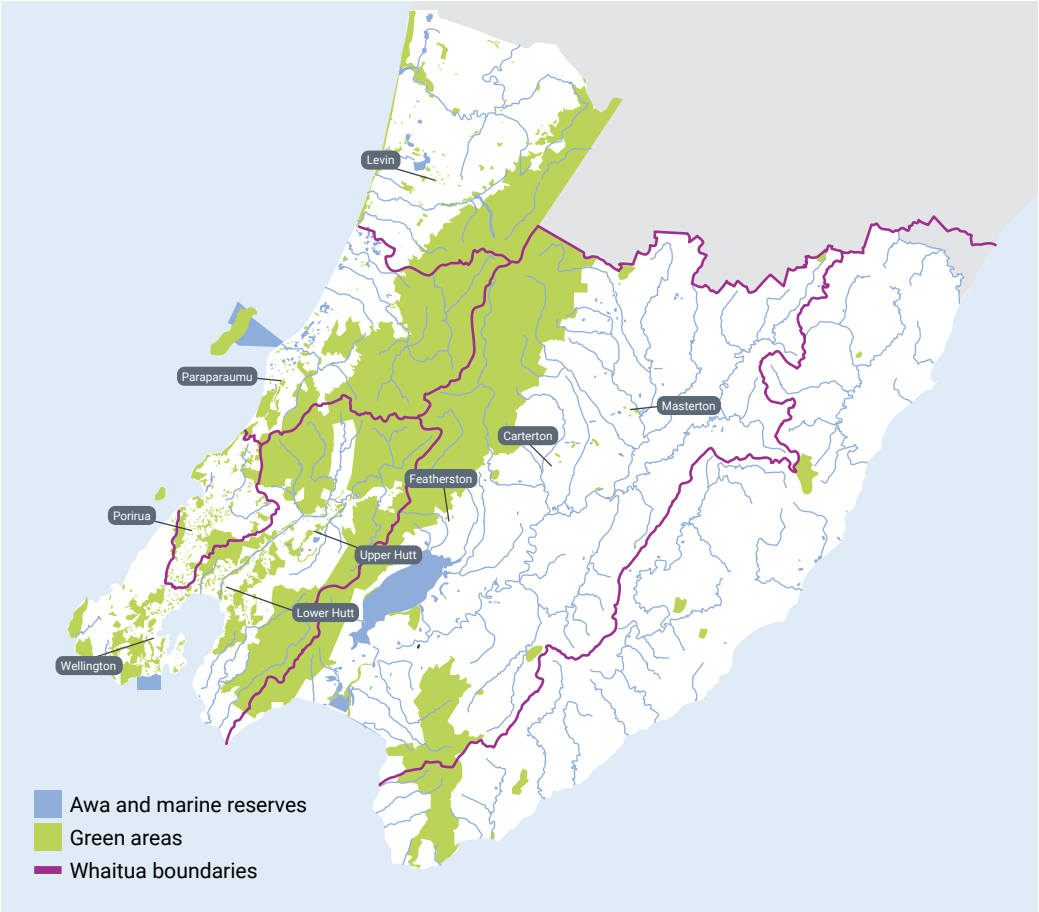
- The inner and outer Wellington town belts, which include 520 hectares stretching from Mount Victoria (Matairangi) in the north-east to Berhampore at its southern end, then north-west to Te Ahumairangi Hill between Wadestown and Thorndon.
- The western and eastern hills in the Hutt Valley, which include a number of regional parks such as East Harbour Regional Park and Belmont Regional Park.
- DoC estate land, such as Matiu/Somes Island, the Kāpiti Island Nature Reserve and Remutaka Forest Park.
- Major rivers such as the Ruamāhanga River, Ōhau River, Ōtaki River, Te Awa Kairangi/Hutt River, Waikanae River and Wainuiomata River.
- Major lakes such as Lake Horowhenua and Wairarapa Moana and the freshwater lakes of Pencarrow, being Lake Kohangapiripiri and Lake Kohangatera.
- The harbours and harbour edges, such as the Wellington and Porirua Harbours.
- Wetlands in the region, which include the Lake Wairarapa complex comprising shallow Lake Wairarapa and brackish Lake Ōnoke and their associated extensive wetlands, Pāuatahanui Inlet, Taupō Swamp and Carter Scenic Reserve, which preserves an ancient kahikatea (white pine) swamp forest.

- The coastal environment from Horowhenua south to Wellington City and Lower Hutt and around to Wairarapa. This provides recreational space and ecosystems important for biodiversity. It is also of significance to iwi as a source of food (kaimoana), customary rights (mahinga kai) and materials for cultural practices.
- The Te Araroa walking trail, which passes through the western side of the region.
- Multiple walking and cycling networks and projects either underway or planned, including the Five Towns Trail Network project in Wairarapa.

Maps 9 and 10 provide views of the key blue and green components of the regional network, at a regional scale and at a metro scale.



Map 9: Key components of the blue-green network – regional scale



Map 10: Key components of the regional blue-green network – metro view



Building on the already established parts of the blue-green network, a number of local authorities and iwi are working together to develop further aspects. The addition of further green and blue areas can help to restore habitat for valued native species such as birds and fish.

Examples of parts of the blue-green network being developed are:

- The Foxton and Piriharakeke/Foxton River Loop (the former path of the Manawatū River) as a key destination and a significant blue-green project. Horowhenua District Council is working with partners, including iwi and central government, to make this plan a reality.
- Continued work on cycling paths such as the Te Ara Tupua cycle and walking path connecting Petone to Ngāūranga and the Beltway Cycleway in Lower Hutt.
- A number of councils undertaking work to identify and protect landscapes and significant natural areas.

This Framework outlines areas for growth in the region that will provide more density in housing. Alongside this increased density we will need to ensure that we not only retain the current blue-green network but also add to it, including by looking to develop blue-green networks in and between neighbourhoods. This will include a blue-green network focus at a regional scale and also ensuring this is integrated into local urban development through aspects such as water-sensitive urban design.

One key initiative outlined in the Framework involves planning and implementing an integrated, region-wide cycling network, so that cycling around the region in the future is as easy and intuitive as driving is today. We are also looking to develop a regional water-sensitive urban design framework for use in future housing and other developments.



5.4 Constraints – Wāhi Toitū and Wāhi Toiora

Future growth in the region needs to take account of the significant constraints on development throughout the region. These constraints are summarised in this section. More detail on these constraints is available in the Framework’s Constraints Report, available at <http://wrgf.co.nz/reports>.

The base spatial layers for the Framework identify Wāhi Toitū and Wāhi Toiora areas across the region.

Wāhi Toitū: areas with enduring presence that, for the purposes of spatial planning, are to be protected from new urban development.

WĀHI TOITŪ	
Sites with significant mana whenua values	Areas subject to significant hazards associated with sea level rise
Ngā Whenua Rāhui	Drinking water protection areas
Existing environmental protections	Highly productive land
Known well defined earthquake fault rupture and deformation zones	Significant infrastructure
Recreation land	

Our approach to mapping constraints

Our relationship with land, and how we value it, is interconnected with our histories, communities, culture and economy and the natural environment. The identification of constraints and values has been informed by current knowledge, existing land protections, established policy, proposed policy with legal effect and the project kaupapa.

These regional constraints and values have been mapped to help identify areas of the region where they limit or affect new urban development.

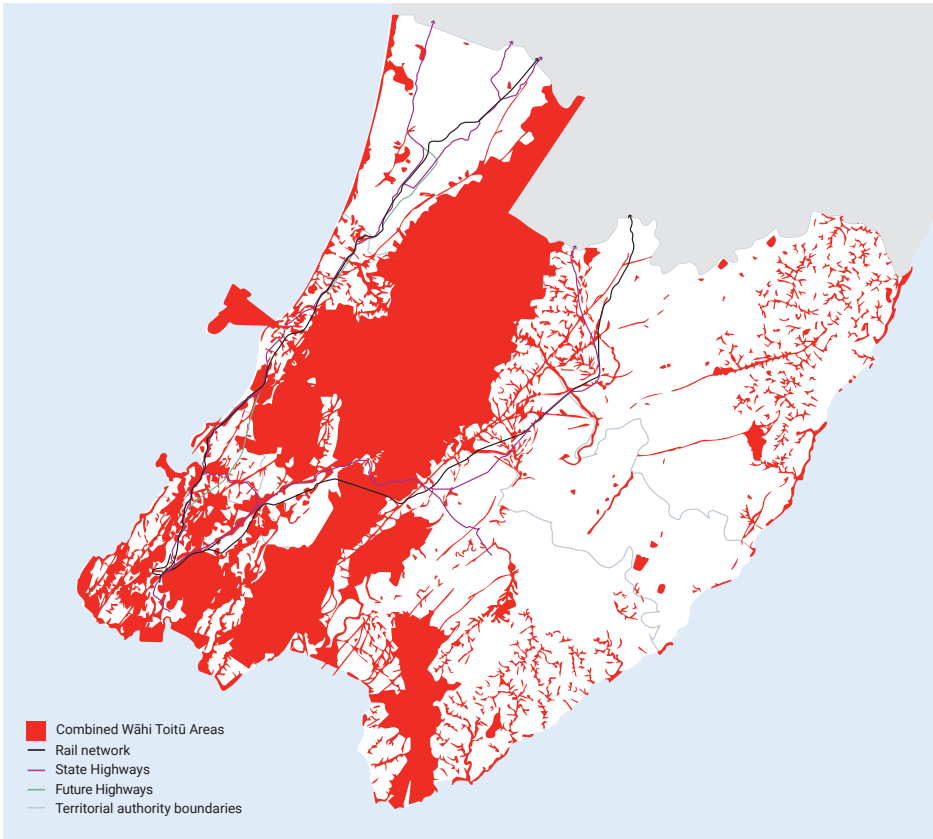
Wāhi Toiora: areas where, for the purposes of spatial planning, potential urban development must be carefully managed with appropriate consideration and a mitigation of risks.

WĀHI TOIORA	
Statutory acknowledgement areas	Climate change risks
Historical and cultural heritage	Potable groundwater supply protection areas
Water quality limits and stream health	High quality soils
Ecological sites	Contaminated land
Special amenity landscapes	Erosion prone land
Environmental buffer areas	Electricity transmission corridor buffers
Coastal marine areas and riparian margins	Natural hazards
Renewable energy generation infrastructure and mineral resources	

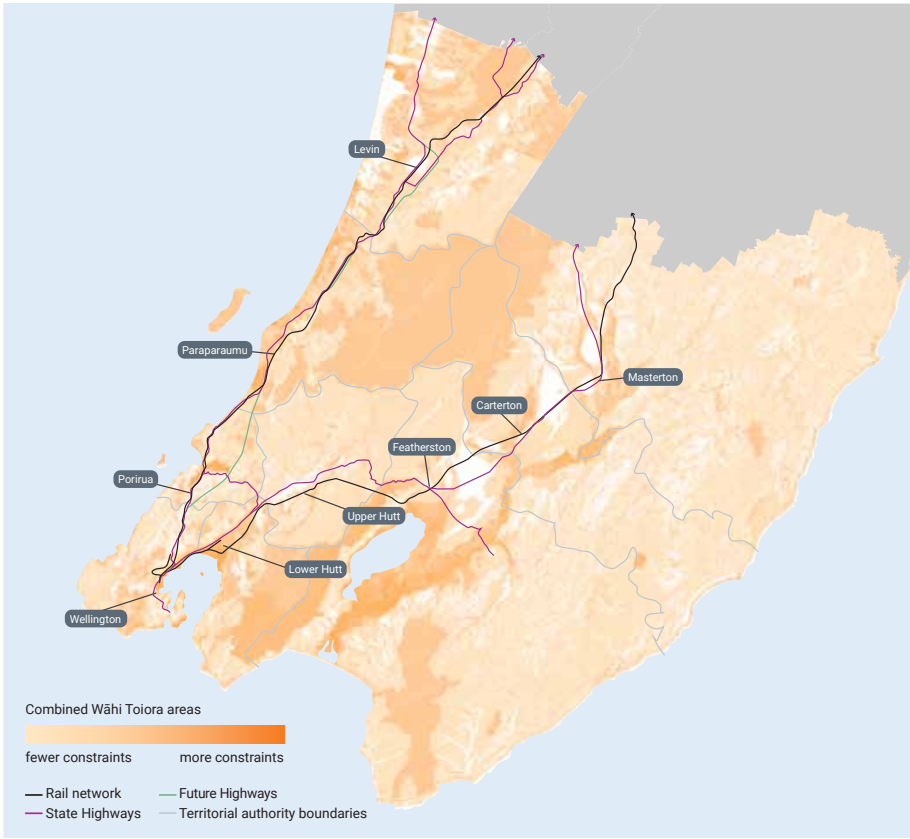
Not all land-use considerations have been included, with mapping has focused on the key constraints/values that may limit urban development at a regional scale. The mapping in this report is based on existing information and GIS data available to the Framework.

Maps 11 and 12 show both Wāhi Toitū and Wāhi Toiora at a regional scale. The Wāhi Toiora mapping shows the number of constraint layers present in each area (more or fewer). It does not represent the severity of risk or ability to mitigate.

Map 11: Wāhi Toitū



Map 12: Wāhi Toiora



Key spatial implications

Central spine barrier

The most extensive constraints and values that make up the Wāhi Toitū areas in the region are the environmental and water-supply protection areas along the central mountainous corridor between Wairarapa and the rest of the region. These Wāhi Toitū areas

Further work to represent mana whenua values and aspirations

Mana whenua have a special relationship with te taiao, and the environment has an important role in whakapapa, wairuatanga and kaitiakitanga. The entire region is a cultural landscape, with the areas of interest for the eight-partner iwi overlapping to cover the extent of the region.

Physical and natural elements have a strong part in wairuatanga such as the central mountainous spine and key lakes, islands and harbours. These are places that are likely to have an enduring presence for mana whenua; however, there are very few undeveloped areas of significance to mana whenua that are protected from new urban development.

The Framework includes a project to progress conversations with mana whenua to identify any additional Wāhi Toitū and Wāhi Toiora areas that should be protected from new urban development because of cultural values.

Constrained and valued region

Most of the region is subject to Wāhi Toiora constraints. Future urban development in the region will therefore necessarily be located in areas subject to some degree of risk, where constraints and values require appropriate consideration and mitigation. These constraints need to be taken into account when thinking about urban development in the region.

The region's geology, tectonic setting and climate mean it is prone to many hazards. Many existing urban areas are located on flood plains, steep hillsides, reclaimed land, active earthquake faults and coastal areas. Some regional hazards, such as drought, wildfire, coastal flooding, fluvial/pluvial flooding and severe wind, will be exacerbated by a warming climate.

The region lies over the meeting point of two tectonic plates and there are 14 active faults in and around the region that could produce destructive earthquakes. Parts of most major centres extend directly over active fault rupture zones. Many parts of our urban areas are situated in low-lying coastal areas, vulnerable to these effects and the impacts of sea-level rise. Other parts of the region are vulnerable to changing weather hazards associated with climate change.

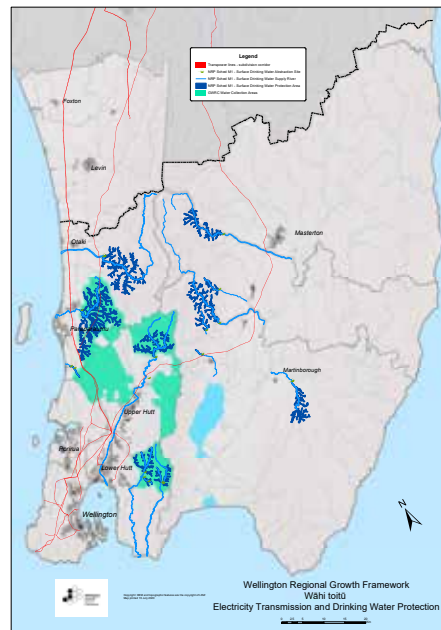
Resilience challenges

As identified in the Foundation Report, resilience is a key challenge for the region. Several key pieces of regional infrastructure, including bulk-water-supply pipelines and main transport routes, cross active fault rupture zones or are subject to sea-level-rise hazards.

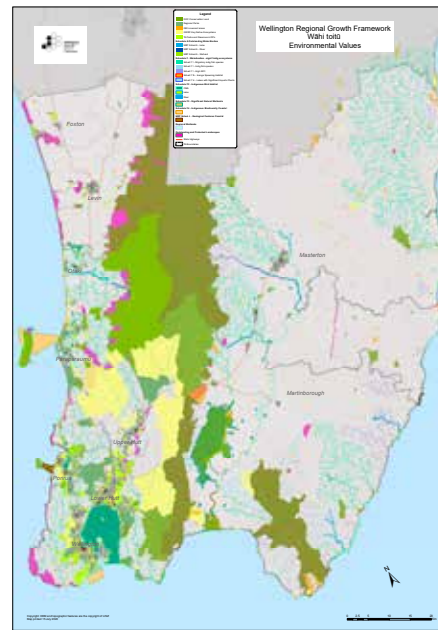
The Framework will include a key initiative to encourage and progress local adaptation to coastal hazards and sea-level-rise planning programmes.

Wāhi Toitū constraints mapping

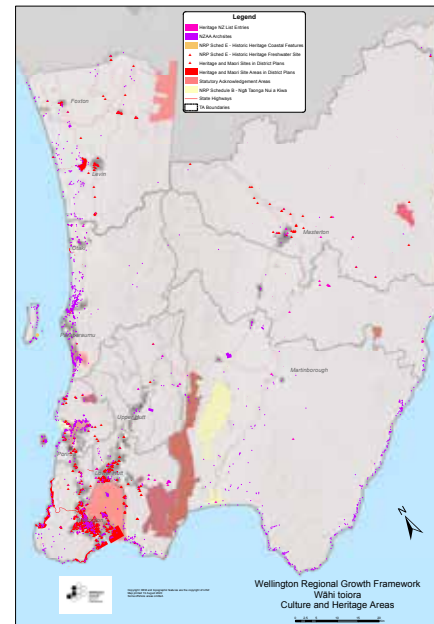
Water-collection areas



Environmental



Culture and heritage

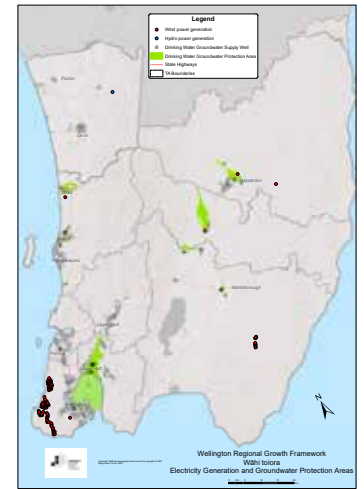


Known active faults



Mapping of well-defined earthquake fault rupture and deformation zones is unavailable for the whole region, so known active faults are represented instead.

Groundwater supply, electricity generation



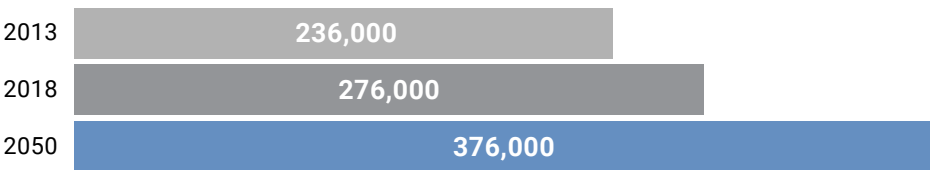
5.5 Employment

While the Framework has a strong focus on accommodating large-scale housing growth, aligning this growth with new employment opportunities is key to delivering on the Framework objectives, including improving access to economic opportunities and transitioning to a zero-carbon future.

How many jobs?

The region is expecting more than 100,000 additional jobs in the next 30 years, as can be seen in Diagram 10. While most jobs will be filled by people who live inside the Wellington region, the economic influence of Wellington will continue to extend to Horowhenua and beyond.

Diagram 10: Wellington regional jobs 2013-2018 and predicted regional jobs 2050



What kind of jobs?

More than half the current workforce is employed in knowledge-intensive sectors. Growth in the government sector and other private services is anticipated to comprise the largest share of employment growth by sector between 2018 and 2050. There is also anticipated strong growth in the health, education and training sectors.

The region will continue to leverage off its competitive advantages as one of the main technology hubs for New Zealand and home to a large proportion of the country’s creative sector. There are regional opportunities to leverage off the synergies between the film and creative, food and beverage, and tourism sectors, and the region is poised to continue growing its creative digi-tech industry.

The Māori business sector is expected to continue to thrive. Regional employment will continue to diversify through the food bowls in Wairarapa and Horowhenua.

Where?

The presence of employment opportunities is a key driver of migration and where people choose to live.

Wellington City will continue to have an important role as the primary employment centre for the region. Journeys into central Wellington will continue to be significant contributors to peak travel demand on the regional transport system. As such, mode shifts towards public transport and active travel will be important for reducing the regional transport emissions.

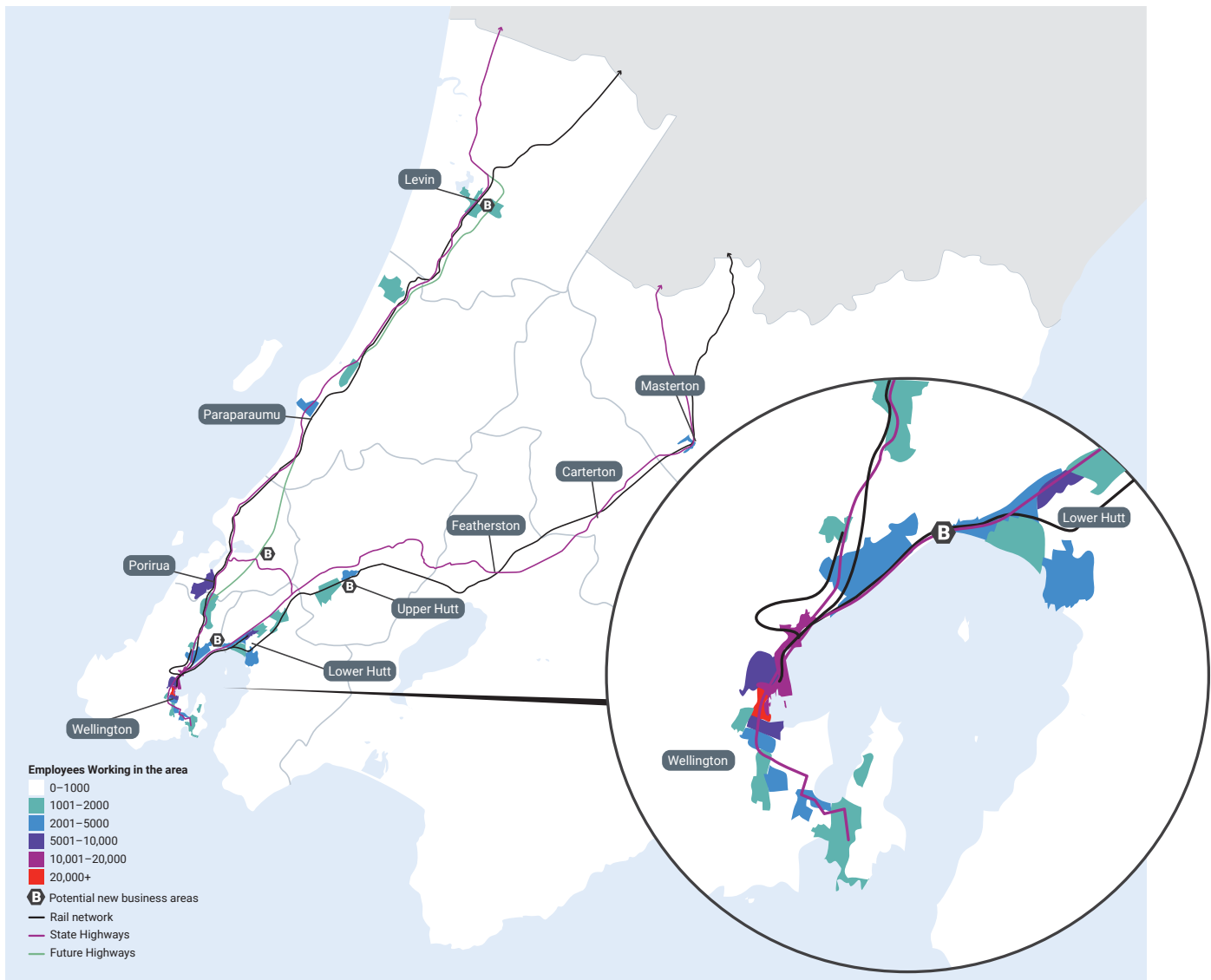
Some large employers and industries see workers largely based in fixed locations, such as our hospitals, schools and tertiary education facilities and the hospitality, retail, construction, agriculture, forestry and fishing sectors.

The Framework seeks to support increasing local employment in major centres and nodes to help ensure they increasingly offer many more employment opportunities. Located in transport corridors, serviced by both rail and the state highway network, these centres and nodes will be easily accessed by people and for freight movements. The development of mixed-use centres will increase the vibrancy of these areas, improve equity and accessibility to opportunities, and reduce the need to travel long distances by private vehicles to access employment.

A number of potential new employment locations were identified during the development of the Framework, including four new potential Future Urban Area business areas, which will help in moving some jobs closer to where people live.

They are shown in Map 13.

Map 13: Number of employees by area unit 2013 – regional scale



Employment-specific challenges and opportunities

There are a number of employment-specific challenges and opportunities relevant to this region. They may lead to spatial impacts such as changes in where people work and reduced impacts on the transport system. They are summarised below.

Resilience and employment locations

All employment centres are subject at least in part to natural hazards. Increasing preferences for reducing risks associated with natural hazards and sea-level rise will influence the demand for business land across the region. There have been increasing discussions on growing public service jobs in other parts of the region due to the hazard profile of central Wellington. The Framework supports examining alternative locations, both current and possible new areas.

Disruptive technologies

While the region is predicted to be better placed than the rest of the country to respond to disruptive technologies, it is estimated that 35% of regional jobs will be at risk of automation in the next two decades. The flexibility of the regional economy will determine how well we can respond to disruptive technologies and capitalise on opportunities. Historically, while technological advances have displaced certain types of jobs, they have also resulted in net job increases.

Unemployment, deprivation and access

Geographically there are a number of communities with high levels of deprivation and unemployment. These communities typically have poor access to employment opportunities and also have a higher proportion of Māori and Pacific people than the

regional average. The Framework seeks to help address this challenge through improving multi-modal access across the region and improving the distribution of employment across the region, in turn supporting local employment and training opportunities and providing for more people to work close to home.

Project partner councils and iwi are also working in partnership to address higher unemployment rates in Māori communities through the recently released strategy 'Te Matarau a Maui: Collaborative Pathways to Prosperous Māori Futures'.

Responding to the recent pandemic situation

The COVID-19 pandemic has to date caused substantial economic disruption and an increase in unemployment. Māori, Pasifika, female and youth communities are expected to be disproportionately affected by the crisis, and the worst-hit industry sectors are expected to be accommodation and food services, arts and recreation, and retail trade.

The regional economy is well placed to recover from the pandemic due to the dominance of employment in the public sector and major professional services, and regional employment is predicted to recover by 2030. However, the risk of new epidemics and pandemics is also predicted to increase in the future. Projects to look at opportunities to work close to home and promote flexibility in the regional economy should assist with responding to these risks.

Zero-carbon economy

Historical and present investments affect the ability of the regional economy to respond to the climate crisis and decouple greenhouse gas emissions from economic activity.

In the 2018/19 reporting year, the Wellington region (excluding Horowhenua) emitted gross 4,190,050 tons of CO2 equivalent, with 40% from transport, 34% from agriculture, 18% from stationary energy, 4% from industry and 5% from waste. Transport and industry emissions both increased between 2001 and 2019.

While the regional economy has started to decouple GDP (gross domestic product) growth from greenhouse gas emissions, the rate of change is too slow. Unprecedented action is required in the next decade to cut carbon emissions. The pandemic has provided insights into the scale of change required; the reduction in carbon emissions achieved through the Alert Level 4 lockdown was on par with the permanent reduction in carbon emissions we need to make to meet our Paris Agreement commitments.

A rapid transition to a zero-carbon economy presents not only a challenge but also a significant opportunity to strengthen competitive advantages in green technologies and businesses, and to reduce the greater long-term economic costs of adaptation. The Framework has a Key initiative to develop a regional climate change plan, including a plan to reduce greenhouse gas emissions and transition to a zero-carbon economy.

Growing jobs across the region and ensuring a strong central Wellington

The transition to a zero-carbon economy is predicted to require more people to work from (or closer to) home and/or increase active and public transport mode share. Reducing travel distances will have a significant impact on the regional greenhouse gas emissions.

The Framework seeks to address this through the development of walkable neighbourhoods that include some employment activity, having more employment in major centres and nodes across the region, the establishment of new Future Urban Area business areas, and improvements in rural broadband connectivity across the region. These areas could include employment 'hubs' to encourage people to work closer to, but not at, home.

It is expected that central Wellington will remain a strong regional employment centre. The Framework seeks to address the carbon emissions associated with journeys to central Wellington through projects supporting mode shifts towards public and active transport modes, and significant increases in housing in central Wellington and its walkable catchment.



5.6 Three waters infrastructure

Three waters-specific strategic issues

The region's three waters infrastructure is essential to public health and the environmental, social, cultural and economic wellbeing of the region. Without growing and improving the three waters infrastructure, it will be hard or impossible in some areas to grow housing and density.

The region has legacy issues with this infrastructure that will need to be addressed to enable housing and business growth. A very large portion of the network in the region is already reaching capacity related to current developments, and this is of concern for further growth as envisaged under the Framework.

A major issue is the inflow of stormwater and infiltration of groundwater into wastewater pipes. Sometimes during heavy rainfall events the system is overwhelmed, and wastewater spills out of the system into waterways. There are also occasional dry weather overflows from system failures like pump station breakdowns.

More recently we have seen an increasing emphasis on how the provision and management of three waters infrastructure can assist in building quality urban environments and meeting environmental and health outcomes. Current examples of this are the National Policy Statement for Freshwater Management and the Three Waters Review, with the latter looking to ensure three waters services better support New Zealand's prosperity, health, safety and environment.

We expect these aspects to continue to increase in importance in the 30-plus years of this Framework.

Traditionally the provision of three waters infrastructure has been about the provision of pipes and other three waters infrastructure to streets or houses to enable householders to undertake their daily activities and to businesses to enable them to operate those businesses. However, we are beginning to see a shift to using tools such as hydraulic neutrality and water-sensitive urban design to reduce the load on the piped network and achieve wider environmental benefits.

While there is currently a part-regional approach to three waters planning and management through Wellington Water, it will become more important going forward to develop a wider approach to three waters planning and infrastructure.

In the years of this Framework, it will not be enough to simply provide pipes and other conventional network assets to households and businesses. We will also need to work more efficiently to protect the environment and the health of our communities and, in doing so, find new ways of integrating urban form and three waters services.

Providing three waters infrastructure for up to 200,000 additional people

The provision of three waters infrastructure and services is key to enabling the development of housing to provide for up to 200,000 more people across the region. The emphasis as a region will be on:

- Upgrades and renewals to support the current housing stock and any infill activity that will occur, and to reduce current issues such as water and wastewater leakage.
- Infrastructure for transformational medium- and high-density growth in Urban Renewal Areas, such as larger pipes and pumping stations and potentially new bulk infrastructure such as wastewater-treatment and storage holding tanks.
- Infrastructure for medium-density Future Urban Area developments, which will require new three waters infrastructure to support new housing and mixed-use urban zones and may also result in capacity upgrades to current infrastructure.
- Meeting the requirements of the National Policy Statement for Freshwater Management, which provides direction to local authorities on managing the activities that affect the health of freshwater.
- Introducing new ways of providing three waters infrastructure, such as through bulk network improvements with city-wide benefits and on-site wastewater treatment where these are more efficient and effective.

- Ensuring the water services are resilient to the impacts of climate change and other natural hazards, including ensuring there is sufficient water available and that it is used efficiently.
- Ensuring that the region has a ready workforce to provide the three waters infrastructure and services required in the region, including ensuring that we train enough people.

Some councils in the region have undertaken work to identify the potential cost of meeting their council growth forecasts and achieving some of the environmental outcomes required. While a complete regional picture has not been developed to date, in those councils where this has been done, estimates indicate that more than \$3 billion will be required in the next 10 years in the region's metropolitan area alone to achieve the needed levels of service, growth and environmental outcomes. Work on identifying costs is now also being undertaken for other councils.

Three waters going forward

One early key initiative for the region will be the development of a 50- to 100-year regional three waters strategy. For the first time, local government, iwi and central government will work together to develop a regional view of the longer-term three waters infrastructure requirements.

The strategy will identify existing regional issues, desired long-term outcomes, three waters principles and programmes of work that will support the region to achieve growth and environmental outcomes. To support the delivery of the 50- to 100-year three waters strategy, a regional delivery plan will need to be developed. This will identify any activities and required regional upgrades and new infrastructure (particularly bulk infrastructure) to support growth in key development areas and improve environmental outcomes, and identify plans for managing key assets at risk.

In addition to the 50- to 100-year strategy there are several projects identified in the Framework that support its implementation. These projects include the development of a regional agreement on water-sensitive urban design and managing demand for water.

With regards to the capital costs of new infrastructure, the Framework recognises that these will be identified through at least the following three levels.

Firstly, there are likely to be infrastructure projects and costs arising out of the 50- to 100-year regional three waters strategy. The projects are likely to involve regional, bulk-level infrastructure that cannot be identified and specified at this early stage. It is expected that this level of project will be of regional (or multiple territorial) importance and, when identified, included in a council's (or councils') Infrastructure Strategy.

A regional investment strategy for water will be needed to accompany (or be included in) the regional three waters strategy. The purpose of the regional investment strategy would be to identify the intentions for regional investment priorities and funding allocation. It will need to identify clearly who will be responsible for three waters regional planning and investment and regional project delivery.

Secondly, as spatial elements in this Framework are developed, three waters costs will be identified as part of the overall development cost. The scope and costs will differ for each project and will be identifiable once each project has been sufficiently scoped. These projects and costs will be identified at the appropriate time in the relevant council's (or councils') Long Term Plan and Infrastructure Strategy.

Thirdly, each council will continue to plan and invest in three waters infrastructure in a way that meets the future growth demands anticipated by its land use strategy and district plan zones. All growth projects and costs will be identified by each council and included in its Long Term Plan.

A regional water infrastructure programme may be developed. This will contain all regionally significant water projects along with descriptions, costs and years of expected delivery.

5.7 Community infrastructure

One of the keys to creating liveable communities that have much more medium- and high-density housing will be ensuring an accompanying investment in great community infrastructure, in both Urban Renewal and Future Urban Areas.

Community infrastructure such as marae, sports facilities, community and events centres, schools and parks is essential for the health, social wellbeing and economic prosperity of communities. It can be provided by the public, private and/or not-for-profit sectors

This region has a wide range of region-level community infrastructure (such as regional/national-level swimming pools) and local-level community infrastructure (such as libraries). In addition to this Wellington City, as the arts and cultural capital, has several key arts and cultural venues that support the region.

This infrastructure provides places in neighbourhoods for people to gather and be part of their communities, so that the neighbourhoods can be more than collections of houses. Community infrastructure needs to be safe and pleasant, work for people and whānau and reflect the communities in which it is located.

Local marae can, and often do, provide a range of community infrastructure and services. Discussions have been held regarding, for example, the co-location of marae and schools as hubs in a community. The theme of co-locating community infrastructure can already be seen in the region and is expected to continue.

The Framework includes a project to develop a region-wide approach to key social and community infrastructure and services in major centres. This is to ensure that there is a regional, planned approach going forward and that it meets the needs of a growing and changing population.

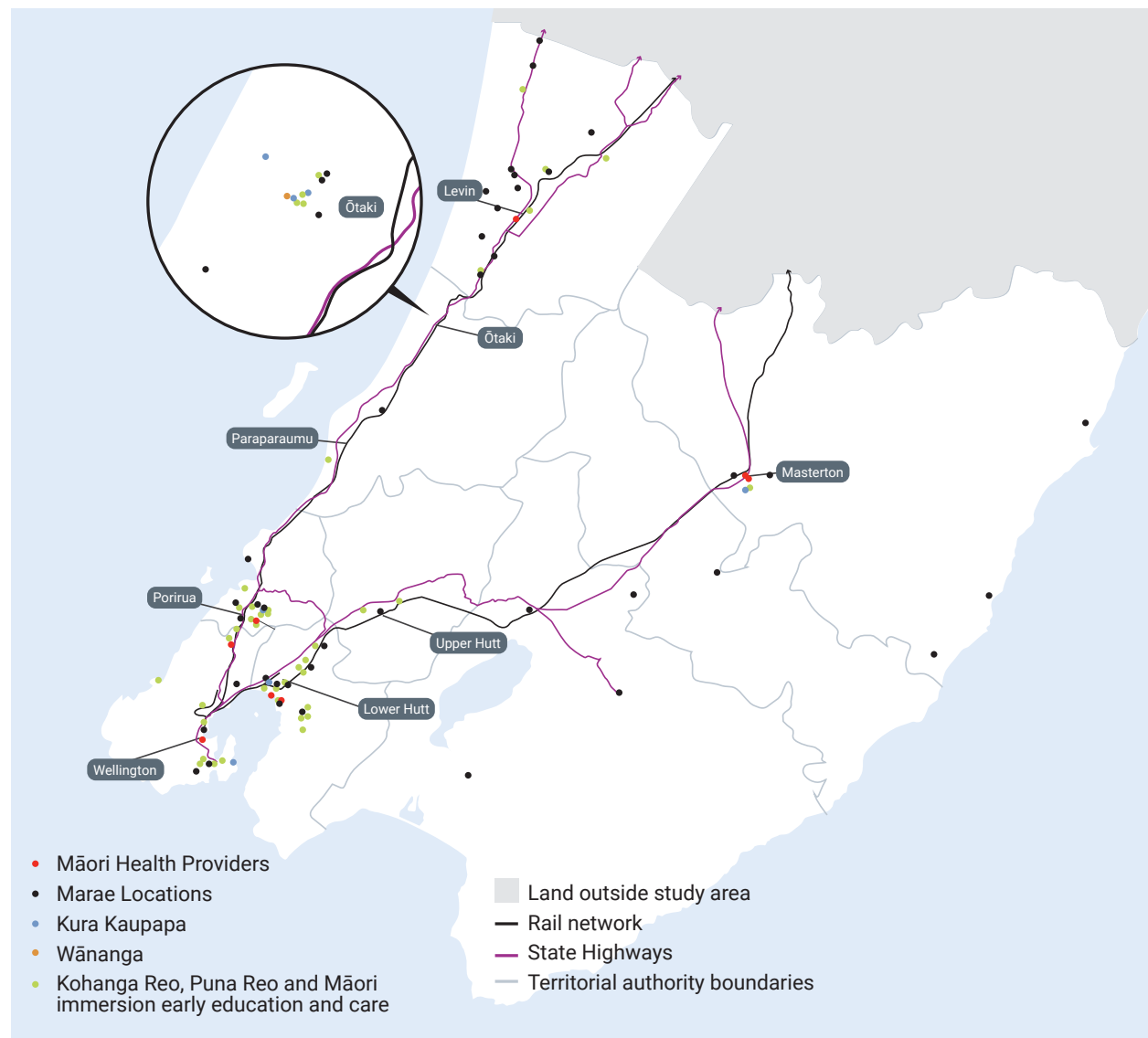
This is particularly so in areas where residents often have poorer access to community infrastructure through either a lack of transport choices to regional community infrastructure or a lack of local community infrastructure.

Iwi social infrastructure

Maps 14 shows the distribution of some of the Māori social and education services throughout the region, including the nine registered Māori health service providers, four kura kaupapa, 44 Māori immersion early education and childcare facilities (including kōhanga reo and puna reo) and two Māori tertiary institutions. Further work will be undertaken to complete this inventory.



Map 14: Distribution of Māori social and education services



Health and education

A key aspect of community infrastructure is the provision of all levels of schooling and health services including hospitals and health centres.

It is expected that the Framework, through indicating the pattern of likely growth in the region, will be an important reference for the Ministry of Education as it considers new education investments. This may occur through working with local councils or through participating in the master planning of Future Urban Development Areas.

Discussions have also been held with district health boards about the direction signalled in the Framework and how it aligns with their strategic intentions. The establishment of more housing in centres and the walkable neighbourhood concept align with the more distributed, community-based delivery of health services that these entities are progressing.

Part 6 – The implementation plan

Part 6 outlines the key initiatives, projects and governance required to implement the Framework.

6.1 Implementing the Framework

Delivering the Framework will require a level of enduring partnership between and within local government, iwi and central government not seen on this scale in the region before. It will build on the partnership developed during work on the Framework.

The partnership will include aspects of how the Framework is governed, how we work together on key initiatives (general and spatial) and how we fund projects.

The complex nature and challenges should not be underestimated, especially given the long timeframe of the Framework and the issues presented by the growth we are expecting. Some of our work will require challenging decisions to be made for the region.

Key initiatives – spatial and general

A number and range of projects have been identified at this point as required to deliver the intent of the Framework. These include key initiatives in Diagrams 11 and 12 and a longer list of projects that can be seen in Appendix 1.

Further work on the potential timing of and investment required for these key initiatives and other projects will be advanced to inform the planning for transport and other infrastructure investment currently underway. This information will be developed into an implementation plan.

Subsequent projects will also be identified in later years dependent on the findings of key initiatives and projects currently identified. An example of this is any decision to proceed with investment in the possible west-east growth corridors.

Diagram 11: Key spatial initiatives

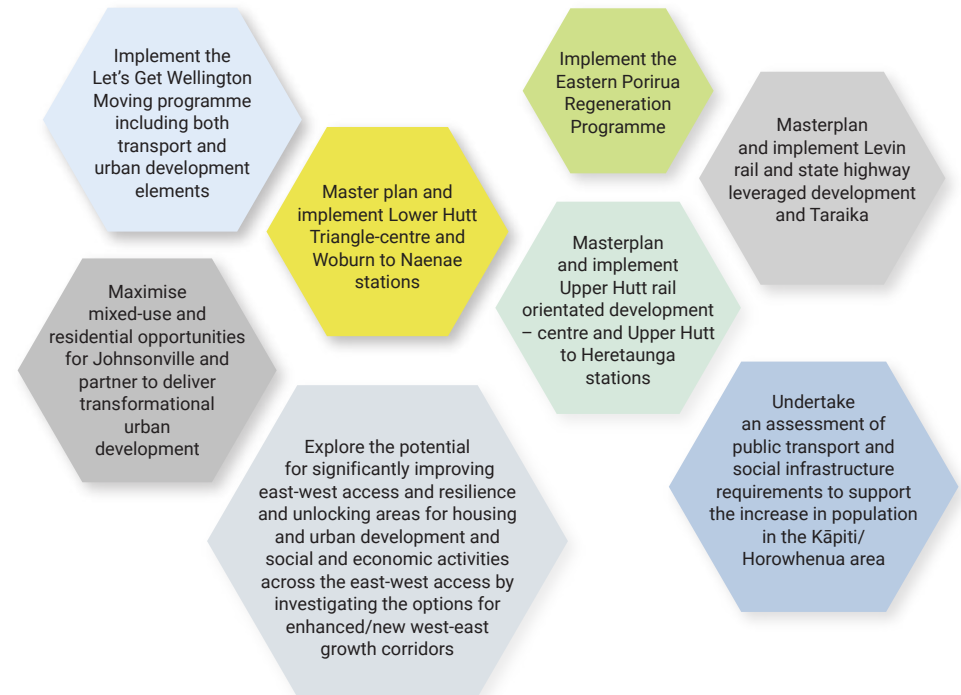
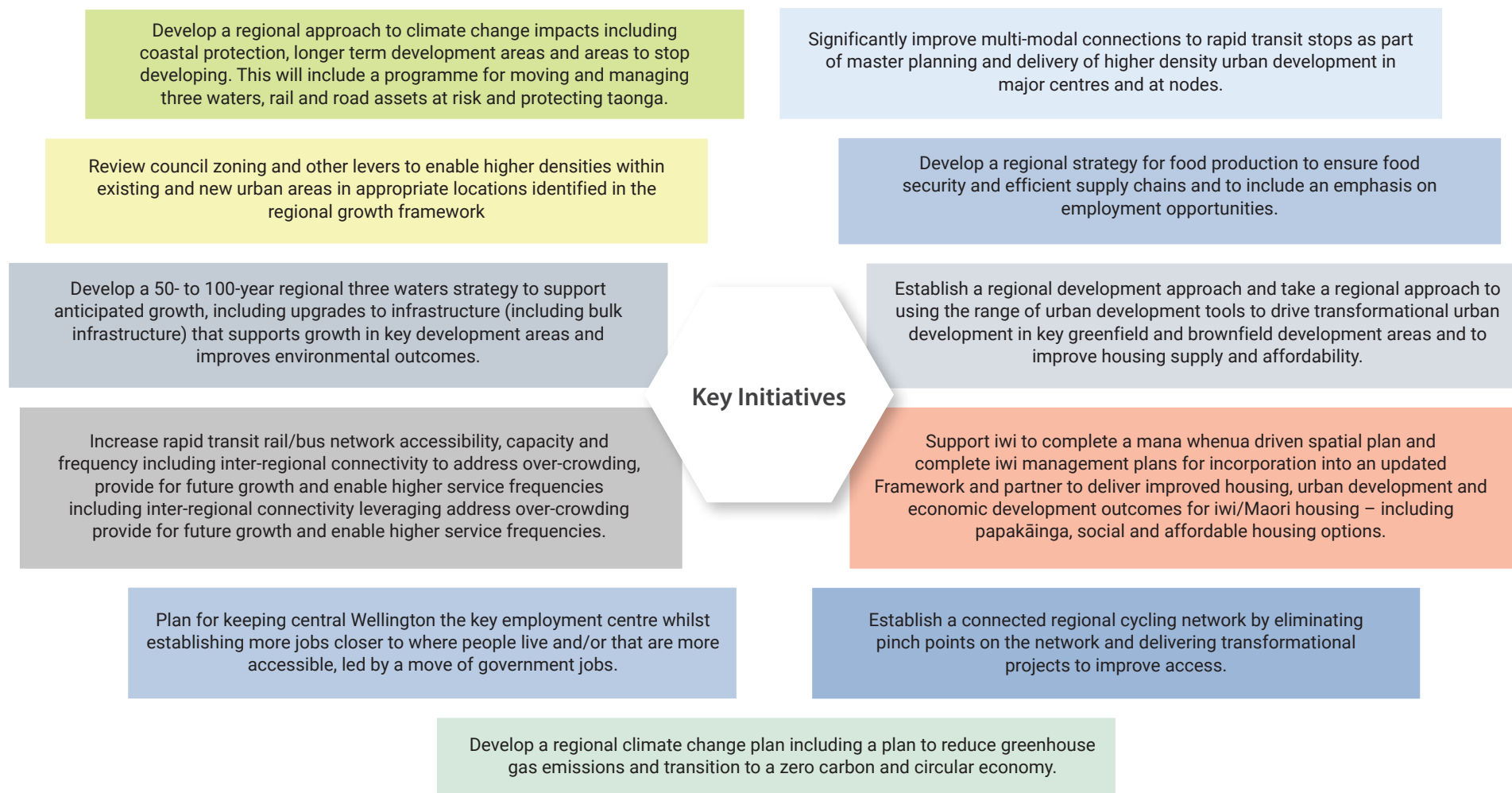


Diagram 12: Key general initiatives



The Wellington Regional Leadership Committee, which is discussed below, will have oversight of these key initiatives and the other projects listed. The actual implementation will be undertaken by a range of entities; for instance, councils will be responsible for making zone changes.

We plan to take an adaptive pathways approach to implementation in that we will identify and enable short-term actions while keeping options open for adaptation later and for changing direction if needed. Some aspects will not be fully known until some of the key initiatives have been completed, such as the regional approach to climate change impacts.

Governance and management

The Framework implementation will be governed by a joint committee established under the Local Government Act 2002, which will have representation from local government, iwi and central government. This will be the Wellington Regional Leadership Committee and will also include observer representation from other entities.

This approach is similar to that taken to spatial planning and regional governance in other areas of New Zealand. A joint committee provides for public meetings and enables transparent decision-making.

This Committee will be supported by chief executives and senior managers from each relevant entity.

Glossary and references

Glossary

Future Urban Areas	Greenfield developments, generally more than 1000 new dwellings
Urban Renewal Areas	Brownfield developments, including high-density developments in all seven major centres in the region and medium-density developments at nodes

References

Urban Growth Agenda	See: https://www.hud.govt.nz/urban-development/urban-growth-agenda
Greenhouse gas emissions	See: https://www.mfe.govt.nz/climate-change/state-of-our-atmosphere-and-climate/new-zealands-greenhouse-gas-inventory
20-minute neighbourhoods	As an example see: https://www.planmelbourne.vic.gov.au/current-projects/20-minute-neighbourhoods
Low emission buildings	As an example see: https://www.nzgbc.org.nz/zerocarbon/Attachment?Action=Download&Attachment_id=2527
Māori urban design principles – identifying with place	As an example see: http://sustainablecities.org.nz/wp-content/uploads/microsoft-powerpoint-Māori_urban_design-shaun.pdf
Universal design	As an example see: https://www.branz.co.nz/universal-design
Bridging the Gap: NZTA urban design guidelines	https://www.nzta.govt.nz/resources/bridging-the-gap/

Station access design guides	https://www.nzta.govt.nz/walking-cycling-and-public-transport/public-transport/planning-and-investing-in-public-transport/public-transport-design-guidelines
Low-damage design	As an example see: http://www.seismicresilience.org.nz/topics/superstructure/low-damage-design
Health streets approach	https://healthystreets.com
Wellington Regional Growth Framework reports	Wellington Regional Growth Framework reports https://wrgf.co.nz/reports
Wellington Region Greenhouse Gas Inventory	https://www.gw.govt.nz/assets/Climate-change/GHG-Summary-Report-Wellington2019WRFinal.pdf

Appendix 1: Projects list

Below is the current project list for the Framework. It will continue to be reviewed as opportunities arise. This list is in addition to the key initiatives in the diagrams in Section 6.1.

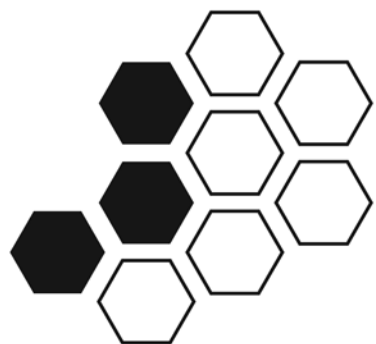
More detail will be provided on these projects, for instance indicative timing, when public consultation has been undertaken.

PROJECT	WHAT IS THIS?
Unlocking the regional rail network	Project underway to increase service frequency on the Hutt and Kāpiti lines through projects including double tracking between Trentham and Upper Hutt, improved turn-back facilities at Plimmerton and improved station capacity
Enhancing regional rail capacity	Next stage project to deliver service frequency improvements from Wellington to Palmerston North and Masterton, through rail infrastructure improvements
North Island integrated mobility	Re-evaluating the frequency of public transport services needed to meet natural growth and the likely growth in population, deliver modal shift, manage travel demand and reduce state highway congestion
Separate the Hutt, Kāpiti and freight rail lines at Wellington Throat (two projects)	Freeing up rail capacity through the Wellington Throat and improving the resilience and reliability of the rail network
Signalling system renewal and automatic train protection system	Renewing the aging rail signalling infrastructure in the Wellington region. This will significantly reduce the risk of train collision and train overspeed incidents and improve network capacity
Improve section of rail between Pukerua Bay and Paekākāriki	Significantly minimise or eliminate a major constraint to rail capacity and improve the resilience of the rail network on the west coast
Station modernisation and access, security and digital improvements	Modernise and improve station access safety and accessibility
Integrated fares and ticketing	Implementing an integrated and electronic ticketing system across Wellington's public transport services

PROJECT	WHAT IS THIS?
Additional rolling stock capacity – 2030 and 2040	Delivering additional rolling stock to meet growing patronage demand and replacing the life-expired Matangi fleet
Melling railway station relocation	Improve multi-modal connectivity to central Lower Hutt and surrounding communities through relocating the Melling railway station, enhanced park-and-ride and improvements to SH1 and Melling interchange
Investigating increased rail services to and from Melling Station	Investigating improvement of service levels to meet (and get ahead of) demand due to more people living and working in central Lower Hutt
Investigating options for further step change in service levels on rail Upper Hutt to Wairarapa (in both directions)	Assessing service level improvement requirements and timing options of service levels to meet (and get ahead of) demand for increased services due to more people living and working in the Wairarapa. To include ability to travel as commuter in both directions.
Investigate public transport options to new Future Urban Area developments	Assessing public transport options (rail and bus), costs and benefits and timing of implementation
Understanding future employment and freight impacts on transport networks	Developing a regional understanding of future freight and transport patterns
SH58 improvements	Improvements underway to improve safety of this west-east connection between Porirua and the Hutt Valley
West-east road from Wainuiomata North to Waiwhetū/Naenae	Exploring options for connecting the Wainuiomata North Future Urban Area development with Waiwhetū/Naenae
Road connections from Upper Stebbings to Takapū Station	Exploring options for connecting the Upper Stebbings Future Urban Area development to the nearest train station
Improved public transport, walking and cycling services to key industrial centres and key transport nodes	Investigating options for improving multimodal services to key industrial centres and key transport nodes to improve choice and reduce dependence on car travel
Fully electric bus fleet in the region	Implementing changes so the bus fleet in the region is fully electric

PROJECT	WHAT IS THIS?
Regional travel demand management behaviour change package	Delivering interventions to promote transport behaviour shift to active transport
Longer-term ferry opportunities for public transport across Wellington Harbour	Investigating options for increased ferry travel over time as housing and employment opportunities grow in and outside Wellington City
Region-wide water demand management	Implementing water demand-management project
Plan new school locations in line with the Framework's spatial growth projections	Ministry of Education adopting the Framework as its blueprint for future growth and schools' focus, and working with the region to identify education requirements
Broadband in Wairarapa and/or Horowhenua	Expanding internet connectivity and capacity across the region
Key infrastructure investments in Taraika	Enabling three waters and roading work as well as civic assets, such as parks and sport fields, to be constructed in line with Shovel Ready funding
Best practice guide for bus, walking and cycling connections to new Future Urban Area developments	Developing a regional guide for all Future Urban Area sites, to support multi-modal access as part of a regional network
Green infrastructure framework for use in future housing and other developments	Developing a regional green infrastructure specification into district plans to be applicable to all development (brownfield, greenfield, industrial). It would include water-sensitive urban design, the protection and enhancement of ecosystems and wetlands and the restoration of ecological corridors
Alternative three water provision trials	Identifying and implementing alternative three water provision opportunities to demonstrate new technologies and ways of service provision
Implement the 50- to 100-year three waters strategy findings	As needed, implementation of new wastewater and stormwater networks, water storage, treatment, storage and network upgrades; and rural water supply/ treatment upgrades

PROJECT	WHAT IS THIS?
Airport infrastructure and services in Wairarapa	Upgrading air travel access to align with growth projections and economic opportunities
Housing and Business Assessment Reports	Updated by July 2021 to meet NPS-UD requirements. Update to include all councils to provide data for future updates of the Framework
Flood protection in Wairarapa	Stopbank, erosion and protection upgrades and Flood Plain Management Plan implementation
Regional approach to social and community infrastructure provision in major centres	Developing a regional plan that identifies key social infrastructure and service requirements
Cultural mapping project	Working with, and providing capacity for, mana whenua to update regional cultural mapping. Where cultural sensitivities allow, this will be incorporated into regional and district plans
Continual improvement of constraints mapping	Ensure that the constraints mapping is updated to reflect changes in national direction such as indigenous biodiversity, freshwater management and highly productive soils
Identifying and managing assets at risk from climate change and natural hazards	Identifying rail, road, three waters and social infrastructure at risk from climate change and natural hazards and managing these assets at a regional scale
Resilience in the local electricity network	Investigating and managing transmission, distribution and generation assets at risk from climate change and natural hazards
'Te Matarau a Maui: Collaborative pathways to prosperous Māori Futures'	Supporting the implementation of this strategy, particularly iwi, Māori collectives and Māori business growth and investing in education, training and employment for Māori
Capacity-building training to strengthen iwi involvement in regional and local planning	Establishing training programmes/projects and fund iwi capacity to increase overall capacity to better enable full participation in the Framework implementation
Training expertise in construction, three waters and rail.	Implementing training programmes/projects to increase capacity in these employment sectors to support growth
Understanding regional functions of industrial land and business parks	Ensuring that in the longer term there is the right amount of industrial land, in the right locations and at the right time, to reflect changing demand



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